

San Geronio Pass Water Agency

DATE: October 16, 2023
TO: Board of Directors
FROM: Lance Eckhart, General Manager
BY: Emmett Campbell, Senior Water Resources Planner
SUBJECT: Award On-Call Engineering Services to Two Engineering Firms

RECOMMENDATION

Authorize the General Manager to enter into a contract with Albert A. Webb Associates for On-Call Engineering Services in an amount not to exceed \$250,000 and with Engineering Resources of Southern California for On-Call Engineering Services in an amount not to exceed \$250,000.

PREVIOUS CONSIDERATIONS

April 17, 2023 – Finance and Engineering Workshop – Agency Engineer and On-Call Engineering Services Discussion

BACKGROUND AND ANALYSIS

As the cities of Beaumont, Calimesa, and Banning and the surrounding areas have grown, so has the need for new water infrastructure. The Agency has recently expanded the region's water supply portfolio and now needs to expand the local water conveyance system to accommodate this expanded water supply.

To respond to this growing need, the Agency issued a request for proposals (RFP) for on-call engineering services. The requested services included a comprehensive set of services typical of engineering firms. The RFP was advertised publicly on the Agency's website and was sent directly to previously interested engineering firms and firms that have worked for the Agency in the past. Two Firms submitted proposals for this project.

One proposal was received from Albert A. Webb Associates (Webb), who teamed up with Provost and Pritchard (P&P), and the other was from Engineering Resources of Southern California (ERSC). Both proposals were evaluated by four Staff from the Agency and one staff member from BCVWD. The same review panel interviewed both firms, and references were checked as a part of this process. The review panel recommends that both firms be chosen for on-call engineering services.

Both firms have a broad set of knowledge and skills that would be beneficial to the Agency. ERSC's Principal Engineer, Erik Howard, has worked in a similar capacity with

the Agency for nearly 15 years and was involved in the design and construction of nearly all of the Agency's infrastructure. This includes the Mountain View turnout, the connecting pipeline, and the Brookside East Recharge Facility, as well as the Noble turnout. ERSC also provided assistance with the Brookside West property purchase.

Webb has worked with the Agency for a similar amount of time and has been involved in much of the planning effort the Agency has undertaken. This has included feasibility-level studies for recharge site scoping and design, as well as previous and current iterations of the Backbone Pipeline. Webb also designed the Brookside East Recharge Facility. P&P has worked with the Agency on various projects related to the State Water Project and brings a wealth of State Water Project experience to the team.

Both firms could be requested to provide engineering services for various projects. These services would include, but not be limited to, design, plan checking, environmental services, project management, construction management, inspection services, surveying services, water supply planning, standards development, and work related to the State Water Project. Work from either firm would be issued and managed on a task-order basis as needs arise.

Staff requests the award of contracts to each firm whereby the maximum amount spent by the Agency between both firms would not exceed \$250,000. If the maximum \$250,000 cap is to be exceeded, Staff would request an increase from the Board of Directors. The initial contract for each firm would be awarded for one year with the intent of renewing the contract annually for up to five additional years. The Board of Directors would authorize the renewal each year.

FISCAL IMPACT

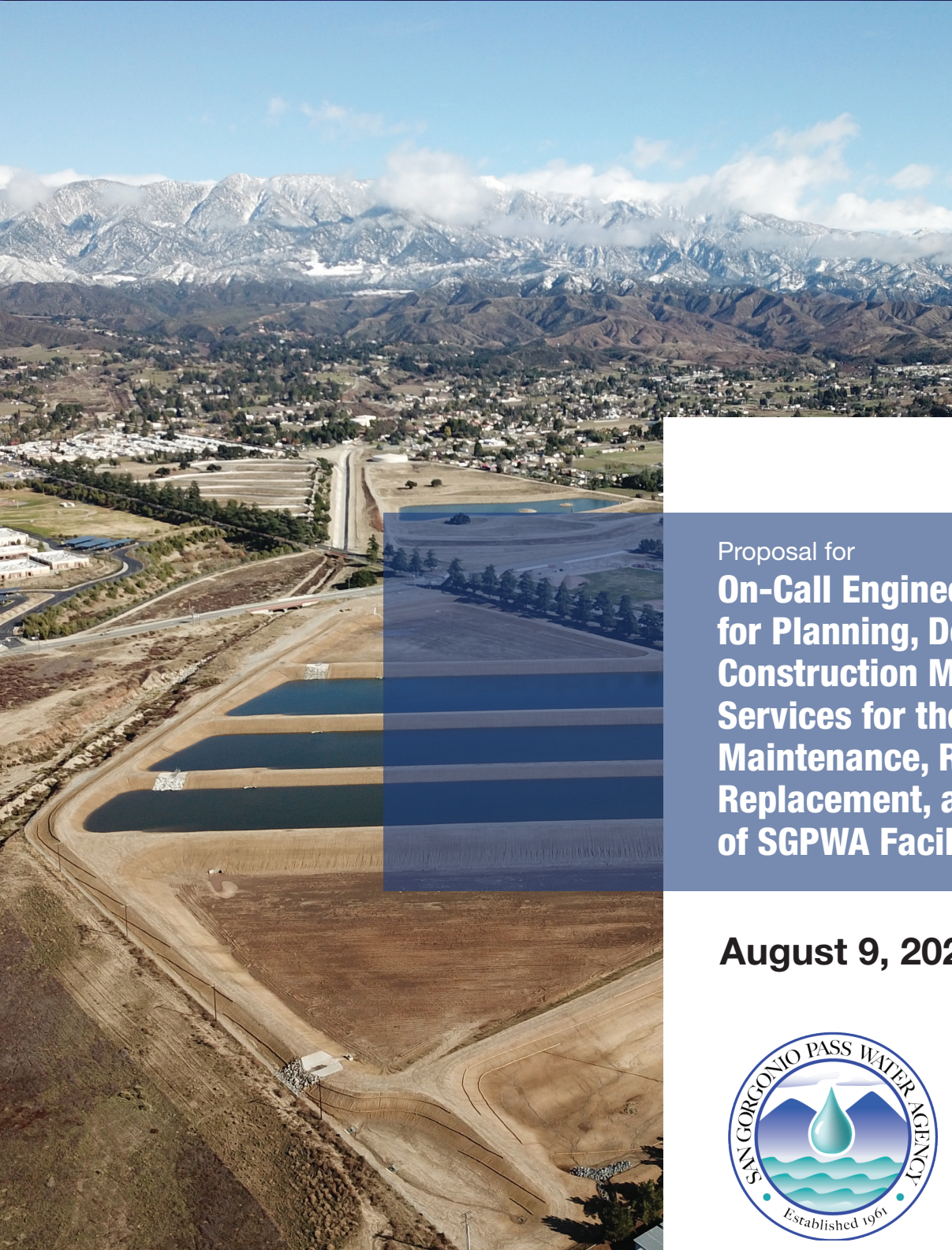
The General Fund Budget for FY 2023-24 includes a line item 'Agency Engineer' under General Engineering Services in the Consulting and Engineering Services section. The budget amount is \$250,000 and nothing has been expended so far this year. The maximum amount to be spent by both firms will not exceed \$250,000, without prior Board approval.

ACTION

Authorize the General Manager to enter into a contract with Albert A. Webb Associates for On-Call Engineering Services in an amount not to exceed \$250,000 and with Engineering Resources of Southern California for On-Call Engineering Services in an amount not to exceed \$250,000.

ATTACHMENTS

1. Proposal from Albert A. Webb Associates
2. Proposal from Engineering Resources of Southern California



Proposal for
**On-Call Engineering Services
for Planning, Design, and
Construction Management
Services for the Operation,
Maintenance, Repair,
Replacement, and Improvement
of SGPWA Facilities**

August 9, 2023



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Section 1. Cover Letter

August 9, 2023

Emmett Campbell
San Geronio Pass Water Agency
1210 Beaumont Avenue
Beaumont, CA 92223



Corporate Headquarters
3788 McCray Street
Riverside, CA 92506
T: 951.686.1070
F: 951.788.1256

RE: Request for Proposals for On-Call Engineering Services for Planning, Design, and Construction Management Services for the Operation, Maintenance, Repair, Replacement, and Improvement of SGPWA Facilities

Dear Mr. Campbell:

Enclosed is Albert A. Webb Associates' (WEBB) response to the San Geronio Pass Water Agency's (SGPWA) Request for Proposals for On-Call Engineering Services for Planning, Design, and Construction Management Services for the Operation, Maintenance, Repair, Replacement, and Improvement of SGPWA Facilities.

Our proposal reflects an experienced technical team who is strong in all consulting engineering services required for your various projects. WEBB's Team not only has the technical expertise, but also has the resources, knowledge, and most importantly, the commitment to complete your projects on-time and within budget as demonstrated in the many project references provided throughout our proposal.

WEBB's proposal details the firm's qualifications, the experience of the firm and project team, and our plan to complete successful projects for SGPWA with highlights noted as follows:

Firm Qualifications

- Long-standing financially stable civil engineering firm since 1945 primarily serving Inland Southern California
- Experience in Program Management for Public Agencies
- Extensive experience in civil engineering, planning, design, and construction
- Multiple disciplinary firm capable of providing primary services "in house"
- Professionally licensed in the State of California
- Local Inland Southern California references on recent and current projects of similar scope
- **Support from Provost & Pritchard Consulting Group and their extensive experience with State Water Projects and Groundwater Modeling**

Project Management

- Assigned Principal-in-Charge, **Bruce Davis, PE**, specializes in managing large multi-discipline projects
- Tested standardized approach to project management
- Quality control embedded in every stage of project development
- **Assignment of Bruce Davis, PE, or Sinnaro Yos, PE, to perform work at SGPWA offices on a weekly basis**
- Identification of critical issues on each project and how to mitigate based on experience
- Boots on the ground approach to reviewing each individual project for design considerations

Experience and Technical Competence

- Extensive understanding of the SGPWA's existing and proposed facilities, standards, and expectations
- **Recent experience on SGPWA's Backbone Facilities Feasibility Study**
- Understanding of the multiple disciplines for Program Management including Planning, Funding/Grants, Preliminary Design, Environmental Analysis, Final Design, and Construction
- Superior quality work, integrity, and long-standing client relationships
- Understanding of projects, deliverables, and required scope of services
- Tested approach to project management and processing
- Strive to reach client goals for each project and responsive to client requests and needs
- Project teams are currently providing on-call services for multiple public agencies

Differentiators

The WEBB Team is the absolute right choice for the on-call list based on our experience and past performance. SGPWA's projects will benefit from:

- A team with both detailed local knowledge and DWR experience
- A firm experienced with SGPWA and their facilities
- A highly experienced team in water and wastewater infrastructure projects
- Firm resources with the capabilities to meet all SGPWA's project needs
- Consistent presence and involvement of task leaders through all stages of the project
- Implementing lessons learned on public agency services to improve design
- Identifying and addressing critical issues
- WEBB has provided engineering and planning services for public and private sector clients for more than 75 years. WEBB recognizes the importance of being close to our clients. **Our proximity to SGPWA makes for easy coordination and minimum travel time**

Our team members will remain available throughout the duration of all projects. As a result, you can be confident your projects will be successfully completed in a timely and professional manner. We look forward to the opportunity to continue working together. If you have any questions regarding our proposal, please contact me at 951.248.4235, or by email at bruce.davis@webbassociates.com.

Sincerely,



Bruce Davis, PE - Senior Vice President

3788 McCray Street, Riverside, CA 92506

951.248.4235

bruce.davis@webbassociates.com

Section 2. Company Background

Albert A. Webb Associates (WEBB), a **Corporation**, has consistently provided civil engineering services to public sector clients throughout California since 1945. This means our clients receive the benefit of a financially stable firm that has withstood many diverse economic times. WEBB is a mid-size consulting firm with offices in Riverside and Murrieta to best meet the needs of all of our clients. WEBB has 180 associates and the in-house expertise to address the needs of cities, water and special districts, counties, regional agencies, and our partner firms within the industry. WEBB offers a broad range of services to meet the objectives of our clients which include project development, planning, design, entitlement, environmental services, funding, permitting, construction management, and inspection.

Service Departments

- Water Resources
- Construction Management and Inspection
- Land Development Planning & Entitlement
- Land Development Engineering
- Traffic and Transportation Engineering
- Environmental Services
- Biological Resources
- Land Survey and Mapping Services
- Landscape Architecture
- Geographic Information Systems

Owner and Principal Parties

- Matthew Webb, PE, TE, LS - President/CEO
- Scott Webb - Senior Vice President
- Steve Webb - Director of Risk Management
- Brian Knoll, PE- Chief Operations Officer
- Kevin W.M. Ferguson - Chief Development Officer
- Scott Hildebrandt, PE - Chief Strategy Officer
- Todd Smith - Chief Financial Officer
- Sam Gershon, RCE - Senior Vice President
- Bruce Davis, PE - Senior Vice President
- Dilesh Sheth, PE, TE - Senior Vice President
- Stephanie Standerfer - Vice President
- Jason Ardery, PE, TE, LLS, CPESC, QSD - Vice President
- Joseph Caldwell, PE, CPESC, CPSWQ - Practice Area Leader
- Emily Webb, J.D. - Senior Land Use and Entitlement Specialist

Firm Specifics

1945

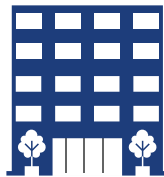
Founding Year

180

Number of Employees

60+

Professional Licenses



Corporate Headquarters:

3788 McCray Street
Riverside, CA 92506
951.686.1070

Knowledge, experience, and responsiveness are the key elements of a strong team needed to exceed SGPWA's goals and expectations. WEBB has put together a team of professionals that will deliver these key elements to your projects. The assembled team has a long history of working together, which will increase communication and efficiency when managing this project.



Bruce Davis, PE
Senior Vice President
bruce.davis@webbassociates.com
T: 951.686.1070

"I will lead SGPWA's projects with a "hands-on" approach to ensure on-time delivery and quality of all deliverables. In addition to WEBB's experience, I have extensive experience with similar projects for Agencies throughout Inland Southern California."

- Bruce Davis, PE

Project Manager Highlights

- 40 years of civil engineering experience
- Oversees all WEBB water and wastewater projects
- Experienced in planning, design and support during construction of water, wastewater, drainage and transportation projects

Program Understanding and Approach

Albert A. Webb Associates (WEBB) is pleased to submit this proposal for On-Call Engineering Services related to Planning, Design, and Construction Management Services for the Operation, Maintenance, Repair, Replacement, and Improvement of SGPWA Facilities. It is our understanding that SGPWA desires to have a consultant who acts for the benefit of SGPWA and works as an extension of staff, working under the direction of SGPWA as the Agency Engineer on many phases of various projects in support of SGPWA's mission to "import supplemental water and to protect and enhance local water supplies for use by present and future water users, and to sell imported water to local water districts" within its service area. To that end, various water facilities need to be planned, permitted, constructed, and then operated and maintained to meet this mission.

WEBB has performed similar tasks as an extension of staff for many agencies such as Crestline Lake Arrowhead Water Agency, Jurupa Community Services District, Western Municipal Water District, Edgemont Community Services District, and Nuevo Water Company. WEBB is considered the District Engineer for Crestline Village Water District and we work hand-in-hand with Eastern Municipal Water District in supporting conditions regarding new development. WEBB has also provided specific program management and oversight for the City of Beaumont's Treatment Plant Expansion and Salt Mitigation project, the Winchester Area CFD for major water, sewer and street infrastructure work, JCSD's Sewer Bond Projects, and the County of Riverside's Temecula Area Transportation Improvements. WEBB has provided program management on behalf of the County of Riverside for the Salton Sea Demonstration project including preparing and soliciting Request for Proposals for the required preliminary and final engineering of the proposed facility.

WEBB has teamed with Provost and Pritchard to bring forth a team with a wide breath of local knowledge and experience on all aspects of the request as well as demonstrable experience with State Water Project (SWP) conveyance and facilities.

WEBB is proposing to have **Bruce Davis, PE**, a Senior Vice President with almost 40 years of civil engineering experience in the Inland Empire, as the Principal Staff Person assigned to SGPWA. Bruce is available to work in SGPWA offices or remotely as approved by SGPWA. With the recent technology upgrades implemented by WEBB over the last three years, we have found the Hybrid approach with remote working, combined with some in-office work, has been an effective

work environment with no loss in productivity. The connectivity tools employed by WEBB help keep communication flowing smoothly both within the WEBB Team and with outside organizations. **Bruce will be supported by a wealth of experience and knowledge within the WEBB organization for all aspects of work.** Our Water Resources group has experience with the design of water and stormwater facilities including pipelines, pump stations, reservoirs, ground water recharge basins, settling basins, channels, pressure control facilities, and municipal wells. Our Environmental group has experience preparing CEQA and NEPA documents for all of these water facilities as well as the necessary experience in applying for and obtaining permits from the various resource agencies. Our Construction Management and Inspection group can handle all levels of the construction phase from a full time construction management and field inspection support which can manage a project through start up and agency turn over, through the most basic engineering support during construction tasks such as submittal reviews.

WEBB is proposing to have **Sinnaro Yos, PE**, a Senior Engineer at WEBB with over 20 years of civil engineering experience, act as the backup to the Principal Staff Person. Sinnaro currently provides similar District Engineering duties for Edgemont Community Services District and was a key staff member in preparing our recent report Backbone Water System Feasibility Study prepared for SGPWA.

Terry Erlewine, PE, from Provost and Pritchard Consulting Group, will be the main point of contact for SWP related items associated with this work as well as hydrogeological services that may be needed. Terry will be available remotely and for in-person meetings if needed.

Sam Gershon, PE, long time Senior Vice President for WEBB, will also be available to the team and SGPWA for various specific tasks and assignments. Sam has been involved with SGPWA for the last 20 plus years and was involved in preparing the Backbone Water System Feasibility Study.

Basic Project Management Approach

WEBB's experience dictates a uniform approach to project planning, design, and construction services for water, sewer, and a variety of water resources projects. WEBB's systematic approach allows for the establishment of typical requirements, define the scope, schedule, budget, organization and staffing, communications, and QA/QC components. Further, the standard phasing and process established through the entire breadth of a project allows for more intense focus on the project specific critical issues and special conditions that are to be encountered and mitigated as a part of WEBB's services. WEBB understands the expectations and assumed responsibility SGPWA desires in an engineering consultant. It is our intent to provide the most complete and comprehensive service in implementing your vision of each and every project. We realize the importance of not only the final results, but the way in which each project is handled throughout the process with SGPWA's goals in mind. It is our added goal to ensure SGPWA receives a positive response from groups or individuals connected with each project. We understand our work and actions reflect the public's perception of SGPWA.

Management Philosophy

WEBB understands the absolute need for strong project management. We recognize the critical issues associated with schedule, budget management, and communication. Communication and coordination between an engineering consultant and SGPWA is paramount to each project. To guarantee continuous and effective communication, a project manager will be assigned to each project to serve as the primary point of contact to SGPWA and WEBB's assigned Principal-in-Charge, **Bruce Davis, PE**, will be monitoring the process as a whole. Our project manager makes it a priority to attend all meetings between SGPWA and the project proponents during the project. This will ensure a constant and effective way of communication resulting in strong budget and schedule control.



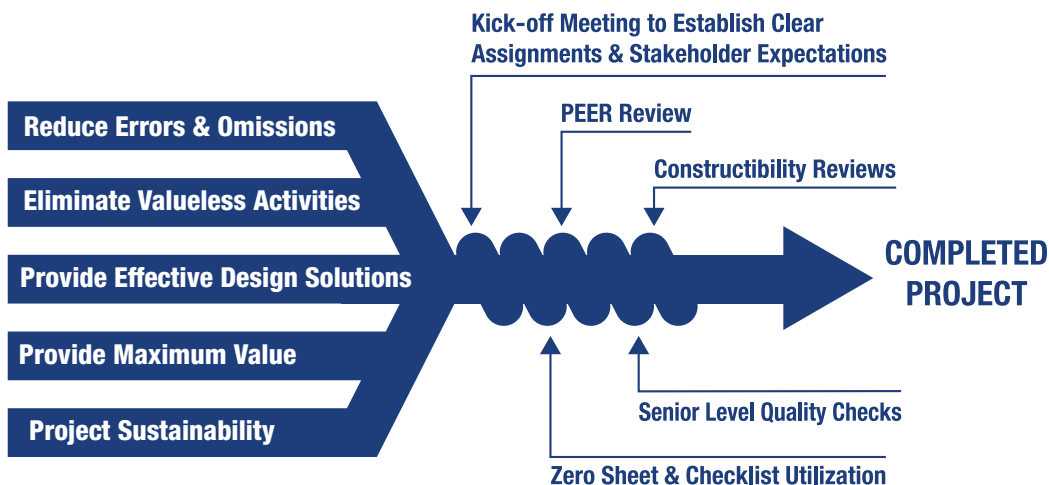
WEBB and Provost & Pritchard have experience working with SGPWA - most recently on the Water Supply and Feasibility Studies project.

Quality Assurance and Quality Control (QA/QC)

The quality control for this project will be embedded in every stage of the project development. Our QA/QC Program is designed to enhance the cooperation and synergy between the disciplines in-house, our design teams, subconsultants, and SGPWA. Our entire staff is part of the QA/QC Program and each plays a significant role in its implementation. As an underlying principle of our QA/QC Program, WEBB utilizes senior level staff to review the work product to utilize the experience and knowledge of each aspect of the project.

Our quality assurance begins with developing a close and continuous line of communication between our team and SGPWA. Our past experience indicates good communication is a critical element to project success. Under our project protocol, we keep an organized directory of all project-related communication, meeting minutes and action items, documents, images, data, and plan sets which allows us to respond quickly to requests. We will seek the input of SGPWA Operations and Engineering Staff throughout the project development to ensure the project meets the needs of SGPWA.

QA/QC Process



Section 3. Project Team

Bruce Davis, PE, will serve as the main contact with SGPWA and all WEBB employees will work from our Corporate Headquarters in Riverside. All Provost & Pritchard employees will work remotely from their respective offices.

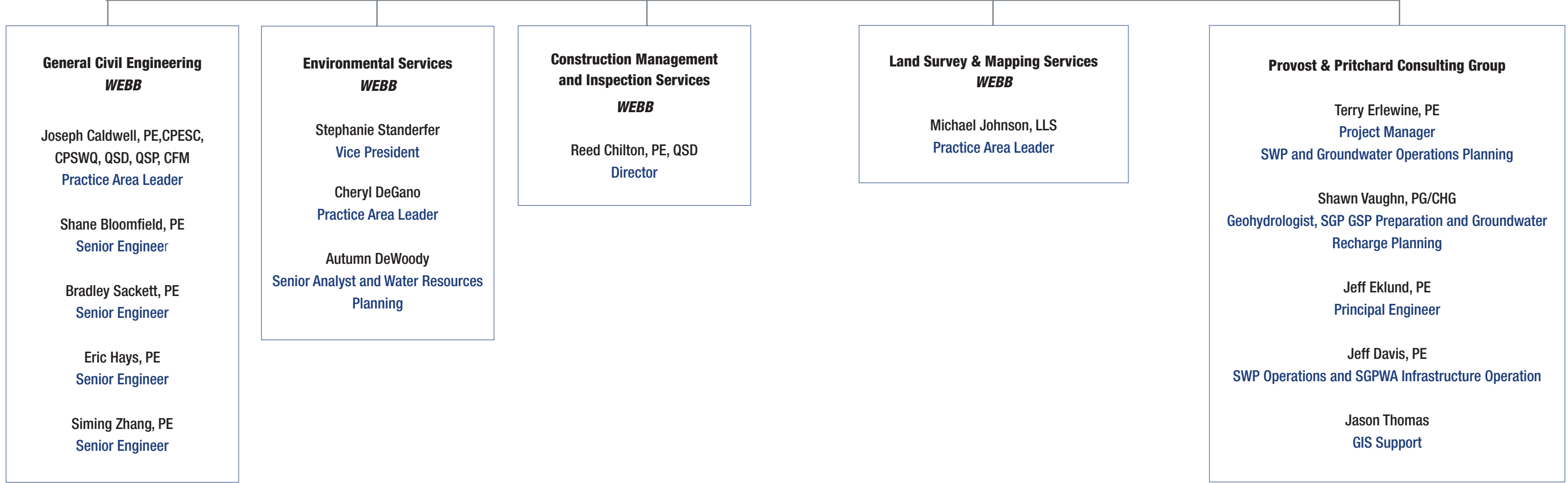


*Principal Staff Person/Agency
Engineer - WEBB*
Bruce Davis, PE
Senior Vice President

Technical Advisors

Sam Gershon, RCE - WEBB Senior Vice President	Terry Erlewine, PE Provost & Pritchard Principal Water Resources Engineer
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*Backup Principal Staff Person/
Agency Engineer - WEBB*
Sinnaro Yos, PE
Senior Engineer



Section 4. Experience, References, and Qualifications

Detailed WEBB project profiles can be found in **Appendix A**.



Water Supply and Feasibility Studies (WEBB)

San Geronio Pass Water Agency

- Supplemental Water Supply Planning Study
- Backbone Water System Feasibility Study including groundwater recharge basins, backbone pipeline, and pressure reducing stations

Project Team: Bruce Davis, PE, Sam Gershon, RCE, Terry Erlewine, PE (Provost & Pritchard), Jeff Davis, PE (Provost & Pritchard)

Client Contact: Lance Eckhart, General Manager // Chief Hydrogeologist // 951.845.2577 // leckhart@sgpwa.com



District Engineer Services (WEBB)

Crestline Lake Arrowhead Water Agency

- District Engineers since Agency Formation
- Planning and Master Planning Services
- Booster Station Nos. 1 and 2 Preliminary Design Report

Project Team: Bruce Davis, PE, Shane Bloomfield, PE

Client Contact: Jennifer Spindler, MBA, General Manager // 909.338.1779 // clawa2@clawa.net



Wildwood Creek Basin (WEBB)

City of Yucaipa

- Preparation of Hydraulic Analysis and Flood Channel Design
- Right-of-Way Acquisition
- Multi-Jurisdictional
- Environmental Services including permitting
- Public Outreach

Project Team: Bruce Davis, PE, Joseph Caldwell, PE, Sam Gershon, RCE

Client Contact: Fermin Preciado, Director of Public Works/City Engineer // 909.797.2489 ext. 240 // fpreciado@yucaipa.org



Beaumont Treatment Plant Expansion and Salt Mitigation (WEBB)

City of Beaumont

- Program Management for Wastewater Treatment Plant Expansion and Brineline
- Multi-phased project
- Provided final design services for brine line connection to Inland Empire Brine Line

Project Team: Brian Knoll, PE, Shane Bloomfield, PE, Autumn DeWoody, Bradley Sackett, PE

Client Contact: Elizabeth Gibbs, City Manager // 951.769.8520 // egibbs@beaumontca.gov



District Engineer Services (WEBB)

Edgemont Community Services District

- District Engineer for ECSD
- Planning and Design Implementation
- Annual Sewer Improvement Project
- Master Planning, Maintenance Services, and Development Services
- Design and Construction Standards Manual

Project Team: Bruce Davis, PE, Sinnaro Yos, PE, Sam Gershon, RCE

Client Contact: Jessica Pfalmer, CPA, General Manager // 951.784.2632 // jessica@edgemontcsd.org

Project Experience - Provost & Pritchard

WATER MANAGEMENT STRATEGIES CENTRAL COAST WATER AUTHORITY

Provost & Pritchard teamed with the Hallmark group in developed a water management strategy for the Central Coast Water Authority (CCWA). The strategy included a review of rules and regulations for State Water Project contractors, with a focus on CCWA members San Luis Obispo and Santa Barbara Counties. CCWA member agencies were surveyed for their water management needs. An optimization analysis was conducted to identify the best use of State Water Project supplies, additional water management features (such as groundwater storage) needed and opportunities for coordinating use of capacity and available storage. The results of the study were summarized in a report to CCWA.

Project Team: Terry Erlewine, PE, Dan Flory

Client Contact: Ray Stokes, Executive Director // 805.688.2292 // ras@ccwa.com

AQUEDUCT PUMP BACK PROJECT WESTSIDE WATER AUTHORITY

Provost & Pritchard provided design engineering services for the preparation of installing four 250 cfs pump stations along the California Aqueduct to pump water upgradient and across four existing check structures in order to deliver water from downstream in the California Aqueduct to the water districts of the Westside Water Authority and other areas of Northern Kern County. The project was first developed in during the 2014-2015 drought and involved the participation of Dudley Ridge Water District, Lost Hills Water District, Berrenda Mesa Water District and Belridge Water Storage District. Provost & Pritchard prepared proposed designs of the bypass system, coordinated with vendors, and worked with the California Department of Water Resources (DWR office and field staff reviewing the proposed installation. California Environmental Quality Act (CEQA) documentation and permitting documentation were prepared for the project. The project was bid, but ultimately was cancelled with rescheduling of water deliveries negating the need for the pump back project. The project was then revived for the 2021 drought, at which time we prepared complex routing models of Aqueduct operations based on projected delivery schedules. This analysis was used to size the facilities and determine periods of operation. The project was re-designed in collaboration with DWR staff and put out for bids. The project was again cancelled due to modifications to the delivery schedules in the Aqueduct.

Project Team: Jeff Eklund, PE

Client Contact: Mark Gilkey, Executive Director // 661.633.9022 // mgilkey@westsidewa.org

SAN GORGONIO PASS GROUNDWATER SUSTAINABILITY PLAN DEVELOPMENT SAN GORGONIO PASS WATER AGENCY

Provost & Pritchard assisted the San Gorgonio Pass GSA in developing its Groundwater Sustainability Plan for the San Gorgonio Pass Subbasin. The scope of work ranged from technical assistance and review for technical meetings at the San Gorgonio Pass Subbasin Level to preparation of the GSP by the January 2022 deadline. Tasks involved all components of the SGMA process including, but not limited to, water budget development, creation of maps through GIS, developing the sustainable management criteria related to undesirable results, public outreach, and participation in board and technical meetings.

Project Team: Terry Erlewine, PE, Jason Thomas, Shawn Caugh, PG/CHG,

Client Contact: Lance Eckhart, General Manager // Chief Hydrogeologist // 951. 845.2577// leckhart@sgpwa.com

SAN GORGONIO PASS INFRASTRUCTURE PLAN

SAN GORGONIO PASS WATER AGENCY

Provost & Pritchard is preparing an Infrastructure Plan on behalf of the San Gorgonio Pass Water Agency. The scope of work includes identification of potential State Water Project-related water supply options, water management options and water supply conveyance constraints. The various water supply options are compared to supplemental water needs at different levels to identify water management portfolios that meet future water supply needs.

Project Team: Terry Erlewine, PE

Client Contact: Lance Eckhart, General Manager/Chief Hydrogeologist // 951. 845.2577// leckhart@sgpwa.com

TRANSFER FROM CITY OF VENTURA

SAN GORGONIO PASS WATER AGENCY

Provost & Pritchard provided assistance in identifying and implementing short-term and long-term water transfers for San Gorgonio Pass Water Agency from Ventura County SWP Contractors. P&P initiated discussions with Ventura County SWP Subcontractors on behalf of SGPWA and identified an interest in developing a long term transfer agreement. P&P worked with SGPWA to develop the terms for a long term agreement that were mutually agreeable between SGPWA and Ventura County agencies, which lead to a multi-year transfer agreement in 2021.

Project Team: Dan Flory

Client Contact: Lance Eckhart, General Manager/Chief Hydrogeologist // 951. 845.2577// leckhart@sgpwa.com

Key Staff Summary Qualifications

Full resumes for all key staff members can be found in [Appendix B](#).



Bruce Davis, PE Senior Vice President

Bruce Davis is a Senior Vice President of Albert A. Webb Associates (WEBB). Bruce has been a full-time employee of WEBB since 1986. Bruce currently serves as Director of Water Resources. As Director, he oversees all water and wastewater projects performed by the firm. Since 2018, Bruce has taken the lead representing WEBB in matters involving engineering standard of care and risk management. Bruce is a registered civil engineer in the State of California.

Bruce has served as Principle-in-charge for well over one hundred regional infrastructure projects. His experience includes planning, design and support during construction of water, wastewater, drainage and transportation projects on behalf of clients including Eastern Municipal Water District, Coachella Valley Water District, Jurupa Community Services District, and cities of Corona, Murrieta, Rancho Mirage, Ontario, Grand Terrace, Rialto and Cathedral City. Project types include pipelines from 8-inch diameter up to 60-inch diameter, pumping ranging in size from one hundred gallons per minute to over 5,000 gallons per minute and storage facilities ranging in capacity from five hundred thousand gallons to over twenty million gallons, roadways, signals, storm drains and basins. Recent water industry projects include O'Ferrell Street Booster Pump Station, Redlands/Hemlock Booster Pump Station, Longview and Watson Roads pipelines, Perris II Desalter pipeline and Markham 7.0-million-gallon storage tank.

REGISTRATIONS:
Registered Civil Engineer
C 47200 (CA)

YEARS OF EXPERIENCE:
34 Years

EDUCATION:
BS Civil Engineering, California State
Polytechnic University, Pomona

AFFILIATIONS:
American Public Works Association (APWA)
American Water Works Association (AWWA)
California Water Political Action Committee
(CalWater PAC)
Association of California Water Agencies
(ACWA)
Coachella Valley Economic Partnership
(CVEP)
League of California Cities



Sinnaro Yos, PE Senior Engineer

Sinnaro Yos, PE, is a Senior Engineer with WEBB's Water Resources Department. Sinnaro offers clients extensive experience managing the design and construction of a wide range of public works projects that enhance water quality and supply including water and wastewater systems, water reclamation, and water and wastewater treatment.

Sinnaro's responsibilities include master plan reports for water and wastewater systems, water and sewer pipeline sizing and hydraulic analysis, alignment analysis, and pipe thickness design. He also focuses on water booster stations, sewer lift stations and deep well drilling and equipping design, utilities coordination and permitting through agencies, preparation of bid documents, and engineering cost estimates.

REGISTRATIONS
Registered Civil Engineer C 68607 (CA)

EDUCATION
BS, Civil Engineering
University at Buffalo,
State University of New York



Sam Gershon, RCE

Senior Vice President

Sam Gershon, a Senior Vice President at Albert A. Webb Associates (WEBB), holds professional civil engineering registrations in California, Nevada and Arizona, as well as a professional agricultural engineering registration in California. Sam’s longstanding relationships with Southern California water and sanitation districts and public agencies, and knowledge of our clients’ goals, challenges and political stances, have made him a leader and a liaison between clients and the firm.

Sam has prepared numerous Master Water Plans, Wastewater Master Plans, Water Quality Management Plans, Water Rate and Financial Feasibility Reports, and Environmental Impact Reports for public and private clients.

As Consulting District Engineer for Newhall County Water District (NCWD), he was in charge of 86 separate projects. NCWD has three distinct water systems (Castaic, Pinetree, and Newhall). Sam was responsible for the master water plans prepared for the Castaic and Pinetree water systems. In addition, he was in charge of pipeline and storage facilities constructed for NCWD that were paid for by the owner of the North Lake Development.

REGISTRATIONS

Registered Civil Engineer C 14489 (CA)
Registered Civil Engineer C 09812 (AZ)
Registered Civil Engineer C 03979 (NV)
Registered Agricultural Engineer 196 (CA)

EDUCATION

MS, Civil Engineering
USC
BS, Civil Engineering
City College of New York



Joseph Caldwell, PE, CPESC, CPSWQ, QSD, QSP, CFM

Water Resources Practice Leader

Joseph Caldwell, PE, is the Practice Leader of WEBB’s Water Resources Department. Joseph focuses on the development of master drainage plans, the design of backbone drainage infrastructure, and the design of water quality systems for flood control projects throughout the region. A Certified Professional in Erosion and Sediment Control and Storm Water Quality, Joseph is a specialist in water quality and environmental compliance and an expert in hydrology and hydraulics.

Joseph’s experience includes the design of regional flood control basins, a flood control levee, master drainage plans, and the design and construction of several miles of backbone drainage infrastructure. He has also hydrologically and hydraulically modeled the San Jacinto River from Railroad Canyon to the existing Army Corps levee in the City of San Jacinto. Joseph’s extensive knowledge of local agencies’ design standards and procedures, and effective working relationships with agency staff, enable him to expedite projects through completion.

REGISTRATIONS

Registered Civil Engineer C 67239 (CA)
Registered Civil Engineer C 030017 (NV)
Registered Civil Engineer C 76114 (AZ)
Certified Professional in Erosion and Sediment Control (CPESC) 5311
Certified Professional in Stormwater Quality (CPSWQ) 544

EDUCATION

MS, Civil Engineering
Brigham Young University
BS, Civil Engineering
Brigham Young University

CERTIFICATIONS

Qualified SWPPP Developer
(QSD) 00076
Qualified SWPPP Practitioner
(QSP) 00076
Association of State Floodplain Manager,
Inc. (ASFPM)
Certified Floodplain Manager (CFM)



Shane Bloomfield, PE

Senior Engineer

Shane Bloomfield, PE, is a Senior Engineer with WEBB's Water Resources Department. Shane specializes in the design of public works projects consisting of major pumping plants, groundwater pumping wells, sewer collection system design, wet well rehabilitation, water distribution system design, wastewater treatment plant design, and hydraulic system modeling using various computer models. He has engineering design responsibilities for several projects for public works agency clients including the City of Ontario, City of Riverside, Jurupa Community Services District, Eastern Municipal Water District, and Crestline-Lake Arrowhead Water Agency.

REGISTRATIONS

Registered Civil Engineer C 77435 (CA)

EDUCATION

BS, Geology/Hydrology'
Brigham Young University
MS, Environmental Science & Engineering
Colorado School of Mines

AFFILIATIONS

National Groundwater Association (NGWA)



Bradley A. Sackett, PE

Senior Engineer

Brad Sackett, PE, is a Senior Engineer and Project Manager with WEBB's Water Resources Department. Brad specializes in assisting major public agencies with a wide variety of water resource projects. Clients seek his expertise with pumping facilities, water pipeline design, gravity sewer main design, water and sewer system master plans, hydraulic modeling analysis, and sewer resource plans for Specific Plan Environmental Impact Reports (EIRs), among other projects.

Brad has been instrumental in assisting clients with in-house projects, while representing these agencies with their constituents as an on-site consultant. Throughout Brad's career he has been intricately involved in the design, management, and construction support of projects for such clients as Eastern Municipal Water District (EMWD), Western Municipal Water District (WMWD), and the cities of Riverside and St. Helena, to name a few.

REGISTRATIONS

Registered Civil Engineer C 65862 (CA)

EDUCATION

BS, Chemical Engineering
Massachusetts Institute of Technology

AFFILIATIONS

American Water Works Association (AWWA)

His detailed approach ensures each project integrates flawlessly into master plan requirements from concept through construction. He specializes in operations take-over and integration of systems with a focus on cost effective and efficient transitions.



Eric Hays, PE

Senior Engineer

Eric Hays, PE, is a Senior Engineer with WEBB’s Water Resources Department. Eric has years of diverse engineering experience with deep knowledge in the fields of hydrology, hydraulics, and drainage design. His experience includes the preparation of preliminary design reports, alternative analysis studies, canal design plans for flood control infrastructure projects, and storm drain system designs for residential, commercial, industrial, and public agency projects.

REGISTRATIONS

Registered Civil Engineer C 73614 (CA)

EDUCATION

BS, Civil Engineering
California State Polytechnic University,
Pomona

AFFILIATIONS

American Society of Civil Engineers (ASCE)

In addition to Eric’s extensive experience with drainage project design, he offers clients strong civil site development and public project background. His experience includes development of site grading plans, street improvements plans, sewer plans, bike trail plans, Water Quality Management Plans, Stormwater Pollution Prevention Plans, and railroad grade crossing improvement plans. His expertise also includes survey, construction staking, construction observation, and support.



Siming Zhang, PE

Senior Engineer

Siming Zhang, PE, is a Senior Engineer with WEBB’s Water Resources Department. Siming assists clients in managing and designing a wide array of public works projects including water storage reservoirs, water transmission pipelines and booster stations, major trunk sewer mains, sewer collection pipelines and sewer lift stations, and water booster stations.

REGISTRATIONS

Registered Civil Engineer C 60156 (CA)

EDUCATION

BS, Civil Engineering
Tsinghua University, China
MS, Civil Engineering
University of Southern California

AFFILIATIONS

American Society of Civil Engineers (ASCE)
American Water Works Association (AWWA)

As a Project Manager who leads a team of engineers and designers, Siming has been a key advisor on many important matters that help determine the success of land developments including master drainage plans, hydrology/hydraulic studies, storm drain designs, Conditional Letters of Map Revision (CLOMR), and Letters of Map Revision (LOMR). Clients depend on Siming’s ability to fulfill a broad range of project goals including assistance with engineering design, bidding, construction administration, coordination with local agencies, sewer and water master facility plans, feasibility studies, construction drawings and specifications, construction and project cost estimates, and coordination with government agencies to secure approvals and permits.



Stephanie Standerfer

Vice President

Stephanie Standerfer is a Vice President and Director of WEBB’s Environmental Services Department. Stephanie has worked as an environmental planning project manager, focusing on California Environmental Quality Act (CEQA) matters for small, medium, and large public and private projects. Stephanie has managed all levels of CEQA documents for water and wastewater districts, healthcare clients, community college districts, water districts, cities, counties, and private developers. Her varied project experience allows her to foresee and navigate challenges that arise during CEQA compliance. As an expert in CEQA implementation throughout Inland Southern California, she also provides local agencies training in CEQA processing. She regularly oversees and coordinates with large teams of environmental planners, engineers, and architects and actively assists her clients through the environmental compliance gauntlet.

EDUCATION

MS, Environmental Sciences,
Washington State University
Pullman, WA

BS, Environmental Sciences,
University of California
Riverside



Cheryl DeGano

Practice Area Leader

Cheryl DeGano serves as a Practice Area Leader with WEBB’s Environmental Services Department. Cheryl manages the preparation and approval of environmental and planning documents for public and private sector clients. During her consulting career, Cheryl has been responsible for the preparation and processing of environmental and planning documents including environmental impact reports, environmental assessments, initial studies and mitigated negative declarations, mitigation monitoring and reporting programs (MMRPs), specific plans, development impact fee (“Nexus”) studies per California Government Code 66000 et seq., and development and entitlement applications.

EDUCATION

BA, Biology, University of California,
Riverside



Autumn DeWoody

Senior Environmental Analyst - Water Resources Planning

Autumn DeWoody is a Senior Environmental Analyst with WEBB’s Environmental Services Department. Autumn offers clients a bridge between our technical municipal and stormwater engineering services and environmental documentation. She regularly partners with WEBB’s project managers to prepare various planning documents on behalf of our water, wastewater, and flood control district clients. In addition, Autumn offers private and public clients jurisdictional delineations and regulatory permitting services as well as environmental monitoring at construction sites to ensure compliance with Mitigation, Monitoring, and Reporting Plans (MMRPs). She has been repeatedly commended by clients on the frequency and helpfulness of timely updates during permit processing.

EDUCATION

MS, Environmental Sciences
University of California,
Riverside

BS, Environmental Sciences
University of California,
Riverside

CERTIFICATIONS

Certified Level 1 Water Audit Validator



Michael E. Johnson, LLS

Land Survey Practice Area Leader

Michael Johnson, LLS, is the Practice Area Leader of WEBB's Land Survey & Mapping Department. Michael has years of experience in all aspects of surveying from initial project coordination and research, performing survey data adjustments and analysis, to overseeing and providing construction staking through final as-built and ALTA surveys.

Michael trained and supervised several field crews including technical office and support staff. From entitlement to field survey and construction to delivery of a completed product, Michael has the knowledge and experience to provide the entire range of services any municipal, private development, or construction company has come to expect. As part of the private and public sector of development, Michael gained experience with subdivisions, retail centers, commercial distribution centers, pipelines, tank site & reservoir projects, mass grading and hillside slope projects, hospitals, schools, training facilities for fire & police, highways, channels, parking structures, and many others.

REGISTRATIONS

Licensed Land Surveyor 7673 (CA)

EDUCATION

AS, Mathematics,
Riverside Community College

AFFILIATIONS

California Land Surveyors Association
(CLSA)



Reed Chilton, PE, QSD

Director - Construction Management and Inspection

Reed Chilton, PE, QSD, is Director of WEBB's Construction Management and Inspection Department. Reed has worked on a variety of private and public projects and has established a strong foundation in the engineering and construction management profession. His project experience includes sewer lines, drainage facilities, water lines, recycled water lines, wastewater treatment facilities, dry utilities, street improvements, street lighting, traffic signals, and landscaping. Specifically, his involvement with these projects includes preparation of specifications and bid documents, contract management and administration, permitting, submittal and RFI review and coordination, leading meetings, field investigations, project documentation, review and approval of change orders and pay estimates, project close-out, and managing day-to-day needs for owners and contractors. Reed manages and schedules WEBB's Inspection Team.

REGISTRATIONS

Registered Civil Engineer C 83827 (CA)

EDUCATION

BS, Civil Engineering
Brigham Young University
MS, Civil Engineering
Brigham Young University

CERTIFICATIONS/TRAINING

Qualified SWPPP Developer (QSD) C83827



Terry L. Erlewine
PE
**Principal Water Resources
Engineer**

Professional Summary

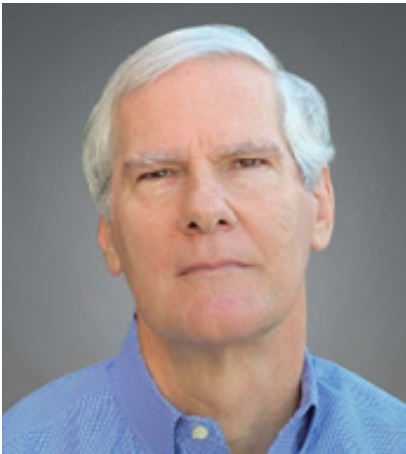
Terry Erlewine is Principal Water Resources Engineer with Provost & Pritchard who has 45 years of experience providing water resources planning and analysis. He has conducted many surface and groundwater resources studies, including water uses, operations studies, groundwater modeling, and groundwater conjunctive use programs. Mr. Erlewine worked for the State Water Contractors from 1994 through 2017, serving as General Manager since 2005. Previously, Mr. Erlewine worked as a consultant on water resources. Mr. Erlewine began his career with the California Department of Water Resources. In his 13-year tenure with the Department, he was involved in all aspects of surface water and groundwater projects.

Education

M.S., Civil Engineering,
University of California, Davis
B.S., Civil Engineering,
University of California, Davis

Registration/Certifications

Civil Engineer, California
#32985



Jeff Davis
PE
Principal Engineer

Professional Summary

Jeff Davis is a Principal Engineer at Provost & Pritchard with over 40 years of water resources engineering experience. For 15 years he served as the General Manager and Chief Engineer for the San Geronio Pass Water Agency. As an engineer with the Metropolitan Water District of Southern California, he developed a master plan for the South Orange County portion of Met's service area and was involved in the planning, design, and project management of numerous infrastructure projects of various sizes.

Education

M.S., Water Resources
Engineering, Stanford
University
B.S., Environmental and
Water Resources Engineering,
Vanderbilt University

Registration/Certifications

Civil Engineer, California
#36337



Jeff Eklund
PE
Principal Engineer

Professional Summary

Jeff Eklund is a principal engineer and the Bakersfield Director of Operations at Provost & Pritchard with 20 years of experience in the field of civil engineering. He has an extensive background in investigation, planning, and design of water supply and conveyance facilities for water agencies and farms. Mr. Eklund’s areas of expertise include irrigation system design and evaluation, groundwater and surface water investigations, groundwater recharge and groundwater banking facility design, and design of large water conveyance and storage facilities. In addition, he has been involved in the preparation of feasibility studies and construction plans, and as well as coordinating and permitting with various public agencies and utility companies.

Education

B.S. Civil Engineering,
California State University,
Fresno
A.S. Engineering,
Bakersfield College, California

Registration/Certifications

Civil Engineer, California
#75680



Shawn E. Vaughn
PG/CHG
Associate Geologist

Professional Summary

Shawn Vaughn is an associate geologist at Provost & Pritchard with 20 years of experience in the environmental and groundwater resources consulting industry. He has a proven track record of completing projects quickly and efficiently, while adhering to budgeting constraints. Mr. Vaughn’s experience includes groundwater resource projects, recharge basin investigations, aquifer and well testing, petroleum and chlorinated solvent releases sites, and soil and groundwater remediation, including pilot testing and system installations. He is also knowledgeable of federal and state water quality and waste regulations, and is experienced in preparing discharge permit applications, DWR Technical Support Services (TSS) applications, and monitoring permit compliance. In addition, he is adept at estimating, budgeting, identifying project requirements and resolving issues, as well as coordinating collaborative efforts of contractors, sub-consultants, technical staff, regulatory agencies and clients.

Education

B.S., Geology,
San Jose State University,
California

Registration/Certifications

Professional Geologist,
California #8947
Certified Hydrogeologist,
California #1103



Jason Thomas GIS Specialist

Professional Summary

Jason Thomas has over 25 years of experience as a geographic information system (GIS) specialist, database designer, project manager. He has analyzed, mapped and created report tables and graphics of cropping and land use patterns, natural resource systems, regional socioeconomic demographics, land development, and public health indicators. He trains GIS users on mapping, database queries, data processing, mapping and quality control.

Education

B.A. Environmental Biology,
California State University,
Fresno

Registration/Certifications

Data Science 8X Certificate
from UC Berkeley covering use
of Python for data processing,
statistical analysis and
visualization

NWETC Certificate in Visualizing
and Analyzing Environmental
Data with R

ESRI GIS Training Certifications
in ArcGIS, Spatial Analyst, Labels
and Annotation, Regional
Planning, Cartographic
Design, Creating, Editing and
Managing Geodatabases, Linear
Referencing, Geodatabase
Topology, Geoprocessing

Section 5. Assumptions and Exceptions

WEBB has not made any assumptions or exceptions in the preparation of this proposal.

Appendix A. Project Abstracts



Beaumont Avenue Recharge Facility

San Gorgonio Pass Water Agency

Client Contact: Lance Eckhart, General Manager, Chief Hydrogeologist
San Gorgonio Pass Water Agency
951. 845.2577

The Beaumont Basin (Basin), the most heavily developed basin within the pass area, was in a state of overdraft - estimates place storage depletion at over 100,000 acre-FT. Commenced by the San Gorgonio Pass Water Agency (SGPWA), WEBB evaluated several potential recharge basin locations, prepared improvement plans and bid specifications, and prepared a Preliminary Design Report (PDR) for the Basin site and three pipeline alignment alternatives. Four basin alternatives were evaluated on a conceptual design level as part of the PDR.

WEBB, as the lead consultant, prepared the final report and presentation. WEBB's work focused on the aboveground components of the project, including design work, GIS map preparation, land ownership research, site visits, biological studies, and evaluation of potential water treatment plant sites.

Additionally, WEBB has provided SGPWA with the construction engineering services as related to the Beaumont Avenue Recharge Facility which included finalizing plans and specifications for bidding, construction management services, construction survey, subconsultant oversight, and construction management services.



Booster Stations No. 1 and No. 2

Crestline Lake Arrowhead Water Agency

Client Contact: Jennifer Spindler, General Manager
Crestline Lake Arrowhead Water Agency (CLAWA)
909.338.1779

WEBB provided engineering services preparing a preliminary design report (PDR) to evaluate adding additional capacity at Booster Station No. 1 (BS 1) and Booster Station No. 2 (BS 2).

BS 1 is located at the east end of the water treatment plant and has a total of six pumps. Four of the existing pumps are electric and two are gas driven units. The static pressure at BS 1 is 710 psi. For backup power, the pump station has a one megawatt natural gas generator. This pump station is operated manually by changing SCADA settings at the WTP. Flow rates are adjusted periodically based on system demand and as required to maintain water levels in the storage reservoirs.

BS 2 is located in Crestline at CLAWA's main office. The two 5 MG Crestline tanks are in series and act as forebays for the pumps as well as storage volume for the downstream pressure zone. There is a total of four existing pumps in BS 2, three electric and one gas driven pumping units. Pump controls are tied to the level sensors at the Strawberry Peak Tank.

Following preparation of the PDRs for each booster station, WEBB prepared final design documents for BS 1 that included the installation of a natural gas engine (600 hp) and related components and an engine driven vertical turbine pumping unit (750 gpm). The work also included site work, coordination with the gas company, mechanical work and piping, installation of heat exchanger, discharge piping and vaults, footings and foundations, and a metal canopy cover over the new gas engine driven pumping unit.



Wildwood Creek Basin

City of Yucaipa

Client Contact: Fermin G. Preciado, Director of Public Works/ City Engineer
City of Yucaipa
909.797.2489 Ext. 240

WEBB designed a multi-purpose watershed basin for the City of Yucaipa in Wildwood Creek. The project consists of hydraulic analysis of the basin including sediment transport modeling, right-of-way mapping of the project site, engineering, and landscape plans. This project is located in the middle of a major watercourse. The watershed tributary to the project is over 4,000 acres and the creek is designated on the Flood Insurance Rate Map by FEMA. The City's goal was to reduce the peak flow utilizing a series of detention basins that in turn will reduce peak flow rates downstream and reduce the burden on those downstream facilities. This reduction in peak flow rates was accomplished through the removal of sediment/debris load and the attenuation of peak flooding through the use of the proposed basins.

WEBB's environmental scope on this project includes technical studies (biological and cultural resources, jurisdictional delineation, and air quality impact analysis), CEQA compliance, and environmental permitting. WEBB coordinated the Initial Study/Mitigated Negative Declaration with the City to prepare and circulate for public and agency review. WEBB prepared a Board Package with responses to comments received. Environmental permitting for this project includes coordination with the U.S. Army Corps of Engineers, Regional Water Quality Control Board, Santa Ana Region, the California Department of Fish and Game to obtain a Clean Water Act Section 404 permit, Section 401 Water Quality Certification and Streambed Alteration Agreement from these agencies, respectively.



Edgemont Community Services District

Client Contact: Jessica Pfalmer, General Manager & Treasurer
Edgemont Community Services District
951.784.2632

Annual Sewer Improvements Project

WEBB prepared final engineering plans and specifications for a gravity collection system for each phase of the sewer improvement projects. The annual improvements include approximately 4,000-LF to 5,000-LF of 8-inch to 12-inch gravity pipe, sewer laterals, and clean-outs. The project included the development of capital improvement projects for new sewer mains, sewer replacement, and sewer point repairs based on District's sewer system video program. The key issues being addressed in this project included heavy residential area, utility conflict, maintain sewer services, sewer bypass, sewer lateral location, and connection.

As the District's Engineer, WEBB manages the construction of the annual sewer improvement project. The construction management includes, but is not limited to review of bid proposals, contractor submittal drawings, inspection reports, process requests for information, requests for change orders, partial pay estimates, weekly working statements, and periodic site visits to monitor construction and prepare notice of completions.

Master Sewer Plan

WEBB led this complex project involving a series of detailed studies that evaluated the water system within the Edgemont Community Services District to gauge costs of improvements and determine water use from future development in the region. The project included the preparation of master wastewater plans for the District, as well as creation of a hydraulic computer model, development of projected wastewater generation of various regions of the District, and determination sewer main sizing and alignment. The WEBB Team drafted a report focusing on the development of capital improvement projects for new sewer mains, sewer replacement, and sewer point repairs based on the District's sewer system video program.

Design and Construction Standards Manual - (Wastewater)

WEBB developed the Edgemont Community Services District Design and Construction Standards Manual. The purpose of these standard specifications is twofold. The first purpose is to ensure sewer facilities constructed for the District are complete, correctly operating, and in compliance with government codes and good wastewater industry practice. The protection of public health and safety is of utmost importance. The second purpose of this Standards Manual is to provide interested parties with the District's procedures, policies, and requirements to aid in the cost effective planning, design and construction of wastewater facilities within the District.

Development Services - (Wastewater)

WEBB performs development services for Edgemont Community Services District (District). These services include review and response to City of Moreno Valley discretionary reviews, sewer availability reviews, sewer feasibility reviews, sewer plan check, and inspection services. Other reviews include industrial waste compliance and plan check for grease interceptor sizing and design. Other tasks include Board recommendations letters and determination of connection fees, plan check and inspection deposits.

Maintenance Services - (Wastewater)

WEBB performs maintenance services on behalf of the District. These services include soliciting on-call contractors to perform video inspection, annual cleaning, as well as pest abatement treatment of the District's sewerlines and manholes. Additional tasks include responding to emergency sewer spills and repairs. WEBB solicits on-call contractors to perform this work, file job-site maintenance permit forms with the City of Moreno Valley, perform inspection services during the contractor's work.



Beaumont Treatment Plant Expansion and Salt Mitigation

City of Beaumont

Client Contact: Elizabeth Gibbs, City Manager
City of Beaumont
951.769.8520

WEBB is currently the Program Manager for this multi-phased project which includes the following:

WWTP Expansion and Upgrade

The existing WWTP needs to be expanded and upgraded. The WWTP is currently treating over 75% of its permitted capacity and therefore must begin the expansion process. Per the new Regional Water Quality Control Board's updated Basin Plan, the City must begin reducing TDS being discharged from the plant. The City completed a feasibility study to identify the best way to expand and upgrade the plant. The WWTP upgrades include additional headworks screening, flow equalization, grit removal, fine screens, MBR, reverse osmosis, biosolids dewatering, and drying.

Brine Line - Final Design

Brine disposal is an integral part of this project and was a key driver in the selection of this project. Without a safe, reliable, and cost effective way to dispose of the brine, this project cannot move forward and compliance with the Basin Plan would be impossible. The brine pipeline connecting to the Inland Empire Brine Line (IEBL) was determined to be the best option during the feasibility study, due to cost and certainty of operation. The brine line has been sized at 12-inches and will be approximately 23-miles long. The pipeline begins at the City's WWTP and ends near the City of San Bernardino's WWTP on Waterman Avenue. WEBB is also leading the permitting of this facility with Riverside County, San Bernardino County, City of Redlands, City of Loma Linda, and City of San Bernardino.

Appendix B. Resumes



Sinnaro Yos, PE

Senior Engineer

Sinnaro Yos, PE, is a Senior Engineer with WEBB's Water Resources Department. Sinnaro offers clients extensive experience managing the design and construction of a wide range of public works projects that enhance water quality and supply including water and wastewater systems, water reclamation, and water and wastewater treatment.

Sinnaro's responsibilities include master plan reports for water and wastewater systems, water and sewer pipeline sizing and hydraulic analysis, alignment analysis, and pipe thickness design. He also focuses on water booster stations, sewer lift stations and deep well drilling and equipping design, utilities coordination and permitting through agencies, preparation of bid documents, and engineering cost estimates.

Clients also depend on Sinnaro's wide-ranging construction management experience during construction of projects. He provides construction schedule analysis and control, schedules survey activities and specialized inspection efforts, and resolves field conflicts and issues. He also assists with processing submittals, RFIs, progress payments and change requests, conducts progress meetings, disseminates meeting minutes, communicates with the project inspector, contractor and owner, and provides for closeout of contracts. This includes conducting the final walk-through and generating a punch list, performing a final review of retention payments, and processing as-builts and O&M manuals. In addition, Sinnaro has provided technical memorandums as well as water and sewer master plan reports for projects which have been built and are operating successfully.

REGISTRATIONS

Registered Civil Engineer C 68607 (CA)

EDUCATION

BS, Civil Engineering
University at Buffalo,
State University of New York

Annual Sewer Improvement Project, Edgemont Community Services District (District) - Sinnaro served as Project Engineer for a study designed to improve water quality in the City of Moreno Valley's Edgemont neighborhood. He performed water quality analysis and coordinated water quality sampling for the area's water system. He also developed the water quality section of the Edgemont Water Master Plan Update. The project included the preparation of master wastewater plans for the District, as well as creation of a hydraulic computer model, development of projected wastewater generation of various regions of the District, and determination sewer main sizing and alignment.

Well Drilling, Design, and Equipping of Wells 27 & 28, Jurupa Community Services District (JCSD) - Sinnaro served as a project engineer for this project. The WEBB Team provided the engineering and hydrogeology services to provide JCSD with two new groundwater wells to serve JCSD's water system and aquifer storage and recovery (ASR) capabilities. WEBB performed the site selection evaluation for these well sites based on both hydrogeologic and engineering parameters. The WEBB team prepared the drilling specifications and Geoscience provided inspection services during the well drilling of these wells.

Sinnaro Yos, PE

Senior Engineer

Wells 22, 23, and 25, Jurupa Community Services District - Sinnaro served as a Project Engineer for the JCSD Well Nos. 22, 23 and 25 Project. The WEBB Team provided the engineering and hydrogeology services to provide JCSD with three new groundwater wells to serve JCSD's water system. WEBB performed the site selection evaluation for these well sites based on both hydrogeologic and engineering parameters. For Well No. 25, we provided legal and plats for JCSD to purchase land and obtain easements. The WEBB Team prepared the drilling specifications and Geoscience provided inspection services during the well drilling of these wells. WEBB provided input on Geoscience's recommendations for casing and screen design, filter pack design, and pump setting. Geoscience's recommendations were incorporated into our well equipping design plans and specifications.

WEBB and our subconsultants provided JCSD with complete civil, mechanical, and electrical design plans and specifications for the public bid process. Well No. 22 (3,000 gpm), Well No. 23 (3,000 gpm) and Well No. 25 (4,000 gpm) are being equipped with 500 hp, 500 hp, and 600 hp electric motors, respectively. For Wells 22 and 23, the long lead time items such as the deep well pump and motor and the motor control center was pre-purchased. We prepared specifications for the District to pre-purchase the equipment. These wells will also be equipped with standby diesel generators. WEBB is currently providing construction management and inspection services, maintaining constant communication with JCSD to resolve issues that developed during the equipping phase of the project.

Site Improvements for Wells 6, 14, and 15, Jurupa Community Services District - Sinnaro served as the Project Engineer and was in charge of design, analysis, and construction coordination of the 1,800 GPM, one vertical turbine deep well pump and motor, genset, site work, and grading. This project was retro-fit and re-equipping of an existing well facility including the removal and demolition of metal building, natural gas engine, and other existing on-site facilities. The WEBB Team provided the engineering design services to provide CDA for the retro-fit, and re-equipping of this well to serve and enhance CDA's water system. WEBB performed the site survey and evaluation of the existing equipment for this well facility for use of existing items to salvage, reuse, and per engineering parameters. WEBB performed design plans and specifications for the demo, retro-fit, and re-equipping of the Well 6 facility. WEBB provided construction phase services including construction management, surveying, and inspection, and assisted in the start-up and testing.

Chino I Desalter and Chino II Desalter Projects, Chino Basin Desalter Authority - Sinnaro served as the Project Engineer on these projects. The expansion of the Chino I Desalter included the addition of three raw water production wells and 6,000-LF of 16-inch diameter raw water feed pipeline, addition of 4.9 MGD ion exchange capacity, product water pump station expansion and other ancillary improvements, 15,000-LF of 16-inch to 24-inch diameters of product water pipeline, and pump stations to the Cities of Chino Hills and Ontario. The Chino II Desalter included the treatment plant facility, product water pump station, nine raw water wells, 15,000-LF of brine discharge pipeline, 27,250-LF of 12-inch to 30-inch of raw water feed pipeline, 9,000-LF of 12-inch diameter of product water pipeline to the City of Ontario and Santa Ana River Water Company, pump station, and turnout connections to the City of Ontario.

Chino Creek Well Fields I and II - Raw Water Intertie Pipeline, Chino Basin Desalter Authority - Sinnaro served as a Project Engineer for the design of pipeline to connect several Chino Basin Desalter Authority (CDA) wells to the Chino II raw water pipeline and help transfer water in both directions between the Chino I and Chino II systems via a new raw water intertie pump station. WEBB provided design engineering, surveying, bidding, and construction support services for the project, which included about 14,800 LF of 24-inch CML&C steel pipeline.



Bruce Davis, PE

Senior Vice President

Bruce Davis is a Senior Vice President of Albert A. Webb Associates (WEBB). Bruce has been a full-time employee of WEBB since 1986. Bruce currently serves as Director of Water Resources. As Director, he oversees all water and wastewater projects performed by the firm. Since 2018, Bruce has taken the lead representing WEBB in matters involving engineering standard of care and risk management. Bruce is a registered civil engineer in the State of California.

REGISTRATIONS:

Registered Civil Engineer
C 47200 (CA)

YEARS OF EXPERIENCE:

34 Years

EDUCATION:

BS Civil Engineering, California State
Polytechnic University, Pomona

AFFILIATIONS:

American Public Works Association (APWA)
American Water Works Association (AWWA)
California Water Political Action Committee
(CalWater PAC)
Association of California Water Agencies
(ACWA)
Coachella Valley Economic Partnership
(CVEP)
League of California Cities

Bruce has served as Principle-in-charge for well over one hundred regional infrastructure projects. His experience includes planning, design and support during construction of water, wastewater, drainage and transportation projects on behalf of clients including Eastern Municipal Water District, Coachella Valley Water District, Jurupa Community Services District, and cities of Corona, Murrieta, Rancho Mirage, Ontario, Grand Terrace, Rialto and Cathedral City. Project types include pipelines from 8-inch diameter up to 60-inch diameter, pumping ranging in size from one hundred gallons per minute to over 5,000 gallons per minute and storage facilities ranging in capacity from five hundred thousand gallons to over twenty million gallons, roadways, signals, storm drains and basins. Recent water industry projects include O'Ferrell Street Booster Pump Station, Redlands/Hemlock Booster Pump Station, Longview and Watson Roads pipelines, Perris II Desalter pipeline and Markham 7.0-million-gallon storage tank.

Along with experience with regional infrastructure projects, Bruce has extensive knowledge and experience with survey, planning, entitlement, development (residential and commercial) and environmental services. His extensive experience translates to an understanding of all steps required to successfully complete a project efficiently and on schedule. Bruce has served as an expert witness in matters involving land use, entitlements and drainage.

Bruce is a member of and/or involved with American Public Works Association, American Water Works Association, Association of California Water Agencies and League of California Cities. He served several years as a Board member of CalWater PAC which is a political action committee advocating for issues important to California's water supply. Bruce serves as an excellent resource for his clients on current issues and trends in our region.



Sam Gershon, RCE

Senior Vice President

Sam Gershon, a Senior Vice President at Albert A. Webb Associates (WEBB), holds professional civil engineering registrations in California, Nevada and Arizona, as well as a professional agricultural engineering registration in California. Sam's longstanding relationships with Southern California water and sanitation districts and public agencies, and knowledge of our clients' goals, challenges and political stances, have made him a leader and a liaison between clients and the firm.

Sam has prepared numerous Master Water Plans, Wastewater Master Plans, Water Quality Management Plans, Water Rate and Financial Feasibility Reports, and Environmental Impact Reports for public and private clients.

As Consulting District Engineer for Newhall County Water District (NCWD), he was in charge of 86 separate projects. NCWD has three distinct water systems (Castaic, Pinetree, and Newhall). Sam was responsible for the master water plans prepared for the Castaic and Pinetree water systems. In addition, he was in charge of pipeline and storage facilities constructed for NCWD that were paid for by the owner of the North Lake Development.

Sam also evaluated the ground and surface water supplies available to NCWD. He is very familiar with each of NCWD water systems' groundwater facilities and their interties to the Castaic Lake Water Agency.

He was in charge of preparing Master Water Plans for the Cities of Norco and St. Helena, Jurupa Community Services District, Western Municipal Water District, and Rainbow Municipal Water District. Probably the most comprehensive study dealt with supplying California State Water Project water to Western Municipal Water District and eleven public entities within their service area. Forty-one alternative trial alignments were evaluated prior to selecting 13 alternative plans for detailed analysis. These alternative plans were designed to convey from 38 cfs to 251 cfs. The diameter of the pipelines ranged from 6-inches to 78-inches. The length of the transmission systems varied from 77,600 to 177,600 feet. Total storage capacity ranged from 12.3 MG to 81.3 MG.

Sam was in charge of the Dairy Waste Management Study of the Santa Ana River Basin conducted for the Santa Ana Watershed Planning Agency. The purpose of this study was to determine economically feasible methods by which the dairy industry in the Santa Ana River Basin could reduce the amount of salts added to the ground water basin. Even though the dairy industry had about 180,000 cows in the basin, an economical solution was developed on how the dairy industry could achieve the basin objectives without impairing their economic performance. Since the solutions to this problem were unique, he prepared, along with his co-authors, a professional paper which was presented before the 3rd International Symposium on Livestock Wastes.

REGISTRATIONS

Registered Civil Engineer C 14489 (CA)
Registered Civil Engineer C 09812 (AZ)
Registered Civil Engineer C 03979 (NV)
Registered Agricultural Engineer 196 (CA)

EDUCATION

MS, Civil Engineering
USC
BS, Civil Engineering
City College of New York

AFFILIATIONS

American Society of Civil Engineers (ASCE)
(Fellow, Life Member)
American Water Works Association (AWWA)
(Life Member)



Joseph Caldwell, PE, CPESC, CPSWQ, QSD, QSP, CFM

Water Resources Practice Leader

Joseph Caldwell, PE, is the Practice Leader of WEBB's Water Resources Department. Joseph focuses on the development of master drainage plans, the design of backbone drainage infrastructure, and the design of water quality systems for flood control projects throughout the region. A Certified Professional in Erosion and Sediment Control and Storm Water Quality, Joseph is a specialist in water quality and environmental compliance and an expert in hydrology and hydraulics.

REGISTRATIONS

Registered Civil Engineer C 67239 (CA)
Registered Civil Engineer C 030017 (NV)
Registered Civil Engineer C 76114 (AZ)
Certified Professional in Erosion and
Sediment Control (CPESC) 5311
Certified Professional in Stormwater
Quality (CPSWQ) 544

EDUCATION

MS, Civil Engineering
Brigham Young University
BS, Civil Engineering
Brigham Young University

CERTIFICATIONS

Qualified SWPPP Developer
(QSD) 00076
Qualified SWPPP Practitioner
(QSP) 00076
Association of State Floodplain Manager,
Inc. (ASFPM)
Certified Floodplain Manager (CFM)

AFFILIATIONS

American Society of Civil Engineers (ASCE)
American Public Works Association (APWA)
California Storm Water Quality Association
(CASQA)
Floodplain Management Association (FMA)

Joseph's experience includes the design of regional flood control basins, a flood control levee, master drainage plans, and the design and construction of several miles of backbone drainage infrastructure. He has also hydrologically and hydraulically modeled the San Jacinto River from Railroad Canyon to the existing Army Corps levee in the City of San Jacinto. Joseph's extensive knowledge of local agencies' design standards and procedures, and effective working relationships with agency staff, enable him to expedite projects through completion.

Wildwood Creek Basin, City of Yucaipa (City) - Joseph served as the Project Manager for design of a multi-purpose watershed basin in Wildwood Creek in the City of Yucaipa. WEBB provided engineering services that accommodated the critical needs of the City.

This project is located in the middle of a major watercourse. The watershed tributary to the project is over 4,000 acres and the creek is designated on the Flood Insurance Rate Map by FEMA. The City's goal was to reduce the peak flow utilizing a series of detention basins that in turn will reduce peak flow rates downstream and reduce the burden on those downstream facilities. This reduction in peak flow rates was accomplished through the removal of sediment/debris load and the attenuation of peak flooding through the use of the proposed basins. In addition to providing flood control benefits, this project also provided certain environmental and water quality benefits. To do this, the flood control facilities were developed in such a manner so the construction preserves riparian vegetation, where possible, and implements other measures for environmental and water quality impacts. In order to accomplish this, WEBB reviewed the conceptual design and provided a more precise analysis of the level of flood control protection the basins will provide. WEBB also prepared detailed hydrologic, hydraulic, and sediment transport models to determine the peak runoff rates, flood volume, and debris load.

Heacock Channel Design Project, March Joint Powers Authority - Joseph served as the Project Manager for Phase 3 of the Heacock Channel Design Project for the March Joint Powers Authority. The project included the preparation of final improvement plans, traffic control plans, and a hydrology and hydraulic report for approximately 3,600-LF of the channel. The project extends from Lateral A of the Perris Valley Storm Drain north along Heacock Avenue to the southern end of an existing land fill. WEBB's services also included project management and coordination throughout the duration of the project including attendance at project design team meetings, quality control services, and all other processing of improvement for necessary project approvals.

Joseph Caldwell, PE, CPESC, CPSWQ, QSD, QSP, CFM

Water Resources Practice Leader

Hemet MDP Line C, Stage 4, County of Riverside Flood Control and Water Conservation District - Joseph was the Project Manager for the Hemet MDP Line C, Stage 4 Project. The extension of the Hemet MDP Line C was an important component to provide surface flooding relief and flood protection of a predominately developed portion of the City of Hemet. The extension of the Hemet MDP Line C was an important component to provide surface flooding relief and flood protection of a predominately developed portion of the City of Hemet. This segment of the Master Plan Facility represents the middle one third of the entire Line C System. The critical component of this project was implementing a master planned facility in a highly urbanized area of the City extremely constrained by multiple utilities. WEBB completed a Preliminary Design Report that outlined the most feasible alignment for this facility. WEBB is currently preparing final design plans and specifications for this backbone drainage facility.

North Indio Regional Flood Control Channel Project, Coachella Valley Water District (CVWD) - Joseph is the Technical Lead for the North Indio Regional Flood Control Channel Project which is a key component of the CVWD flood protection mission in the Coachella Valley. The project will complete the link between existing flood control facilities in the north Indio area, providing increased flood protection for the region. The project consists of over three miles of concrete lined trapezoidal and rectangular channels, including numerous culvert crossings of existing and future streets. To date, WEBB has prepared the hydraulic analysis, preliminary design, and environmental documentation for the project. WEBB is currently in the process of preparing the final design plans, specifications, and estimates. WEBB is also responsible for preparing the CLOMR and providing public outreach and right-of-way acquisition services.

University Wash Channel, Riverside County Flood Control & Water Conservation District - Joseph was Technical Lead for the University Wash Storm Drain Project including the planning, analysis, and design of a large diameter master plan storm drain that connects existing upstream and downstream facilities together. This project was unique in that the 2,450 LF - 90-inch RCP required for this project had to be designed to maneuver its way through a developed industrial corridor of the City. Key to this project was the coordination with local businesses to ensure construction of the storm drain minimized impacts to business operations.

San Jacinto River Stage 3 Master Drainage Plan, Riverside County Flood Control & Water Conservation District (District) - Joseph served as Project Manager for the WEBB Team responsible for reviewing the current hydrological model, analyzing potential alternative models, and working with the District to decide the best option based for the current Master Drainage Plan. This project consisted of preparation of conceptual drawings for the Master Plan addressing all key elements such as floodplain management, flood control features, environmental preservation, development opportunities, effects on regional infrastructure, right-of-way requirements, and order of magnitude cost. WEBB worked directly with the District to prepare the planning study, coordinated with all stakeholders, and presented all findings to the Advisory Board with recommendations for the next steps (i.e., MSHCP compliance, CEQA strategy, land development constraints, and floodplain management).

Bedford Wash Channel, Riverside County Flood Control and Water Conservation District - Joseph is the Project Manager for the Bedford Wash Channel upstream on the McMillan Property. Services provided included finalizing the 30% design, preparation of all necessary studies, and designs for the final construction drawings, preparation and processing of the Cooperative Agreement and Agency approvals as well as providing on-going coordination with the overall project team during the design of the overall project, and with the environmental consultant to assist with obtaining any regulatory permits associated with the channel construction. WEBB provided three iterations of channel design from the point the project was secured, when it was a completely lined concrete channel. Through WEBB's recommendation, the project stakeholders strategically selected to move toward transitioning the channel to a soft bottom.



Shane Bloomfield, PE

Senior Engineer

Shane Bloomfield, PE, is a Senior Engineer with WEBB's Water Resources Department. Shane specializes in the design of public works projects consisting of major pumping plants, groundwater pumping wells, sewer collection system design, wet well rehabilitation, water distribution system design, wastewater treatment plant design, and hydraulic system modeling using various computer models. He has engineering design responsibilities for several projects for public works agency clients including the City of Ontario, City of Riverside, Jurupa Community Services District, Eastern Municipal Water District, and Crestline-Lake Arrowhead Water Agency.

REGISTRATIONS

Registered Civil Engineer C 77435 (CA)

EDUCATION

BS, Geology/Hydrology'
Brigham Young University
MS, Environmental Science & Engineering
Colorado School of Mines

AFFILIATIONS

National Groundwater Association (NGWA)

Trussel Plant - Well Equipping, Reservoir, Booster Pump Station, and Site Improvements Design Services, Golden State Water Company (GSWC) - Shane is currently serving as Project Manager for GSWC's developing plans and specifications for the Trussel Plant, a new water facility located at 3141 Trussel Way in Sacramento. The specific facilities included in this project are equipping design of a recently drilled 1,000 gallon-per -minute (GPM) potable groundwater well with disinfection facility, design of a new 0.4 million gallon (MG) welded steel reservoir, and design of a new 3,000 GPM BPS equipped with three- 1,000 GPM pumping unit. The proposed potable groundwater well will pump directly into the proposed 0.4 MG reservoir which will provide suction water to the proposed 3,000 GPM booster pump station. For this project, WEBB is performing project management and coordination with GSWC and the Sacramento County Department of Planning and Environmental Review as it pertains to meeting the Conditions of Use Permit, Preliminary and Final Design, coordination with the electrical utility company to obtain a new electrical service for the proposed improvements, and preparing Engineer's Estimate of Probable Construction Costs.

Well Drilling, Design, & Equipping of City of Ontario Wells 40, 41, 43, 45, 46, 47, 49, & 50, City of Ontario Municipal Utility Company - Shane served as Project Manager on the equipping of Well 43, the drilling and equipping design of Wells 40, 41, 49, and 50, and provided construction management for Wells 40, 41, 45, 46, 47, 49, and 50 and is currently providing engineering support during construction for Well 43 for the City of Ontario. His responsibilities included pump (2,500 GPM to 3,500 GPM) and motor sizing (350 hp to 800 hp), emergency generator sizing, on-site chlorine generation system sizing, preparation of all civil, and mechanical, and coordination of the electrical drawings, and preparation of bid documents and technical specifications. Shane was in charge of construction management during the equipping phase of the projects and his responsibilities included reviewing contractor's submittals, coordinating the project with the contractor on behalf of the client, review and preparation of partial payments and change orders, and responses to the contractor's questions regarding the project.

Chino Basin Desalter Authority Wells II-10, II-11, and II-12 Equipping Project, Chino Basin Desalter Authority - Shane served as Project Manager on these projects. Shane was in charge of the well equipping design for Wells II-10, II-11, and II-12 as part of the Phase 3 Expansion. His responsibilities included pump (3,100 GPM to 3,300

Shane Bloomfield, PE

Senior Engineer

GPM) and motor sizing, preparation of all civil, and mechanical, and coordination of the electrical drawings, and preparation of bid documents and technical specifications. Both wells are located within the Chino Desalter well field on a parcel of land, (Well II-10) at the southwest corner of Remington and Harrison Avenues and (Well II-11) at the northeast corner of Archibald and Remington Avenues in the City of Ontario. The water supply transfers from the Chino I Desalter well field to the Chino II Desalter well field.

Recycled Water System Preliminary Design Report, Jurupa Community Services District (District) - Shane served as Project Manager for the WEBB Team that completed the Preliminary Design Report for the District's proposed recycled water system to convey recycled water from the WRCRWA's treatment plant to existing parks, schools, street landscaping throughout the City of Eastvale, and connect to an existing system that serves some existing irrigation customers within Area B located in the City of Jurupa Valley.

The proposed system will serve recycled water for irrigation to various parks, schools and landscaped medians within the City of Eastvale. The pipelines will vary in size from 24-inch diameter for the largest transmission pipeline down to 8-inch diameter pipelines for the distribution pipelines, totaling approximately 54,900-LF. This system will have the potential to serve nine parks, seven schools, and approximately 19 median landscape meters. The proposed pump station will be located at the WRCRWA's wastewater treatment plant in Eastvale. As part of the recent upgrade at the plant, initial planning and preliminary design were completed for the future recycled water pump station for the District.

Wastewater Treatment Plant, Western Riverside County Regional Wastewater Authority - Shane served as Project Engineer for the WEBB Team that designed the 14 MGD plant expansion. The expansion project included evaluating alternatives to provide additional flow and biological capacity while reducing the overall cost of treatment. WEBB's design includes primary, secondary, and tertiary treatment along with disinfection and solids handling. Working with the member agencies, cost effective alternatives are being selected and refined to make this project affordable to build while reducing the cost of treatment. The project also includes chemical storage and pumping.

WWTP Expansion and Salt Mitigation Project, City of Beaumont (City) - Shane serves as the Civil Designer for the City's WWTP Expansion. The existing WWTP needs to be expanded and upgraded. The WWTP is currently treating over 75% of its permitted capacity and therefore must begin the expansion process. Per the new Regional Water Quality Control Board's updated Basin Plan, the City must begin reducing TDS being discharged from the plant. The City completed a feasibility study to identify the best way to expand and upgrade the plant.

Beaumont WWTP Expansion/Upgrade Preliminary Design, City of Beaumont (City) - Shane served as WWTP Expansion/Upgrade Civil Engineer on the WEBB Team that prepared the project feasibility study, which analyzed two different options. The first was the Beaumont option which expands and upgrades treatment at the City's WWTP. For this option three different WWTP configurations were evaluated. In addition, options were explored to dispose of waste brine from the advanced treatment system. The second option was to consolidate treatment with YVWD and deliver all wastewater flow there. For each option, detailed cost estimates were developed taking into account capital cost and O&M costs. In the end the City Council selected the Beaumont option. The preliminary design includes the preparation of 20%-30% plans for both the WWTP expansion as well as a 23-mile brine disposal pipeline connecting to the IEHL in San Bernardino.



Bradley A. Sackett, PE

Senior Engineer

Brad Sackett, PE, is a Senior Engineer and Project Manager with WEBB's Water Resources Department. Brad specializes in assisting major public agencies with a wide variety of water resource projects. Clients seek his expertise with pumping facilities, water pipeline design, gravity sewer main design, water and sewer system master plans, hydraulic modeling analysis, and sewer resource plans for Specific Plan Environmental Impact Reports (EIRs), among other projects.

Brad has been instrumental in assisting clients with in-house projects, while representing these agencies with their constituents as an on-site consultant. Throughout Brad's career he has been intricately involved in the design, management, and construction support of projects for such clients as Eastern Municipal Water District (EMWD), Western Municipal Water District (WMWD), and the cities of Riverside and St. Helena, to name a few.

His detailed approach ensures each project integrates flawlessly into master plan requirements from concept through construction. He specializes in operations take-over and integration of systems with a focus on cost effective and efficient transitions.

REGISTRATIONS

Registered Civil Engineer C 65862 (CA)

EDUCATION

BS, Chemical Engineering
Massachusetts Institute of Technology

AFFILIATIONS

American Water Works Association (AWWA)

Recycled Water System Preliminary Design Report, Jurupa Community Services District (District) - Brad served as Assistant Project Manager for the WEBB Team that completed the Preliminary Design Report for the District's proposed recycled water system to convey recycled water from the WRCRWA's treatment plant to existing parks, schools, street landscaping throughout the City of Eastvale and connect to an existing system that serves some existing irrigation customers within Area B located in the City of Jurupa Valley.

The proposed system will serve recycled water for irrigation to various parks, schools and landscaped medians within the City of Eastvale. The pipelines will vary in size from 24-inch diameter for the largest transmission pipeline down to 8-inch diameter pipelines for the distribution pipelines, totaling approximately 54,900-LF. This system will have the potential to serve nine parks, seven schools and approximately 19 median landscape meters. The proposed pump station will be located at the WRCRWA's wastewater treatment plant in Eastvale. As part of the recent upgrade at the plant, initial planning and preliminary design were completed for the future recycled water pump station for the District.

Redlands and Hemlock Booster Station, Eastern Municipal Water District (District) - WEBB provided preliminary and final design engineering services for the replacement of the District's 1,827 GPM Redlands and Hemlock (previously Ironwood) Booster Pumping Stations (BPS) with a new 3,000 GPM Redlands and Hemlock BPS located in the City of Moreno Valley. The existing, partially below-grade facility reached its useful life and was creating a variety of operational and maintenance challenges. The project consisted of preliminary design, facilities

Bradley A. Sackett, PE

Senior Engineer

site analysis, property acquisition support, project management, survey, geotechnical study, electrical study and coordination, Southern California Edison (SCE) plan of service, system hydraulic evaluation, CEQA support, operational control strategy, preparation of design contract documents (plans and specifications), cost estimates, and bidding assistance. The project also included the preparation of bid documents for the abandonment and demolition of the existing facility.

O'Ferrell Street Booster Station, Eastern Municipal Water District - Brad served as the Project Manager for the planning and design of this 1,000 gallon-per-minute potable water pump station which ultimately included two 500 gallons-per-minute vertical turbine pumps with a 500 gallons-per-minute standby pump. WEBB's services included site acquisition, metering, and design of reverse flow control valves, a masonry block building, and an emergency generator. Brad and the WEBB Team also assisted with site improvements including paving, a block wall and gates suction and discharge pipelines, an access road, and demolition of the existing booster station. WEBB also provided all environmental services for a complete Initial Study/Mitigated Negative Declaration.

Vista Ellis Improvement Project – Eastern Municipal Water District (District) - Brad served as Project Manager for the Vista Ellis Improvement Project which includes a 5,600 GPM booster pump station, a 5.63 MG steel tank, and over 23,000-LF of 18-inch and 24-inch diameter transmission pipeline connecting the facilities. WEBB was responsible for hydraulic modeling, site selection of the booster station and storage tank, preliminary design, CEQA analysis, and the final design of all phases. The proposed pipeline is located within the City of Menifee and the County of Riverside public right-of-way and an easement at RCFC&WCD Channel. The project allows the District to add storage to the 1,698-FT Pressure Zone and convey adequate water supplies to the 1,815-FT Pressure Zone to balance filling the Craig and Vista tanks to address water quality and hydraulic issues within the current system.

Hamner Trunk Sewer Project, Jurupa Community Services District (JCSD) - Brad served as the Project Manager for the Hamner Avenue Trunk Sewer Project. WEBB worked on the final design for a deep (24+ FT) 12-inch diameter gravity sewer main within the Hamner Avenue right-of-way from Celebration Drive to 1,400-FT south of 58th Street. The alignment of the proposed sewer main will parallel the proposed CDA product water pipeline in Hamner Avenue. The proposed sewer main is located within the City of Eastvale public right-of-way and a private easement. The project allows JCSD to convey existing domestic sewage to their regional trunk sewer facilities for treatment at the WRCRWA wastewater treatment facility, eliminating a connection to the SARI pipeline. The existing right-of-way is crowded with numerous existing utilities including the 42-inch diameter SARI pipeline, 60-inch storm drain, 30-inch JCSD potable water pipeline, 24-inch diameter Norco water pipeline, 16-inch diameter gas line, an abandoned sewer force main, two fiber optic cables, an Edison electric line, several other smaller dry utilities, and two traffic signals.

Hamner/Detroit Product Water Pipeline, Chino Basin Desalter Authority - Brad served as the Project Manager for the Hamner Avenue Trunk Sewer Project. WEBB worked on the final design for a deep (24+ FT) 12-inch diameter gravity sewer main within the Hamner Avenue right-of-way from Celebration Drive to 1,400-FT south of 58th Street. The alignment of the proposed sewer main will parallel the proposed CDA product water pipeline in Hamner Avenue. The proposed sewer main is located within the City of Eastvale public right-of-way and a private easement. The project allows Jurupa Community Sewer District to convey existing domestic sewage to their regional trunk sewer facilities for treatment at the WRCRWA Wastewater Treatment Facility, eliminating a connection to the SARI pipeline. The existing right-of-way is crowded with numerous existing utilities including the 42-inch diameter SARI pipeline, 60-inch storm drain, 30-inch JCSD potable water pipeline, 24-inch diameter Norco water pipeline, 16-inch diameter gas line, an abandoned sewer force main, two fiber optic cables, an Edison electric line, several other smaller dry utilities, and two traffic signals.



Siming Zhang, PE

Senior Engineer

Siming Zhang, PE, is a Senior Engineer with WEBB's Water Resources Department. Siming assists clients in managing and designing a wide array of public works projects including water storage reservoirs, water transmission pipelines and booster stations, major trunk sewer mains, sewer collection pipelines and sewer lift stations, and water booster stations.

As a Project Manager who leads a team of engineers and designers, Siming has been a key advisor on many important matters that help determine the success of land developments including master drainage plans, hydrology/hydraulic studies, storm drain designs, Conditional Letters of Map Revision (CLOMR), and Letters of Map Revision (LOMR). Clients depend on Siming's ability to fulfill a broad range of project goals including assistance with engineering design, bidding, construction administration, coordination with local agencies, sewer and water master facility plans, feasibility studies, construction drawings and specifications, construction and project cost estimates, and coordination with government agencies to secure approvals and permits.

Siming's responsibilities entail engineering design, assistance during bidding, construction administration, coordination with local agencies, sewer and water master facility plans, feasibility studies, construction drawings and specifications, construction and project cost estimates, and coordination with various government agencies to obtain the applicable approvals and permits. His contract administration responsibilities included review of bid proposals, contractor submittal drawings, inspection reports, and process requests for information, requests for change order, and periodic site visits to monitor construction.

Among his contract administration responsibilities, Siming has reviewed bid proposals, contractor submittal drawings, and inspection reports. He also processes requests for information, coordinates change order requests, partial pay estimates, weekly working statements and notices of completion, and makes periodic site visits to monitor construction.

Waterline Replacement, Jurupa Community Services District (District) - Siming served as the Project Manager for the replacement of several water mains to better serve customers of the District. He handled a wide range of work on the projects including alignment and topographical land surveys, base mapping, utility research coordination, field verification, engineer's estimates and bidding documentations, and coordination with local agencies. He also helped the WEBB Team provide a construction survey.

Area B Non-Potable Waterline, Jurupa Community Services District (District) Siming served as Project Manager for this project that expands the District's use of non-potable water for irrigation purposes to offset the District's need for potable water. The District considered several possible non-potable water sources. This project

REGISTRATIONS

Registered Civil Engineer C 60156 (CA)

EDUCATION

BS, Civil Engineering
Tsinghua University, China
MS, Civil Engineering
University of Southern California

AFFILIATIONS

American Society of Civil Engineers (ASCE)
American Water Works Association (AWWA)

Siming Zhang, PE

Senior Engineer

16-inch diameter transmission pipeline in Bellegrave Avenue between Hamner Avenue and Etiwanda Avenue. This pipe is part of the backbone transmission pipeline system in addition to other components.

870 PZ Water Transmission Pipeline, Jurupa Community Services District (District) - Siming serves as the Project Manager for a series of pipeline improvements to increase efficiency for customers of the District. The project, in the City of Jurupa Valley in northwestern Riverside County, includes the construction of two groundwater wells, ancillary equipment, and approximately 12,800-LF of potable water transmission pipelines which will connect to the District's 870-FT Pressure Zone and 2,100-LF storm drain pipeline. WEBB's services include determining horizontal control for the proposed alignment, preparing a survey control map, locating and detailing existing storm drain structures, determining the location of field potholes, and preparing design plans and profile drawings.

Grace Street (D to H Avenue) Pipeline Project, Golden State Water Company - Siming serves as the Project Manager for this project, consisting of replacing approximately 2,700-LF of 12-inch diameter steel pipeline. This project consists of coordination with the Barstow Unified School District on possible future development and approval of the proposed pipeline, obtaining preliminary title reports of the parcel, field survey and establishing parcel boundary line, CEQA documentation and compliance, and legal description/plat and land acquisition for easement.

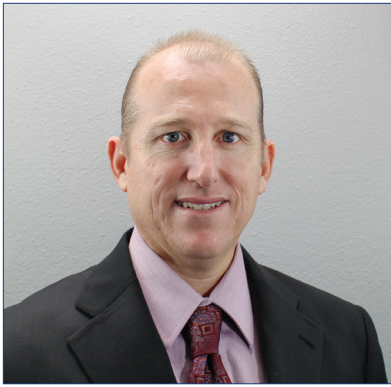
Royal Avenue Pipeline Replacement, Golden State Water Company - Siming served as the Project Manager for this project, consisting of replacing approximately 200-LF of 8-inch diameter steel pipeline. The replaced pipeline runs across the Royal Avenue Bridge with hangers, steel saddles, plates and rods.

IVDA 24-inch Diameter Transmission Main, City of San Bernardino Municipal Water Department (SBMWD) - Siming served as the Project Manager for the WEBB Team that provided preliminary design engineering, alignment option evaluation, final design plans, and specifications for SBMWD's project consisting of approximately 14,000-LF of 24-inch diameter Ductile Iron Pipe (DIP) to connect Point "A" and Point "B" of the Intermediate Zone Inland Valley Development Agency (IVDA), and includes an 18-inch diameter pipeline crossing the Twin Creek freeway bridge at 9th Avenue.

30-inch & 18-inch Water Main Improvements, Ontario Municipal Utilities Company - Siming is serving as a Project Engineer and Construction Manager for this project which includes designing two water capital improvement projects for the Ontario Municipal Utilities Company. The first involves the design of 6,800-LF of 30-inch diameter transmission main from the 20 MG Reservoir (1212 Pressure Zone) on Eighth Street in the City of Upland and south on San Antonio Avenue to Fourth Street. The second project involves the design of 7,500-LF of 18-inch diameter distribution main in Fourth Street from Elderberry Avenue to Euclid Avenue. The key challenge for both of these projects is to select an alignment that avoids both existing utilities, maintains access to the residents in the area and includes an 18-inch diameter pipeline crossing the I-10 freeway bridge.

Capital Improvement Waterline Replacement Program, City of Ontario (City) - Siming served as the Project Manager in the design and construction of the City's capital improvement programs. As the Project Manager, Siming was fully involved in updating Ontario's local waterline distribution systems throughout the City. The project included 4,300-LF of 12-inch diameter pipelines and 5,000-LF of 16-inch diameter pipelines. Siming managed utility research, local and state agency coordination, and coordination with utility agencies within the project limits. After successful completion of the FY 2013-14, FY 2014-15, 8,460-LF of 8-inch pipeline, Siming served as the Project Manager with similar tasks to the City's infrastructure updates for the 2015-16.

Recycled Water Master Plan, City of Banning - Siming served as a Project Manager and assisted in the implementation



Eric Hays, PE

Senior Engineer

Eric Hays, PE, is a Senior Engineer with WEBB's Water Resources Department. Eric has years of diverse engineering experience with deep knowledge in the fields of hydrology, hydraulics, and drainage design. His experience includes the preparation of preliminary design reports, alternative analysis studies, canal design plans for flood control infrastructure projects, and storm drain system designs for residential, commercial, industrial, and public agency projects.

In addition to Eric's extensive experience with drainage project design, he offers clients strong civil site development and public project background. His experience includes development of site grading plans, street improvements plans, sewer plans, bike trail plans, Water Quality Management Plans, Stormwater Pollution Prevention Plans, and railroad grade crossing improvement plans. His expertise also includes survey, construction staking, construction observation, and support.

REGISTRATIONS

Registered Civil Engineer C 73614 (CA)

EDUCATION

BS, Civil Engineering
California State Polytechnic University,
Pomona

AFFILIATIONS

American Society of Civil Engineers (ASCE)

University Wash Final Design, Riverside Flood Control & Water Conservation District - Eric served as project engineer for the project. The University Wash Storm Drain Project included the planning, analysis, and design of a large diameter master plan storm drain that connects existing upstream and downstream facilities together. This project was unique in that the 2,450 LF, 90-inch RCP required for this project had to be designed to maneuver its way through a developed industrial corridor of the City. Key to this project was the coordination with local businesses to ensure construction of the storm drain minimized impacts to business operations.

Cole Avenue Storm Drain Improvements, City of Riverside - Public Works Department - The Cole Avenue Storm Drain Improvements between Lurin Avenue and Krameria Avenue conveyed runoff from the surrounding residential developments and discharged to a new outlet structure eliminating continual nuisance drainage problems as well as eliminating flooding problems associated with the intersection flooding that occurs during most storm events. The project watershed is developed residential home sites. There were no storm drain systems except along Lurin Avenue. The watershed area was subject to surface runoff within street right-of-way. The area was also subject to nuisance runoff associated with landscape irrigation on a frequent basis. WEBB designed 2,500-FT of storm drain improvements that reduced nuisance flows in the tract and in the roadside channel on the south side of Lurin Avenue to meet the future needs of the area. The alignment WEBB selected discharges runoff into the existing drainage feature 350-FT west of the intersection of Cole Avenue and Lurin Avenue via an impact energy dissipater structure to reduce the construction footprint within the existing right-of-way. This minimized the need for additional right-of-way and reduced the impact to existing vegetation. The system was designed so to easily connect to the future drainage system in Cole Avenue.



Stephanie Standerfer

Vice President

Stephanie Standerfer is a Vice President and Director of WEBB's Environmental Services Department. Stephanie has worked as an environmental planning project manager, focusing on California Environmental Quality Act (CEQA) matters for small, medium, and large public and private projects. Stephanie has managed all levels of CEQA documents for water and wastewater districts, healthcare clients, community college districts, water districts, cities, counties, and private developers. Her varied project experience allows her to foresee and navigate challenges that arise during CEQA compliance. As an expert in CEQA implementation throughout Inland Southern California, she also provides local agencies training in CEQA processing. She regularly oversees and coordinates with large teams of environmental planners, engineers, and architects and actively assists her clients through the environmental compliance gauntlet.

EDUCATION

MS, Environmental Sciences,
Washington State University
Pullman, WA

BS, Environmental Sciences,
University of California
Riverside

AFFILIATIONS

American Planning Association (APA)
Association of Environmental
Professionals (AEP)
Greater Riverside Chambers of Commerce,
Chair, Economic Development Council

Clients benefit from Stephanie's interdisciplinary environmental planning background which includes experience on general plan updates, specific plans, planning studies, environmental constraints analyses, air quality impact studies, health risk assessments, noise studies, biological resource surveys, and cultural resource studies. She has managed small and large teams of subconsultants, engineers, and architects on a variety of controversial public works and private development projects over the years and often spearheads making public presentations on her projects.

Because of her reputation as a CEQA authority, clients seek out Stephanie's assistance in peer reviewing CEQA documents and guidance on CEQA processing strategies. She enjoys working closely with her clients and establishing long-standing professional relationships with her clients.

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- Rice Canyon Pipeline and Reservoir, Elsinore Valley Municipal Water District
 - Good Hope and Mead Valley Water Lines, Eastern Municipal Water District
 - Mead Valley Sewer Upgrades, Eastern Municipal Water District
 - Lindsay Tank and Pipelines, Jurupa Community Services District
 - Northern Feeder Pipeline, Jurupa Community Services District
 - Wastewater Treatment Plant Mitigated Negative Declaration, & CEQA-Plus, Las Gallinas Valley Sanitary District
 - WTP Upgrade and Brineline, IS/MND, CEQA-Plus & CEQA, City of Beaumont
 - Banning Water Canyon Pipeline Replacement Project MND, City of Banning
 - Master Sewer and Water Plans, Jurupa Community Services District
 - Riverside Corona Feeder, EIR/EIS, Western Municipal Water District
 - IEUA Consolidation LAFCO Review, Inland Empire Utility Agency
 - Flagler Wells Pipeline, Elsinore Valley Municipal Water District
 - Site 31 Effluent Pipeline Mitigated Negative Declaration, Western Municipal Water District
 - Perris Valley Storm Drain Trail and Street Improvement, IS/MND, City of Perris
 - San Jacinto River Stage III Program EIR, Riverside County Flood Control & Water Conservation District



Cheryl DeGano

Practice Area Leader

Cheryl DeGano serves as a Practice Area Leader with WEBB's Environmental Services Department. Cheryl manages the preparation and approval of environmental and planning documents for public and private sector clients. During her consulting career, Cheryl has been responsible for the preparation and processing of environmental and planning documents including environmental impact reports, environmental assessments, initial studies and mitigated negative declarations, mitigation monitoring and reporting programs (MMRPs), specific plans, development impact fee ("Nexus") studies per California Government Code 66000 et seq., and development and entitlement applications. Cheryl has been responsible for all aspects of these projects including research, data collection and analysis, report writing, quality assurance/quality control review, preparation of distribution lists, direction of public noticing, project management, representation at public meetings and hearings, and agency and client coordination. Cheryl is also experienced in the analysis of construction noise using the Federal Highway Administration's Roadway Construction Noise Model (RCNM). In addition to her environmental and planning background, Cheryl has assisted public agencies and private sector clients finance public facilities/services through the formation and administration of special finance districts and is well versed in socio-economic issues.

EDUCATION

BA, Biology, University of California,
Riverside

AFFILIATIONS

American Planning Association (APA)
Association of Environmental
Professionals (AEP)
AEP Co-Vice President of Programs
AEP Inland Empire Past Chapter
President

Cheryl possesses strong communication and analytical skills and establishes and maintains excellent client relationships. Cheryl has a proven ability to take over large projects with minimal disruption to the client, experience with high profile and controversial studies, and the ability to work effectively and collaboratively within the increasingly complex regulatory and environmental context of development in southern California to develop solutions, strategies, and feasible alternatives for complex projects.

Cheryl is experienced in the preparation of environmental and planning documents and assisting public agencies and private sector clients finance public facilities/services through the formation and administration of special finance districts and the preparation of development impact fee studies.

Cheryl has also prepared numerous CEQA Plus documents for various water agencies seeing State Revolving Funds.

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- Irwin and Linda Vista Reservoirs and Transmission Mains, Golden State Water Company
 - Master Sewer and Water Plan, Jurupa Community Services District
 - Sky 2 Sewer Lift Station Conversion, Jurupa Community Services District
 - Northern Feeder Pipeline, Jurupa Community Services District
 - Recycled Water Expansion, Jurupa Community Services District
 - JCSD and RPU Intertie Pipeline - IS/MND, Jurupa Community Services District
 - Mission Inn Booster Pumping Station - CEQA Services, City of Riverside
 - Riverside Corona Feeder, EIR/EIS, Western Municipal Water District
 - Benedict Reservoir - IS/MND, Jurupa Community Services District
 - Wastewater Treatment Plant and Brine Line - MND, City of Beaumont



Autumn DeWoody

Senior Environmental Analyst - Water Resources Planning

Autumn DeWoody is a Senior Environmental Analyst with WEBB's Environmental Services Department. Autumn offers clients a bridge between our technical municipal and stormwater engineering services and environmental documentation. She regularly partners with WEBB's project managers to prepare various planning documents on behalf of our water, wastewater, and flood control district clients. In addition, Autumn offers private and public clients jurisdictional delineations and regulatory permitting services as well as environmental monitoring at construction sites to ensure compliance with Mitigation, Monitoring, and Reporting Plans (MMRPs). She has been repeatedly commended by clients on the frequency and helpfulness of timely updates during permit processing.

EDUCATION

MS, Environmental Sciences
University of California,

Riverside

BS, Environmental Sciences
University of California,

Riverside

CERTIFICATIONS

CPSWQ No. 0927

Certified Level 1 Water Audit Validator

AFFILIATIONS

National Ground Water Association (NGWA)
Association of Environmental Professionals
(AEP)

Groundwater Resources Association of
California (GRA),
Southern California Chapter

Autumn is a certified Level 1 Water Audit Validator and has also prepared Water Supply Assessments and Urban Water Management Plans for a variety of public and private clients. As a result, she appreciates the importance of timely client communication in order to collect pertinent data that is sufficiently detailed and accurate to provide a thorough reflection of the project. This data collection, communication, and collaboration early in the project has proven to keep projects on schedule and budget. She is familiar with the intricacies of complex water supply portfolios and the technical components of planning for future water demands.

Autumn brings a decade of water-related experiences in the Inland Empire including local university research in stormwater management, to non-profit water quality advocacy and on the-ground improvement projects, to commercial wet-chemistry laboratory work. Using her strong analytical skills at WEBB, Autumn reviews the hydraulic and/or hydrologic technical studies and ensures clients are provided the most current data on permitting regulation, surface and ground water quality, and local hydrology.

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- Rice Canyon Pipeline and Reservoir, Elsinore Valley Municipal Water District
 - Wastewater Treatment Plant Upgrade and Brineline, IS/MND, CEQA-Plus & CEQA, City of Beaumont
 - Banning Water Canyon Pipeline Replacement Project Mitigated Negative Declaration, City of Banning
 - Bio Monitoring for Corona Landfill, Riverside County Department of Waste Resources
 - Regulatory Permitting Services for Lateral B-5 of Perris Valley Storm Drain Channel, City of Perris
 - Banning Distribution Center EIR - Regulatory Permitting, Banning Industrial LP, City of Banning
 - Urban Water Management Plan, Jurupa Community Services District
 - Urban Water Management Plan, Crestline Village Water District
 - Water Supply Assessment for the City of Rancho Santa Margarita's General Plan Update, Santa Margarita Water District
 - Focused Water Demand Study of the Rich Haven Specific Plan, City of Ontario
 - Water Supply Assessment for the Banning Distribution Center, City of Banning



Michael E. Johnson, LLS

Land Survey Practice Area Leader

Michael Johnson, LLS, is the Practice Area Leader of WEBB's Land Survey & Mapping Department. Michael has years of experience in all aspects of surveying from initial project coordination and research, performing survey data adjustments and analysis, to overseeing and providing construction staking through final as-built and ALTA surveys.

Michael trained and supervised several field crews including technical office and support staff. From entitlement to field survey and construction to delivery of a completed product, Michael has the knowledge and experience to provide the entire range of services any municipal, private development, or construction company has come to expect. As part of the private and public sector of development, Michael gained experience with subdivisions, retail centers, commercial distribution centers, pipelines, tank site & reservoir projects, mass grading and hillside slope projects, hospitals, schools, training facilities for fire & police, highways, channels, parking structures, and many others.

Michael is responsible for providing technical support, survey analysis, overseeing field work and management for specific projects, and field data processing and adjustments, among many other duties. He provides his expertise and broad range of skills for solutions to complex and large scale projects.

REGISTRATIONS

Licensed Land Surveyor 7673 (CA)

EDUCATION

AS, Mathematics,
Riverside Community College

AFFILIATIONS

California Land Surveyors Association
(CLSA)

Dale Kiler Road Water Main Replacement Project, Coachella Valley Water District (CVWD) - Michael provided Land Survey and Mapping services for this project consisting of approximately 10,965-LF of 8-inch and 12-inch corroded ductile iron pipe (DIP) and appurtenances within Dale Kiler Road and streets nearby in Mecca. These pipelines, installed in 1989, have experienced six water main leaks in the past several years. These leaks resulted in an interruption of water service to CVWD customers during repairs, unexpected expenses, and time addressing impacts resulting from pipe failures. Due to the unusual number of leaks, CVWD initiated a Corrosion Evaluation (Evaluation) in 2016 of the area and determined the soils in Mecca are fairly corrosive to highly corrosive. The Evaluation concluded the ductile iron pipe will be subject to additional leaks and failures due to ongoing external corrosion that is exacerbated by fluctuating groundwater in the area. WEBB was selected to provide design engineering services to replace the aging pipelines. The pipelines are located in public streets and within private easements. The design effort includes survey, utility research, mapping, potholing, and preparation of plans and specifications for public bidding.

Dillon Road Waterline Replacement, Coachella Valley Water District (CVWD)

Michael provided Land Survey and Mapping Services for the WEBB Team responsible for designing a domestic water transmission main system providing a reliable water supply to CVWD's service area located northeast of Sun City Palm Desert in Riverside County near community of Indio Hills. Currently, this County service area, Improvement District 18, is an isolated pressure zone that is located near the end of the Sky Valley Domestic Water System, which has limited supply capacity between BS 04701 and R 4711.



Reed Chilton, PE, QSD

Director - Construction Management and Inspection

Reed Chilton, PE, QSD, is Director of WEBB's Construction Management and Inspection Department. Reed has worked on a variety of private and public projects and has established a strong foundation in the engineering and construction management profession. His project experience includes sewer lines, drainage facilities, water lines, recycled water lines, wastewater treatment facilities, dry utilities, street improvements, street lighting, traffic signals, and landscaping. Specifically, his involvement with these projects includes preparation of specifications and bid documents, contract management and administration, permitting, submittal and RFI review and coordination, leading meetings, field investigations, project documentation, review and approval of change orders and pay estimates, project close-out, and managing day-to-day needs for owners and contractors. Reed manages and schedules WEBB's Inspection Team.

REGISTRATIONS

Registered Civil Engineer C 83827 (CA)

EDUCATION

BS, Civil Engineering
Brigham Young University
MS, Civil Engineering
Brigham Young University

CERTIFICATIONS/TRAINING

Qualified SWPPP Developer (QSD) C83827

Construction Manager for the \$25M Wastewater Treatment Plant, City of Imperial (City). WEBB performed Construction Management, Inspection, and Engineering Support Services for the City's \$25M WWTP Upgrade project. This project includes construction of a new MBR treatment system including MBR Basins, waste-activated sludge pumps, blowers, air compressors, permeate storage tank, and non-potable water pumps. A pre-engineered metal building was installed for the MBRS system which included a monorail bridge crane, office spaces, and lab room. A dewatering system with screw conveyors was also installed inside a pre-engineered metal building. Electrical improvements include a new transformer, main breaker, automatic transfer switch, and Emergency Power Generator. Site improvements include yard piping, paving, and rock installation. The project also includes modifications to existing facilities, shut-downs, and tie-ins to the active wastewater treatment plan.

Construction Manager for the Sludge Storage Water Reclamation Facility #1, City of Corona (City). WEBB provided construction management and inspection services for the City's sludge storage project. This project repurposed two existing chlorine contact basins for sludge storage tanks. The project included new rotary drum screens and sludge transfer pumps to replace the existing system, a new compactor was added to the process for compaction of the screenings, and overhead piping was installed. Other components of the project included installation of new pump station, coarse bubble eductor tubes, new fine bubble diffusers, and all associated piping, valving, mechanical, electrical, structural, architectural, instrumentation, and controls.

Project Manager for the Benedict Reservoir 8, Jurupa Community Services District (District). WEBB provided construction management, inspection services, and engineering support for the Benedict Reservoir B project for the District. The existing project site includes two tanks. This project includes demolishing one existing tank and installing a new 1.1 MG welded steel reservoir (Benedict B) adjacent to the existing 1.0 MG reservoir (Benedict A). Exterior coating of both tanks will be performed. Benedict Reservoir B will have a nominal diameter of 91-FT and shell height of 26-FT, including a reinforced concrete ring-wall foundation. This project includes a temporary by-pass to provide service to the 1200 pressure zone during construction, grading on the hillside in rock, site improvements, and re-vegetation.

Terry L. Erlewine

PE

Principal Water Resources Engineer



Education

- M.S., Civil Engineering, University of California, Davis
- B.S., Civil Engineering, University of California, Davis

Registration/Certifications

- Civil Engineer, California #32985

Affiliations

- Groundwater Resources Association

Areas of Expertise

- Water Resources
- Groundwater Resource Studies
- Groundwater Modeling
- Groundwater Conjunctive Use Programs
- Surface Water Studies

Professional Summary

Terry Erlewine is Principal Water Resources Engineer with Provost & Pritchard who has 45 years of experience providing water resources planning and analysis. He has conducted many surface and groundwater resources studies, including water uses, operations studies, groundwater modeling, and groundwater conjunctive use programs. Mr. Erlewine worked for the State Water Contractors from 1994 through 2017, serving as General Manager since 2005. Previously, Mr. Erlewine worked as a consultant on water resources. Mr. Erlewine began his career with the California Department of Water Resources. In his 13-year tenure with the Department, he was involved in all aspects of surface water and groundwater projects.

Relevant Experience

San Gorgonio Pass Water Agency, Beaumont, California, Project Manager – Mr. Erlewine managed development of a Groundwater Sustainability Plan for the 64,000-acre San Gorgonio Pass Subbasin. The GSP serves three GSAs in the subbasin – the San Gorgonio Pass GSA, Verbenia GSA and a portion of the Desert Water Agency GSA. The GSP addresses groundwater sustainability in an area of limited water supply availability and increasing urban development. The GSP was completed and adopted by GSAs prior to January 2022.

North Fork Kings GSA, Riverdale, California, Project Engineer – Mr. Erlewine developed water budget for the North Fork Kings GSA, quantifying water budget components including agricultural water use, M&I water use, effective precipitation, groundwater seepage and groundwater pumping. The analysis also considered climate change, including effects on evapotranspiration, precipitation, and local water supplies.

Water Transfer Analysis, Dudley Ridge Water District, Project Engineer – Prepared predictive analysis of water transfer capacity for California Aqueduct for planning purposes. The analysis was based on CALSIM operations studies, with adjustments to improve alignment for recent experiences. The analysis was developed for with and without Delta Conveyance alternatives.

State Water Project Water Allocation, State Water Contractors, General Manager – Conducted ongoing reviews of State Water Project water supply allocations while at State Water Contractors, as General Manager and Engineer. The analysis included regular meetings with DWR staff and managers to discuss current water supply allocations. At difference times, evaluated SWP allocations procedures and developed proposals for revising SWP operations and allocations to meet SWP contractor needs.

Delta Water Supply Enhancement, State Water Contractors, General Manager – Directed analysis of potential for upstream reoperation of SWP and CVP facilities to identify options for increased coordination of SWP and CVP facilities with local agencies to improve overall operation. In coordination with Sacramento Valley water users, a conceptual

proposal was developed for modified operation of SWP and CVP facilities in conjunction with Delta operations. The proposal was intended to address local concerns about potential impacts of Delta operations revisions.

Kern Groundwater Authority, Bakersfield, California, Basin Coordinator – Mr. Erlewine served as Basin Coordinator for the Kern Groundwater Authority, which is the largest Groundwater Sustainability in the Kern Subbasin. Mr. Erlewine initially served as acting general manager (Planning Manager) and subsequently acted in a senior advisory role. While acting Planning Manager, he developed KGA budget and schedule for GSP preparation. He also provided technical advice on groundwater modeling and other GSP preparation elements. He developed projected future water supply conditions for the State Water Project considering climate change for use in SGMA groundwater modeling projections.

State Water Contractors, Sacramento, California, General Manager – Mr. Erlewine managed the State Water Contractors, developing consensus on a wide variety of issues related to State Water Project (SWP) and other factors for the 27 member agencies of the State Water Contractors. He organized and directed monthly meetings for a nine-member Board of Directors, regularly reported on water supply and management issues, and provided annual reports on objectives for the State Water Contractors.

Mr. Erlewine routinely discussed water supply impacts of Delta regulations with State Water Resources Control Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife Staff. Frequently presented views of the SWP contractors at State Water Resources Control Board hearings.

Water Supply Impact Analysis, State Water Contractors, Sacramento, California – Mr. Erlewine prepared an analysis of water supply impacts to the State Water Project of federal endangered species act regulatory measures. Water supply impacts included reduction in water deliveries to State Water Project customers leading to reduced crop acreage, increased costs for alternative supplies and groundwater level impacts. Testimony was presented to Eastern District of California Federal Court in litigation on implementation of the Operations Criteria and Plan biological opinion.

State Water Project, Water Supply Allocations, State Water Contractors, Sacramento, Lead Facilitator – Mr. Erlewine developed consensus between SWP contractors and the Department of Water Resources on criteria for developing water supply allocations for the State Water Project. The updated criteria provided for an informed level of risk in allocation that balanced allocations to SWP contractors with needs for SWP reservoir storage.

Sacramento Valley Water Management Agreement, State Water Contractors, Sacramento, Committee Co-Chair – Mr. Erlewine served as co-chair of the Technical Measurement and Monitoring Committee for the Sacramento Valley Water Management Agreement. The Technical Measurement and Monitoring Committee collectively developed groundwater monitoring approaches that would identify water supply benefits and impacts for proposed water management actions, primarily conjunctive use projects. Membership in the Technical Measurement and Monitoring Committee included representatives of the SWP Contractors, the CVP Contractors, Sacramento Valley Water Users, the Department of Water Resources and the U.S. Bureau of Reclamation.

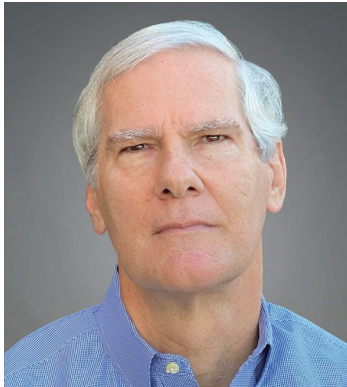
Semitropic Water Bank, Semitropic Water Storage District, Wasco, Groundwater Task Lead – Evaluated groundwater level impacts from proposed Metropolitan Water District of Southern California water banking program with Semitropic Water Storage District in the San Joaquin Valley. Groundwater levels were projected for a three-year period with and without the proposed banking program. Significant impacts of the proposed banking operation were summarized and present in California Environmental Quality Act documentation.

San Joaquin Valley Groundwater Study, Department of Water Resources, Fresno, Project Manager – Modified and updated finite element groundwater model for San Joaquin Valley, California. Modified elements in network to reflect geology and variations in recharge due to surface water supply. Calibrated groundwater model for 12 years through comparison of modeled results to average water levels as determined from geostatistical analysis.

Jeff Davis

PE

Principal Engineer



Education

- M.S., Water Resources Engineering, Stanford University
- B.S., Environmental and Water Resources Engineering, Vanderbilt University

Registration/Certifications

- Civil Engineer, California #36337

Affiliations

- American Society of Civil Engineers (ASCE)
- American Water Works Association (AWWA)
- Association of California Water Agencies (ACWA), Groundwater Committee

Areas of Expertise

- Water transfers and exchanges
- Negotiations with public agencies
- Water supply planning and management
- Master planning
- Infrastructure planning
- Water Resource Engineering
- Groundwater

PROFESSIONAL SUMMARY

Jeff Davis is a Principal Engineer at Provost & Pritchard with over 40 years of water resources engineering experience. For 15 years he served as the General Manager and Chief Engineer for the San Geronio Pass Water Agency. As an engineer with the Metropolitan Water District of Southern California, he developed a master plan for the South Orange County portion of Met's service area and was involved in the planning, design, and project management of numerous infrastructure projects of various sizes.

RELEVANT EXPERIENCE

Beaumont Avenue Recharge Facility and Pipeline, Beaumont, CA – As GM of San Geronio Pass Water Agency, oversaw the planning, design, and construction of a one mile, 20-inch pipeline conveying SWP water to a new recharge facility, as well as the recharge facility itself.

Water Transfer between Antelope Valley-East Kern Water Agency (AVEK) and San Geronio Pass Water Agency (SGPWA) – As General Manager of SGPWA, Mr. Davis negotiated a long-term water transfer of Nickel water rights (100% reliable non-SWP water) with AVEK to augment the imported water supplies of SGPWA.

East Branch Extension Phase II, San Bernardino and Riverside Counties – As GM of SGPWA, provided input to DWR and worked as part of a team to plan, design, and construct a four mile, 54-inch pipeline and 400 AF reservoir conveying additional SWP water to the SGPWA service area.

Water Management Tools Amendment, State Water Contractors, Lead Water Transfer and Exchange Negotiator – Mr. Davis was chosen by the State Water Contractors to be the lead negotiator with the California Department of Water Resources for a contract amendment that would allow more opportunities to transfer and exchange water among the Contractors. Public negotiations lasted several months and culminated in an amendment approved by all parties that enhances movement of water to parties that need it in all types of water years.

SWP Class 8 Actions—As GM of SGPWA, Mr. Davis helped create the Class 8 caucus, a consortium of nine Contractors, and created and led a quarterly forum where they could discuss current SWP issues and hear presentations from water leaders around the state.

High Valleys Water Line, Banning, Cal—Mr. Davis managed design of a new 4,000 LF, 8-inch water line for High Valleys Water District, to replace an existing 2-inch line that did not meet fire flow requirements. Mr. Davis managed the alignment study and is currently managing the preliminary and final design.

Green's Crossing New WWTP, City of Houston, Texas, Project Engineer – Mr. Davis was the project engineer on a 3-mgd wastewater treatment plant for a new development. Responsible for process design, P&ID's,

and developing plans and specifications in preparation for construction. Plant designed to be expandable.

Upgrade of Sewer System, City of Port Arthur, Texas, Project Design Engineer – Mr. Davis supported lead engineer by designing lift stations in an area where infiltration to sanitary system was high for an EPA-funded project. Calculated required flows including infiltration, sized and specified pumps, provided additional engineering support.

Water Master Plan, City of Houston, Texas, Project Engineer – Mr. Davis was the project engineer for a water master plan for the City of Houston. Primary objective was to identify new sources of supply for 50-year planning period and to identify future groundwater and surface water supply sources, along with population and demand projections, financial and institutional constraints.

South Orange County Area Study Master Plan, Metropolitan Water District, California, Project Engineer – Mr. Davis developed a master plan for the South Orange County portion of Metropolitan's service area after meeting with stakeholders in the County for several months.

Various Projects, Metropolitan Water District of Southern California – As a Section Head of a group of mechanical engineers, planned and oversaw work on numerous small projects associated with pipeline hydraulics, hydroelectric facilities, chemical feed systems, and other water conveyance and treatment facilities.

Infrastructure Study, San Geronio Pass Water Agency, San Bernardino County, California, Project Manager – While serving as General Manager of the San Geronio Pass Water Agency, Mr. Davis instituted an infrastructure master plan to determine how the Agency would serve its retail customers in the future. Primary purpose was to determine what new infrastructure would be required to move State Water Project water from the western to the eastern portion of the Agency's service area.

Water Exchanges between City of Ventura, Casitas Mutual Water District, and San Geronio Pass Water Agency, Southern California, Project Manager – While serving as General Manager of the San Geronio Pass Water agency, Mr. Davis negotiated a number of one-year water transfers and exchanges for State Water Project water with both the City of Ventura and The Casitas Municipal Water District.

Previous Experience

San Geronio Pass Water Agency, Beaumont, California, General Manager and Chief Engineer – In this role, Mr. Davis was the Chief Executive Officer of a wholesale water agency serving a rapidly growing region of nearly 100,000 people. His duties included developing and managing a \$30 million budget; planning for and meeting current and projected water demands; managing staff and Board of Directors; managing finances; planning for financing of future water supplies; planning, designing, and constructing infrastructure. His accomplishments in this role included Growing reserves to over \$50 million while maintaining constant water rate for ten years; constructing a regional recharge facility; negotiating deals to augment supply as area grew and SWP allocations dropped, initiated and organized meetings for Class 8 Contractors to discuss common interests and issues. (2005-2020)

Water Resources Institute at CSU San Bernardino, California, Director – As the first Director of newly created institute, Mr. Davis built it into a regional resource for water agencies and other public agencies by obtaining grants from US EPA and others; building and supporting new water-related curriculum programs and finding internships and jobs for students in the water industry. He hired staff; managed budgets; initiated and managed programs; worked with faculty, administration, and outside water agencies. His key accomplishments included creating a series of scholarships by raising funds through honoring local water leaders; introducing students to the water industry where they still have jobs; building water archive rivaling that of UC Berkeley; building bridges to the water industry through initiation and maintenance of partnerships with public water agencies, flood control districts, regulatory agencies, and NGO's. (2000-2005)

Jeff Eklund

PE

Principal Engineer



Education

- ✓ B.S. Civil Engineering, California State University, Fresno
- ✓ A.S. Engineering, Bakersfield College, California

Registration/Certifications

- ✓ Civil Engineer, California #75680

Affiliations

- ✓ American Society of Civil Engineers (ASCE) – Past President

Areas of Expertise

- ✓ Irrigation District Systems
- ✓ Water Supply Studies
- ✓ Groundwater Wells
- ✓ Canals
- ✓ Groundwater Banking
- ✓ Recycled Water Systems
- ✓ Water Distribution Systems
- ✓ Water Treatment Systems
- ✓ Wastewater Treatment Systems
- ✓ Wastewater Collection Systems
- ✓ Grading & Drainage
- ✓ Pump Station Design
- ✓ Grant Funding
- ✓ Rate Studies

Professional Summary

Jeff Eklund is a principal engineer and the Bakersfield Director of Operations at Provost & Pritchard with 20 years of experience in the field of civil engineering. He has an extensive background in investigation, planning, and design of water supply and conveyance facilities for water agencies and farms. Mr. Eklund's areas of expertise include irrigation system design and evaluation, groundwater and surface water investigations, groundwater recharge and groundwater banking facility design, and design of large water conveyance and storage facilities. In addition, he has been involved in the preparation of feasibility studies and construction plans, and as well as coordinating and permitting with various public agencies and utility companies.

Relevant Experience

Water Districts

Recharge and Recovery Enhancement, Kern Water Bank Authority, Kern County, California, Project Manager – Mr. Eklund provided planning and design engineering services for the Recharge and Recovery Enhancement Project for the Kern Water Bank Authority. Mr. Eklund managed the project team in preparing planning documents needed for a successful grant application under the IRWMP program. The project scope of work included the construction of 190 net acres of new recharge ponds, three new recovery wells and 1.7 miles of pipelines. Mr. Eklund reviewed proposed designs, assisted with permitting, and assisted with construction management.

Multi-Benefit Groundwater Storage Project, Arvin-Edison Water Storage District, Arvin, California, Project Engineer – Mr. Eklund served as an engineer assisting with the project planning, hydrogeology studies, successful application for funding (Proposition 13), and design and construction management for a 30-acre expansion of an existing regulation/groundwater recharge reservoir with four new electric-powered deep wells, plus an 80-acre expansion of another existing groundwater storage facility. The project expanded a regulation reservoir, and the groundwater banking capacity for the District and MWD, a banking partner.

Aqueduct Pump Back Project, Westside Water Authority, Kern County, California, Project Manager – Mr. Eklund provided design engineering services for the preparation of installing 4 – 250 cfs pump stations along the California Aqueduct to pump water upgradient and across four existing check structures in order to deliver water from downstream in the California Aqueduct to the water districts of the Westside Water Authority and other areas of Northern Kern County. Mr. Eklund reviewed proposed designs of the bypass system, coordinated with vendors, and worked with the California Department of Water Resources office and field staff reviewing the proposed installation.

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Pipeline Relocations along State Highway 46, Berrenda Mesa Water District, Kern County, California, Project Manager – Mr. Eklund was responsible for the relocation of existing Berrenda Mesa Water District pipelines crossing State Highway 46 prior to the widening from two lanes to four lanes. The pipeline crossings consisted of 28-inch and 36-inch bored and jacked casings underneath the existing highway. Additionally, the project included the demolition of an existing pumping plant and relocation of an existing standpipe and hydropneumatic tank. Services included topographic surveys, designing the facility relocations, preparation of construction documents, and construction review.

Agricultural Water Supply System Master Planning, Newhall Land and Farming Company, Valencia, California, Assistant Engineer – This project consisted of an 8-mile large diameter pipeline system for the Newhall Ranch. The facilities include nine new wells with supervisory control and data acquisition (SCADA) system integration, and connections to multiple farmer turnouts with different pressure zones. Analyses of the system consisted of master planning of the facilities, coordination with the land development staff and consultants, hydraulic analyses utilizing WaterCAD, review of potential water-hammer effects, and preliminary design of the well sites. Some portions of this phased project have been designed and are currently in construction.

Water Supply and Treatment

TCP Mitigation Project, City of Bakersfield Water Resources Department, Bakersfield, California, Principal-In-Charge – The project consisted of the evaluation of the City's domestic water system to recommend supply and treatment alternatives to mitigate for water quality regulations that went into effect on January 1, 2018. Factors considered included water supply availability, water quality, hydraulics, constructability, and schedule constraints. The recommended alternative to design and construct Granular Activated Carbon treatment systems at 35 well sites was contracted to W.M. Lyles Company and Provost & Pritchard as a progressive design-build project. The project was completed on a fast-track schedule ensuring compliance with the new regulation. Mr. Eklund served as principal-in-charge overseeing all aspects of the project administration, design, and construction support services.

CBK-53 Arsenic Removal Project, Water Resources Department, Bakersfield, California, Principal-In-Charge – The City's groundwater well CBK-53 has had some historical spikes of arsenic above the maximum contaminant level. The well is an essential facility, so the City hired Provost & Pritchard to design a wellhead treatment system for arsenic reduction. The project consists of one pair of steel treatment vessels and adsorption media; carbonic acid pH adjustment system and shade structure; bypass and blending piping, valves, and flowmeter; manifold piping; raw and treated waterlines; backwash water disposal pipeline; electrical and controls.

Water System Improvements and Consolidation Project, Lebec County Water District, Kern County, California, Project Manager – Mr. Eklund was the project manager responsible for the planning, design, environmental review of the water system improvements for the community of Lebec, located along the Interstate 5 corridor near Frazier Park. The district received grant funding to design a new 400 gpm well, 2 miles of water mains ranging from 6" to 10" in diameter, a new 200,000-gallon storage tank, and a booster pump station. The goals of the improvements are to obtain a water well with water quality that meets drinking water standards, provide system reliability, and improve water service to customers. An additional component of the project was added through Self Help Enterprises Technical Assistance Funding. This funding allowed for the project to include a consolidation with the Frazier Mountain High School. The consolidation work includes the construction of an 1.8 mile transmission pipeline to the high school, a booster pump station, and a new tank. The design and permitting of the project are mostly complete. Provost & Pritchard was also responsible for completing the CEQA documentation for the project. The project construction is expected to be funded through grants in 2021.

Shawn E. Vaughn

PG/CHG

Associate Geologist



Education

- B.S., Geology,
San Jose State University, California

Registration/Certifications

- Professional Geologist, California
#8947
- Certified Hydrogeologist, California
#1103

Areas of Expertise

- Project Management
-
- Aquifer Testing and Analysis
- Hydrogeology
- Monitoring Well Design
- Soil Vapor Extraction (SVE)/Air
Sparge (AS)
- Soil/Groundwater Remediation
- Groundwater Sampling
- Groundwater Monitoring Reporting
- Compliance Monitoring
- Soil Logging

PROFESSIONAL SUMMARY

Shawn Vaughn is an associate geologist at Provost & Pritchard with 20 years of experience in the environmental and groundwater resources consulting industry. He has a proven track record of completing projects quickly and efficiently, while adhering to budgeting constraints. Mr. Vaughn's experience includes groundwater resource projects, recharge basin investigations, aquifer and well testing, petroleum and chlorinated solvent releases sites, and soil and groundwater remediation, including pilot testing and system installations. He is also knowledgeable of federal and state water quality and waste regulations, and is experienced in preparing discharge permit applications, DWR Technical Support Services (TSS) applications, and monitoring permit compliance. In addition, he is adept at estimating, budgeting, identifying project requirements and resolving issues, as well as coordinating collaborative efforts of contractors, sub-consultants, technical staff, regulatory agencies and clients.

RELEVANT EXPERIENCE

North Kings Groundwater Sustainability Plan, North Kings Groundwater Sustainability Agency, Fresno County, CA – Co-author of Hydrogeologic Conceptual Model (HCM) section of the Basin Setting Chapter of the Groundwater Sustainability Plan. Developed sustainable management criteria for groundwater quality and interconnected surface water sections that incorporated measurable objectives, minimum thresholds, operational flexibility, and defined undesirable results.

McMullin Area Groundwater Sustainability Plan, McMullin Area Groundwater Sustainability Agency, Fresno County, CA – Co-author of HCM section of the Basin Setting Chapter of the Groundwater Sustainability Plan. Developed sustainable management criteria for groundwater quality and interconnected surface water sections that incorporated measurable objectives, minimum thresholds, operational flexibility, and defined undesirable results.

Kings Basin GSA Applications for DWR Technical Support Services (TSS), Various Agencies, Fresno and Kings Counties, CA – Prepared and submitted Individual Service Request applications for funding to install monitoring wells needed to fill data gaps in monitoring networks for each of the seven GSAs within the Kings Basin. Coordinated with DWR staff for well site visits to conduct cultural surveys and well location assessments prior to well installations.

Groundwater Quality Monitoring, Various Clients, Central Valley, California, Field Technician. Mr. Vaughn has experience in groundwater monitoring and reporting for wastewater treatment facilities, food processors, and dairy farms under California Regional Water Quality Control Board orders to conduct Monitoring and Reporting Programs (MRP) in the Central Valley. The scope of work on these projects typically involves project management for adherence to MRP

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requirements, oversight of field staff, laboratory data review, and preparing quarterly, semi-annual, and annual groundwater monitoring reports as required.

Well Installation, Various Clients, Central Valley, California, Field Technician – Mr. Vaughn has experience in the construction of shallow and deep wells throughout the Central Valley installed by mud-rotary and hollow stem auger drilling methods. The scope of work on these projects typically involves contractor oversight, soil logging, sample collection for laboratory analysis, documenting well construction specs, and producing well installation reports.

Greenhouse Ranch Groundwater Study, Jim Anderson, Merced County, California, Project Geologist – Mr. Vaughn is responsible for providing geological services associated with a groundwater study on Mr. Anderson's Greenhouse Ranch in order to meet compliance requirements of the Merced County Groundwater Mining and Export Ordinance. Scope of work consists of conducting multiple pump tests to determine local impacts to groundwater from proposed groundwater mining, assisting in model preparation, permit application assistance, and finalizing a draft pump test report.

Seepage Study, San Joaquin River Restoration Project, U.S. Bureau of Reclamation, Fresno County, California, Project Geologist – Mr. Vaughn is providing geological services associated with the seepage study being conducted for the San Joaquin River Restoration project. The project will ultimately provide seepage management support on the San Joaquin River and bypasses. The scope of work generally includes site evaluations, baseline monitoring, and preliminary and 60% project designs. Specific work has included monitoring of shallow groundwater wells, review of data collection methods reports, agronomic evaluations, preparation of geologic logs and soil sampling from monitor wells and hydraulic conductivity testing, and preparation.

Oil & Gas Manufacturing and Property Development Assessments, Various Clients, Washington & California, Project Geologist/Project Manager – Mr. Vaughn managed petroleum and chlorinated solvent release assessments and soil and groundwater remediation efforts within various regulatory settings in Washington and California. His responsibilities included managing due-diligence assessments (Phase I & II environmental site assessments) and remediation efforts on a number of property development projects. He served as the client and regulatory agencies' point-of-contact, and managed contractors and sub-consultants. Mr. Vaughn provided consultation services to clients during purchase negotiations of contaminated properties, and directed staff in proper sampling techniques and protocols for soil, groundwater, soil vapor, and influent/effluent waste discharge streams. In addition, he interpreted laboratory analytical data and prepared complex reports and work plans in order to demonstrate compliance with regulatory agency requirements.

Waste Discharge Permitting and Monitoring Permit Compliance, Various Clients, California, Project Geologist/Project Manager – Mr. Vaughn was responsible for obtaining air emissions discharge permits from various air pollution control districts requiring emissions calculations. In addition, he obtained wastewater discharge permits and monitored National Pollutant Discharge Elimination System (NPDES) permit compliance through periodic influent and effluent sampling and laboratory analysis to ensure water quality objectives were being met. Mr. Vaughn supervised field technicians and managed quarterly and monthly monitoring and reporting.

Jason Thomas

GIS Specialist



Education

- B.A. Environmental Biology, California State University, Fresno
- Research Experience for Undergraduates Summer Program (REU), Oregon State University, Corvallis
- Graduate Coursework & Research, Washington State University, Pullman
- Data Science 8X Certificate from UC Berkeley
- Completed two CSU Summer Arts Program sessions in Photography and Photo Editing
- Assisted, lead teaching and developed curriculum for professionals learning ArcGIS software and basic map making skills

Registration/Certifications

- Data Science 8X Certificate from UC Berkeley covering use of Python for data processing, statistical analysis and visualization
- NWETC Certificate in Visualizing and Analyzing Environmental Data with R
- ESRI GIS Training Certifications in ArcGIS, Spatial Analyst, Labels and Annotation, Regional Planning, Cartographic Design, Creating, Editing and Managing Geodatabases, Linear Referencing, Geodatabase Topology, Geoprocessing

Areas of Expertise

- Geographic Information Systems (GIS)
- Photoshop Retouching
- Landscape Photography
- Commercial Photography
- Data Processing
- MS Access Queries
- Cartography
- UAV Remote Piloting

PROFESSIONAL SUMMARY

Jason Thomas has over 25 years of experience as a geographic information system (GIS) specialist, database designer, project manager. He has analyzed, mapped and created report tables and graphics of cropping and land use patterns, natural resource systems, regional socioeconomic demographics, land development, and public health indicators. He trains GIS users on mapping, database queries, data processing, mapping and quality control.

RELEVANT EXPERIENCE

Geographic Information Systems

Data Analysis and Mapping, Groundwater Sustainability Plan, San Geronio Pass GSA, Banning, California – GIS Specialist – Mr. Thomas supported engineering and geology staff in development of GSP materials. He researched and collected local, state and federal agency data, and created map figures and tabular data summaries for the GSP report and annual update. He drafted groundwater contour maps and estimated volume of storage change. He formats and submits biannual water levels to the Monitoring Network Module on the SGMA portal.

Water Demand Studies, Multiple GSAs in Fresno and Tulare Counties – GIS Specialist. – Mr. Thomas utilized ArcGIS Pro and Excel power queries to process evapotranspiration data from LandIQ and OpenET. He created customizable pivots to help project managers and a GSA board to interact with ET data to answer questions specific to owners, parcels, croptypes and districts divisions.

Groundwater and Surface Water Analysis, Water Budget, Grasslands Water District, Los Banos, California – Mr. Thomas consulted with environmental specialists, engineers, and hydrogeologists to collect, manage and analyze groundwater and surface water data related to SGMA. He created scripts with R Studio to process and summarize hundreds of remote sensing images from a 5-year time period. Mr. Thomas used ArcGIS modelbuilder to partially automate geoprocessing and create habitat/land use layers and designed streamlined final map figures for Powerpoint presentations.

Data Analysis and Mapping, Groundwater Sustainability Plan, North Central Delta Mendota GSA, Patterson, CA – Mr. Thomas provided GIS consulting, data analysis, and mapping services to an interdisciplinary team to characterize the recent groundwater history along the western edge of the San Joaquin Valley. He combined datasets from multiple partners, filtered records and offered suggestions on methods for processing data to meet requests from local agencies and regulatory requirements. He helped identify data gaps and contributed to work on Groundwater Dependent Ecosystems, groundwater contours and characterizing a basin setting.

Data Mapping for GSA Formation, East Kaweah Groundwater Sustainability Agency – Mr. Thomas researched, collected, processed, and mapped data from multiple agencies to support the work on GSA formation, and SGMA reporting related to geology, groundwater levels, aquifer thickness, contouring, and changing groundwater flow over time.

He worked collaboratively with a large team of professionals from different specialty fields to produce information products to serve different reporting requirements Storm Water/Water and supervised work by other GIS users.

Data Analysis and Mapping, Irrigated Lands Regulatory Program, Kaweah Basin Water Quality Coalition, Exeter, CA. Mr. Thomas conducted data exploration, analysis and mapping to support numerous reports to the State Water Board including the initial Groundwater Assessment Report, and Farm Evaluations, Comprehensive Groundwater Quality Management Plan, Trend Monitoring, Nutrient Management Plan, Surface Water Monitoring, Management Practice Evaluation Program and Sediment Discharge and Erosion Assessment Report. He created Microsoft Access databases to query datasets from multiple government programs, created map exhibits and quality-checked maps from other map creators.

Irrigation District Map, Delano-Earlimart Irrigation District, Kern County, California, GIS Specialist – Mr. Thomas designed a new district geodatabase. He created and altered spatial data and lead the digitizing team that populated the geodatabase with attributes from historical as-built plan documents. He incorporated client feedback on spatial data and map layout. He then generated a layout and symbology for facility maps of digitized and surveyed features. And finally, he created map posters and books of all district facilities with aerial imagery and index maps.

Reconnaissance-Level Biological Survey, Recharge Basin Construction Projects, Fresno Irrigation District, Fresno County, California, Planning/GIS Specialist – This project consisted of two individual basin construction projects for the Fresno Irrigation District. Mr. Thomas conducted reconnaissance-level biological surveys and drafted survey reports, in addition to the creation of GIS maps of the project sites.

Large Datasets Mapping, Groundwater Quality Assessment Report, Various Districts, California – Mr. Thomas collected, combined, analyzed and created graphic charts and maps for dozens of large datasets included land use patterns, environmental contaminants, and community water systems for multiple reports to the State Water Resources Control Board.

Environmental Maps, County of Tulare & Other Clients, Various Locations, California, Project Manager – Mr. Thomas created 14 new standard map templates for environmental reports. Project tasks included the collection of data, and standardization of symbology for endangered species, flooding, wetland, soils, hydrology, zoning and agriculture preserve maps for Tulare and seven other counties. He organized data and symbology into regional layer files and used templates to create dozens of maps for proposed projects in Tulare and other San Joaquin Valley counties.

Storm Water/Watershed Analyses and Engineering Support, Root Creek Water District & Central Green Land Development, Madera and Fresno Counties, California, GIS Specialist – Mr. Thomas utilized spatial analysis and 10m digital elevation models to delineate watershed and sub-watershed boundaries. He quantified reach characteristics for each sub-watershed for engineering analysis, and calculated run-off estimates before and after development for storm water system design.

Water Pipeline GIS, City of Fresno, California, GIS Specialist – This project involved reconnaissance surveys of pipeline alignments. Mr. Thomas created an alternative pipeline alignment using GIS linework and dozens of map figures to support proposed pipeline project reports and presentations. He also incorporated spatial data from several state and local agencies.

Survey-Grade GPS Data Collection, Fresno Irrigation District, Fresno, California, GIS Specialist – Mr. Thomas conducted numerous canal/pipeline master plan surveys within the Fresno Irrigation District using real-time kinematic (RTK) differential global positioning system (GPS) equipment. He designed a GPS data dictionary, processed survey data, and migrated to ArcGIS. He also attached multiple elevation attributes to control structures and imported to client's standard hydraulic spreadsheet format.

WEBB will apply the below fee schedules for the first two years of the agreement and will apply an annual 3% escalator thereafter for the term of the agreement.



Fee Schedule

CLASSIFICATION

<u>Engineers/Project Managers/Planners/Scientists/ Assessment/Special Tax Consultants/Landscape Architects/Designers</u>	<u>Rates \$/Hour</u>
Principal II.....	312.00
Principal I	298.00
Senior III	280.00
Senior II	267.00
Senior I	258.00
Associate III	240.00
Associate II	229.00
Associate I	217.00
Assistant V	196.00
Assistant IV	176.00
Assistant III	163.00
Assistant II	147.00
Assistant I	130.00

Survey Services

2-Person Survey Party	326.00
1-Person Survey Party	234.00

Inspection Services

Construction Manager II	280.00
Construction Manager I	200.00
Inspector (Non-Prevailing Wage)	141.00
Inspector Overtime (Non-Prevailing Wage)	190.00
Inspector (Prevailing Wage)	152.00
Inspector Overtime (Prevailing Wage)	200.00

Administrative Services

Project Coordinator	141.00
Administrative Assistant III	120.00
Administrative Assistant II	107.00
Administrative Assistant I	85.00

Other Direct Expenses

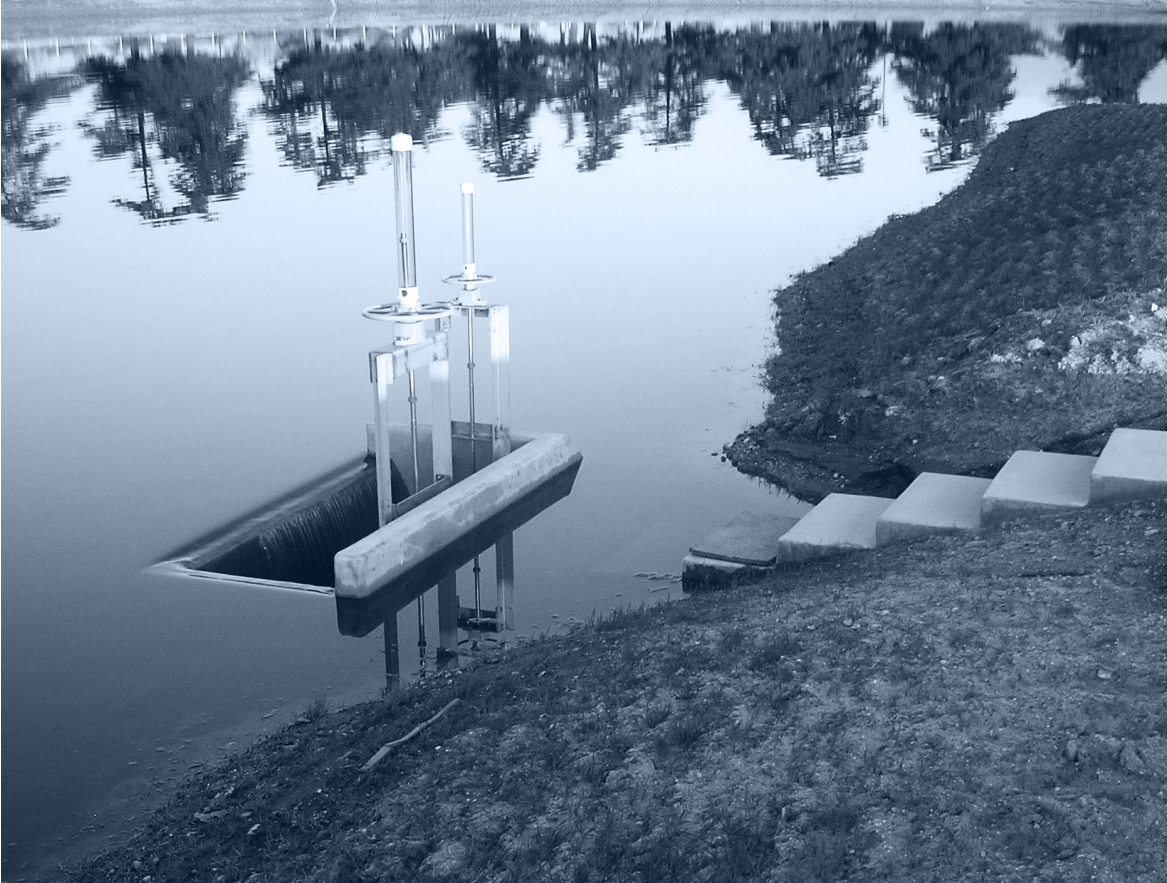
Incidental Charges	Cost + 15%
Postage	Cost
Subcontracted Services	Cost + 15%
Special Consultant.....	385.00
Survey/Inspection Per Diem.....	Prevailing Wage Rate
In-House Delivery Up to 1/2 hour.....	36.00
In-House Delivery 1/2 Hour up to 1 Hour.....	70.00
In-House Delivery Over 1 Hour up to 2 Hours	130.00
In-House Delivery Over 2 Hours	185.00
Survey/Inspection Vehicle	0.81/Mile
Mileage	0.72/Mile

2023 STANDARD FEE SCHEDULE

This schedule supersedes previously published fee schedules as of the effective date of January 1, 2023.

Multi-year contracts are subject to any subsequent changes in these rates.

STAFF TYPE	FEE RANGE	STAFF TYPE	FEE RANGE
ENGINEERING		TECHNICAL	
Assistant Engineer	\$105.00 – \$133.00	Assistant Technician	\$80.00 – \$97.00
Associate Engineer	\$126.00 – \$156.00	Associate Technician	\$102.00 – \$125.00
Senior Engineer	\$164.00 – \$195.00	Senior Technician	\$130.00 – \$158.00
Principal Engineer	\$207.00 – \$248.00	CONSTRUCTION SERVICES	
Associate Structural Engineer	\$120.00 – \$146.00	Associate Construction Manager	\$125.00 – \$145.00
Senior Structural Engineer	\$150.00 – \$180.00	Senior Construction Manager	\$152.00 – \$176.00
Principal Structural Engineer	\$190.00 – \$230.00	Principal Construction Manager	\$185.00 – \$215.00
SPECIALISTS		Construction Inspector ⁽¹⁾	\$155.00 – \$180.00
Assistant Specialist	\$90.00 – \$120.00	Construction Inspector ⁽²⁾	\$190.00 – \$221.00
Associate Specialist	\$126.00 – \$155.00	SUPPORT	
Senior Specialist	\$165.00 – \$195.00	Administrative Assistant	\$70.00 – \$90.00
Assistant Biologist	\$90.00 – \$105.00	Project Administrator	\$83.00 – \$108.00
Associate Biologist	\$110.00 – \$130.00	Senior Project Administrator	\$115.00 – \$200.00
Senior Biologist	\$137.00 – \$159.00	Intern	\$65.00 – \$80.00
Principal Biologist	\$165.00 – \$195.00	SURVEYING SERVICES	
Assistant Environmental Specialist	\$90.00 – \$120.00	Assistant Surveyor	\$100.00 – \$130.00
Associate Environmental Specialist	\$126.00 – \$155.00	Licensed Surveyor	\$150.00 – \$190.00
Senior Environmental Specialist	\$165.00 – \$195.00	1-Man Survey Crew	\$175.00/\$200.00 ⁽¹⁾
Principal Environmental Specialist	\$205.00 – \$245.00	2-Man Survey Crew	\$245.00/\$285.00 ⁽¹⁾
Assistant GIS Specialist	\$85.00 – \$103.00	2-Man Survey Crew including LS	\$280.00/\$295.00 ⁽¹⁾
Associate GIS Specialist	\$105.00 – \$132.00	UAV (Drone) Services	\$210.00
Senior GIS Specialist	\$140.00 – \$175.00	(Field work not including survey equipment billed at individual standard rate plus vehicle as appropriate.)	
Assistant Geologist/Hydrogeologist	\$95.00 – \$120.00	(1) Prevailing wage rates shown for San Joaquin, Stanislaus, Merced, Madera, Fresno, Tulare, Kings, and Kern counties; other counties as quoted.	
Associate Geologist/Hydrogeologist	\$127.00 – \$155.00	(2) Overtime for Construction Services prevailing wage will be calculated at 125% of the standard prevailing wage rate.	
Senior Geologist/Hydrogeologist	\$160.00 – \$190.00	Additional Fees	
Principal Geologist/Hydrogeologist	\$200.00 – \$240.00	Expert Witness / GIS Training: As quoted.	
Associate Water Resources Specialist	\$105.00 – \$130.00	Travel Time (for greater than one (1) hour from employee's base office): \$80/hour (unless the individual's rate is less)	
Senior Water Resources Specialist	\$135.00 – \$170.00	Project Costs	
Environmental & Roof Specialist	\$130.00 – \$200.00	Mileage: IRS value + 15%	
External Affairs Specialist	\$98.00 – \$128.00	Outside Consultants: Cost + 15%	
Principal Tunneling Consultant	\$235.00 – \$255.00	Direct Costs: Cost + 15%	
PLANNING			
Assistant Planner/CEQA-NEPA Specialist	\$90.00 – \$110.00		
Associate Planner/CEQA-NEPA Specialist	\$115.00 – \$138.00		
Senior Planner/CEQA-NEPA Specialist	\$145.00 – \$173.00		
Principal Planner/CEQA-NEPA Specialist	\$180.00 – \$206.00		



On-Call Engineering Services for Planning, Design, and Construction Management Services

Submitted: August 9, 2023





August 9, 2023

San Gorgonio Pass Water Agency
1210 Beaumont Avenue
Beaumont, CA 92223
Attn: Emmett Campbell

Local Office:
1861 W. Redlands Blvd.
Redlands, CA 92373
(909) 890-1255, info@erscinc.com

Evaluation Period Contact:
Erik T. Howard, PE, PLS
Principal in Charge
(909) 890-1255 x126
erik@erscinc.com

RE: On-Call Engineering Services for Planning, Design, and Construction Management Services

Dear Selection Team,

Engineering Resources of Southern California (ERSC) is pleased to submit our Proposal to the San Gorgonio Pass Water Agency (SGPWA or Agency) as a qualified, experienced consultant to provide the desired professional engineering services.

SGPWA is preparing to continue its status as one of Southern California's exemplary State Water Contractors. As such, Agency staff endeavors to assemble a qualified team to support its interests, stakeholders, and customers. ERSC's professional capabilities fit well with the goals of the Agency. ERSC has a proven record of delivering Capital Improvement Projects to regional water agencies, municipalities, and special districts throughout Southern California. Our team members have worked together on numerous projects ranging in scope and complexity, giving them the ability to respond to your needs promptly and effectively.

With regard to Subject RFP, ERSC understands that any authorized work may encompass contract administration, preparation of RFPs and bids, planning, design, inspection, and construction management support for Agency Operations & Maintenance (O&M) duties, Repair & Replacement of existing facilities, and Capital Improvement projects for new facilities. As presented herein, ERSC believes it has demonstrated a continued history of experience with both Agency and State Water Project (SWP) facilities. We also understand that the needs of Agency staff will vary, and thus any potential services will also vary. In short, SGPWA is looking for a "Swiss army knife" firm that can adapt to whatever types of projects and circumstances require assistance.

Erik T. Howard, PE, PLS – Principal-in-Charge

Erik T. Howard PE, PLS, will serve as ERSC's main point of contact during the term of a potential agreement with SGPWA. With over 30 years of providing engineering and surveying services in the water resources discipline, Erik has guided the design and construction of many infrastructure projects in the region, both small and large. Combined with previous engagements at local firms, Erik has specifically served SGPWA on numerous assignments related to developing and improving the Agency's critical infrastructure.

ERSC understands that SGPWA wants to select the firm that best fits the Agency's goals. In selecting ERSC, the Agency will benefit from the following:

- Familiarity – ERSC's team has completed numerous assignments in Design and Construction with SGPWA since 2005, and most recently: County Line Recharge Project – Technical Review (2022), Brookside West Recharge Facilities – Mapping and Property Acquisition Assistance (2022), and Mountain View EBX Turnout Facility – Chemical Injection Vault for algae abatement at its recharge basins.
- Experience - ERSC's familiarity with water resources engineering design. Our firm focuses solely on the public sector and public works projects.
- Proximity - ERSC's main office is located in the City of Redlands.
- Partnerships - ERSC maintains an exhaustive list of specialty partners that may be needed to properly perform any type of project.

With ERSC's experience, team, and long-term service to SGPWA, we maintain the capabilities to work with your staff to reach solutions that serve the interests of the Agency. As a result, SGPWA can be certain that any project trusted to ERSC will be successfully completed expeditiously, professionally, and cost-effectively.

The following enclosed qualifications are intended to provide insight into the services ERSC provides, the engineers and technicians who provide those services, and the policies and practices that govern how they are provided. We welcome any inquiries regarding the content of this proposal and thank SGPWA for the opportunity to submit.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'John M. Brudin'.

John M. Brudin, PE
President

A handwritten signature in blue ink, appearing to read 'Erik T. Howard'.

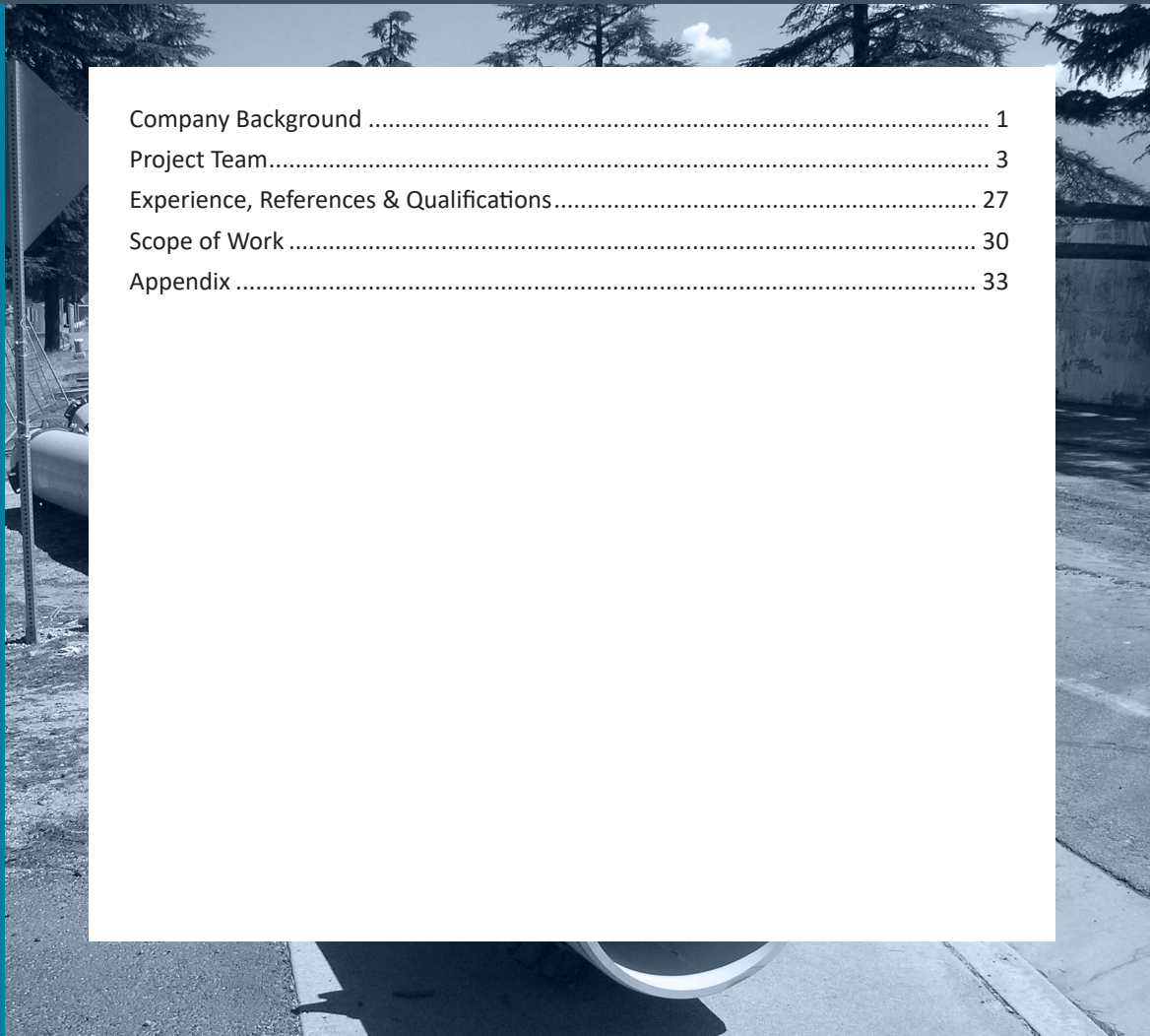
Erik T. Howard, PE, PLS
Principal in Charge



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Company Background



Company Background



Executive Summary

Engineering Resources of Southern California, Inc. (ERSC) was formed in 1996 with the asset purchase of NBS/Lowry, Inc. Since formation, ERSC has been committed to serving Special Districts, Regional Agencies, and Municipalities in Southern California's public sector. Our team provides a comprehensive set of professional services and solutions for the life of any potential project.

ERSC Professionals

The strength behind ERSC is our qualified and experienced engineers, designers, construction observation personnel, and administrative support staff. We excel at matching the exceptional skills, technical abilities, character, and attitude of our team members to the needs of our clients. ERSC staff works daily to create client partnerships and transform projects from the broadest level of general scope to final planning, design, implementation, and construction resolution.



Project Contact

Erik T. Howard, PE, PLS
Principal in Charge
1861 W. Redlands Blvd.
Redlands, CA 92373
Phone: (909) 890-1255
Fax: (909) 890-0995
erik@erscinc.com

Many ERSC professionals have experience as municipal and public agency employees and can approach your project with first-hand knowledge of agency culture and how any agency envisions the planning and processing of a well-executed project.

ERSC Reliability

Our 25-year service record is a testimony to the quality of services we provide. Many of our clients continue to seek our services, and have done so since our first year of business. ERSC has also developed significant financial resources and organizational efficiencies that allow us to consistently exceed client expectations.

Our Locations



San Bernardino County
(Headquarters)
1861 W. Redlands Blvd.
Redlands, CA 92373

Southwest Riverside County
41593 Winchester Rd., Suite 200
Temecula, CA 92590

Coachella Valley
77-564 Country Club Dr.
Palm Desert, CA 92211



Vital Information

CA Corporation
25 Years in Business
37 Employees
FEIN: 33-0718153
CA DIR: 1000017460

Corporate Officers

John M. Brudin, PE - President
Moe Ahmadi, PE - Vice President
Trent Brudin, PE - Secretary
Craig Brudin - Treasurer



ERSC Insurance Coverage Levels

Professional & General Liability	\$1.0m Per Occurrence; \$2.0m Aggregate
Automobile	\$1.0m Combined Single Limit
Worker's Comp	Maintained as Required by Law





Project Team





ERSC Professionals

The strength behind ERSC is our qualified and experienced engineers, designers, construction observation personnel, and administrative support staff. We excel at matching the exceptional skills, technical abilities, character, and attitude of our team members to the needs of our clients. ERSC staff works daily to create client partnerships and transform projects from the broadest level of general scope to final planning, design, implementation, and construction resolution.

Many ERSC professionals have experience as municipal and public agency employees and can approach your project with first-hand knowledge of agency culture and how any agency envisions the planning and processing of a well-executed project.

With consideration to the special knowledge and skill set required to comprehensively oversee construction of these projects, ERSC has built a team with specific training and experience within any discipline.



ERSC

John M. Brudin, PE
President

Erik T. Howard, PE, PLS
Sr. Principal Engineer, Principal in Charge

<p>SURVEY/MAPPING & PROPERTY DOCUMENTS</p> <p>Erik T. Howard, PE, PLS <i>Principal Surveyor</i></p> <p>Craig Brudin, QSP <i>Senior Engineering Associate</i></p> <p>Travis Moffatt, EIT <i>Engineer I</i></p>	<p>GEOGRAPHIC INFORMATION SYSTEMS</p> <p>Craig Brudin, QSP <i>Senior Engineering Associate</i></p> <p>Stephania Hernandez, EIT <i>Engineer III</i></p> <p>Katherine Hernandez <i>Engineer II</i></p>	<p>WATER INFRASTRUCTURE</p> <p>Erik T. Howard, PE, PLS <i>Sr. Principal Engineer</i></p> <p>Moe Ahmadi, PE <i>Vice President</i></p> <p>Reza Toorzani, PE <i>Principal Engineer</i></p> <p>Trent Brudin, PE, QSP/QSD <i>Engineer IV</i></p>	<p>SITE DESIGN & GRADING</p> <p>Jorge Biagioni, PE <i>Principal Engineer</i></p> <p>Lori Askew <i>Principal Engineer</i></p> <p>Isaac Gomez <i>Engineer III</i></p> <p>Jazz Goodie <i>Engineering Associate III</i></p>	<p>MANAGEMENT, BID & CONSTRUCTION ASSISTANCE</p> <p>Erik T. Howard, PE, PLS <i>Sr. Principal Engineer</i></p> <p>Joanna Rembis, PE <i>Principal Engineer</i></p> <p>Cooly Smith <i>Chief Inspector</i></p>
<p>SPECIALTY SUBCONSULTANTS</p> <p>To be retained for the following services (on an as-needed basis): Geotechnical, Utility Pothing, Corrosion and Cathodic Protection, Environmental Studies, Electrical Engineering, Photogrammetry, CCTV Inspection, Electrical and Communication Engineering, etc.</p>				



John M. Brudin, PE | President

CA, Civil Engineer No. C41836
QSD/QSP No. 00707

Education

BS, Civil Engineering, Loyola Marymount University, Los Angeles, CA

Affiliations

American Public Works Assc.
Floodplain Management Assc.

Areas of Expertise

Water/Wastewater Engineering
Flood Control Engineering
Project Management
Quality Control

Over the past 25 years, Mr. Brudin has been involved in a number of complex planning, design and construction projects. His ability to effectively communicate with agency personnel and team members provides the vital link between client and consultant and ensures that the goals of each project are met. Mr. Brudin has a broad base of experience in various disciplines including water resources, site development, streets and roads, grading and drainage and flood control facilities.

Mr. Brudin has served as a District Engineer for the Lake Hemet Municipal Water District, City Engineer for the City of Hemet, and as a Project Manager for “as-needed” professional engineering plan check services for several cities in the Orange, Riverside and San Bernardino County areas. Under these contracts, he has managed construction inspection/administration, development review, and plan check services for land development and capital projects, including grading, water, sewer, drainage, traffic signal and street improvement plans.

Similar Project Experience:

Florida Avenue Pipeline, Lake Hemet Municipal Water District, Hemet, CA – Project Manager during the development of plans and specifications for the installation of 9,000 linear feet of 12- and 16-inch pipeline along State Route 74 in the western end of the District. Specific services included coordination of utilities, soils and corrosion, coordination of lateral tie overs to commercial properties, Caltrans permit acquisition and oversight during construction.

Waterline Replacement Program, Lake Hemet Municipal Water District, Hemet CA – Project Manager during the acquisition of funding for 35,000 of pipeline replacement and the development of contract documents for 11,200 feet of 8- and 12-inch pipeline replaced through the program.

Garner Valley Water System Improvements, Lake Hemet Municipal Water District, Garner Valley, CA – Project Manager during Lake Hemet Municipal Water District’s effort to upgrade their water system serving the Pine Meadows area of Garner Valley. Design work included preparation of construction drawings for the following 8- and 12-inch pipelines.

Fairview Avenue Waterline, Lake Hemet Municipal Water District, Hemet, CA— Project Principal to Lake Hemet Municipal Water District for the design water facilities along Fairview Avenue south of Mayberry. ERSC provided the design services for approximately 1,000 feet of 12-inch water line. Services provided included design, development of plans, specifications and estimates for waterline construction.

Sunrise Terrace Waterline Replacement, Lake Hemet Municipal Water District, Hemet, CA - Project Manager for a water line replacement project necessary to increase fire flow in this rural section of the District. Services included: right-of-way analysis and acquisition assistance, design surveys, geotechnical engineering, hydraulic modeling and contract documents for approximately 4,000 feet of 8- and 12-inch pipeline.

Ramona Bowl Sewer, Lake Hemet Municipal Water District, Hemet CA – Project Manager during the preparation of construction documents for 8,000 feet of 8-inch VCP sewer line required to eliminate failing septic systems at the Ramona Bowl. Specific services included right-of-way determination and mapping, utility coordination, coordination with Riverside County Department of Health Services and the development trench and bedding details for construction in rock.

Mayberry Avenue Pipeline, Lake Hemet Municipal Water District, Hemet, CA – Project Manager for the construction of 10,200 feet 12-inch PVC waterline required to move non-potable well water to eastern end of the District for irrigation purposes. Services included the preparation of construction drawings, environmental documentation, coordination with County of Riverside and the Department of Health Services and support services during bidding.

Whittier Avenue Pipeline, Lake Hemet Municipal Water District, Hemet CA – Project Manager during the preparation of construction drawings for the installation of 32,000 feet of 8-, 12- and 16-inch CML&C waterline. The project required to provide conveyance for non-potable well water to eastern end of the District required coordination with County of Riverside, Department of Health Services and local citrus ranchers.

Park Hill Tank, Lake Hemet Municipal Water District, Hemet, CA – Project Manager for during the demolition and reconstruction of the Park Hill. Services included the coordination of the removal of an existing 0.5 million gallon steel reservoir and the preparation of contract documents for a new 2.0 million gallon reservoir. Specific tasks included coordination of geotechnical engineering, site analysis, right-of-way acquisition and coordination construction support services.

East Drop Structure Repair Mitigation Within Whitewater River Channel, City Of Indian Wells, Indian Wells, CA – Principal-in-Charge for redesign of the East Drop Structure along the Whitewater River. Site analyses and development of potential replacement structures such as a concrete drop structure that incorporates a baffle chute at the outlet of the low flow channel, a USBR stilling basin or a drop structure similar to the one constructed in 1995 using materials sized to withstand the anticipated flows. Regulatory permitting and clearance for an RWQCB CWA Section 401 Water Quality Certification, CDFW 1602 Streambed Alteration Agreement, USACE Nationwide Section 404 Dredge and Fill Permit, and CEQA IS/MND coordination.



Erik T. Howard, PE, PLS | Sr. Principal Engineer

CA, Civil Engineer No. C53318
CA, Professional Land Surveyor No. 7648

Education

BS, Civil Engineering, California State Polytechnic Univ., Pomona, CA

Affiliations

California Land Surveyors Association
American Water Works Association
American Society of Civil Engineers

Areas of Expertise

Water/Wastewater Engineering
Project Management
Forensic Evaluations
Survey/Geomatics
Quality Control

Erik T. Howard has over 30 years of complex project surveying, engineering, construction and management experience in water, wastewater, and civil engineering. Project types include waterlines, welded steel reservoirs, well and booster pumping plants, groundwater recharge facilities, sewer and septic-to-sewer infrastructure, and street and drainage improvements. Specific tasks include records searches, surveying, utility verification, design, review, preparation of contract documents, and construction observation. His civil engineering portfolio includes site design and access roadway design for various water, wastewater, and civil infrastructure projects including site selection and evaluation, hydrology studies, determination of grading requirements, piping layout, utility relocation, and cost estimates. His professional surveying portfolio includes boundary retracement, records-of-surveys, legal descriptions, conveyance documents, topographic surveying, construction staking, and monumentation. He also performed contract administration and construction management for various projects, and provided expert witness services, legal testimony, and assisted in forensic studies.

Similar Project Experience:

San Geronio Pass Water Agency, State Water Project, Beaumont, CA – Since 2005, program / project manager, engineer and surveyor for the study, design and construction of various projects and service connections from the East Branch Extension (EBX), a reach of transmission waterline off of the State Water Project aqueduct. Serving as both consultant and extension of Staff, coordinated directly with General Manager, Agency Staff and State Department of Water Resources (DWR) Staff to facilitate program / project development, design, construction, and commissioning. Representative projects include:

- Ongoing Engineering / Surveying services (2005-Present)
- Original Noble Creek EBX Connection - Turnout and Control Facility (2009)
- Mountain View EBX Turnout - Preliminary Design Evaluation (2011)
- Beaumont Avenue Recharge Facility (BARF) Pipeline (2014)
- Mountain View (MV) EBX Connection - Turnout and Control Facility (2016)
- Noble Creek EBX Connection – Capacity Expansion (2016 & 2018)
- MV-EBX & BARF Basins Construction - Contract Administration (2018-2020)
- Boundary Assessment and Fenceline Staking of Agency Property (2020)
- County Line Recharge Project - Technical Review / Input (2022-Present)
- Brookside West Recharge Facilities – Mapping & Property Acquisition (2022)
- MV-EBX Chemical Injection Vault Layout & Construction (2023)

Engineering and Surveying Services, Rancho California Water District, Temecula - On-call program/project manager, engineer and surveyor to provide management and senior engineer staff with various support tasks including: land surveying expertise; prepare reports and technical memoranda; assist with project management, meetings and consultations, and provide staff augmentation (on-site or remotely). Other (specific) design engineering projects include:

- 1610 Zone (Warren) Reservoirs and Transmission Waterline Studies
- Calle Medusa Water Pipeline Replacement (completed in 2013)
- Zone of Benefit No.3 Waterlines (completed in 2009)
- Zone of Benefit No.7 Waterline (completed in 2008)
- Madison Avenue Waterline

Backup Generator Design Services for Various Well Sites, Mission Springs Water District, Desert Hot Springs, CA – Project Manager and lead engineer for the assessment and design of two 500 kW emergency backup generators (Gensets) and one 600 kW Genset at three (3) different well sites.

Scott Road Transmission Waterline and Booster Station, Eastern Municipal Water District, Menifee, CA – Project manager, engineer and surveyor for design of approximately 12,500 lineal feet of 30-inch welded steel pipe and 24-inch diameter C-905 PVC waterline and appurtenances. Also responsible for coordinating design of the 5,000 gpm booster (to provide suction and discharge water supply between the 1,627 and 1,700 pressure zones) including site selection and preparing legal documents to procure the site.

Verdemont Water Infrastructure Project, San Bernardino Municipal Water Department, San Bernardino, CA – Project manager, engineer and surveyor for design of contract documents for Phases 1 and 2 for the San Bernardino Municipal Water Department (SBMWD) located in the northwestern portion of the City of San Bernardino.

2019 CIP Water Pipeline Replacement Project, City of Redlands, Redlands, CA – Project Manager and Engineer for the design and construction of approximately 55,000 linear feet (LF) of 8-inch potable water main and 3,000 LF of 12-inch potable water main in various parts of MUED's services area, encompassing 45 different streets and five (5) different Pressure Zones.

Mojave Narrows Regional Park, County of San Bernardino Regional Parks Department, Victorville; CA – Project manager, engineer and surveyor responsible for the survey and design engineering services to restore a failed segment of the Horseshoe Lake levee, and provide construction support services for 2,200 lineal feet of new levee abutment, metering weir facilities, and an emergency overflow channel structure capable of handling approximately 3,400 cfs.

Waterline Replacement, Idyllwild Water District, Idyllwild, CA – Project Manager on the 1,200 linear feet pipeline replacement along S. Circle Drive and Village Circle Drive.

Design pipeline replacement with consideration of replacing standard valving and piping, preservation of existing pipeline in certain areas and tie over of existing services particularly to restaurants and businesses along Village Center Drive.

Manzanita II Tank Drainage Improvements, City of Moreno Valley, CA – Project manager and engineer for design of contract documents for grading and constructing a 0.5-million-gallon earthen detention/retention basin and appurtenances to control site drainage and operational flows (draining and overflow) for the existing 3.2-million-gallon reservoir.

Nason (Letterman) Booster Relocation and Transmission Waterline – Project manager, engineer and surveyor for preliminary design for relocation an existing 2,000 gpm booster to a new site with an upgraded capacity of 7,000 gpm including approximately 1,400 lineal feet of 24-inch diameter C-905 PVC transmission waterline and appurtenances.

Zone 6-2 Pumping Station, West Valley Water District, Rialto, CA – Project Manager for the proposed project was commissioned to provide additional pumping capacity in the upper-most pressure zone through zone 7. ERSC proposed the Zone 6-2 Pumping Station to meet the District's additional demands. The pumping station was equipped with 6 - 250 horsepower pumps capable of providing 12950 additional gallons per minute with one pump on stand-by. Electrical service from So-Cal Edison required existing pump station 6-1 and the new pump station 6-2 to have separate metering. Ultimately, it was determined that adding an additional service was not feasible to the West Valley Water District. The existing meter and electrical service would be modified to accommodate dual metering which satisfied both the requirements of So-Cal Edison and the District.

As-Needed Professional Land Surveyor Services, Eastern Municipal Water District - Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. ERSC was contracted to provide professional land surveyor services on an as-needed basis for support of the District's Capital Improvement Program (CIP), Annexation Program, and New Development Projects.

On-Call Engineer & Surveyor, County of San Bernardino Special Districts Department - Separate 3-year term contracts for on-going/re-selection as program manager/engineer and as program manager/surveyor for a wide variety of countywide projects on an as-needed basis. Representative projects include:

- Ahwahnee Sewer Lift Station Upgrades (Green Valley Lake)
- Arrowhead Regional Medical Center Sewer Upgrades (Colton)
- Glen Helen Regional Park Sewer Infrastructure Improvements
- Spring Valley Lake Outfall Metering Facilities (Victorville)
- Lake Gregory Dam and Outlet Works Rehabilitation (Crestline)
- Huston Creek Wastewater Treatment Plant Upgrades Study (Crestline)
- Calico Ghost Town Water Infrastructure Improvements
- Big Bear Animal Park Relocation – Survey, Mapping, and Planchecking Services.

CSA 70 CG Pine Ridge Horizontal Well (and Alder Lane Line Extension), County of San Bernardino Special Districts Office, Cedar Glen, CA – Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. ERSC provided the site plan, preliminary grading plan, preliminary building layout and details, piping and mechanical equipment layout and detail, and engineer's estimate.

CSA70J H2ONet Analysis, San Bernardino County Office of Special Districts – Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. ERSC evaluated the H2ONet Map analysis for Zone J. Staff assisted the District with the evaluation of options including line extensions or looping the new system to meet new demands.

CSA 70J Muscatel Street and Aster Road 1,500-foot Line Extension, San Bernardino County Office of Special Districts – Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. ERSC provided design services for an approximately 1,500 feet CSA 70J line extension from the intersection of Muscatel Street and Aster Road.

CSA 70J: Oak Hills 3A Tank Site Expansion, County of San Bernardino Special Districts Department, Oak Hills, CA – Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. Performed detailed topographic mapping effort and preparation of Record-of-Survey (ROS) Map for filing with the County Surveyor's Office, which included utility coordination, development of utility base for incorporation into developed Base Map with 1-foot contours, establishing centerlines, right-of-ways and property lines; submit ROS and associated support documents to Surveyor's Office for review and interface with Surveyor's Office as-needed during plan check process.



Craig Brudin, QSP | Sr. Engineering Associate

CA, QSP No. 26269
CESSWI No. 4852

Education

BS, Environmental Policy & Management
BA, Business Managerial Studies

Affiliations

CASQA

Areas of Expertise

Erosion and Sediment Control
Water Quality
Improvement Plan Check

Mr. Brudin has been with the ERSC team since 2014. Since joining, he has become a valuable member of ERSC’s project team in both survey related tasks and plan and map review services. While providing these services he has gained extensive working knowledge of the subdivision map act, local grading manuals, ordinances and design guidelines, the California Building Code, local wet utility design guidelines and the preparation and evaluation of erosion control plans.

In various Cities, he is responsible for the review of maps, legal documents, mass and rough grading plans, residential precise grading plans, grading plans for residential development, commercial development projects, sewer improvement plans, and erosion control plans.

Similar Project Experience:

East Drop Structure Repair Mitigation Within Whitewater River Channel, City Of Indian Wells, Indian Wells, CA – Survey Party Chief responsible for oversight of field data collection and processing including data reduction and base mapping supervision during redesign of the East Drop Structure along the Whitewater River. Site analyses and development of potential replacement structures such as a concrete drop structure that incorporates a baffle chute at the outlet of the low flow channel, a USBR stilling basin or a drop structure similar to the one constructed in 1995 using materials sized to withstand the anticipated flows. Regulatory permitting and clearance for an RWQCB CWA Section 401 Water Quality Certification, CDFW 1602 Streambed Alteration Agreement, USACE Nationwide Section 404 Dredge and Fill Permit, and CEQA IS/MND coordination.

Winchester Property Land Survey Mapping Services, Soboba Band of Luiseno Indians, San Jacinto, CA - Project Surveyor responsible for field data collection, base map preparation, plat maps, and drafting of legal descriptions. ERSC was contracted to provide professional surveying and mapping services related to the Tribe’s property at the Northeast and Southeast corners of the intersection of Winchester Road and Domenigoni Parkway.

11th Street Pavement Rehabilitation Project, City of Chino - Project Surveyor responsible for field data collection, base map preparation, plat maps, and drafting of legal descriptions during design of a street pavement reconstruction, alley, and intersection accessibility project. Special considerations were paid to concurrent storm drain projects as well as potential impacts from asphalt conditions, existing utilities, and ADA requirements in affected alleyways.

Murrieta Inverted Sewer Siphon, Western Municipal Water District, Murrieta, CA- Project Surveyor responsible for field data collection, base map preparation, plat maps, and drafting of legal descriptions during the design of an upgrade an existing 8-inch sewer siphon. The project will upgrade the siphon from a single barrel to a larger diameter or a “double barrel” configuration where the line crosses below a Flood Control District owned channel. ERSC will develop a profile of the 8-inch inverted siphon using CCTV and prepare plan and profile drawings of this line.

Strawberry Creek Diversion Pipeline, Idyllwild, CA - Project Surveyor responsible for field data collection, base map preparation, plat maps, and drafting of legal descriptions. The existing pipeline begins at the diversion structure near the intersection of Strawberry Creek and Tahquitz Road. The pipeline paralleled the creek above ground for approximately 400 feet across private property and then below ground to the District’s well site on Fern Valley Road. To further complicate matters, the exiting pipeline crossed under an existing private residence. ERSC performed a topographic survey of the diversion structure and the pipeline alignment to the well site, legal documents for the portion of pipeline crossing private property, and design of new pipeline to avoid existing structures and above ground pipes.

Stagecoach and Substation Topographic Survey, On-Call Engineering and Design Services, City of Banning - Project Surveyor responsible for field data collection, base map preparation, plat maps, and drafting of legal descriptions as part of an on-call engineering agreement. ERSC was contracted for land surveying services related to the development of the Ivy Substation Project at 1581 Charles Street and the Stagecoach Substation Project located on Hargrave Street. ERSC performed boundary and topographic surveys of both sites to establish the boundary and locate the property corner monuments.

On-Call Civil Engineering and Plan Check Services, City of Colton – Project Engineer responsible for review of maps, legal documents, improvement plans, and grading plans during Engineering and Plan Check services in the City. ERSC works closely with City staff in the review of grading, street improvements, hydrology studies, soils reports, WQMP, SWPPP, lot line adjustments, and parcel maps. ERSC also provides on-call engineering services, such as the design for the La Cadena and 8th Street Intersection Reconfiguration.

General Plan Check Services, City of Chino – Project Engineer responsible for review of maps, legal documents, improvement plans, and grading plans during general plan check services to the City of Chino since 2016. In the City of Chino, ERSC is commissioned to provide the review of Rough and Precise Grading Plans, Wet Utility, Plans (e.g. Sewer, Water, Storm Drain), Street Improvement Plans, Street Light Plans and Voltage Drop

Craig Brudin, QSP | Sr. Engineering Associate

Calculations, Hydrology Studies and Hydraulic Calculations, Water Quality Management Plans (WQMPs), Survey documents and maps, and oils Reports, for private development and capital improvement projects throughout the City.

On-Call Plan Check, Inspection and Design Services, City of Beaumont – Project Engineer responsible for review of maps, legal documents, improvement plans, and grading plans during civil engineering plan check, design, and inspection services. ERSC reviews development projects, CIP projects, and WQMPs. Development plans range from 1-million sqft commercial complexes to multiple lot subdivisions. As an on-call design consultant, ERSC is responsible for paving projects, survey projects, and drainage projects.

On-Call Plan Check and Inspection Services, City of Banning – Project Engineer responsible for review of maps, legal documents, improvement plans, and grading plans during plan check of residential and CIP projects. Plan check services include review of maps, street, sewer, water, grading and storm drain projects, as well as review of construction drawings to assure compliance with City, State and Federal regulations. ERSC also provides conditions of approvals for City projects, as needed.

On-Call Plan Check and Construction Inspection Services, City of Highland – Project Engineer responsible for review of maps, legal documents, improvement plans, and grading plans during an on-call professional services agreement with the City of Highland. ERSC provides contract plan check and inspection services for the construction of public works and privately funded improvements, including site improvements, street improvements, paving, sidewalk, curb, gutter, grading, and earthwork. Work also included site review for compliance with City standards and traffic control requirements. ERSC also provides plan checking services for all parcel and tract maps, as well as hydrology review.

On-Call Plan Check Services, City of Lake Elsinore – Project Engineer responsible for review of maps, legal documents, improvement plans, and grading plans during civil engineering plan check services to the City of Lake Elsinore since in 2016. As part of an on-call contract with the City, ERSC provides review of the following plans and documents: Traffic Signal Plans; Improvement Plans; Grading Plans; Final Maps and Parcel Maps; Dedications, Easements; Vacations, Quitclaims; Parcel Mergers; Lot Line Adjustments; WQMP Submittals; Hydrology and Hydraulic Studies/Reports; HEC-5 Studies; Traffic Analyses, Studies, Reports; Soil/Geotechnical Studies/Reports; Alquist Priolo Studies/State Submittals; Erosion Control Designs; Review of Technical Specifications for Proposed Improvements within City Road Rights of Way.

Plan Checking and Project Management, City of Palm Springs – Project Engineer responsible for review of maps, legal documents, improvement plans, and grading plans during an on-call professional services agreement with the City of Palm Springs, ERSC provides plan and map checking for the City's development projects. Specific tasks include the review of improvement plans, final subdivision maps, and other survey related documents as prepared by design consultants for accuracy and completeness, conformance to local codes, ordinances, and design standards.



Joanna Rembis, PE | Principal Engineer

Registered Civil Engineer C75535

Education

California State Polytechnic University, Pomona

Affiliations

American Water Works Association
Past Chair of the Tanks, Reservoirs, Structures, Maintenance Committee
Inland County Water Association
Southern California Water Utility Association
American Society of Civil Engineers

Areas of Expertise

Municipal Engineering Services
Construction Management
Structural and Welding Inspection

Ms. Rembis has over 20 years experience in the tank industry from providing condition assessment of existing tanks to designing and constructing new tanks. She has been involved in the evaluation of over a thousand reservoirs, including performing field evaluations of the reservoir to preparing detailed corrosion report. She has also prepared plans and specifications for rehabilitating over 150 reservoirs and the construction of 20 new tanks. Ms. Rembis has also provided inspection for surface preparation and coating application, checked welds, verified over-excavation and compaction, rebar installation and concrete placement. She has a thorough and in depth understanding of tank coatings, life expectancy of coatings, common areas of failures in coatings, structural integrity, cathodic protection systems, Cal/OSHA tank requirements, health and safety tank requirements, and AWWA recommendations. Ms. Rembis has prepared tank prioritization reports for five different municipalities ranging in size from 18 reservoirs to 62 reservoirs. In 2018, Ms. Rembis presented at the AWWA Cal-Nevada Fall Conference in Palm Springs a discussion on the process of how to evaluate and prioritize tanks and develop a maintenance plan.

Similar Project Experience:

Condition Evaluation of Eleven Water Storage Reservoirs, Coachella Valley Water District - Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. Coachella Valley Water District contracted with ERSC to perform annual inspections for 11 water storage reservoirs. The annual inspections allow CVWD to meet the requirements of the health department as well as keep apprised of the reservoir's condition to determine when maintenance is required. Reservoirs 4605 and 1092-1 were coated and require a warranty inspection to determine if any repair work is required by the Contractors. Five of the reservoirs are in the first three categories of the District's reservoir prioritization list and it was critical to determine if any structural damage is occurring in these reservoirs.

In-Service Inspection at 12 Potable Water Reservoirs, City of Ontario, CA - Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. ERSC provided engineering design services for the inspection of 12 water reservoirs ranging in capacity from 2.0MG to 20MG and are located throughout Ontario and Upland in San Bernardino County. ERSC performed an external evaluation of the surfaces by traversing the ground around the reservoir, climbing the ladder, and traversing the roof to determine the overall condition of the exterior and collect necessary measurements. Internal evaluation was accomplished by using a raft to float the interior of the reservoirs to examine the roof surfaces and divers to evaluate the surfaces below the high-water level. The team examines the condition of the structural members, collects measurements, takes photos and videos to document the conditions. Reports were prepared for each reservoir with observations, recommendations, and cost estimate.

Zone 8-3 2.0 Million Gallon Reservoir, West Valley Water District, Rialto, CA - Project Engineer responsible for concept development, design recommendations, and special study drafting throughout the assignment. As a part of ERSC's On-Call Engineering services contract with the District, the firm provided engineering design and construction management services for a 2.0 Million Gallon Reservoir.

Lord Ranch 1.0 Million Gallon Steel Welded Reservoir, West Valley Water District, Rialto, CA - Project Engineer responsible for concept development, design recommendations, and special study drafting throughout the assignment. West Valley Water District retained ERSC to design a 1.0 MG Steel Welded Reservoir in Zone 3 which would allow the District to utilize additional capacity through the Baseline Feeder (BLF) transmission pipeline, which source is currently purchased groundwater from the San Bernardino Valley Municipal Water District (Valley District). ERSC designed the reservoir for placement on 14-acre existing Lord Ranch Facility to provide storage capacity for the pressure zone.

Construction Management and Inspection Services - Santa Ana Avenue Transmission Main Project Phase 2, West Valley Water District - Construction Manager responsible for contract administration, progress meetings, material/RFI submittals, correspondence, labor compliance, and progress payment review. The project includes the construction of a new 12-inch diameter DI transmission main for approximately 5,229 linear feet in Santa Ana Avenue that will provide improved fire flow for the residences in the area. The new transmission main will replace the existing 4-inch water main serving this area and will be constructed within the street right of way.

Construction Management and Inspection Services - Casmalia Water Main Replacement, West Valley Water District - Construction Manager responsible for contract administration, progress meetings, material/RFI submittals, correspondence, labor compliance, and progress payment review. WVWD contracted with ERSC for the Casmalia Water Main Replacement, which includes installation of 850 linear feet of 8-inch and 50 linear feet of 4-inch ductile iron pipe, 10 new services reconnections and one new fire hydrant within the street right of way.

Construction Management and Inspection Services, City of South Gate - Project Manager for construction management and inspection services for the project designed to improve Chakemco Street by adding sidewalks, curbs, gutters, ADA ramps, drive approaches, landscaping, irrigation, new street pavement, striping, lighting, and miscellaneous additions to improve the overall pedestrian mobility and safety.

Plan Check and Construction Services, City of Garden Grove, Garden Grove, CA – Assisting Construction Inspectors during ongoing construction management services for street, intersection and storm drain improvement projects. Work includes coordination for permit inspection for SCE pole replacement.

Bloomington Area Waterline Replacement Phase 3A Inspection, West Valley Water District, Rialto, CA – Project Manager for the Bloomington Phase 3A of the Bloomington Area Waterline Replacement initiative. During this phase, the District's selected contractor installed approximately 5,600 lineal feet of fully welded CML&C water line, relocated 141 water services from backyard alleyways to front of properties, and installed 14 new fire hydrants.

Inverted Sewer Siphon, Western Municipal Water District, Murrieta, CA - Project Manager during design services for the upgrade of an existing 8-inch diameter sewer siphon pipeline located in the City of Murrieta. The existing siphon experienced sanitary sewer overflows (SSOs) and needed to be upgraded to a larger size or a double barrel configuration.

Valley Boulevard Waterline Replacement Project, West Valley Water District, Rialto, CA - Project Manager for 8,400± LF of 12-inch, 8-inch and 6-inch waterline replacement project including utility research, potholing, permit coordination and preparation of contract documents. Project is currently at the 90% design completion level with preliminary bid and specification documents submitted and under review. Also includes 105 water service replacements, 11 mainline connections, 14 fire hydrants, and miscellaneous appurtenances.

1MG Ground Level Water Tank, City of El Monte, CA - Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. The City of El Monte contracted ERSC to prepare Technical Specifications and furnishing Bidding and Construction Management to rehabilitate a 1.0 MG ground level water storage tank.

1MG Water Reservoir Design, City of Loma Linda, CA - Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. The City of Loma Linda contracted ERSC to supplement its existing water storage by building a new 1.0 MG reservoir to supply Pressure Zones 1A, 2, and 2A, and relieve pumping efforts in the event the existing 3.2 MG (Pressure Zone 2A) tank temporarily decommissioned for maintenance.

Construction Engineering Services - Bid Schedule 1462, City of Burbank, CA – Project Manager during Construction Engineering Services for the installation of various traffic signal equipment and appurtenances as well as coordination with Burbank Water and Power for overhead wiring considerations, signing and striping, ramp, sidewalk construction and related ITS equipment. Construction Managers and Inspectors are supervising the work and providing coordination between the Contractor, the City, other agencies, consultants, utility companies, the public, adjacent property owners and other stakeholders. ERSC Inspectors maintain an on-site presence and proactive approach to ensure that the Project is constructed in accordance with the plans and specifications.

Coachella Valley Water District, Coachella, CA – Over the past 20 years, provided engineering and construction management services to the District on various projects. The following are highlights of the services and projects provided for the District:

- Evaluated and prioritized 64 facilities in the District's system for design, maintenance and rehabilitation.
- Prepared specifications and plans, provided bid support and in the process of providing construction management for the upgrades.
- Formulated specifications and plans for the design of nine new reservoirs and rehabilitation of 18 reservoirs.
- Provided bid support, construction management, and quality control inspection for infrastructure improvements.
- Prepared specifications and plans for the installation of a new concrete ringwall under an existing 5.0 MG reservoir and provided construction management for the rebar placement and concrete pour.
- Managed over \$10M in project costs for the District.

Long Beach Water Department, Long Beach, CA – Over the past 20 years, provided engineering and construction management services on multiple projects for the Water Department.

- Evaluated 36 tanks in their system for corrosion, seismic/structural, and safety.
- Prepared technical specifications, plans, and bid packages for 13 infrastructure rehabilitation projects and provided construction management and quality control inspection, for all 13 rehabilitation projects.
- Supplied design and construction management for the installation of cathodic protection systems in 34 of the department's tanks.
- Prepared specifications, plans, and construction management for upgrades at various department facilities.
- Ensured quality control inspection on two separate projects for the installation of cathodic protection anode beds throughout the city for their pipeline systems.
- Provided construction management for three separate projects for the installation of 10 fiberglass chemical tanks at the water treatment plant.
- Additional projects consisted of evaluating 34 bridge pipeline crossings at various locations throughout the city and prepared the specifications and plans for the exterior painting of 10 pipe crossings.



Reza Toorzani, PE | Principal Engineer

CA, Civil Engineer No. C74906
DE, Civil Engineer No. C13235

Education

BS, Civil Engineering, Southern University and A&M College, Baton Rouge, LA

MS, Civil Engineering, New Jersey Institute of Technology, Newark, NJ

Affiliations

American Concrete Institute

Areas of Expertise

Construction Management
Structural Engineering
Structural Analysis
Material Analysis

Mr. Toorzani joined the ERSC team in 2003, with more than 26 years of rich and extensive experience. He has gained particular skill in design, and a distinguished reputation for the overall supervision of large and complicated projects, insuring that the contracted works meets the required specifications. He has managed several site supervision teams and played a major role in completing projects according to program and within budget. In addition, Mr. Toorzani has practiced as an analyst, designer and site superintendent in the implementation of major civil infrastructure projects mainly in the United States and Iran.

Since joining the ERSC team, Mr. Toorzani has focused his extensive experience and expertise on the design and peer review of various structures. His design experience includes large scale solar projects, walls and foundations, reinforced concrete box storm drains and substructures and block enclosures and small wood framed structures at pump station and large metal buildings. Has conducted peer review for conical wind turbine foundations in the City of Palm Springs, Con-Span bridge structures along the Cactus Valley Wash in the City of Hemet and reinforced concrete structures crossing the East Garden Grove/Wintersburg Channel in the City of Huntington Beach.

Similar Project Experience:

Pump Station Project, Pechanga Band of Luiseño Indians - Construction Management and Inspection for preparation of specifications and plans for the replacement of 3 existing pumps and motors with 3 new 50 HP, 400 gpm pumps, motors, 3 check valves, six butterfly valves, magnetic flow meter and associated piping. The project also included replacing the automatic transfer switch, modifications to the existing Motor Control Center and replacing existing VFD with constant speed solid state starters with bypass.

Palm Springs Master Drainage Plan Lines 6A and 8 and Laterals 20C and 20CA, Palm Springs, CA – Project Engineer and Construction Manager during the design and construction of the three major flood control projects across the City. Located along Sunrise Way Line 6A and Line 8 will result in the elimination of “down and under drains” and support commercial development between Via Escuela and Vista Chino Drive and Andreas Road and the Baristo Channel, respectively. Similarly, Laterals 20C and 20CA will result in the elimination of “down and under drains” and support residential development along El Cielo and Baristo Road.

Horseshoe Development, Soboba Band of Luiseno Indians, San Jacinto, CA - Construction Manager attending construction/coordination meetings each week, maintained all meeting minutes, R.F.I. logs and change order logs. Review of all shop drawings/submittals for conformance with plans and specs. Maintained the submittal log and provided weekly updates. Provided daily oversight of construction activities by the contractors and subcontractors and maintained daily inspection reports. Provided value engineering as needed to maintain the project construction on track and within budget.

Soboba Sports Park and Parking Lot, San Jacinto, CA - Construction manager and Project Engineer for the design, survey, and construction management services in preparation of grading and drainage improvement plans for a new sports park on the reservation. The project included construction of a proposed building, restrooms, removal and replacement of an existing playground, 8 row bleacher and parking lot expansion. The new parking lot included new paved spaces to accommodate additional traffic.

South Gate Park Infrastructure Improvements (Area SPicnic Area), City Project No. 488-PRK - Construction Manager during the conversion of an existing Roller Hockey rink into a group picnic area. The park improvements are located near the northwest corner of South Gate Park, near the intersection of Southern Avenue and Hildreth Avenue, at the roller court facility. Work will include construction/installation of concrete flatwork, decomposed granite paving, seat wall, tree planters, landscaping, picnic structures, and park furniture.

State Street Park, and Cycle 8 & 9 Safe-Route-to-School Projects, City of South Gate - Construction Manager during a \$3.5 Million construction of a new park and several Street and Intersection Safety improvements. The project involves working with School District, LADWP, Fire Department and the adjacent community. The work involves street resurfacing, and construction of curb & gutter, sidewalk, ADA Ramps, installation of signs and markings, installation of Traffic Loops, grading, drainage, water quality systems, landscaping, hardscaping, building facilities, playground facilities, picnic shelters, utilities, lighting, and basketball court/sport facilities.

CSDP Line 3-5, City of Colton – Project Engineer involved in the design of a regional drainage facility to convey 1,000 cfs from a 2,045-acre area. The project required the installation of 10,000 feet of 108- and 120-inch reinforced concrete pipe from Valley Boulevard south to the Santa Ana River. The project required protecting sewer and water mains, MCI fiber optics cable, major petroleum products line and gas lines, and an existing aqueduct system. Completion of the project required the installation of approximately 1,700 feet of 108-inch RCP by boring and jacking methods.



Stephania Hernandez, EIT | Engineer III

Education

BS, Geographic and Environmental Engineering, University of Applied and Environmental Sciences (UDCA), Bogotá, Colombia

Areas of Expertise

Environmental Analysis
Water Resources
Planning

Ms. Hernandez recently joined ERSC as an Engineer I. She is proficient in identifying and solving problems related to the use of territory and its resources, able to cover the programming and development of environmental projects and sustainable development. She is also efficient in the planning and organization of geographical space and in the use of modern cartographic technologies and of Geographic Information Systems (GIS).

Similar Project Experience:

Inundation Study for Mineral Hot Springs Lake, San Manuel Band of Mission Indians, San Bernardino, CA - Project Engineer during the decommissioning of Mineral Hot Springs Lake (MHSL). The Tribe wished to reclassify the lake to reduce the oversight of the State of California's Department of Dam Safety. In decommissioning and reclassification, ERSC will work to redesign the weir and outlet structure to allow the lake to operate below 15 acre feet.

Soboba Band of Luiseño Indians, Master Drainage Plan (MDP) Storm Drain Improvements within EDC Commercial Retail Development - Project Engineer during preparation of a drainage study and improvement plans for construction of MDP Lines B1, B2, and B3 for the Horseshoe Development Site consistent with the current MDP Report.

CIP Water Pipeline Replacement Project, City of Redlands, Redlands, CA - Assisted in the design of new water mains ranging from 8 inch to 12 inch ductile iron pipe (DIP). The purpose of the project was to eliminate undersized and aging infrastructure. The design included the reconnection of all water service laterals to the new main. The project includes approximately 55,000 linear feet of existing pipeline that need to be replaced.

Sewer Capacity Improvement Project C-3, City of Victorville, Victorville, CA - Assisted designer during the project that included upgrading of 6,550 of 18-inch pipe upgraded from 12-inch pipe. The project is generally located in residential areas and crosses a park in an easement. The City of Victorville has identified the potential to construct a new sewer main in the San Bernardino County Flood Control District's (SBFCD) access road, next to the Oro Grande Wash from Austin Road to Seneca Road. This relocation eliminates a series of existing lines that traverse several properties, which requires the abandonment of any existing easements. This requires coordination with several residences, and the new alignment will require coordination with SBFCD and their approval. It is assumed that this has been discussed with SBFCD but will require appropriate reviews and permitting.

Aliso Creek Road Rehab from Aliso Viejo Parkway to SR-73, City of Aliso Viejo, CA - Project Engineer on the design of the Aliso Creek Road Rehab project, which included the grind and overlay of the roadway, localized full depth replacements, signing and striping, traffic signal loops, traffic control and Caltrans Coordination. The project involved additional detailed design of ADA ramps at the SR-73 interchange and obtaining a Caltrans Encroachment permit.

C Street Angled Parking, City of Ontario, Ontario, CA - Designer for the C Street angled parking. Work included reconfiguration of the existing roadway to allow for thirteen (13) angled stalls to accommodate parking for the existing Wells Fargo.

4th Street Apartments, City of Yucaipa, Yucaipa, CA - Assisted with the design of 18 apartment units on approximately 2.5 acres of land. Scope of work also includes production of the preliminary WQMP and hydrology calculations.

Washington Street at Fred Waring Drive Triple Left Turn Lanes, City of La Quinta, La Quinta, CA - Assisting in design of improvements to this high traffic intersection by adding a third, left turn lane in each direction of the intersection in order to alleviate traffic congestion and improve traffic flow. Ms. Hernandez also assisted on the detailed project description, plans, bid schedules, bid item descriptions, payment methods, engineer's estimate, special provisions, technical specifications, and any specification detail sheets and relevant standard plans.

Design of Murrieta Creek Bridge, City of Temecula, Temecula, CA - Assisting in the design of a bridge structure over Murrieta Creek connecting Overland Drive at the intersection of Enterprise Circle West on the east side of the Creek to Avenida Alvarado at the intersection of Diaz Road on the west side of the Creek. Ms. Hernandez is also assisting on the PS&E and utility research and coordination.



Katherine Hernandez | Engineer II

Similar Project Experience:

Sewer Capacity Improvement Project C-3, City of Victorville, Victorville, CA – Assisted designer during the project that included upgrading of 6,550 of 18-inch pipe upgraded from 12-inch pipe. The project is generally located in residential areas and the potential to construct a new sewer main in the San Bernardino County Flood Control District's (SBFCD) access road, next to the Oro Grande Wash from Austin Road to Seneca Road. This relocation eliminates a series of existing lines that traverse several properties, which requires the abandonment of any existing easements. This requires coordination with several residences, and the new alignment will require coordination with SBFCD and their approval. It is assumed that this has been discussed with SBFCD but will require appropriate reviews and permitting.

CIP Water Pipeline Replacement Project, City of Redlands, Redlands, CA - Assisting in the design of new water mains ranging from 8 inch to 12 inch ductile iron pipe (DIP). The purpose of the project is to eliminate undersized and aging infrastructure. The design will include the reconnection of all water service laterals to the new main. The project includes approximately 55,000 linear feet of existing pipeline that need to be replaced.

Sierra Way Storm Drain Project, City of San Bernardino, San Bernardino, CA - Project designer during the design of approximately 5,000 lf of 39" – 84" storm drain in the City. The project sought to eliminate surface drainage on the local streets and temporary lines that traversed private property. While the project was part of the Comprehensive Storm Drain Plan, the hydrology supporting the plan was dated prior to the local hydrology manual release, so a new analysis was required. The project also included a component to rehabilitate pavement in the area of the project. The poorly conditioned pavement was rehabilitated as a part of the project's scope.

Education

BS, Geographic and Environmental Engineering, University of Applied and Environmental Sciences (UDCA), Bogotá, Colombia

Areas of Expertise

Environmental Analysis
Water Resources
Planning

Ms. Hernandez is proficient in geographic and environmental engineering, able to identify and solve problems related to environmental, geographical and territorial resources, interrelated with social processes and territorial ordering through sustainable development. Qualified to make cartography with modern technologies related to geographic information systems (GIS).



Moe Ahmadi, PE | Vice President

CA, Civil Engineer No. C58784
QSD/QSP No. 00706

Education

BS, Civil Engineering, Texas A&M University
College Station, TX

MS, Civil Engineering Construction
Management, Texas A&M University, College
Station, TX

Affiliations

American Society of Civil Engineers
National Society of Prof. Engineers

Areas of Expertise

Water Resources, Flood Control, Hydraulics
and Hydrology, Erosion Control

Over the past 30 years Mr. Ahmadi has actively participated in the preparation of numerous feasibility studies, design reports, construction plans, specifications and cost estimates for drainage and flood control facilities throughout Southern California. Mr. Ahmadi is experienced with numerous computer programs including AutoCAD 2019, CivilCAD Hydrology programs, Water Surface Profile Gradient (WSPG), and HEC-RAS flood plain analysis software.

He is also experienced in preparation of Stork Water Prevention Plan (SWPPP) as required by the NPDES Industrial General Permit and the Construction General Permit (CGP), which identify BMPs used to reduce or eliminate potential pollutant discharges in storm water runoff. Under his direction, plans for various residential, commercial, and industrial projects in the Counties of Riverside, San Bernardino, and Orange have been prepared. As part of the requirements of the CGP, Mr. Ahmadi has provided SWPPP services to address new requirements. This work included Data Submitter services, conducting the risk assessment; an evaluation of a project's sediment risk and receiving water risk, and then determining the overall Risk Level for traditional projects, or LUP Type for linear utility projects, and assisting clients to register and submit applications in the SMARTS System to obtain the applicable WDID numbers from the SWQCB prior to construction.

Similar Project Experience:

CSPD Line 3-5, and Master Drainage Plan (MDP) Update, City of Colton, CA – Managing Engineer for a Master Plan Update and the design of a regional drainage facility to convey 1,000 cfs from a 2,045-acre area. The MDP included hydrology and hydraulic analysis, preliminary design and sizing of drainage facilities, cost estimates and a project report for the 3-5 and 3-8 watersheds within the City of Colton. Storm Drain Project 3-5 required the installation of 11,500 feet of 108- and 120-inch reinforced concrete pipe from Valley Boulevard south to the Santa Ana River, including the installation of approximately 1,700 feet of 108-inch RCP by boring and jacking methods at multiple locations. The final design of the facilities included the preparation of construction plans and specifications meeting the requirements of the San Bernardino County Flood Control District, utility coordination and relocation, preparation of right-of-way documentation and coordination of construction permits from the State of California and the Union Pacific Railroad.

Sierra Way Storm Drain Project, City of San Bernardino, CA - Project Manager responsible for plan design and supporting analysis during the design of approximately 5,000 lf of 39" – 84" storm drain in the City. The project sought to eliminate surface drainage on the local streets and temporary lines that traversed private property.

40th Street Widening Project, City of San Bernardino, CA – Project Engineer during the design of the 40th Street Widening Project in San Bernardino. 40th Street is to be widened to allow 4 travel lanes, new sidewalk, and drainage improvements. The project stretches from Victoria Ave to Kendall Drive. Also included is traffic signal modifications at Electric Ave. and drainage modifications.

Base Line, Water Street, and Greenspot Storm Drain Improvements, City of Highland, CA – Managing Engineer during preparation of construction plans, specifications and cost estimates for storm drains ranging from 24-inch to 48-inch in size in East Highland in Base Line, Water Street, Club View and Greenspot. The work also included hydrology and hydraulic analysis, construction management and inspection of the project.

San Jacinto Area Master Drainage Plan Line "E-2", City of San Jacinto, CA – Managing Engineer to prepare construction plans for MDP Lines E-2 and E-2A in the City of San Jacinto and Hemet. The project reach for MDP Line E-2 is over 7100 feet along State Street between Menlo Avenue and MDP Line E and over 250 feet for MDP Line E-2A along Esplanade Avenue. The size of the storm drain facilities are from 36-inch to 72-inch diameter. Work included hydrology analysis to determine the 10- and 100-year storm runoff within the MDP facilities watershed. using CivilDesign software.

San Jacinto Area Master Drainage Plan Line "H". City of San Jacinto, CA – Managing Engineer to prepare a feasibility study to evaluate alternative alignments for MDP Line H, H-2 and H-3 per the current City of San Jacinto MDP. Work also included preparation of construction plans for the most cost-effective alignment. The project included evaluation of the existing drainage facilities at the intersection of Ramona Expressway and State Street; to mitigate drainage deficiencies as required. It also includes Rational Method Hydrology using CivilDesign software to determine the 10- and 100-year storm runoff.

Section 29 Stormwater Basin, City of Palm Desert, CA – Project engineer during design for the failed rock slope protection downstream of the existing spillway and collapsed slope that undermined a significant portion of the spillway crest. Work also included hydrology analysis of approximately 519 acres of drainage watershed, development of a unit hydrograph tributary to Mid-Valley Channel, flood routing through the existing drainage channels and Section 29 Retention Basin, hydraulic analysis for design and reconstruction of the rock slope protection, spillway, forensic analysis to investigate the cause of the failure, produce contract documents guiding the repair of the Section 29 Basin and an 18-inch basin inlet. Relocation of an existing 12-inch sewer line under the basin spillway.

MDP Lines 6A and 8, Laterals 20C and 20A, City of Palm Springs, CA – Project engineer during the design of the three major flood control projects commissioned by the City. Line 6A and Line 8 along Sunrise Way resulted in the elimination of "down and under drains" and support commercial development between Via Escuela and Vista Chino Drive and Andreas Road and the Baristo Channel, respectively. Similarly, Laterals 20C and 20CA resulted in the elimination of "down and under drains" and support residential development along El Cielo and Baristo Road. Services included review and modification

of master plan hydrology, design surveys, utility coordination, geotechnical engineering, alignment selection and analysis, hydraulic modeling and the development of plans, specifications and estimates.

Highland Avenue Extension, West Valley Water District, Rialto, CA – Project Engineer for the project wherein the Highland Ave reach was planned to provide connection from the upper reaches to the new Pepper Avenue pipeline. Construction of the Pepper Avenue pipeline was possible following Caltrans improvements to the I-210 Freeway offramps. The Highland Avenue Extension consisted of constructing 4,200 lf of 30-inch CML&C waterline. Connection points to the existing system were achieved at both Oakdale Street and Pepper Avenue. The pipeline is located within Caltrans ROW. Coordination with the agency was required to obtain an encroachment permit through the Caltrans process. ERSC also prepared the Caltrans required Water Pollution Control Plan (WPCP).

East Drop Structure Repair Mitigation Within Whitewater River Channel, City Of Indian Wells, CA – Project Manager for redesign of the East Drop Structure along the Whitewater River. Site analyses and development of potential replacement structures such as a concrete drop structure that incorporates a baffle chute at the outlet of the low flow channel, a USBR stilling basin, or a drop structure similar to the one constructed in 1995 using materials sized to withstand the anticipated flows. Regulatory permitting and clearance for an RWQCB CWA Section 401 Water Quality Certification, CDFW 1602 Streambed Alteration Agreement, USACE Nationwide Section 404 Dredge and Fill Permit, and CEQA IS/MND coordination.

Soboba Band of Luiseño Indians, Master Drainage Plan (MDP) Storm Drain Improvements within EDC Commercial Retail Development - Project Manager during preparation of a drainage study and improvement plans for construction of MDP Lines B1, B2, and B3 for the Horseshoe Development Site consistent with the current MDP Report.

Soboba Band of Luiseño Indians, Flood Plain Study of San Jacinto River, City of San Jacinto, CA – Project Manager during the hydrologic and hydraulic analysis of approximately 5.5 miles of the San Jacinto River from Indian Creek to the Lake Park Drive bridge. The study involved modeling and determining the flood plain limits of a 100-year storm event.

Soboba Band of Luiseño Indians, Drainage Study for Horseshoe Grande Property, San Jacinto, CA – Project Manager during the analysis and preparation of a drainage study for the proposed transfer of 34 parcels totaling approximately 534.9 acres currently held in fee title to trust status. This Preliminary Drainage Study provided an analysis of the offsite drainage patterns and potential onsite drainage

Soboba Band of Luiseño Indians, FEMA Grant Application Assistance - Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. Assisting Soboba in providing supporting document for the FEMA Grant Application to restore the flood damaged project sites. The work included Providing conceptual design and cost estimates for Soboba First Road Crossing, Poppet Creek Engineered Channel and San Jacinto River Levee.

Inundation Study for Mineral Hot Springs Lake, San Manuel Band Of Mission Indians, San Bernardino, CA - Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. The San Manuel Tribe contracted ERSC to complete the decommissioning of their Mineral Hot Springs Lake (MHSL). The Tribe wished to reclassify the lake to reduce the oversight of the State of California's Department of Dam Safety. ERSC redesigned the weir and outlet structure to allow the lake to operate below 15 acre feet. ERSC also designed drainage improvements to allow for stormwater to be conveyed safely due to the reduced capacity of the lake.

Flood Damaged Road Rehabilitation, Morongo Band of Mission Indians, Cabazon, CA - Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. ERSC was contracted as part of a flood damage mitigation project that served the needs of the Morongo Band of Mission Indians. Flooding that occurred in February 2019 caused major damage to Potrero Canyon Road and the earthen channel along its south side, as well as undercut pavement and erosion within the drainage course on the south side of Verdugo Road. ERSC created plans to consider a Mitigation Approach that avoided repeated failure due to the excessive rains common to these Tribal lands. Work included Demolition Plan, Precise Grading Plan, Embankment Detail (Rip-Rap) and design sufficient to prevent future soil erosion, and Construction Drawings.



Trent Brudin, PE, QSP/QSD | Engineer IV

CA, Professional Engineer No.90924
AZ, Professional Engineer No. 73812
QSD No. C90924

Education

BS, Civil Engineering, Loyola Marymount
University, Los Angeles, CA

Areas of Expertise

Site Layout & Geometrics
Hydrology & Drainage
AutoCAD Civil 3D
Traffic and Transportation
Water and Wastewater
SWPPP Compliance
SWPPP Development

Mr. Brudin was introduced to the industry in 2012 as an intern at Lake Hemet Municipal Water District. Since then, he has held positions as Assistant Project Engineer and Project Engineer at C.W. Driver, a general contracting firm, until shortly after his graduation in 2015 when he took a position as Associate Civil Engineer at Parsons Corporation. Trent joined ERSC as Engineer II in early 2016.

Trent has become a highly skilled engineer assisting in the management of a wide variety of projects at ERSC. Trent regularly performs complex design level tasks on water resources, civil site design, and transportation related projects included hydrology studies, drainage design, site grading, geometric site layout, WQMP and SWPPP documentation, intersection improvements, traffic signal modifications, water and wastewater pipeline design, and water feasibility studies

Similar Project Experience:

Bid Package Preparation for Backup Generators for Well Sites 27 & 31, 32, & 37 Project, Mission Springs Water District, Desert Hot Springs, CA - Project Engineer during drafting of PS&E for backup generator design. As a part of an On-Call agreement, Mission Springs Water District contracted with ERSC to provide plans, specifications, complete bid documents, and bidding assistance for the Backup Generators for Well Sites 27 & 31, 32, & 37. ERSC's team provided site improvement drawings, generator pad structural calculations, equipment selection, and coordination with Southern California Edison (SCE) and the South Coast Air Quality Management District (SCAQMD).

Aliso Creek Roadway Improvements, City of Aliso Viejo, CA - Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. ERSC prepared plans, specifications and estimates for the Aliso Creek Road Roadway Improvement Project in the City. The City initiated the project to address the deteriorating roadway between Wolverine Wat to Alicia Parkway. The project includes grind/overlay for the six-lane road segment, ADA Ramps, and bus pads along with the associated signing, striping, and traffic signal loop replacements. ERSC's survey crews performed all field data collecting, control surveys, and base mapping during the project.

Rehabilitation of Alicia Parkway, City of Aliso Viejo, CA - Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. The City of Aliso Viejo contracted with ERSC for the rehabilitation of Alicia Parkway from Pacific Park Drive to City limits. Alicia Parkway is classified as a Major Arterial (6-Lanes, Divided) per the City of Aliso Viejo General Plan, Circulation Element. In addition, the Circulation Element calls for a Class II "bike lane" along this segment of roadway. To assist the City of Aliso Viejo in maintaining the condition and riding surface of Alicia Parkway, ERSC prepared all necessary survey, roadway improvement plans and specifications, as well as signing and striping and traffic control plans.

Rehabilitation of Pacific Park Drive, City of Aliso Viejo, CA - Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. The City of Aliso Viejo contracted with ERSC for the rehabilitation of Pacific Park Drive from Aliso Viejo Parkway to Aliso Creek Road. Pacific Park Drive is classified as a Major Arterial (6-Lanes, Divided) per the City of Aliso Viejo General Plan, Circulation Element. In addition, the Circulation Element calls for a Class II "bike lane" along this segment of roadway. To assist the City of Aliso Viejo in maintaining the condition and riding surface of Pacific Park, ERSC will prepare roadway improvement plans and specifications, as well as signing and striping and traffic control plans for full depth replacement of failed pavement and base, sidewalk improvements, and ADA improvements.

On-Call Plan Check and Inspector Services, City of Banning – Project Engineer assisting with interim staff augmentation acting as part time water/wastewater engineer. Duties include checking plans and preparing COAs for private development projects, analyzing and producing information for capital improvement project RFPs, coordinating the City's water system model update, and other water/wastewater engineering tasks as needed.

Parking Lot at Library Street, City of Lake Elsinore, CA - Project Engineer responsible for concept development, design recommendations, and special study drafting throughout the assignment. ERSC services included design and preparation of supporting documents for the City Park parking lot. Work included preparation of construction documents, demolition plan, erosion control plan, engineer's cost estimate, hydrology report, and a Water Quality Management Plan (WQMP per Santa Ana Regional Water Quality Control Board Order No. R8-2010-0033).

CIP Water Pipeline Replacement Project, City of Redlands, CA - Project Engineer during the design of new water mains ranging from 8 inch to 12 inch ductile iron pipe (DIP). The purpose of the project is to eliminate undersized and aging infrastructure. The design will include the reconnection of all water service laterals to the new main. The project includes approximately 55,000 linear feet of existing pipeline that need to be replaced.

Pipeline Replacement, Alpine Water Users Association, Twin Peaks, CA – Project Engineer

on the 1,600 linear feet pipeline replacement for Maxon Drive and Lake Forest Drive. Design pipeline replacement utilizing C900 PVC pipe, including required fittings and thrust restraint be necessary due to the significant changes in alignment of the pipeline, as well as utility research and coordination for the project.

Water Usage and Storage Study, City of Loma Linda, CA – Project Engineer assisted in providing research and evaluation of storage needs for specific zones within the City. Research included, but was limited to, City Master reports, assessment and review of City's existing storage facilities, preparation of schematic profile of the City's water system to source, transfer/conveyance facilities, procure and review water production records to develop a recommendation to the City for their storage and usage needs.

Sewer Structural Rehabilitation, City of Victorville, CA – Project Engineer during the replacement of existing sewer main in-kind. Removal and replacement of approx. 12,000 feet of 8-12" Vitrified Clay Pipe (VCP) Sewer mainline. Sewer rehabilitation was completed in numerous locations of the City. Majority of locations were within the Public ROW, but certain reaches required close coordination with property owners including private landowners and the San Bernardino County Flood Control District were pipe was designed in Easements or within the requirements of an encroachment permit.

Sewer Capacity Improvement Project C-1, City of Victorville, CA – Project Engineer during the upgrading of 3,022 feet to 15-inch pipe from existing 10-inch pipe. The project intends to allow additional capacity to the sewer system to allow and account for increased commercial and industrial development in this part of the City. The project is generally located in an industrial area around Hesperia Road and Nisqualli Road and generally has impacts on several distribution sites as well as some retail/gas stations.

Sewer Capacity Improvement Project C-2, City of Victorville, CA – Project Engineer during the upgrading of 1,748 feet to 12-inch pipe from existing 8-inch pipe. The project is generally located in a residential area and crosses an existing golf course. The project is also contiguous to City sewer project C3 as well as several Structural Sewer Replacement Lines. This was important to note because turned out to be beneficial to include both items of work in the same project/contract. This work generally took place in easements, and only has impacts on a small segment of Public La Paz Drive as well as Arrowhead Drive.

Sewer Capacity Improvement Project C-3, City of Victorville, CA – Project Engineer during the project included the upgrading of 6,550 of 18-inch pipe upgraded from 12-inch pipe. The project is generally located in residential areas and crosses a park in an easement. The City of Victorville has identified the potential to construct a new sewer main in the San Bernardino County Flood Control District's (SBFCD) access road, next to the Oro Grande Wash from Austin Road to Seneca Road. This relocation eliminates a series of existing lines that traverse several properties, which requires the abandonment of any existing easements. This requires coordination with several residences, and the new alignment will require coordination with SBFCD and their approval. It is assumed that this has been discussed with SBFCD but will require appropriate reviews and permitting.

Sewer Line Relocation - Soboba Band of Luiseño Indians in conjunction with Eastern Municipal Water District, San Jacinto, CA – Project Engineer for the reconstruction of the existing 10" sewer line to a 15" gravity sewer line located on the site. The design was created in accordance to EMWD's standards regarding size, materials, as the maintenance of the line is not to be assumed by the Tribe. Sewer will connect to an existing lift station offsite and be pumped via force main to EMWD facilities.

La Laguna RV Resort Wet Utilities, City of Lake Elsinore, CA – Project Engineer providing design of sewer and water systems to the roughly 230 space RV resort located on the northwestern shore of Lake Elsinore. The water and sewer system design included the layout of main distribution lines and a hookup "pedestal" to each individual RV space that provides a water, sewer and electrical connection for the RV in that space. The sewer system design included providing one lift station that was designed to replace and takeover duty for an outdated EVMWD owned lift station and the existing site lift station. EVMWD would later take over operation and maintenance of this strategically placed lift station, leaving the client, The City of Lake Elsinore, free from needing a lift station of their own.

Temporary II Lift Station, Soboba Band of Luiseño Indians, San Jacinto, CA – Project Engineer for design of Temporary Lift Station. Based on an agreement between EMWD and the Soboba Band of Luiseño Indians (SBLI), the relocation and design of a new sewer system will account for the ultimate flows from existing and the future planned developments for Soboba Casino/Hotel. ERSC was retained by SBLI to design a lift station capable of pumping the ultimate flows per the agreement between EMWD and SBLI. The lift station design is based on EMWD's Small Sewage Lift Station Guidelines, Standard and Specifications.

Quail Valley Subarea 4 Sewerage Feasibility Study and Preliminary Design, Eastern Municipal Water District, Quail Valley, CA – Project engineer for the feasibility study and preliminary design of the area's first public sewer system. Developed lots in the Quail Valley subarea 4 project region rely on individual septic systems for wastewater disposal and presents challenges to implementing a conventional gravity sewerage solution. Upon completion, the project will recommend the most feasible alternative to provide sewer service to the area. Over 1,200 individual lots will need to be serviced by the future system which will include a combination of packaged lift stations, vacuum sewer systems, regional lift stations, and sewer conveyance gravity/force mains.



Travis Moffatt, EIT | Engineer II

CA, Professional Engineer No.90924
AZ, Professional Engineer No. 73812
QSD No. C90924

Education

BS, Civil Engineering, Loyola Marymount University, Los Angeles, CA

Areas of Expertise

Site Layout & Geometrics
Hydrology & Drainage
AutoCAD Civil 3D
Traffic and Transportation
Water and Wastewater
SWPPP Compliance
SWPPP Development

Mr. Brudin was introduced to the industry in 2012 as an intern at Lake Hemet Municipal Water District. Since then, he has held positions as Assistant Project Engineer and Project Engineer at C.W. Driver, a general contracting firm, until shortly after his graduation in 2015 when he took a position as Associate Civil Engineer at Parsons Corporation. Trent joined ERSC as Engineer II in early 2016.

Trent has become a highly skilled engineer assisting in the management of a wide variety of projects at ERSC. Trent regularly performs complex design level tasks on water resources, civil site design, and transportation related projects included hydrology studies, drainage design, site grading, geometric site layout, WQMP and SWPPP documentation, intersection improvements, traffic signal modifications, water and wastewater pipeline design, and water feasibility studies

Similar Project Experience:

1MG Water Reservoir Design, City of Loma Linda, CA - Project Designer responsible for preparation of project documents and completion of computer aided design throughout all phases of the assignment. The City of Loma Linda contracted ERSC to supplement its existing water storage by building a new 1.0 MG reservoir to supply Pressure Zones 1A, 2, and 2A, and relieve pumping efforts in the event the existing 3.2 MG (Pressure Zone 2A) tank temporarily decommissioned for maintenance.

Lord Ranch 1.0 Million Gallon Steel Welded Reservoir, West Valley Water District, Rialto, CA - Project Designer responsible for preparation of project documents and completion of computer aided design throughout all phases of the assignment. West Valley Water District retained ERSC to design a 1.0 MG Steel Welded Reservoir in Zone 3 which would allow the District to utilize additional capacity through the Baseline Feeder (BLF) transmission pipeline, which source is currently purchased groundwater from the San Bernardino Valley Municipal Water District (Valley District). ERSC designed the reservoir for placement on 14-acre existing Lord Ranch Facility to provide storage capacity for the pressure zone.

Overland Bridge at Murrieta Creek, CNS Engineers, Temecula, CA - Project Designer responsible for preparation of project documents and completion of computer aided design throughout all phases of the assignment. ERSC served as a partner to the CNS Engineers' team, during the design of a bridge structure over and across Murrieta Creek connecting Avenida Alvarado at the intersection of Diaz to the west of the creek, with Overland Drive at the intersection of Enterprise Circle to the east of the creek. The ERSC team was responsible for all ancillary improvements to the design of the bridge. Street improvements, drainage improvements, legals/plats, hydraulic/hydrology analysis, and WQAR were all facilitated in house by the ERSC team.

Tippecanoe Pavement Rehabilitation Project, City of Highland, CA - Project Designer responsible for preparation of project documents and completion of computer aided design throughout all phases of the assignment. Also assisted with survey tasks. ERSC provided professional engineering services related to Cooperative City/County Pavement Rehabilitation Project, str20003 pavement rehabilitation of five street reaches covering four streets. For Tippecanoe Avenue, existing AC and native material was pulverized in place, a portion of the pulverized material removed, cement added to the remaining pulverized material, followed by placement of HMA and RHMA for the reach from 3rd to 6th.

B&H Gas Station and Minimart, Simmons Built, Calimesa, CA - Project Designer responsible for preparation of project documents and completion of computer aided design throughout all phases of the assignment. ERSC provided professional engineering services required to complete contract documents for onsite and offsite improvements related to a gas station and minimart located on the southwest corner of County Line Road and California Avenue in the City of Calimesa.

Multi Family Residential Project, Simmons Built, Yucaipa, CA - Project Designer responsible for preparation of project documents and completion of computer aided design throughout all phases of the assignment. ERSC provided professional engineering services required to complete contract documents related to the construction of 13 multi-family units and the renovation of an existing residence on Assessor's parcel 0319-252-02 located on Avenue H east of 3rd Street in the Yucaipa, California.

Madison Avenue Waterline Project, Rancho California Water District, Murrieta, CA - Project Designer responsible for preparation of project documents and completion of computer aided design throughout all phases of the assignment. RCWD's Madison Avenue Waterline Project consists of the design and construction of 700± linear feet (LF) of 16-inch replacement waterline in the City of Murrieta. Services included surveying and mapping, alignment selection, preliminary design report & corrosivity evaluation, potholing & geotechnical study, final construction drawings and bid phase support.



Jorge Biagioni, PE | Principal Engineer

CA, Civil Engineer No. C33751
QSD/QSP No. 21220

Education

BS, MS, Civil Engineering, UNR, Argentina

Areas of Expertise

Land Development Review
Municipal Engineering
CIP Management

Mr. Biagioni joined ERSC in 2018 and brings almost 40 years of municipal engineering experience to the ERSC team. Mr. Biagioni has a diverse range of knowledge having served both public and private entities throughout the region. Prior to joining ERSC, Jorge served as the City Engineer for the City of Hemet with oversight of development activities in the City.

Similar Project Experience:

On-Call Engineering Plan Check Services, City of Palm Springs – Project Engineer responsible for improvement plans, grading plans, and survey related documents during an on-call professional services agreement with the City of Palm Springs. ERSC provides plan and map checking for the City’s development projects. Specific tasks include the review of improvement plans, final subdivision maps, and other survey related documents as prepared by design consultants for accuracy and completeness, conformance to local codes, ordinances, and design standards.

General Plan Check Services, City of Chino – Project Engineer responsible for improvement plans, grading plans, and survey related documents during general plan check services to the City of Chino since 2016. In the City of Chino, ERSC is commissioned to provide the review of Rough and Precise Grading Plans, Wet Utility, Plans (e.g. Sewer, Water, Storm Drain), Street Improvement Plans, Street Light Plans and Voltage Drop Calculations, Hydrology Studies and Hydraulic Calculations, Water Quality Management Plans (WQMPs), Survey documents and maps, and Soils Reports, for private development and capital improvement projects throughout the City.

On-Call Plan Check, Inspection and Design Services, City of Beaumont – Project Engineer responsible for improvement plans, grading plans, and survey related documents during civil engineering plan check, design, and inspection services to the City of Beaumont since in 2017. ERSC reviews development projects, CIP projects, and WQMPs. Development plans range from 1-million sqft commercial complexes to multiple lot subdivisions. As an on-call design consultant, ERSC is responsible for paving projects, survey projects, and drainage projects. Most recently, ERSC completed the Highland Springs/1st Drainage project to mitigate erosion and sedimentation issue near a local golf course.

On-Call Plan Check and Inspection Services, City of Banning – Project Engineer responsible for improvement plans, grading plans, and survey related documents during plan check and inspection services of residential and development projects. Plan check services include review of maps, street, sewer, water, grading and storm drain projects, as well as review of construction drawings to assure compliance with City, State and Federal regulations. ERSC also provides conditions of approvals for City projects, as needed.

On-Call Civil Engineering and Plan Check Services, City of Colton – Project Engineer responsible for improvement plans, grading plans, and survey related documents during Engineering and Plan Check services in the City. ERSC works closely with City staff in the review of grading, street improvements, hydrology studies, soils reports, WQMP, SWPPP, lot line adjustments, and parcel maps. ERSC also provides on-call engineering services, such as the design for the La Cadena and 8th Street Intersection Reconfiguration.

On-Call Plan Check and Construction Inspection Services, City of Highland – Project Engineer responsible for improvement plans, grading plans, and survey related documents during an on-call professional services agreement with the City of Highland. ERSC provides contract plan check and inspection services for the construction of public works and privately funded improvements, including site improvements, street improvements, paving, sidewalk, curb, gutter, grading, and earthwork. Work also included site review for compliance with City standards and traffic control requirements. ERSC also provides plan checking services for all parcel and tract maps, as well as hydrology review.

On-Call Plan Check Services, City of Rialto – Project Engineer responsible for improvement plans, grading plans, and survey related documents during civil engineering plan check services of various private and public development items, consisting of improvement plans and professional studies. Services also include review and verification of Right-of-Way document including but not limited to legal descriptions for easements, dedications, lot line adjustments and parcel mergers.



Lori Askew | Principal Engineer

Similar Project Experience:

Arrow Boulevard and Cypress Avenue Traffic Signal Project, City of Fontana, CA - Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. Work included development of plans, specifications and estimates and other engineering services to signalize the intersection using traffic signal poles and mast arms, while constructing minor improvements including curb access return ramps to ultimate locations determined by the Hierarchy of Streets Plan, curb and gutter, extending and/or improving the existing concrete bus pads adjacent to the intersection, and an asphalt concrete transition to the existing asphalt concrete pavement.

Soboba Band of Luiseño Indians, Infrastructure and Roadway Improvements for Lake Park Drive- Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. Providing civil design services to Soboba Economic Development Corporation (EDC) for the site improvements including design and preparation of plans for onsite infrastructures and also road widening for Lake Park Drive.

Design of the Easton Street Sidewalk Improvements, City of Rialto, CA - Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. Work includes engineering/planning for the construction of Americans with Disabilities Act (ADA) compliant sidewalk and curb ramps along the north and south sides of Easton Street between Acacia Avenue and Sycamore Avenue; to additionally include general sidewalk repair between Sycamore Avenue and E. Highland Avenue and from the southeast corner of Easton Street and Acacia Avenue to approximately 250 feet south.

North Park Improvements, Town of Yucca Valley, CA - Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. ERSC provided plans, specifications and construction cost estimates prepared for a project involving construction of a parking lot on an undeveloped piece of City owned property to service an 80-acre open-space used by hikers and mountain bicyclists.

State Street Gap Closure Project, City of San Bernardino, CA - Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. Design for roadway design and environmental clearance for the Street; a vital transportation corridor. State Street will be a four-lane roadway with a center median and bike lanes connecting Baseline Street to State Route 210. The design includes a new roadway in the portion of the project where no transportation infrastructure exists, rehabilitating existing portions to updated standard, and ROW acquisition is required to complete the project.

Murrieta Creek Bridge, City of Temecula, CA - Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. As a partner to the CNS Engineers' team, ERSC designed a bridge structure over and across Murrieta Creek connecting Avenida Alvarado at the intersection of Diaz to the west of the creek, with Overland Drive at the intersection of Enterprise Circle to the east of the creek.

Overland Drive Widening, City of Temecula, CA - Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. ERSC completed an analysis of the impacts related to the widening of Overland Drive from Jefferson Avenue to Commerce Center Drive. At Overland Drive and Commerce Center Drive, a previous project resulted in the installation of conduit and pull boxes associated with future traffic signal construction and the previously installed conduit and pull boxes, and the easterly leg of Overland Drive, require reconstruction. The widening project included the installation of a new traffic signal and striping modifications, and installation of new street lighting including street light plans developed per industry standards and City of Temecula standards and guidelines.

PW 19-11 Bike Lane and Trail Program, Temecula Creek South Side Trail, City of Temecula, CA - Project Manager responsible for day-to-day project guidance, team oversight, client

Education

BS, Civil Engineering, Michigan Technological University, Houghton, MI

Areas of Expertise

Land Development
Municipal Engineering
Traffic and Transportation

Ms. Askew has over 30 years of experience in design and management of public and private improvement projects. She has spent the past 20 years as a local municipal employee in Public Works with the last eight years in an executive management position overseeing various levels of staff and consultants. She has managed Capital Improvement Program projects for streets, storm drains, water and sewer in addition to large land development projects with significant grading challenges. She is very knowledgeable in understanding the workings and challenges of local government and comprehends the constraints of various City funding sources such as Gas Tax, Measure A and SB1.

Ms. Askew has been city liaison to Western Riverside Council of Governments (WRCOG), Riverside County Flood Control & Water Conservation District, Caltrans, Riverside County Transportation Commission (RCTC), several water districts and school boards.

contact, as well as schedule and budget management throughout the assignment. Under an on-call engineering agreement, ERSC compelled preliminary and final engineering services necessary to provide project scoping and final design. Services required to complete the project were provided in two (2) phases, including an investigation and summary of the potential issues affecting the project and the development of contract documents including plans, specifications and estimates.

City Engineering Support Services, Project Manager, City of Rialto, CA - Under ERSC's employment, Lori has served the City of Rialto's engineering department as a supporting staff member since March of 2022. Lori has worked within the City's engineering department as an Acting Principal Engineer in support of large land development projects within the City.

Tippecanoe Pavement Rehabilitation Project, City of Highland, CA - Project Manager responsible for day-to-day project guidance, team oversight, client contact, as well as schedule and budget management throughout the assignment. Also assisted with survey tasks. ERSC provided professional engineering services related to Cooperative City/County Pavement Rehabilitation Project, str20003 pavement rehabilitation of five street reaches covering four streets. For Tippecanoe Avenue, existing AC and native material was pulverized in place, a portion of the pulverized material removed, cement added to the remaining pulverized material, followed by placement of HMA and RHMA for the reach from 3rd to 6th.

County Line Road Transportation Corridor Improvement Project: Project Manager for design and construction of street improvements including pavement widening to include bike lanes, installation of curb, gutter, sidewalk and construction of roundabouts at 4 intersections. Project is joint improvement project with adjacent city, as street centerline is City and County boundary. Project challenges include various funding sources through grants, coordination with adjacent city/county, right-of-way acquisitions, and construction in phases.

Calimesa Creek Storm Drain Improvements: Project manager overseeing design and construction for nearly 2,000 lf of 18" – 78" RCP storm drain pipe, 200lf of 6' x 6' concrete box structure and 53-acre-foot detention basin. Project will minimize erosion of Calimesa Creek by transitioning from an open channel system which currently discharges into Calimesa Creek, to a closed system. Only low flows will remain in the Creek, thus eliminating the need to mitigate significant acreage. Detention Basin upstream eliminates the need for existing pipe at downstream end of system to be enlarged under the I-10 freeway. Project is funded with EPA grant, Riverside County Flood Control & Water Conservation District Funds and City Development Impact Fees.

Third Street Improvement Project: Project Manager responsible for overseeing design and construction of 3,300 linear feet of Third Street from Valley View Avenue to Corona Avenue which includes removal of existing asphalt street and replacement with full street improvements, within existing right-of-way, consisting of curb, gutter, asphalt pavement, equestrian trail with fence, replacement of private improvements to match new grades. Also included were storm drain improvements on Reservoir Drive, north and south of Third Street which involved installation of over 1,800 linear feet of 30-inch HDPE pipe and 400 linear feet of smaller size HDPE pipe. Funding for this portion of the project was through Riverside County Flood Control and Water Conservation District as one of their Master Drainage Plan projects.

Navy to Norco College (RCC) Sewer Improvements: Project designer and project manager overseeing construction of 1,100 linear feet of 8-inch VCP sewer line and related appurtenances from a lift station located on Navy property to a city owned SSMH located on the Norco College Campus. The biggest challenges for the project was finding a route through the Norco College Campus that allowed the sewer line to flow by gravity and a construction schedule that minimized disruption to the Campus.

Hamner Avenue Widening Project: Project Manager responsible for overseeing the design and construction of 3,600 linear feet of Hamner Avenue from the north City boundary to north of the Hamner Avenue Bridge. Hamner Avenue was widened from a two-lane street to three lanes in each direction but currently striped for two in each direction. Improvements include curb, gutter, sidewalk, asphalt pavement, relocation of a City of Norco 20-inch potable waterline, installation of a 30-inch waterline owned by the Chino Desalter Authority (as part of their future expansion), and storm drain improvements. The traffic signal at Citrus Street was modified for a four-way intersection to accommodate the future Silverlakes Equestrian and Sports Park. A 42-foot-wide by 15-foot-high causeway was constructed under Hamner Avenue south of Citrus Street to provide flood relief from the adjacent Santa Ana River and also provide access to the adjacent park on the west side of Hamner Avenue located in the City of Eastvale. A detention basin was constructed as part of the project and resides on the west side of Hamner Avenue, south of Citrus Street and acts as a desilting basin for the 72" storm drain that discharges to it. Hamner Avenue design took into consideration the future replacement of the Hamner Avenue Bridge



Isaac Gomez | Engineer III

Education

BS, Civil Engineering, Technological Institute of Tijuana, BC, MX

Registrations / Certifications

Haestad Methods Certified Master Modeler for Water Distribution Systems & Transient Modeling
Caltrans Project Planning and Design Guide 2020 Civil 3D Autodesk
H2ONet Water Distribution Modeling and Training Course
San Bernardino County WQMP Training
ADA and Accessibility Standards in Public-Right-of-Way for City of Chino
Water Quality Management, SWPPP

Areas of Expertise

Civil Site Planning and Design
CAD Design
Grading, Precise Grading Plan (PGP)
Water Quality management (WQMP)
Erosion Control (SWPPP)
Flood Control Master Drainage Plan

Mr. Gomez has 19 years of management, planning and designing experience in the private and public industry. He offers an excellent understanding of Auto CAD, Civil 3D, Land Desktop, HO2NET, WaterCAD, SewerCAD, HEC-RAS, WSPG etc. He also brings expertise in planning, design, and construction of public works projects, as well as knowledge of hydraulics, hydrology, flood control drainage facilities, such as channel, under storm drain, and detention basin. His experience includes: designing and preparing engineering drawings, specifications, and Engineer's cost estimates; researching project design requirements; preparing preliminary design studies; and performing complex calculations and material costs. He has also coordinated design proposals with utility companies and other agencies.

Mr. Gomez's activities and responsibilities include management, design, and processing of hydrology and hydraulic, SWPPP and WQMP reports. Duties include, but are not limited to, engineer's cost estimates, WSPG analysis, Rational method, synthetic unit hydrograph and flood routing calculations, HEC-RAS Analysis, producing Master Drainage plans, pavement plans, steel water tank design, and grading plans.

Similar Project Experience:

Soboba Band of Luiseño Indians, Master Drainage Plan (MDP) Storm Drain Improvements within EDC Commercial Retail Development - Project Engineer during preparation of a drainage study and improvement plans for construction of MDP Lines B1, B2, and B3 for the Horseshoe Development Site consistent with the current MDP Report.

Water Line Relocation, Soboba Band of Luiseño Indians in conjunction with Eastern Municipal Water District, San Jacinto, CA – Project Engineer for a feasibility study and design to facilitate the relocation of the 12" CML&C water line that provides service to the Horseshoe Grande Mobile Home Park, The design was created in accordance to EMWD's standards regarding size, materials, as the maintenance of the line is not to be assumed by the Tribe. ERSC expects upon completion of the relocation that the waterline will connect to the existing tie in points at the north and south sides of the site.

Sewer Line Relocation - Soboba Band of Luiseño Indians in conjunction with Eastern Municipal Water District, San Jacinto, CA – Project Engineer for the reconstruction of the existing 10" sewer line to a 15" gravity sewer line located on the site. The design was created in accordance to EMWD's standards regarding size, materials, as the maintenance of the line is not to be assumed by the Tribe. Sewer will connect to an existing lift station offsite and be pumped via force main to EMWD facilities.

North San Jacinto In-Lieu Water Supply Project, Eastern Municipal Water District, San Jacinto, CA — Project Engineer during the preparation of professional engineering plans and for 9,000 lineal feet of 24-inch PVC recycled waterline for Eastern Municipal Water District.

CSDP Storm Drain Line 3-5, City Of Colton, CA – Project engineer during the design of a regional drainage facility conveying 1,000cfs from a 2,045-acre area. The project included installation of 10,000 feet of 108 and 120-inch reinforced concrete pipe from Valley boulevard south to the Santa Ana River, as well as protection of sewer and water mains, MCI fiber optics cable, major petroleum products line and gas lines, and an existing aqueduct system. Approximately 1,700 feet of 108-inch RCP by boring and jacking methods were also installed. Final design of the facilities included preparation of construction plans and specifications meeting San Bernardino County Flood Control District requirements, utility coordination and relocation, preparation of right-of-way documentation and coordination of construction permits from the State of California and the Southern Pacific Railroad.

Section 29 Stormwater Basin, City of Palm Desert, CA – Project engineer during design for the failed rock slope protection downstream of the existing spillway and collapsed slope that undermined a significant portion of the spillway crest. The work also included hydrology analysis of approximately 519 acres of drainage watershed, development of a unit hydrograph tributary to Mid-Valley Channel, flood routing through the existing drainage channels and Section 29 Retention Basin, hydraulic analysis for design and reconstruction of the rock slope protection, spillway, forensic analysis to investigate the cause of the failure, produce contract documents guiding the repair of the Section 29 Basin and an 18-inch basin inlet. Relocation of an existing 12-inch sewer line under the basin spillway.

MDP Lines 6A and 8, Laterals 20C and 20A, City of Palm Springs, CA – Project engineer during the design of the three major flood control projects commissioned by the City of Palm Springs. Line 6A and Line 8 along Sunrise Way resulted in the elimination of "down and under drains" and support commercial development between Via Escuela and Vista Chino Drive and Andreas Road and the Baristo Channel, respectively. Similarly, Laterals 20C and 20CA resulted in the elimination of "down and under drains" and support residential development along El Cielo and Baristo Road. Services provided include review and modification of master plan hydrology, design surveys, utility coordination, geotechnical engineering, alignment selection and analysis, hydraulic modeling and the development of plans, specifications and estimates.



Jazz Goodie | Engineering Associate III

AutoCAD Certification
Land Development
Desktop Certification

Areas of Expertise

Wells, Pump/Lift Stations Design
Street Improvement Design
Sewerline Design
Waterline Design
Street Striping
Traffic Control

Ms. Goodie has extensive AutoCAD, Total Station drafting and field survey experience. With over 32 years' experience in the civil engineering field, she has processed field survey data for base map preparation, drafted grading plans for tract maps, prepared street improvement plans, and record maps from base sheets to final recordation.

Ms. Goodie also has extensive experience in the preparation of cost estimates and quantities, interpretation of legal descriptions for the preparation of lot splits, grants of easement, dedications, vacations and quality assurance plan checking. She has designed pipelines, traffic signal systems and interconnect system operations plus preparation of street striping and median plans.

Similar Project Experience:

2019 CIP Water Pipeline Replacement Project, City of Redlands, Redlands, CA – Project Manager for the design and construction of approximately 55,000 linear feet (LF) of 8-inch potable water main and 3,000 LF of 12-inch potable water main in various parts of MUED's services area, encompassing 45 different streets and five (5) different Pressure Zones. Said Pressure zones range in elevation from the 1570 Pressure zone (lower lying areas in the North) up to the 2340 Pressure zone (upper Redlands Heights area to the South). In total, Project is included 55,000 LF of pipe; about 10.4 miles.

Multiple Projects, West Valley Water District – Project designer for the following projects:

- 1,800 feet of 16-inch transmission waterline on Duncan Canyon Road and 700 feet of 18-inch waterline on Lytle Creek Road
- 4,300 feet of 30-inch transmission waterline and 1,580 feet of 12-inch waterline on Pepper Avenue
- 3,000 feet of 30-inch transmission waterline on Base Line Road and Pepper Avenue
- 3,900 feet of 30-inch transmission waterline on Terrace Road
- Pump Station 8-2, 30-inch Zone 3A transmission pipeline; Pressure Zone 2, 12-inch pipeline, and 16-inch pipeline to Well No. 6
- Agua Mansa Road 12-inch waterline
- Highland Avenue Extension, West Valley Water District, Rialto, CA
- 1.0 Million Gallon Welded Steel Reservoir, West Valley Water District, Rialto, CA
- Pump Station Zone 4-3, West Valley Water District, Rialto, CA
- Bloomington Area Watermain Relocations, West Valley Water District, Rialto, CA
- Zone 6-2 Pumping Station, West Valley Water District, Rialto, CA

Multiple Projects, Arrowbear Park County Water District – Project designer for the following projects:

- 1,700 feet of 8-inch waterline
- 3,200 feet of 8-Inch waterline
- CLAWA Pump Station, Arrowbear Park County Water District

Cooly Smith | Chief Inspector

Education

Water Distribution D-3, State of CA DHS
Water Treatment T-1, State of CA DHS
Certified Backflow Tester, AWWA
Coating Inspector Level 1, NACE
NASSCO Cured in Place
Pipe CIPP 911-0643
Concrete Field Testing Technician Grade 1, ACI
Recycled Water Site
Supervisor Certificate

Areas of Expertise

Municipal Inspection
Water Infrastructure
Caltrans

Mr. Smith has over 20 years of experience in the engineering and construction industry. He has worked in the water industry since 1990 starting in operations and maintenance and then transitioning to Supervising Engineering Inspector. He has extensive experience in inspecting and managing the construction of facilities in the area of water, sewer and recycled which includes pipelines, Sewer Lift Stations, Reservoirs, PRV Stations and Booster stations. He has agency maintenance and operations experience holding positions in meter service department. He has extensive inspection experience for land development and capital projects.

Duties include preparing daily inspection reports, job site photos, coordinating materials testing services, and coordinating with local and state agencies. He assists in the development of District Standards and has planned and executed hundreds of system shut downs to upgrade, repair or replace overtaxed or failing water or sewer appurtenances. He has inspected and certified conformance of completed work including all backflow devices that are installed on new District and Developer projects. He is able to resolve field and operational issues related to the construction of infrastructure projects through a detailed knowledge of the systems operational requirements, construction contractors means and methods, and by developing and maintaining good working relations with contractors, agency staff and other local agencies.

Similar Project Experience:

Hillside Trail Sewer Relocation at Bear Creek, Murrieta, CA – Supervising Construction Inspector responsible for a 300-foot relocation of sewer pipe and construction of two new manholes. Oversight of inspection activities, development of daily reports with photographic record detailing the workers, equipment, activities, and material incorporated. Provided utility coordination, coordination of materials testing, geotechnical, and other specialty inspection consultants.

Hillside Trail Sewer Relocation at Bear Creek, Murrieta, CA – Supervising Construction Inspector responsible for a 300-foot relocation of sewer pipe and construction of two new manholes. Oversight of inspection activities, development of daily reports with photographic record detailing the workers, equipment, activities, and material incorporated. Provided utility coordination, coordination of materials testing, geotechnical, and other specialty inspection consultants.

Plan Check and Inspection Services, City of Banning, Banning, CA - Chief Inspector in management and oversight of construction activities for street, sewer, water, grading, and storm drain projects and their related improvements in the City of Banning. Since 2018 ERSC has completed over 430 individual assignments in the City. This is inclusive of the 4,000-unit Atwell development, for which ERSC has been in oversight all grading and improvement construction activities related to the project. Currently ERSC staffs 4 full-time inspectors supporting construction activities. Cooly was responsible for management of inspection personnel or inspection of the following in the City of Banning:

- Tract #37365 – Sewer, Water, Storm Drain, and Street Improvements
- Tract #37474 – Sewer, Water, Storm Drain, and Street Improvements
- Tract #37298 – Sewer, Water, Storm Drain, and Street Improvements
- Tract #37298-2 – Sewer, Water, Storm Drain, and Street Improvements
- Tract #37298-3 – Sewer, Water, Storm Drain, and Street Improvements
- Tract # 37298-1 – Sewer, Water, Storm Drain, and Street Improvements
- Highland Springs Avenue – Sewer, Water, Storm Drain, and Street Improvements
- Wilson Street – Inspection of New Sewer Trunk Line Installation
- Wilson Street Lift Station - Inspection of New Sewer Lift Station Installation
- Sunset Sewer Trunk Line – Inspection of New Sewer Main Line Installation
- Non Potable Water Improvement NP-1 Pump Line
- Non Potable Water Improvement Segment D-1
- Foothill West Reservoir 3.76 Million Gallon
- Irrigation Water Supply System Segment – B Phase 1

Vail Lake Native Vegetation Restoration RCWD, Temecula, CA – Site Inspector for this native vegetation restoration of wetland and non-wetland waters of the United States as a result of installation of 14,000 lineal feet of a 48-inch pipeline to comply with mitigation requirements pursuant to Section 404 of the Federal Clean Water Act and Section 1600 et seq. of the California Fish and Game Code. Duties included inspection, preparing daily reports, coordinate with materials testing consultant, job photos, quality assurance, coordinate with maintenance and operations departments.

Vail Lake Transmission Main and Pump Station, Rancho California Water District (RCWD), Temecula, CA – Inspection supervisor for this installation of 14,000 lineal feet of 48-inch CML & C pipeline and construction of a booster station capable of pumping 80 cfm of raw water to the District Vail Lake facilities for a cost of approximately \$6 million. Duties included oversight of inspection staff, review daily reports, manage materials testing consultant, review project submittals, RFI's, correspondence, change orders, and monthly progress payments.

Reclamation Pond No. 5 Project, RCWD, Temecula, CA – Supervising Construction Inspector for this \$8 million Recycled Pond project. The project features include 1.5 million cubic yards of grading, construction of new pond number 5 and relining other ponds with new foundation and membrane, drainage structures, connection piping systems and controls, road construction, landscaping and irrigation. Duties include daily reports with photographic records, detailing the workers, equipment, activities and material incorporated into the project each day. Duties also include utility coordination, coordination of materials testing, geotechnical and other specialty inspection consultants.

District Headquarters and Senga Doherty Pump Station Solar Power Project, RCWD, Temecula, CA – Inspection Supervisor responsible for installation of 1.0 MW and a 0.5MW Photovoltaic System. Oversight of inspection staff, reviewed daily reports, managed materials testing consultants, reviewed project submittals, RFIs, correspondence, change orders, and monthly progress payments.

Soboba Casino Storage Reservoir, Soboba Band of Luiseno Indians, San Jacinto, CA – Senior Construction Inspector during the construction of the Tribes 1MG welded steel reservoir. The tank was designed to provide adequate capacity to serve the additional demand that the newly constructed casino would place on the tribe's water system. Cooly provided inspection during the entire project term including grading, ring pour, sand placement, welding, and performed coating inspections.

Reclamation Pond No. 5 Project, RCWD, Temecula, CA – Supervising Construction Inspector for this \$8 million Recycled Pond project. The project features include 1.5 million cubic yards of grading, construction of new pond number 5 and relining other ponds with new foundation and membrane, drainage structures, connection piping systems and controls, road construction, landscaping and irrigation. Duties include daily reports with photographic records, detailing the workers, equipment, activities and material incorporated into the project each day. Duties also include utility coordination, coordination of materials testing, geotechnical and other specialty inspection consultants.

30" Transmission Mainline Improvements on Highland Ave., West Valley Water District, Rialto, CA – Supervising Construction Inspector during this improvement project which involves the construction of a new waterline and associated appurtenances in Highland Avenue between Oakdale Avenue and Pepper Avenue in the City of Rialto. Construction includes installation of approximately 3,700lf of CML&C water line. The proximity to Interstate 210 will require interfacing with CalTrans and coordination with the agency's procedures.



Experience, References & Qualifications





Full abstracts are available in the Appendix of this proposal.



STATE WATER PROJECT CONNECTIONS, SAN GORGONIO PASS WATER AGENCY, BEAUMONT, CA

Project Term: 2018-20 | Contract Value: \$226,843

Lance Eckhart, PG, CHG
General Manager/Chief Hydrogeologist
951/845-2577
leckhart@sgpwa.com

ERSC Project Team:
Erik T. Howard, PE, PLS
Trent Brudin, PE
Jazz Goodie



MADISON AVENUE WATERLINE PROJECT, RANCHO CALIFORNIA WATER DISTRICT, MURRIETA, CA

Project Term: 2020 - Ongoing | Contract Value (to date): \$112,440

Robert Avera, Engineering Manager
(951) 296-3600
AveraR@ranchowater.com

ERSC Project Team:
Erik T. Howard, PE, PLS
Reza Toorzani, PE
Trent Brudin, PE

Stephania Hernandez, EIT
Jazz Goodie



VARIOUS PROJECTS, WEST VALLEY WATER DISTRICT, RIALTO, CA

Linda Jadeski, Manager of Engineering Services
(909) 820-3713
ljadeski@wvwd.org

ERSC Project Team:
John M. Brudin, PE
Erik T. Howard, PE, PLS
Trent Brudin, PE

Jazz Goodie
Coolsy Smith



WATER AND SEWER RELOCATION, SOBOBA BAND OF LUISENO INDIANS, EASTERN MUNICIPAL WATER DISTRICT, CA

Project Term: 2016-21 | Contract Value: \$803,466

Kenneth McLaughlin
Director of Public Works
(951) 654-5544
KMclaughlin@soboba-nsn.gov

ERSC Project Team:
Moe Ahmadi, PE
Reza Toorzani, PE



VARIOUS PROJECTS, EASTERN MUNICIPAL WATER DISTRICT, PERRIS, CA

Project Term: 2014-21 | Contract Value: \$766,003

Shaun Stone, PE, Director of Engineering
(951) 928-3777
stones@emwd.org

ERSC Project Team:
John M. Brudin, PE
Erik T. Howard, PE, PLS
Moe Ahmadi, PE

Trent Brudin, PE
Jazz Goodie



VILLAGE CENTER WATERLINE REPLACEMENT, IDYLLWILD WATER DISTRICT, IDYLLWILD, CA

Project Term: 2018-19 | Contract Value: \$54,110

Leo Havener
(951) 659-2143
leo@idyllwildwater.com

ERSC Project Team:
Erik T. Howard, PE, PLS
Craig Brudin, QSP/QSD

Experience, References & Qualifications



BID PACKAGE PREPARATION, BACKUP GENERATORS FOR WELL SITES 27, 31, 32, & 37 PROJECT, MISSION SPRINGS WATER DISTRICT, DESERT HOT SPRINGS, CA
Project Term: 2021 - Ongoing | Contract Value (to date): \$48,740

Luiz Santos, Assoc. Engineer
(760) 329-6448
lsantos@mswd.org

ERSC Project Team:
Erik T. Howard, PE, PLS
Reza Toorzani, PE

Trent Brudin, PE
Jazz Goodie



ALAMITOS RESERVOIR POTABLE WATER TANKS, LONG BEACH WATER DEPARTMENT, CA
Project Term: 2022 - Ongoing | Contract Value (to date): \$285,820

Wendy Chen, PE
(562) 570-2300
wendy.chen@lbwater.org

ERSC Project Team:
Joanna Rembis, PE
Erik T. Howard, PE, PLS

Reza Toorzani, PE
Stephania Hernandez, EIT



CONDITION EVALUATION OF WATER STORAGE RESERVOIRS, COACHELLA VALLEY WATER DISTRICT, CA
Project Term: 2021-23 | Contract Value: \$130,347

Brian Fogg, Domestic Water Engineer
(760) 398-2651
bfogg@cvwd.org

ERSC Project Team:
Joanna Rembis, PE



SYSTEM GIS CONVERSION, RIVERSIDE HIGHLAND WATER COMPANY, GRAND TERRACE, CA
Project Term: 2021-22 | Contract Value: \$245,160

Don Hough, General Manager
(909) 825-4128
dhough@rhwco.com

ERSC Project Team:
Craig Brudin, QSP/QSD
Stephania Hernandez, EIT
Katherine Hernandez
Jazz Goodie



Scope of Work



SCOPE OF WORK

As stated in the Request-for-Proposals, the San Geronio Pass Water Agency (SGPWA) is requesting proposals for On-call Engineering Services in support of its Operations and Maintenance (O&M) and Engineering Departments. The actual level of services will be dependent on projects being developed but may include: requests-for-proposals (RFPs); engineering related work (civil, mechanical, structural, geotechnical, and electrical) through all project phases (planning, design, and construction); surveying, mapping, and property related services; utility research and excavation (potholing); environmental studies and clearances; and instrumentation, communication, and control systems.

To facilitate providing said services, the Agency is essentially seeking Extension-of-Staff (EOS) personnel to work side-by-side with the current Staff (Staff) to assist in the day-to-day operation and management of its facilities. Currently, the RFP is structured for the following positions:



1. Principal Staff Person (to act as Agency Engineer)
2. Principal Staff backup
3. Misc. Support Staff

The description of duties are relatively vast but typical of the Agency Engineer position. Said duties include but are not limited to:

- Plan, manage, perform, assign and supervise all aspects of engineering work in the planning, design, construction, operation and maintenance of Agency facilities.
- Assist with any matters pertaining the State Water Project (SWP) system, including the delivery and management of recharge water.
- Apply accepted engineering practices to evaluate and solve complex issues, including developing alternatives and associated costs.
- Provide technical assistance, recommendations, and direction to Staff as conditions dictate.
- Attend board meetings in support of Staff's presentations and participate as requested.
- Coordinate with outside Districts and Agencies to aid in project communication.
- Assist Staff with the processing and management of any project materials

1. PRINCIPAL STAFF PERSON

Engineering Resources of Southern California (ERSC) is pleased to recommend Erik T. Howard, PE, PLS, to act as Agency Engineer for the duration of the contract. Dating back to 1991, Erik has served as District Engineer for several Water Districts and similar public agencies. Dating back to 2005, Erik has enjoyed a long and successful relationship over the past 18+ years and with several generations of SGPWA Staff. In doing so, he has acquired a wealth of institutional knowledge in all aspects of Agency's infrastructure, from inception to commissioning. As also shown on his enclosed resume, a partial list of his project involvement as Engineer (Surveyor)-of-Record include:

- Original Noble Creek EBX Connection - Turnout and Control Facility (2009)
- Beaumont Avenue Recharge Facility (BARF) Pipeline (2014)
- Mountain View (MV) EBX Connection - Turnout and Control Facility (2016)
- Noble Creek EBX Connection - Capacity Expansion (2016 & 2018)
- MV-EBX & BARF Basins Construction - Contract Administration (2018-2020)
- Boundary Assessment and Fenceline Staking of Agency Property (2020)
- CountyLine Recharge Project - Technical Review / Input (2022-Present)
- Brookside West Recharge Facilities - Mapping & Property Acquisition (2022)
- MV-EBX Chemical Injection Vault Layout & Construction (2023)





ERSC currently has an As-needed contract with the Agency to allow Erik to provide services to Staff as the need arises. As part of this current RFP, ERSC proposes to maintain Erik's services at a similar level but potentially multiple days a week as Agency's project conditions require. Depending on a project's status and level of urgency, Erik may reside on-site (in an Agency provided office) to work in person with Staff members. Otherwise, use of virtual meeting tools, emails and phone calls would be the prominent communication platforms.



2. PRINCIPAL STAFF BACKUP

ERSC is also pleased to recommend Trent C Brudin, PE, to act as backup Agency Engineer for the duration of the contract (when Erik is not available). Dating back to Erik's beginning of tenure at ERSC (2018), Trent and Erik have developed a strong technical relationship and worked collaboratively on numerous complex projects. In a similar capacity, Trent is currently assigned to the City of Banning a couple of days a week to assist their Staff with the day-to-day operations of the City's engineering department.

Throughout his time with ERSC, Trent has been part of the engineering team for a variety of water resources engagements, including but not limited to: water pipeline replacements, water usage and storage studies, well generators, and WQMP and SWPPP preparation.



3. MISC. SUPPORT STAFF

ERSC is has a robust assembly of in-house staff that can be made available to assist with Agency projects as project needs dictate. As shown on the company's organization chart, we have identified six (6) separate categories:

- A. Survey / Mapping and Property Documents
- B. Geographic Information Systems
- C. Water Infrastructure
- D. Site Design and Grading
- E. Project Management, Bid, and Construction Assistance / Inspection
- F. Specialty Subconsultants

Although broken out separately, all categories collaborate with one another and many members are equally versed in the other categories as well. Our in-house staff when strategically combined with one of our many specialty consultants, ensure there is no engineering task that we are unable to help with.





Appendix





Lance Eckhart, PG, CHG
General Manager/Chief
Hydrogeologist
951/845-2577
leckhart@sgpwa.com

ERSC Project Team:
Erik T. Howard, PE, PLS
Reza Toorzani, PE
Trent Brudin, PE
Jazz Goodie

SAN GORGONIO PASS WATER AGENCY, BEAUMONT, CA

State Water Project Connections | Project Term: 2018-20 | Contract Value: \$226,843

ERSC was retained by the San Gorgonio Pass Water Agency, a State Water Contractor, to provide design and construction engineering services associated with its connections to the East Branch Extension (EBX), a 36-inch diameter reach of waterline off of the State Water Project (SWP) aqueduct. The Noble Creek EBX project studied and upsized an existing 16-inch metered facility (for 20 CFS serving the Beaumont-Cherry Valley Water District for groundwater recharge) to a 24-inch metered facility for 34 CFS. The Mountain View EBX project included another 20 CFS connection to the aqueduct, 7,000 LF of 24-inch piping, extensive site grading, a prefabricated communications building, and metering and flow control vaults for distribution to their own groundwater recharge facility.



Robert Avera, Engineering
Manager
(951) 296-3600
AveraR@ranchowater.com

ERSC Project Team:
Erik T. Howard, PE, PLS
Reza Toorzani, PE
Trent Brudin, PE
Stephania Hernandez, EIT
Jazz Goodie

MADISON AVENUE WATERLINE PROJECT, RANCHO CALIFORNIA WATER DISTRICT, MURRIETA, CA

Project Term: 2020 - Ongoing | Contract Value (to date): \$112,440

RCWD's Madison Avenue Waterline Project consists of the design and construction of 700± linear feet (LF) of 16-inch replacement waterline in the City of Murrieta. Due to numerous leaks in recent years, the existing 16-inch cement mortar lined and coated (CML&C) waterline needs to be decommissioned, while maintaining domestic service to numerous commercial businesses and associated fire protection devices. Said waterline serves the District's 1305 Pressure Zone (PZ) and is a high-capacity feeder that conveys production flow from Well No. 309 as located near Warm Springs Creek. Services include surveying and mapping, alignment selection, preliminary design report & corrosivity evaluation, potholing & geotechnical study, final construction drawings and bid phase support. Project construction was completed in mid-2023.



Linda Jadeski, Manager of
Engineering Services
(909) 820-3713
ljadeski@wvwd.org

ERSC Project Team:
John M. Brudin, PE
Erik T. Howard, PE, PLS
Trent Brudin, PE
Jazz Goodie
Cooly Smith

WEST VALLEY WATER DISTRICT, RIALTO, CA

Project Term: 2003-2020 | Contract Value: \$909,480

Pumping Station 4-3

West Valley Water District retained ERSC to design a water pumping station to pump from WVWD Zone 3 (North Colton/Bloomington) to Zone 4 (Northern Rialto) from Lord Ranch. The proposed project is to provide additional pumping capacity to connect 1.0 MG Aeration Reservoir (also designed by ERSC) in Zone 3 to Zone 4 for future demand and growth. ERSC proposed the Zone 4-3 Pumping Station to meet the District's additional demands. The pumping station is equipped with 8 - 300 horsepower pumps capable of providing 20,860 additional gallons per minute with one pump on stand-by. At this time the design will include only 4 pumps and the remaining 4 pumps will be installed as needed. ERSC is also to provide bidding support services during the bidding phase and construction management services during the project construction phase.

Zone-4 30" Transmission Mainline

The Highland Avenue Extension consisted of constructing 4,200 lf of 30-inch CML&C waterline. Connection points to the existing system were achieved at both Oakdale Street and Pepper Avenue. The pipeline is located within Caltrans ROW. Coordination with the agency was required to obtain an encroachment permit through the Caltrans process which included preparation of a WPCP. During construction, ERSC's construction management team provided observation during the pipeline's installation. ERSC inspectors ensured construction was conducted in a safe manner in accordance with all applicable standards, contract documents, and industry standard practices.

Zone 4 24-inch Transmission Line

West Valley Water District's Zone 4 Transmission Pipeline is a water transmission line providing transport of water between upper region of the pressure zone and distribution lines in lower lying areas. The Highland Avenue reach was planned to provide connection from the upper reaches to the new Pepper Avenue pipeline. Construction of the Pepper Avenue pipeline was possible following Caltrans improvements to the I-210 Freeway offramps. The Highland Avenue Extension consisted of constructing 4,200 lf of 30-inch CML&C waterline. Connection points to the existing system were achieved at both Oakdale Street and Pepper Avenue. The pipeline is located within Caltrans ROW. Coordination with the agency was required to obtain an encroachment permit through the Caltrans process. ERSC also prepared the Caltrans required Water Pollution Control Plan (WPCP).



WATER AND SEWER RELOCATION, SOBOBA BAND OF LUISENO INDIANS, EASTERN MUNICIPAL WATER DISTRICT, CA

Project Term: 2016-21 | Contract Value: \$803,466

Kenneth McLaughlin
Director of Public Works
(951) 654-5544
KMclaughlin@soboba-nsn.gov

ERSC Project Team:
Moe Ahmadi, PE
Reza Toorzani, PE

The Soboba Band of Luiseno Indians are a sovereign nation located in the northeast corner of the San Jacinto Valley. The tribe owns and operates the growing Soboba Casino and looked to expand their casino operations to be adjacent to their existing country club area. As a part of the casino design, it was determined that existing EMWD water and sewer lines would be destroyed by casino grading operations and increased capacity was required to allow increased flow.

ERSC was retained by the Tribe and Eastern Municipal Water District to facilitate the relocation of the 12" CML&C water line and the reconstruction of the 10" sewer line to a 15" gravity sewer line located on the site. The design was created in accordance to EMWD's standards regarding size, materials, as the maintenance of the line is not to be assumed by the Tribe. The relocation of the waterline will connect to the existing tie in points at the north and south sides of the site. The sewer line will connect to an existing lift station offsite and be pumped via force main to EMWD facilities.

ERSC was also responsible for providing preparation of easement documents of the establishment of a 40' utility easement. This utility easement will be used to construct both sewer and water utility lines.



VILLAGE CENTER WATERLINE REPLACEMENT, IDYLLWILD WATER DISTRICT, IDYLLWILD, CA

Project Term: 2018-19 | Contract Value: \$54,110

Leo Havener
(951) 928-2143
leo@idyllwildwater.com

ERSC Project Team:
Erik T. Howard, PE, PLS

ERSC provided design services to the Idyllwild Water District during the design of the District's water line replacement program. This project is an extension of a project completed by a different consultant.

The project included replacement of 2864 lf of 8-inch c-900 PVC waterline in the center of Idyllwild's Village area. Due to the number of existing commercial services in the area, the existing 8-inch waterline to the north of the proposed alignment is to be abandoned in place to avoid service interruptions.

The design also included replacement of all outdated services. Replacement of services would provide for more accurate and efficient meter reading operations. New services would include updated "Touch Read" meter equipment mounted to permanent above-grade stakes to allow for easy meter location and quick reading during periods of snow.

ERSC also performed work to replace fire hydrants, valves, blow offs, prepare traffic control plans for use during construction, obtain an encroachment permit from the County Transportation Department, and to verify locations of existing sewer and electrical infrastructure in the proposed pipe alignment.



EASTERN MUNICIPAL WATER DISTRICT, PERRIS, CA

Shaun Stone, PE, Director of Engineering
(951) 928-3777
stones@emwd.org

ERSC Project Team:
John M. Brudin, PE
Erik T. Howard, PE, PLS
Moe Ahmadi, PE
Trent Brudin, PE
Jazz Goodie

Redlands and Oleander Pipeline Replacement | Project Term: 2014-18 | Contract Value: \$152,363

Eastern Municipal Water District contracted with ERSC to facilitate the design of two water line replacements. The Redlands Avenue and Oleander Channel pipelines were approximately 50 years old and were experiencing numerous leaks requiring costly repairs and causing services interruptions to stakeholders. Redlands Avenue replacement posed many challenges during the design phase. ERSC was to avoid utility conflicts, cross 148" and 156" MWD facilities, connect to existing 36" EMWD facilities providing a 12" CML&C jumper, connect to an existing KOA meter, all while offering uninterrupted service to customers. Issues were resolved by developing alternative alignments which satisfied the requirements of all affected agencies and stakeholders. The Oleander Channel pipeline replacement was to be constructed within an RCWCFCFCD access road and was to avoid an existing warehouse property's easement. The work required coordination with the City of Moreno Valley for connection to an existing 39" CML&C line and coordination with RCWCFCFCD for work within the access road.

Quail Valley Subarea 4 Sewerage Feasibility Study and Preliminary Design | Project Term: 2020-21 | Contract Value: \$613,640

In 2006, the Regional Water Quality Control Board and the County of Riverside enacted separate moratoriums on septic tanks in Quail Valley. These moratoriums are active and will not be lifted until sewer service is provided to Sub-Areas 4 and 9. Developed lots rely on individual septic systems for wastewater disposal and presents challenges to implementing a conventional gravity sewerage solution. ERSC is working with EMWD to provide sewer service to this area. ERSC's staff are diligently evaluating multiple alternatives that satisfy the requirements of property owners, the District, and the funding sources/agencies with stake in the successful completion of the project. Upon completion, the project will recommend the most feasible alternative to provide sewer service to the area. Over 1,200 individual lots will be serviced by the future system which will include a combination of packaged lift stations, vacuum sewer systems, regional lift stations, and sewer conveyance gravity/force mains.



Luiz Santos, Assoc. Engineer
(760) 329-6448
lsantos@mswd.org

ERSC Project Team:
Erik T. Howard, PE, PLS
Reza Toorzani, PE
Trent Brudin, PE
Jazz Goodie

BID PACKAGE PREPARATION, BACKUP GENERATORS FOR WELL SITES 27, 31, 32, & 37 PROJECT, MISSION SPRINGS WATER DISTRICT, DESERT HOT SPRINGS, CA

Project Term: 2021 - Ongoing | Contract Value (to date): \$48,740

Mission Springs Water District contracted with ERSC to provide plans, specifications, complete bid documents, and bidding assistance for the Backup Generators for Well Sites 27 & 31, 32, & 37. The ERSC will gain access to each Site's electrical panel lineup to inventory and assess the existing layouts, and see what they can potentially accommodate for the switchgear improvements. Work will also include coordination with Southern California Edison (SCE) and the South Coast Air Quality Management District (SCAQMD) to determine and confirm any unique design requirements to ensure compliance with the respective agencies. We will also provide recommendations for optimal placement of Gensets with respect to the ATS / MTS units, and take into account any noise and security concerns.



Wendy Chen, PE
(562) 570-2300
wendy.chen@lbwater.org

ERSC Project Team:
Joanna Rembis, PE
Erik T. Howard, PE, PLS
Reza Toorzani, PE
Stephania Hernandez, EIT

ALAMITOS RESERVOIR POTABLE WATER TANKS, LONG BEACH WATER DEPARTMENT, CA

Project Term: 2022 - Ongoing | Contract Value (to date): \$285,820

ERSC was contracted to complete a condition assessment of Tanks 7 & 22, develop a design to rehabilitate the tanks, and prepare plans and specifications for said rehabilitation. Long Beach Water Department (LBWD) owns and operates 24 steel water tanks at the Alamitos Reservoir site, three of which store recycled water and the remaining 21 store potable water. Tank 7 is a riveted steel tank with a four-level tier wood roof originally constructed in 1935. Tank 22 is a welded steel tank utilized for recycled water. The capacity of each tank is 3.3 million gallons with a diameter of 132 feet and a height of 35-feet.



Brian Fogg, Domestic Water Engineer
(760) 398-2651
bfogg@cvwd.org

ERSC Project Team:
Joanna Rembis, PE

CONDITION EVALUATION OF WATER STORAGE RESERVOIRS, COACHELLA VALLEY WATER DISTRICT, CA

Project Term: 2021-23 | Contract Value: \$130,347

Coachella Valley Water District contracted with ERSC to perform annual inspections for 11 water storage reservoirs. The annual inspections allow CVWD to meet the requirements of the health department as well as keep apprised of the reservoir's condition to determine when maintenance is required. Four reservoirs were coated and require a warranty inspection to determine if any repair work is required by the Contractors. Several of the reservoirs are in the first three categories of the District's reservoir prioritization list and it is critical to determine if any structural damage is occurring in these reservoirs. We have performed this work for CVWD for 3 consecutive years, for a total of 38 tanks inspected to date:

- 2021 - 11 tanks
- 2022 - 13 tanks & 2 tanks
- 2023 - 12 tanks



Don Hough, General Manager
(909) 825-4128
dhough@rhwco.com

ERSC Project Team:
Craig Brudin, QSP/QSD
Stephania Hernandez, EIT
Katherine Hernandez
Jazz Goodie

SYSTEM GIS CONVERSION, RIVERSIDE HIGHLAND WATER COMPANY, GRAND TERRACE, CA

Project Term: 2021-22 | Contract Value: \$245,160

ERSC was contracted to convert the RHWC water system map to a GIS database, spatially referenced record drawings, and digital field map access. GIS (Geographic Information Systems) refers to a system that creates, manages, analyzes, and maps all data. GIS references data to a map, integrating location data (where things are) with all types of descriptive information (what those things represent). The finished product included a GIS database accessible via web map and mobile applications that can be utilized by both field and office personnel. These user-friendly interfaces enable staff to quickly reference infrastructure by street intersection, address, geolocation, or map scrolling. A single click on a pipeline or facility populates the user's screen with information such as type, material, size, as well as as-built drawings for viewing or download.



Engineering Resources of Southern California, Inc.

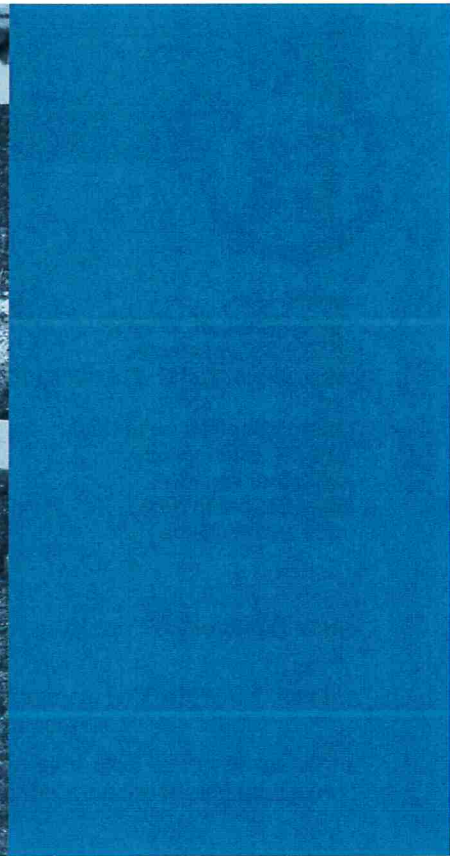
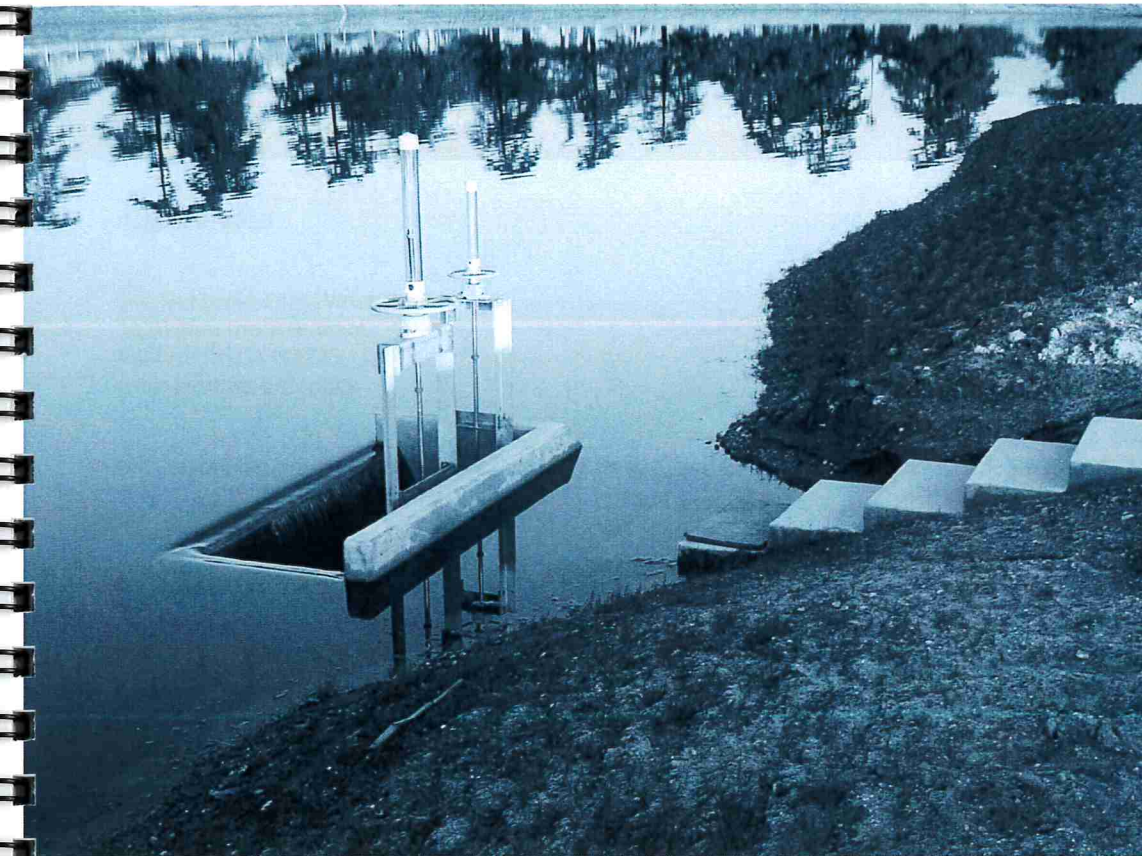
Celebrating

25

Years of Service

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FEE PROPOSAL

On-Call Engineering Services for Planning, Design, and Construction Management Services

Submitted: August 9, 2023





August 9, 2023

San Geronio Pass Water Agency
1210 Beaumont Avenue
Beaumont, CA 92223
Attn: Emmett Campbell

Local Office:
1861 W. Redlands Blvd.
Redlands, CA 92373
(909) 890-1255, info@erscinc.com

RE: On-Call Engineering Services for Planning, Design, and Construction Management Services

Evaluation Period Contact:
Erik Howard, PE, PLS
Principal in Charge
(909) 890-1255 x126
erik@erscinc.com

Dear Selection Team,

Engineering Resources of Southern California (ERSC) is pleased to have the opportunity to submit Fees to San Geronio Pass Water Agency (SGPWA) to be applied during a potential agreement to provide On-Call Services.

Enclosed is ERSC's current Fee Schedule for use during the initial term of the Professional Services Agreement with SGPWA. If the term should be extended beyond the original agreement, ERSC will provide updated Fees for the extension periods.

The individual signing this proposal has contractual responsibility with SGPWA and is authorized to bind ERSC to the terms of the proposal. ERSC confirms receipt of all addenda and that all information submitted is true and correct. This proposal is valid for a period of 180 calendar days from the date of submittal per the RFP.

We look forward to the opportunity to working with SGPWA and thank you for the opportunity to submit a proposal. If you have any questions, or require additional information, please contact Erik Howard at erik@erscinc.com or 909/890-1255 x126.

Respectfully submitted,

A handwritten signature in blue ink, appearing to be "J. Brudin".

John M. Brudin, PE
President

A handwritten signature in blue ink, appearing to be "Erik T. Howard".

Erik T. Howard, PE, PLS
Principal in Charge



Professional Staff

President	\$285.00
Vice President.....	\$245.00
Sr. Principal Engineer	\$240.00
Principal Engineer.....	\$215.00
Assistant Principal Engineer	\$200.00
Engineer V	\$180.00
Engineer IV	\$165.00
Engineer III	\$150.00
Engineer II	\$135.00
Engineer I	\$120.00

Engineering Staff

Principal Engineering Associate.....	\$195.00
Senior Engineering Associate	\$175.00
Engineering Associate V	\$155.00
Engineering Associate IV	\$135.00
Engineering Associate III.....	\$125.00
Engineering Associate II.....	\$110.00
Engineering Associate I.....	\$105.00
Engineering Aide II	\$60.00
Engineering Aide I	\$55.00

Survey Staff and Services

Principal Surveyor.....	\$200.00
Senior Surveyor	\$165.00
Surveyor III	\$130.00
Surveyor II	\$115.00
Surveyor I	\$100.00
2-Man Survey Crew (Std Equipment/Truck)	\$300.00
1-Man Survey Crew (Std Equipment/Truck)	\$235.00
3rd Man on Survey Crew	\$130.00

Construction Support Staff

Construction Manager.....	\$200.00
Chief Construction Inspector.....	\$155.00
Sr. Construction Inspector	\$145.00
Construction Inspector	\$135.00
Inspector Overtime (Hours 8-12/Saturdays)	\$185.00
Inspector Overtime (Hours 12+/Sundays)	\$220.00

Administrative Staff

Operations Manager	\$110.00
Operations Specialist.....	\$95.00
Administrative Assistant II	\$85.00
Administrative Assistant I	\$75.00

Other Direct Expenses

Vehicle Mileage	\$0.70/Mile
Subconsultant.....	Cost + 20%
Reimbursable Expenses/Charges	Cost + 15%
Forensic Analysis	Standard Rate X 2
Expert Witness	Standard Rate X 3

NOTE: All rates hereon are subject to automatic increase upon July 1st of each year. Rates will be adjusted by the percent increase in California Consumer Price Index-All Urban Consumers for the twelve-month period ending February as calculated by the California Department of Industrial Relations (CADIR) California Consumer Price Index Calculator. Prevailing Wage Rates are dictated by the CADIR. All classifications which are subject to Prevailing Wages will be adjusted when revised determinations are published by the CADIR.

Unless otherwise established by contractual agreement, payment is due and payable upon receipt. Payment is considered delinquent if not paid within 30 days of invoice date. If payment is not completed within agreed terms, Client agrees to pay a service charge on the amount past due at the rate of 1.5% per month (18% per annum).

Award for On-Call Engineering Services to Two Engineering Firms

BOARD OF DIRECTOR

10/16/2023

Discussion Topics



UPCOMING
PROJECTS AND A
NEED FOR
ENGINEERING
SERVICES



RFP AND
CONSULTANT
SELECTION



STAFF
RECOMMENDATION

Discussion Topics



UPCOMING
PROJECTS AND A
NEED FOR
ENGINEERING
SERVICES



RFP AND
CONSULTANT
SELECTION



STAFF
RECOMMENDATION

The Agency is going through a CIP phase and has multiple projects planned over the coming years

County Line Rd Recharge Project

Brookside West Recharge Expansion

Danny Thomas Ranch Recharge

Backbone Pipeline

Additional Maintenance Projects

Additional Planning Support



To assist in capital improvement projects



To assist with maintenance projects



To provide technical assistance to Agency staff as needed

SGPWA needs additional engineering support to accomplish short and long-term goals

Discussion Topics



UPCOMING
PROJECTS AND A
NEED FOR
ENGINEERING
SERVICES



RFP AND
CONSULTANT
SELECTION



STAFF
RECOMMENDATION

Four staff members from SGPWA and one from BCVWD were part of the selection committee

Staff issued the RFP on the Agency website

Two proposals were received

An interview was conducted with both Firms

References were checked as a part of this process

Fee proposals were opened

Final selection was made

The selection committee recommended both Firms move forward for selection



One Firm was Engineering Resources of Southern California (ERSC)



The other Firm was Albert A. Webb Associates who teamed up with Provost & Pritchard

The scope of services that the Agency would expect the on-call engineering Firm to perform and assist staff with would include but not be limited to...

Planning and Design

Bid and Spec Development/Review

Project Management

Construction Management

Inspection Services

Surveying Services

Permit Acquisition

Environmental Support

The Agency has \$250,000 budgeted for On-Call Engineering Services



Both Firms would be authorized for On-Call Engineering Services up to \$250,000 but the total between both Firms would not exceed \$250,000 in total



The initial contract would be for one year, with the option to renew the contract annually – the Board of Directors would have to approve this each year

Discussion Topics



UPCOMING
PROJECTS AND A
NEED FOR
ENGINEERING
SERVICES



RFP AND
CONSULTANT
SELECTION



STAFF
RECOMMENDATION

Staff recommends...

That the Board of Directors authorizes the General Manager to enter into a contract with Albert A. Webb Associates for On-Call Engineering Services in an amount not to exceed \$250,000 and with Engineering Resources of Southern California for On-Call Engineering Services in an amount not to exceed \$250,000.

Questions?
