



# PROGRAM C WELL WATER TRANSMISSION MAIN



PROPOSAL FOR LOS OSOS COMMUNITY SERVICES DISTRICT



June 29, 2022

Steve Tanaka  
Wallace Group  
Los Osos Community Services District  
2122 9<sup>th</sup> Street  
Los Osos, CA 93402

**SUBJECT: PROPOSAL FOR THE PROGRAM C WELL WATER TRANSMISSION MAIN**

Dear Mr. Tanaka,

Water Systems Consulting, Inc. (WSC) is pleased to submit this proposal to the Los Osos Community Services District (LOCSO) to provide engineering design, bid, and construction phase services in response to the Program C Well Water Transmission Main (Project) Request for Proposals (RFP). WSC has been providing value added consulting and design services on the Central Coast for nearly 15 years, and to LOCSO since 2019. Through our recent relevant pipeline design work for LOCSO and other coastal communities in San Luis Obispo County, we understand the unique local challenges—enabling us to work efficiently, anticipate potential issues, and bring innovative solutions.

Many of our employees call San Luis Obispo County home and we are excited at the opportunity to build a relationship with LOCSO and provide value to the community. WSC's approach is based on several key considerations:

**Responsive local service.** WSC has provided similar engineering design services to LOCSO and the nearby communities of Cayucos, Morro Bay, Arroyo Grande, and Pismo Beach. Through our local work, we understand the unique permitting, utility conflict considerations, and community concerns associated with this project. This familiarity and experience allow our team to work efficiently, provide value-added solutions, and minimize impact on your community.

**Streamlined and focused design leads to efficient project delivery.** Our approach includes working with LOCSO to develop a quick start plan for the alignment layout to identify and minimize utility impacts and understand potential crossings. In anticipation, we have already started preliminary utility research that will allow us to hit the ground running. We will work closely with LOCSO staff to identify project goals and priorities, evaluate lead time for County coordination and right-of-way impacts, and streamline design reviews.

**Early engagement and continued collaboration.** We will work quickly after receiving the Notice to Proceed (NTP) to provide an early base map of known utilities to LOCSO for review. There are several utilities including gas mains, major telecommunication duct banks, and sewer mains that will provide challenges for developing an alignment through the Los Osos Valley Road and South Bay Boulevard intersection suitable to the LOCSO's project constraints, and goals. We understand the community's sensitivity to utility and traffic disruptions and how an early understanding of alignment and potential utility conflicts will help WSC incorporate appropriate mitigation and sequencing measures to reduce impacts from paving, intersection restoration, and right-of-way creep to the extent possible.

WSC has reviewed the Agreement for Services provided with the RFP and respectfully requests LOCSD consider the requested revisions in Appendix B. WSC has previously reached amicable agreement on contracts for similar work and are confident that we will quickly reach an agreement again.

WSC is committed to delivering all required resources and personnel to meet the project requirements. We welcome the opportunity to discuss this proposal with you in more detail, and to answer any questions you may have. Feel free to contact WSC's proposed Project Manager, Michael Goymerac, at (805) 457-8833, ext. 123, or Principal in Charge, Dylan Wade, at (805) 457-8833, ext. 111. You can also email us at [mgoymerac@wsc-inc.com](mailto:mgoymerac@wsc-inc.com) or [dwade@wsc-inc.com](mailto:dwade@wsc-inc.com).

We are excited for the opportunity to partner with you on this project and look forward to collaborating with LOCSD. Thank you for considering WSC, and we look forward to your response.

Sincerely,  
Water Systems Consulting, Inc.



Michael Goymerac, PE  
Project Manager



Dylan Wade, PE, CCM  
Principal in Charge / Vice President

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**Understanding and Approach**

## Project Understanding

The Los Osos Community Services District (LOCSO) owns and operates a water distribution system that serves water to the community of Los Osos. The water distribution system consists of two pressure zones: a main pressure zone and a boosted pressure zone that is supplied through the 16<sup>th</sup> Street Pump Station. LOCSO is installing a new well on the south side of the community and wishes to install a new transmission main to connect to the South Bay Well transmission main. The new transmission main will serve a similar purpose to the previous project by filling the storage tanks in the main zone.

LOCSO envisions a new 8-inch transmission main along South Bay Boulevard and Mountain View Drive between the new well site located on Nipomo Avenue. The transmission main will tie into the WSC designed South Bay Well transmission main. The tie in will include appropriate valving to allow the District to manually control the new well discharge to either the boosted zone or directly into the main zone. The transmission main will terminate approximately 5 feet into the new well site located on the corner of Bay Oaks Drive and South Bay Boulevard. There will not be any services connected off this new transmission main and no existing pipe will be replaced nor abandoned. LOCSO has already initiated the environmental review and permitting process which is expected to be completed before design. It is understood that the system hydraulics, with the completion of the transmission main, have already been evaluated and confirmed by LOCSO.

## Project Approach

WSC is positioned to provide great value to LOCSO due to its team’s technical experience with pipeline projects in the area, schedule efficiency, and early engagement coupled with continued and responsive service. WSC’s proposal provides a proven approach to assisting LOCSO in developing design plans and construction documents for a new water transmission main to connect the Program C Well to the main pressure zone. WSC has developed a nimble and experienced team to assist the District through a streamlined and focused design effort with proven success on the previous South Bay Well transmission main project.

### Quick-Start Plan Critical to Maintaining Project Schedule

A critical component to our project approach is maintaining strict adherence to the schedule. LOCSO’s Program C well and transmission main project has received outside funding is under a funding deadline to complete the project. WSC understands that scheduling and timing are of great importance to the District. To demonstrate WSC’s commitment to schedule, we have prepared a 45-day quick-start plan which includes some of the most critical components of the project. The quick-start plan is shown below and includes tasks leading up to preparation of the design drawings. A more comprehensive project schedule is included later in this proposal.

Task	Days:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45					
Notice to Proceed		█																																																	
Utility Research																																																			
Kick-Off Meeting				█																																															
Submit Encroachment Permit																																																			
County Permit Review																																																			
Site Visit With County Inspector																																																			
Receive Encroachment Permit																																																			
Utility Potholing																																																			
Survey																																																			

WSC staff are available and ready to begin design—we have already begun preliminary utility research efforts. Using Underground Service Alert’s database, we obtained a preliminary list of utility companies who may have facilities in the respective project areas and have reviewed this information against available record drawings provided by the District. Companies with active utilities in the project vicinity include but are not limited to LOCSD, County of San Luis Obispo, Golden State Water Company, SoCal Gas, Pacific Gas and Electric (PG&E), AT&T, and Charter. Upon receiving notice to proceed, we will send notification letters to the various utilities and will diligently pursue existing utility data to meet the expedited schedule. At the start of the project, we will also begin preparation of the encroachment permit and required traffic control plans. These will be submitted following the project kick-off meeting and a field visit will be scheduled with the County inspector to review the proposed potholing work and traffic control. During review of the encroachment permit, WSC will develop a list of utility conflicts and areas where additional utility information may be warranted. With encroachment permit in hand, WSC’s potholing subcontractor will pothole locations in order of importance. Upon completion of potholing, WSC’s surveyor will record the locations of the potholes. Scheduling surveying after potholing allows USA markings to be refreshed capturing detailed field-marked utilities within our drawings. **Early identification of the existing utility landscape of the project area will allow WSC to address potential utility conflicts at the beginning of the design and work with the District to gain additional information via potholing to develop viable solutions.**

Throughout the project, WSC will closely manage the communication, coordination, budget, schedule, and quality to provide a high level of service consistent with our core values. To accomplish this, WSC will:

- Document communication including meeting and conference call notes
- Provide action item summaries and records of project decisions
- Keep all project documents and records organized and accessible to the project team, particularly the utility information
- Schedule regular internal meetings and draft review periods early in the project to keep the project momentum going
- Internally review the schedule and workload of team members weekly and adjust other project workloads to meet schedule commitments to this project

### Accurate and Details Contract Documents Reduces Potential Construction Risks

An important first step in the basis of design work is to compile an accurate base map that depicts the existing conditions in the project area. County parcel records, aerial, street view imagery available in the public domain, and visible evidence of utilities will provide valuable pieces of the puzzle. As-built plans from the various utility owners will enable us to depict the existing conditions with a reasonable degree of accuracy. Coupled with this information, WSC’s surveyor, MBS Land Surveys, will perform utility surveys

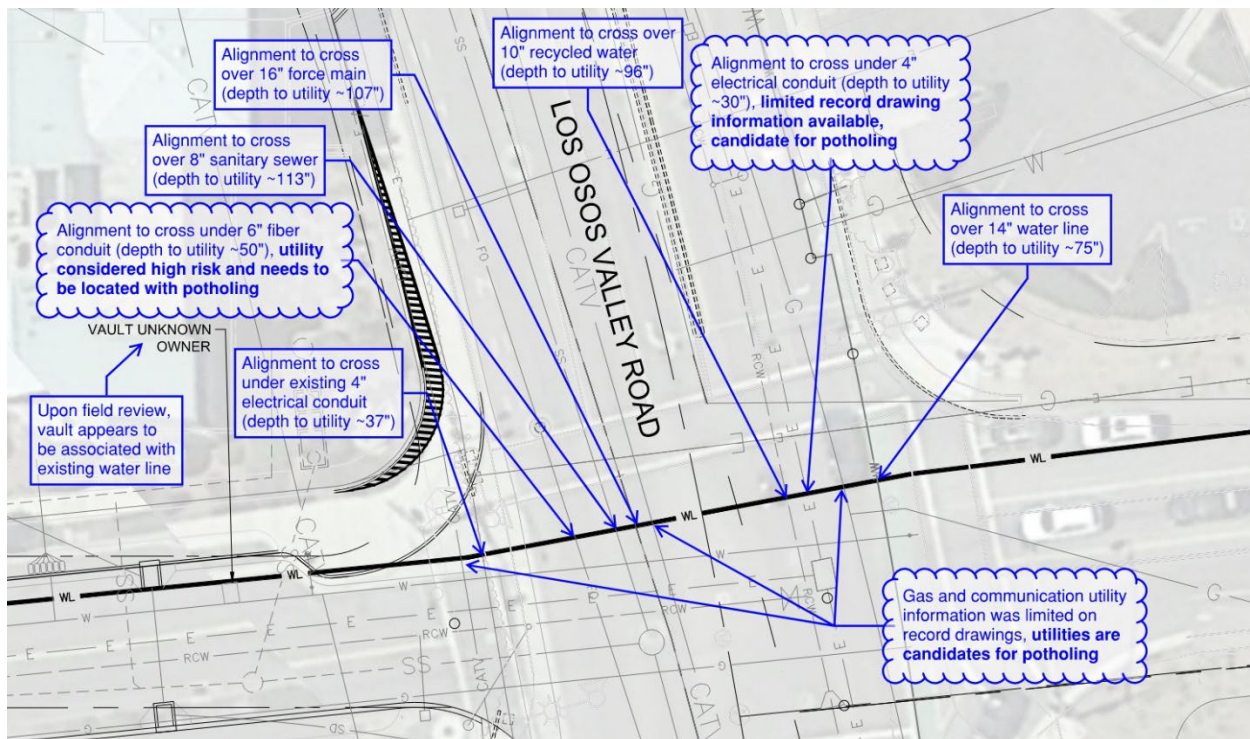
WSC’s scope includes surveying the Program C well site located on the corner of South Bay Boulevard and Bay Oaks Drive. Including the survey of this site during the transmission main work will reduce the need for a full topographic survey during the future well equipping design. Instead, a surveyor can pickup the as-built location of the new well (post drilling). WSC has used this efficient approach on other projects to save time and money.

locating above ground evidence of utilities, including storm drain, sewer, water, gas, electric, and cable TV and will incorporate that data into the base map. In addition to utility maps and survey data, the record drawings, or atlases, showing the underground alignments provided by the District in the RFP will allow for further identification of potential conflicts and a more confident alignment. **Understanding potential conflicts during the design phase and addressing them on the plans will reduce the potential for field changes, cost increases, and delays caused by utility conflicts during construction. We have already obtained a comprehensive list of utility companies who may have facilities in the project areas.**

Even with the preparation of a detailed base map, there is always the potential for conflicts with unknown utilities and unfavorable subsurface conditions can be discovered during construction. However, these impacts can be anticipated and strategically mitigated in the contract documents. Our design team’s extensive pipeline design and construction management experience is reinforced by hands-on experience solving issues during construction and operation. WSC’s Project Manager, Michael Goymrac, has experience overseeing and implementing pipeline projects during construction phases. The contract documents should detail which methodologies are permitted and include provisions for limiting payment. Utilizing Lump Sum bid items along with a detailed description of what the payment includes can be an effective way of calling attention to potential shortcuts and establishing equal requirements that allow quality contractors to be competitive. **WSC proposes to hold a portion of the 90% Draft Final Design Review Workshop (see Task 0.5 in Scope of Services) at the Project site. This will allow WSC and District staff to walk the alignment and simulate a construction bid environment focusing on constructability issues and construction risk mitigation.**

### Understanding Utilities In LOVR/South Bay Blvd Reduces Construction Risk

WSC has performed an early evaluation of the Los Osos Wastewater Collection System Project Record, provided by the District with the RFP and gained an understanding of the site constraints during a preliminary site walk. Our team’s preliminary understanding of the potential utility conflicts within the Los Osos Valley Road (LOVR) and South Bay Boulevard intersection coupled WSC’s quick start approach will maintain the District’s aggressive schedule and reduce construction risk. During the later design stages WSC proposes to meet with the County to better understand traffic control limitations and restoration requirements within the LOVR and South Bay Boulevard intersection.





## Understanding and Approach

Based on the initial review of record drawings, WSC has identified utilities and their previously recorded depths within the LOVR and South Bay Boulevard intersection, that could interfere with the Program C Well Water Transmission Main. These utilities include: SoCal Gas mains ; AT&T communication duct banks; Golden State Water service lines; Charter telecommunication services (including TV and fiber optics); 8-inch sanitary sewer main; 16-inch sewer force main; 10-inch recycled water main; and a 10-inch water main. Detailed record drawings associated with the Los Osos Wastewater Collection System Project should provide high levels of confidence on the location and depths of the recycled water, sewer force main, and sanitary sewer mains. Gravity pipeline depths can be generally well identified based on opening nearby manholes and dipping the inverts. **Higher risk utilities such as gas and telecommunications can be more difficult to field identify lending themselves to being prime candidates for inclusion in the potholing program. Of particular concern is the 6-inch fiber optic running in the south bound lane of LOVR. It is understood the fiber optic originates from the Morro Bay Cable Landing Station which is the terminal station for two trans-pacific undersea cables. This specific utility will be included in the potholing program due to the significant construction risk that it imposes. Fiber optic lines such as these typically require coordination with the utility provider and can carry heavy fines if impacted.**



Upon submission of the 50% Design, WSC will begin coordinating with County Encroachment Department to understand the traffic control limitations and restoration requirements within the LOVR and South Bay Boulevard intersection. WSC will meet with the County onsite to review the 50% Design Plans and understand key traffic control requirements that need to be incorporated in the contract specifications. County may also have specific restoration requirements for pavement and impacted curbs and sidewalks which will also need to be accurately captured in the contract specifications. **The intersection of LOVR and South Bay Boulevard will have the highest impact on the community. Creating clear traffic control and restoration requirements in the contract specifications will help the contractor efficiently perform this work, reduce time in the intersection, and lessen community impacts.**



**Project Team/Qualifications**

## WSC is Your Premier Water Resources Consulting Firm

WSC is a full-service engineering consulting firm that specializes in innovative and sustainable solutions, relationship building, and bringing value to our clients. We thrive and grow from the philosophy that people come first and that all water has value.

Our expert staff of nearly 60 employees provides design engineering services to public water utilities throughout California and the Pacific Northwest. We serve special districts, counties, cities, investor-owned utilities, and regulatory agencies from our nine offices, including our San Luis Obispo headquarters which is staffed by more than 20 skilled employees.

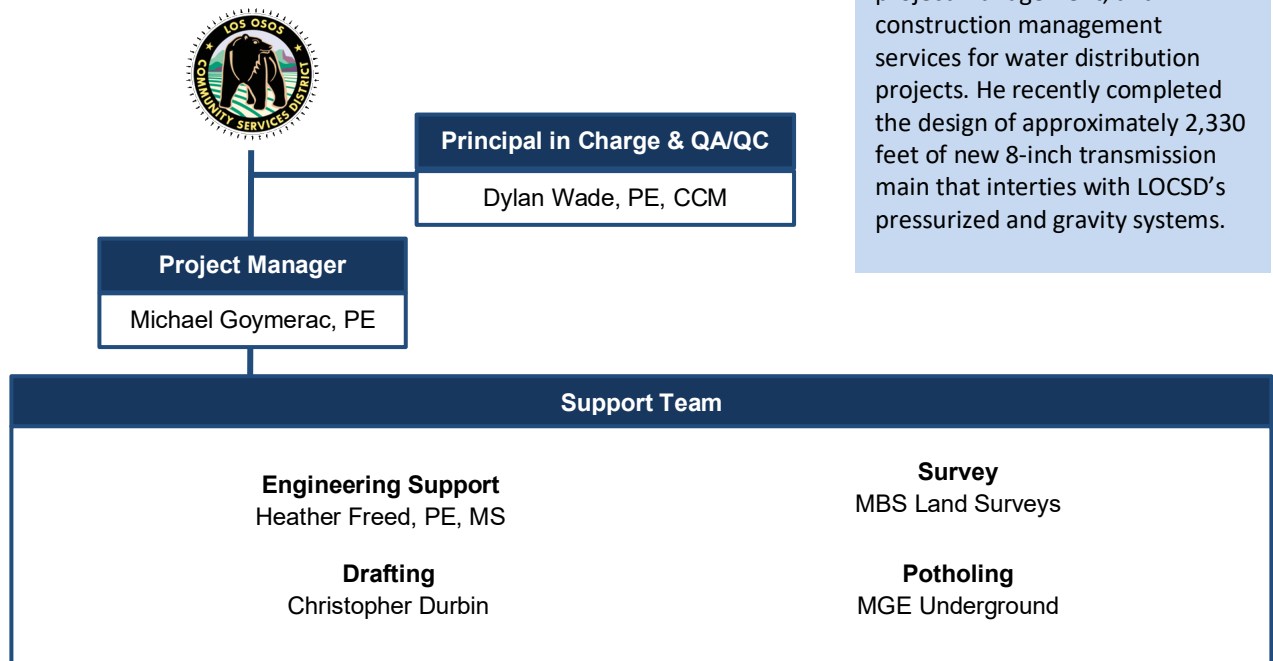
WSC’s proposed Project Manager is Michael Goymerec, PE, an experienced water main design engineer based in San Luis Obispo. Michael was the Project Manager for the South Bay Well Site Water Transmission Main to Main Pressure Zone Project (South Bay Project). He will be supported by WSC’s Principal in Charge and QA/QC Lead, Dylan Wade, a water conveyance expert with more than 20 years of experience in San Luis Obispo County, specifically in the Los Osos and Morro Bay area. Michael will lead a team that includes Heather Freed, a talented hydraulic modeler and design engineer, and WSC’s in-house drafter Christopher Durbin, both of whom have experience on water transmission design projects and worked with Michael on the South Bay Project.

MBS Land Surveys (MBS) will provide survey services on this project. WSC and MBS have worked together on numerous projects in San Luis Obispo County, including the South Bay Project. Potholing services will be provided by MGE Underground (MGE). WSC and MGE have worked together on multiple projects in San Luis Obispo County. Detailed resumes for WSC’s proposed staff are included in **Appendix A**.

**Meet Your PM**

**MICHAEL GOYMERAC, PE**

Mr. Goymerec is a professional engineer with more than 10 years of experience providing design, project management, and construction management services for water distribution projects. He recently completed the design of approximately 2,330 feet of new 8-inch transmission main that interties with LOCSO’s pressurized and gravity systems.



## Relevant Project Experience

### Experience

Founded in San Luis Obispo County, WSC has spent more than a decade helping local water utilities plan, fund, design, and deliver vital water system projects. Members of WSC's team have led or played key roles in numerous water main and pressure zone design projects on the Central Coast. Their expertise and local knowledge enable the careful evaluation, planning, design, and construction of effective and resilient infrastructure. WSC and our proposed subconsultants have worked together on similar projects in San Luis Obispo County and will seamlessly work together to design this project.

In addition to the projects highlighted in this section, WSC has supported numerous other clients in California with the design of water main and pressure zone projects, including more than 10 miles of 8- and 12-inch water main replacement projects for Liberty Utilities in Southern California, more than two miles of 8-inch water main for Big Bear City Community Services District, 3,300 LF of 8-inch water main for the City of Arroyo Grande, and three segments of 8- and 12-inch water main for the City of Pismo Beach. Through projects like these, our team has established a library of tools and experience that drives efficiency and quality. WSC also focuses on understanding the unique preferences and constraints for each project by building in time to listen to your staff and capture their nuanced knowledge of operations and maintenance in the project deliverables.

#### South Bay Well Site Water Transmission Main to Main Pressure Zone

– Los Osos Community Services District, Los Osos, CA



LOCSD owns and operates a water distribution system to serve water to the community of Los Osos. The water distribution system consists of two pressure zones: a main pressure zone and a boosted pressure zone that is supplied through the 16th Street Pump Station. The South Bay Well pumped directly into the boosted zone on a demand basis. LOCSD desired to use the South Bay Well to fill the storage tanks in the main zone. WSC assisted LOCSD in preparing construction documents for a new 8-inch transmission main that ties into the existing South Bay Well discharge pipe and runs approximately 2,330-feet west until it connects to the main zone. Led by Michael Goymerac, the WSC team was responsible for generating design plans, technical specifications, construction cost estimates, potholing and utility investigation efforts, surveying, and bid phase services.

**Years (Main West):** 2019 to 2021

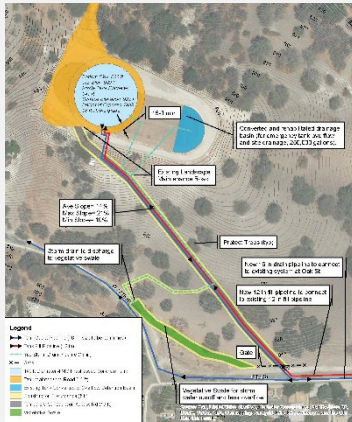
**Key Staff:** Michael Goymerac (Project Manager), Christopher Durbin (Drafting), Heather Freed (Project Engineer), MBS Land Surveys (Surveying), MBE (Potholing)

**Project Manager's Reference:**

Ron Munds, General Manager  
Los Osos Community Services District  
(805) 528-9379, [rmunds@losososcsd.org](mailto:rmunds@losososcsd.org)

## Main West Tank and Airport Area Utilities Extension Projects

– City of Paso Robles, Paso Robles, CA



Michael Goymerec designed 2,200 LF of 4-to 18-inch pipeline as part of the Main West Tank Design Project. This project which includes the final design and engineering services during construction for the replacement of a 4 MG partially buried, pre-stressed concrete tank on the site of an existing reservoir. WSC also provided preliminary and final design services for the Airport Area Utilities Extension Project which included nearly 10,000 LF of potable water, 5,000 LF of recycled water, and 14,000 LF of sewer main ranging in diameter from 8-to 15-inches. WSC used a GIS-based hydraulic model, detailed constraints analysis, and a life-cycle cost evaluation to analyze alternative configurations for the project.

**Years (Main West):** Main West — 2017 to present; Airport Area – December 2013 to present. Both projects are under construction

**Key Staff (Main West):** Michael Goymerec (Project Manager), Christopher Durbin (Drafting), Heather Freed (Hydraulic Modeling), MBS (Surveying)

**Key Staff (Airport Area):** Heather Freed (Hydraulic Modeling), Christopher Durbin (Drafting), MBS (Surveying)

**Project Manager’s Reference:**

Kirk Gonzalez, PE, Water Conservation and Resources Manager  
 City of Paso Robles  
 (805) 227-7238, kgonzalez@prcity.com

## Water System Improvement Projects

– Big Bear Lake Department of Water and Power, Big Bear Lake, CA



WSC has provided design and construction management services to Big Bear Lake Department of Water and Power since 2011. During that time, WSC has designed or managed the construction of more than 36,000 LF of 8-to 12-inch water main. WSC is currently in the first year of a four-year water main replacement program that includes an additional 65,000 LF of water main. WSC has also provided design services for the Division, Sawmill, and Arrastre Creek wells, and construction management services for the drilling of two wells and the equipping of five wells. WSC assisted with acquiring more than \$30 million in grants and low interest loans for BBLDWP, including \$15 million in low interest loans from the USDA Rural Development Program Grant/Loan Program for the 2018 Pipeline Replacement Project.

**Years:** 2011 to present

**Key Staff:** Joshua Reynolds (Principal in Charge), Michael Goymerec (QA/QC), Christopher Durbin (Drafting)

**Reference:**

Reggie Lamson, PE, PLS, General Manager  
 Big Bear Lake Department of Water and Power  
 (909) 866-5050, rlamson@bbldwp.com



## Scope of Services/Contract Exceptions

### Scope of Services

#### TASK 0.0 PROJECT MANAGEMENT & COORDINATION

##### 0.1 Project Administration

- WSC will provide project administration and coordination with the District, subconsultants, and the County.
- WSC will prepare project a schedule and update as-required based upon actual progress and District's direction.
- WSC will prepare monthly progress reports. Project management is assumed to cover a 6-month duration covering both the design and construction phases of the project.

##### 0.2 Quality Assurance/Quality Control

- WSC senior technical staff will be responsible for executing the Quality Assurance and Quality Control (QA/QC) program.
- WSC senior technical staff will provide comprehensive QC reviews of deliverables prior to submittal to the District for review. Anticipated deliverables are described in subsequent tasks.

##### 0.3 Kick-Off Meeting

- WSC will plan, organize, and conduct one (1) kick-off meeting. The purpose of the kick-off meeting will be to: (1) establish roles and responsibilities; (2) review scope, schedule, and deliverables; (3) review available data and establish data needs; (4) review alternative pipeline installation, alignment constraints, and property owner coordination; and (5) discuss LOCSD's preferences for design plans and Technical Specifications.
- WSC anticipates attendance of the Project Manager and Project Engineer for a two-hour meeting in person plus travel and preparation time.

##### 0.4 Meeting #1 – 50% Draft Design Review

- WSC will plan, organize, and conduct Meeting #1. The purpose of the meeting is to discuss the Draft Design Submittal and Technical Specifications. WSC anticipates the meeting will be held ten (10) business days after the Draft Design is submitted. Discussion topics will include the proposed pipeline alignment, utility conflicts, additional potholing (if necessary), points of connection, stubs for future mainline extension, technical specification preferences, and any other comments or preferences LOCSD would like to incorporate. The review will be followed by a discussion of the next steps and design completion schedule. Draft agendas will be provided prior to the meeting. WSC will provide a copy of the technical specifications and plan set prior to the meeting.

##### 0.5 Meeting #2 – 90% Draft Final Design Review

- WSC will plan, organize, and conduct Meeting #2. The purpose of the meeting will be to discuss the Draft Final Design Submittal and Technical Specifications. It is anticipated that the meeting will be held after the Draft Final Design is submitted and will be combined with the Front End Specification Preparation. WSC will provide a copy of the technical specifications and plan set prior to the meeting. The review will be followed by a discussion of the next steps and design completion schedule. Draft agendas will be provided prior to the meeting.

- A portion of this meeting will occur at the Project site and will include an alignment walk to simulate a construction bid environment, focusing on constructability, anticipated construction issues and questions, and construction risk-mitigation.

*Deliverable: Draft agendas, meeting minutes, and decision logs*

## TASK 1.0 PRELIMINARY ENGINEERING

### 1.1 Data Collection and Review

- WSC will gather and review record maps of existing water and proposed District water facilities. It is assumed that the District will provide digital copies of all available record drawings within the project area within one (1) week of contract execution.

### 1.2 County Encroachment Permit

- WSC will assist LOCSO in obtaining County Encroachment Permits for the project.
- WSC will prepare and submit up to (2) encroachment permit packages with required supporting technical documentation for:
  1. Potholing. The potholing contractor, MGE, will prepare a traffic control plan to County standards.
  2. The water transmission main project based on the 90% Draft Final Design Submittal. WSC will provide one (1) set of comments and incorporate them into Final Design Submittal. The contractor will prepare a Storm Water Pollution Prevention Plan (SWPPP) and traffic control plans to County standards as required by Contract Documents.
- WSC assumes the LOCSO will negotiate specific terms and conditions of the permit and pay all permit fees.

### 1.3 Utility Research

- WSC will use the utility list obtained from the Design DigAlert to contact agencies and utilities who may have facilities in the project area. WSC anticipates requesting plans from the following utility companies: Golden State Water Company; County of San Luis Obispo (SLO County) Sewer; Pacific Gas and Energy (PG&E); SoCal Gas; Charter Communication; and AT&T.

*Deliverable: PDF copies of utility drawings received. PDF of correspondence with Utility Agencies.*

### 1.4 Potholing (Daily Rate)

- WSC, in coordination with the District, will determine critical utility crossings and connection points that may require potholing and will work directly with our potholing subconsultant, MGE, to perform the potholing. It is anticipated the potholing contractor will utilize swing tie measurements to locate the pothole and record utility depths below ground surface. The locations will be incorporated into the final plan set.
- The potholing effort shown in the fee table is a daily rate including restoration of the potholes. The potholing will be performed by means of vacuum truck and potholes will be restored to County of San Luis Obispo standards. The effort includes WSC staff time to observe potholing and review the potholing report. MGE anticipates the ability to pothole and restore 5 potholes a day and anticipates a minimum of 15 potholes. The daily rate shown in the fee table assumes the depth of the utility do not exceed 60", and utilities that are found to exceed the 60" of cover will be tracked on an hourly rate of \$500 an hour.

- Dedicated daily rate for surveyor to locate potholed utilities excavated by the potholing subconsultant, MGE, for inclusion in the survey data.

### 1.5 Survey, Base Map Preparation, and Site Visit

- WSC's surveying subconsultant, MBS, will conduct survey control to establish horizontal and vertical control for Project area in conformance with SLO County standards (as applicable). MBS will also perform detailed aerial topographic survey after LOCSD has marked out the existing waterline locations. The ground survey will be used to prepare project base maps which include the following components: 1-foot contours, roads, buildings, centerlines and right-of-way monuments, fences, power poles, trees, and other features according to standard practice.
- WSC will prepare a base map using the survey data, record drawings obtained from utility companies, and aerial and street view imagery available in the public domain.
- WSC will conduct a site visit of the project area to verify the information depicted on the utility location maps and plans, where possible. Additional evidence of existing utilities or necessary corrections observed during the site visit will be field measured and the base map will be updated to reflect the approximate locations.

**Task 1.0 Assumptions:** The geotechnical report prepared for the Los Osos Wastewater Collection System and Treatment Plant Project will be relied on and a separate geotechnical report will not be prepared for this project.

## TASK 2.0 CONSTRUCTION DOCUMENTS

### 2.1 Pipeline Design

- WSC will prepare plans at scale of 1"= 20' horizontal and 1"= 4' vertical for approximately 3,230 LF of 8-inch pipeline.
- The plans will include the following elements: new pipelines will be located in street right of way; the alignment of the proposed pipelines dimensioned offset from relevant features (such as right-of-way) with coordinates tied to local control as appropriate; connections to the existing system; locations for shut-off valves, air and vacuum release valves, blow off valves or other relevant water system appurtenances; and pipe centerline stationing to identify the locations of pertinent features on the plan and profile view as well as to aid in collecting accurate as-built information during construction. The preliminary sheet list will be provided at the kickoff meeting for discussion.

### 2.2 Specifications

- WSC will prepare technical specifications in 50 Division CSI format, including the bid schedule, measurement and payment provisions, Division 01 General specification and required technical specifications. The technical specifications will include the sections shown in the Specification Section List below. It is assumed that the District will prepare the front end documents for this project.

### 2.3 Opinion of Probable Construction Cost

- WSC will prepare and submit an opinion of probable construction cost with the 50%, 90%, and Final Design submittals. The estimates will be prepared to a Class 1 or 2 level estimate, depending on the deliverable, in accordance with AACE International standards.



## 2.4 50% Draft Design Submittal

- WSC will submit the 50% Draft Design Submittal (preliminary plan and profile, survey base map, outline specifications, and 50% opinion of probable construction cost) for review.
- The preliminary drawings will include the proposed alignments for the new waterline, approximate locations for relevant water system appurtenances, as well as points of connection to the existing system and facilities to be abandoned, if any. WSC will conduct Meeting #1 - 50% Draft Design Review Meeting with District staff to discuss the Draft Design Submittal and receive comments. Design drawings and specifications will be revised according to District comments.

*Deliverable: One (1) PDF submittal of 50% draft plans, specifications, and probable construction cost estimate. Two (2) full-size hardcopies of the plans and two (2) half-size hardcopies of the plans.*

## 2.5 90% Draft Final Design Submittal

- WSC will submit the 90% Draft Final Design Submittal (drawings, specifications, and 90% opinion of probable construction cost) for review. WSC will conduct Meeting #2 - 90% Draft Final Meeting with District staff to discuss the 90% Draft Final Design Submittal and receive comments. Design drawings and specifications will be revised according to District comments. Assumes no major comments or requested changes related to alignment or overall design.

*Deliverable: One (1) PDF submittal of 90% draft final plans, specifications, and probable construction cost estimate. Two (2) full-size hardcopies of the plans and two (2) half-size hardcopies of the plans.*

## 2.4 Final Design Submittal

- WSC will submit the Final Design once the District approves the Draft Final Design. The Final Design will be submitted as one (1) set of stamped and signed 22" x 34" plans on bond paper, one complete stamped and signed specification book, and an electronic pdf version of the signed plans, specifications, and final opinion of probable construction cost. WSC will also provide a copy of the AutoCAD file for the Final Design Submittal (along with the ctb file) via Sharefile. The digital files will be delivered via email on the date shown on the schedule and the hard copy will be mailed to the District by the following business day.

*Deliverable: One (1) PDF submittal of final plans, specifications, and probable construction cost estimate. Two (2) full-size and two (2) half-size hardcopies of the plans.*

**Task 2.0 Assumptions:** Plan sets will be on 22" x 34" paper, and the presentation and layout of the plans will consider the functionality of half-size (11" x 17") plans. All drawings shall be in native AutoCAD 2018 format and per WSC or District CAD standards. WSC understands that the scope of the project lies entirely within street right-of-way and existing Public Utility Easements and that no easement or property acquisition is required.

## OPTIONAL TASK 1.0 BID PHASE SUPPORT

### O1.1 Bid Phase Services

- WSC will attend one (1) pre-bid meeting along with the District and assist in providing an overview of the project and answering any field questions from potential bidders. WSC anticipates attendance of the Project Engineer for a one-hour meeting in person plus travel.
- WSC will receive questions from the District and prepare responses in the form of addenda. WSC's scope includes the preparation of two (2) addenda as part of the scope of work. WSC assumes that addenda distribution will be provided by the District.

## Scope of Services/Contract Exceptions

- WSC will review and analyze bids for responsiveness. WSC will prepare an award recommendation letter to be included in the staff report for District Council approval.
- WSC will prepare a set of conformed construction documents, incorporating the changes made during the addenda phase. The conformed construction documents will be submitted as one (1) set of stamped and signed full size plans, a hardcopy of the conformed specifications and digital copies of both plans and specifications (PDF via email). WSC will also provide a copy of the AutoCAD file.

## OPTIONAL TASK 2.0 CONSTRUCTION PHASE SUPPORT

### 02.1 Office Engineering During Construction

- WSC will attend up to ten (10) meetings to discuss construction progress with the District and the Contractor. Meetings are assumed to be 1 hour each and will be attended by WSC's Project Engineer.
- WSC will receive, log, and review up to twenty (20) project submittals submitted by the Contractor. The submittal review effort assumes two (2) hours per submittal.
- WSC will receive, log, and respond to requests for information (RFI) submitted by the Contractor. Fee assumes up to eight (8) RFIs at four (4) hours each.
- WSC will review and provide initial acceptance or rejection of Contractor notices of change (NOC) requiring additional construction costs or delays to the construction schedule. (Fee assumes 2 change events).
- Project administration and management time for duration of construction (9 months)

## OPTIONAL TASK 3.0 ADDITIONAL SURVEY TASKS

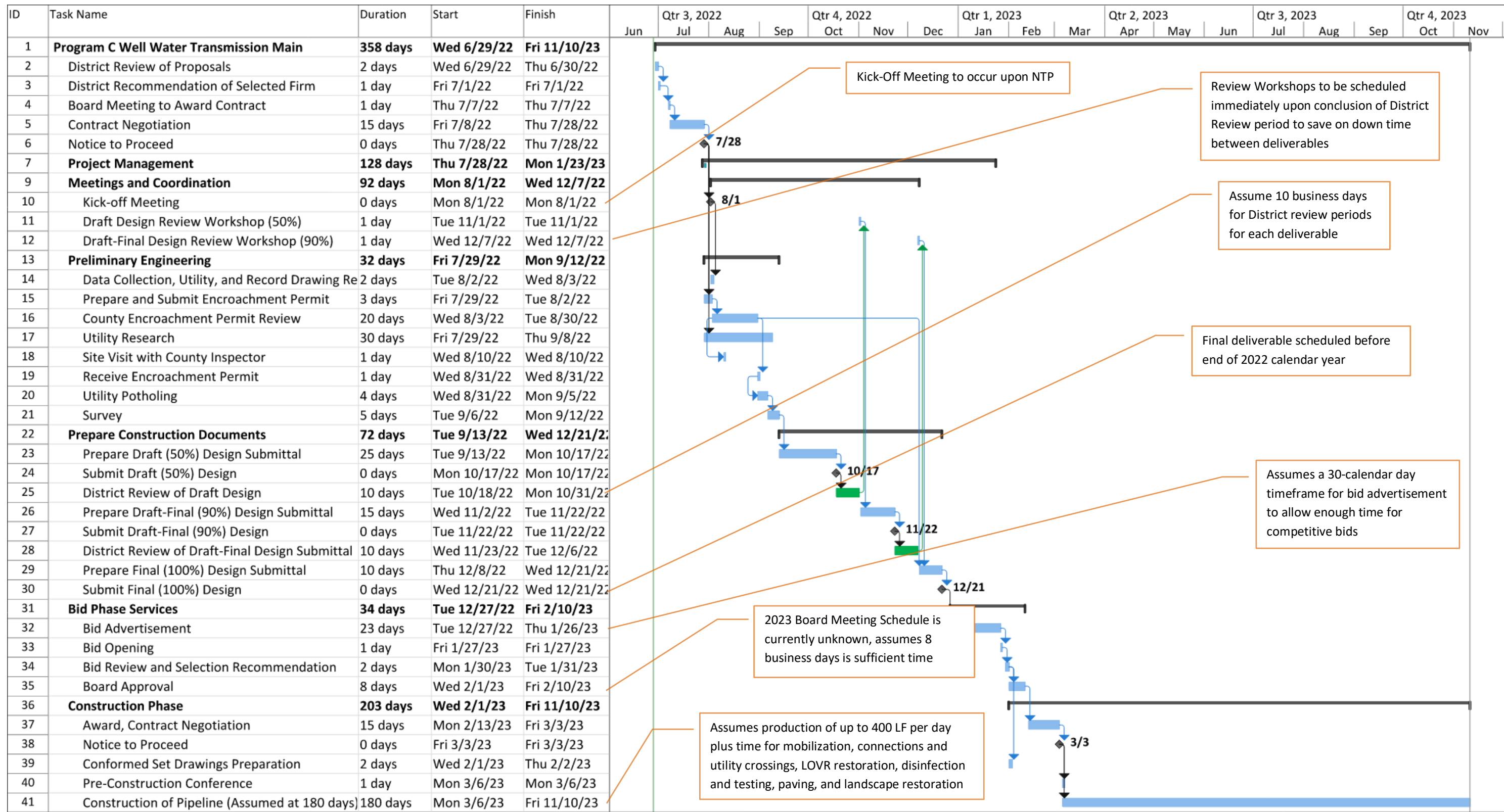
### 03.1 Locating and Setting New Monuments

- MBS will locate centerline monuments and set new reference monuments at the street intersections that may be lost or destroyed by construction. Monuments that have been located during the right-of-way survey that are destroyed during construction can be reestablished after construction.
- MBS surveying subconsultants will provide a Record of Survey map showing the state plane coordinates of the monuments found during the retracement.

## ASSUMPTIONS

- Task 0 Project Management and Coordination includes their project management, administration, invoicing time for design (Tasks 1 and 2) and bid phase services (Optional Task 1.1).
- WSC understands that any permit fees will be paid directly by LOCSD.
- LOCSD will provide construction observation. Construction management, inspection, and materials testing services are not included in this scope.
- A total of 13 drawings are anticipated for the plans including civil plan and profile, notes, and details sheets. A drawing list will be provided upon negotiation of the contract.
- LOCSD will advertise project for bidding and provide contract documents for bidder purchase.
- Conformed documents will be issued electronically, with Contractor responsible for any printing costs incurred.
- Site visits during construction, inspection, and materials testing are not included.

**Schedule**





**Appendix A. Resumes**

# Michael Goymerac <sup>PE</sup>



## PROFESSIONAL EXPERIENCE

Michael is a Professional Engineer with 10 years of experience in water and wastewater infrastructure design and construction. This includes new pipelines, existing pipeline rehabilitation, storage tanks, recycled water system retrofits and permitting, water system automation retrofits, production groundwater wells, headworks, solids dewatering systems, reverse osmosis systems, and pump stations. He also has experience in hydraulic modeling, authoring grant applications, alternatives analysis, storm water resource plans, and regional water management plans. Michael has been involved in projects from planning through design and construction including project and construction management roles.

## REPRESENTATIVE PROJECTS

**South Bay Well Transmission Pipeline, Los Osos Community Services District, Los Osos, California.** *Project Manager and Engineer of Record.* The Los Osos Community Services District (LOCSD) owns and operates a water distribution system to serve water to the community of Los Osos. The water distribution system consists of two pressure zones: a main pressure zone and a boosted pressure zone that is supplied through the 16th Street Pump Station. The South Bay Well currently pumps directly into the boosted zone on a demand basis. LOCSD desires to use the South Bay Well to fill the storage tanks in the main zone. WSC assisted LOCSD in preparing construction documents for a new 8-inch transmission main that ties into the existing South Bay Well discharge pipe and runs approximately 2,330 feet west until it connects to the main zone. Mr. Goymerac served as the Project Manager and Engineer of Record overseeing a small team responsible for generating design plans, technical specifications, construction cost estimates, potholing and utility investigation efforts, surveying, and bid phase services.

**On-Call Engineering Services, City of Thousand Oaks, Thousand Oaks, California.** *Project Engineer.* Performing on-call engineering services for the City of Thousand Oaks which included providing design services for the Conejo North Waterline Rehabilitation Project. The project includes rehabilitation of nearly 1,230 LF

of welded steel pipe with cured-in-place pipeline (CIPP) and replacement of over 100 LF of pipeline with new 12-inch concrete mortar lined and coated welded steel pipe. The use of CIPP in this segment of the water infrastructure provides a solution to a site with unique land use and physical constraints.

**Main West Tank, City of El Paso de Robles, CA.** *Project Engineer.* Prepared the design and construction documents for a new 4 MG partially buried pre-stressed concrete tank on the site of an existing reservoir which has reached the end of its useful life. The \$7.5 million project has been a long-planned and essential component of the City's efforts to advance the overall performance, reliability, and usefulness of its water system. The project allowed the City to address aging infrastructure, improve water system hydraulics, and enhance the seismic safety of the water distribution system. Michael assisted with preparation of design drawings and contract specifications for critical demolition, grading, tank underdrain system, water conveyance, tie-ins to existing infrastructure and emergency overflow and drainage systems. He coordinated closely with various subconsultants and disciplines including CEQA evaluation, structural design, electrical and instrumentation components, and geotechnical evaluation of the site. He continued supporting the project during the construction phase by providing engineering services such as attendance at regular progress meeting, review of RFIs and submittals, change order management, and other services.



## EDUCATION

BS, Environmental Engineering,  
California Polytechnic University,  
San Luis Obispo, CA

MS (in progress), Civil &  
Environmental Engineering,  
California Polytechnic University,  
San Luis Obispo, CA

## PROFESSIONAL REGISTRATIONS

Professional Engineer - Civil,  
California, No. 84894

## CERTIFICATIONS AND TRAINING

Construction Quality Management,  
USACE

40-hr HAZWOPER Certified,  
OSHA

8-hr HAZWOPER Supervisor,  
OSHA

First Aid and CPR certified

**"I enjoy bringing attention to the often unseen world of water and communicating the ways in which it impacts our communities and environment."**

*Michael Goymerac*

**Michael Goymerac PE continued...**

**Water System Improvements, San Lorenzo Valley Water District, Santa Cruz County, California. Project Engineer.** Prepared design and construction documents for several small water system improvement projects. On project included design of over 400 feet of recently damaged pipeline within the Highway 9 right of way. The project included close coordination with Cal Trans and the District. Other water system improvement projects included preparation of construction documents related to replacement of pressure reducing valves throughout the District's Lompico Distribution System. The project included development of a standard detail for the district and technical specifications related to the performance and procurement of the valves.

**Cayucos Sanitary District, Cayucos Sustainable Water Project, Cayucos, California. Interim Resident Project Representative and Inspector.** Provided construction management as the client's interim onsite Resident Project Representative (RPR) for the construction of a new \$20.5 million 0.335 million gallon per day (MGD) water resource and recovery facility. The Project included green field construction of the new plant facilities including oversight of grading, pipeline placement, structural work for water bearing basins, vaults, and building pads. Mr. Goymerac provided onsite reporting and documentation of progress, provided document control through Bentley's ProjectWise, conducted regular progress meetings with client and contractor, tracked and resolved outstanding issues and conflicts, insured compliance with Contract Documents and permit requirements, and provided general inspection.

**Medio Creek Emergency Pump Station, Granada Community Services District, Half Moon Bay, California. Engineer of Record.** Mr. Goymerac acted as the assisted the District Engineer in design and permitting of a small emergency pump station and sewer force main. The original gravity sewer pipeline attached to the side of a bridge traversing Medio Creek was badly damaged during flooding when a section of the abutment dislodged and deflected the pipe at one of the joints. Mr. Goymerac designed a small 2 hp pump station to be inserted into a nearby sewer manhole and a new 3-inch force main line to replace the damaged gravity line. He worked closely with the District Engineer, local permitting agencies, stakeholders, and the Contractor.

**Phase III Valve and Pipeline Replacement Project, San Jose State University, San Jose, California. Engineer of Record.** Design and preparation of contract documents for over 1,100 feet of pipeline and thirteen valve sites across the public university campus. Assisted University during bidding and contracting phase and engineering services during construction where he acted as the point of contact for the client reviewing RFIs, submittals, and unforeseen field issues. Project was completed on time with minimal contract change orders with the client praising Mr. Goymerac in his "attention to detail" and for finding "solutions and compromises...when we found unforeseen utility conditions."

**Pure Water Soquel Injection Wells, Soquel Creek Water District, Soquel, CA. Project Engineer.** Pure Water Soquel is a groundwater replenishment and seawater intrusion prevention project. Designed civil site improvements at three recycled water injection well sites including piping and valving, well backwash pumps, buried backwash water equalization tanks, electrical, telemetry, site grading and finishing, and well operation procedures. Prior to the design, conducted a well siting study.

**WLK Booster Pump Station, California Water Service Company, CA. Project and Construction Manager.** Providing construction management support for the replacement of Booster Station 001, which is located in the northern part of the Westlake District. The scope of construction work includes replacement of 2 vertical turbine booster pumps with pump control valves, two bladder surge tanks (2,000 and 3,000 gallon), 175kW electric generator, 8" magnetic flow meter, pump shelters, and portable booster pump connections.

**City of Camarillo, Reclaimed Water Reservoir, Camarillo, California. Project Manager and Engineer of Record.** Prepared the design and construction documents for a new 1.5 million gallon partially buried concrete tank on the site of City's Water Reclamation Facility (WRF). The City of Camarillo currently provides high quality recycled water to a number of agricultural, commercial, and residential users. Prior to implementation of the reclaimed water reservoir the City had no means of onsite recycled water storage. As a result, the recycled water supply was roughly equal to the flow of recycled water produced by the WRF, creating a challenge for the City to meet the demands of existing customers, particularly at night when recycled water production is at the lowest. Mr. Goymerac assisted with preparation of preliminary design, funding applications, property acquisition, and design drawings and contract specifications for a new concrete storage tank. He coordinated closely with various subconsultants and disciplines including CEQA evaluation, structural design, and geotechnical evaluation of the site. He also assisted the City in evaluating and diagnosing a surging issue in their effluent channel which had implications on the hydraulics of the new tank.

**Reservoir and Booster Pump Station Study, City of Lynwood, Lynwood, CA. Engineer of Record and Lead Author.** As part of the water distribution system, the City of Lynwood owns and operates a 3 million gallon (MG) reservoir and a booster pump station. WSC assisted the City in evaluating the need for a new storage reservoir and booster station by allowing the City to maintain supply reliability during future reconstruction or rehabilitation, increase public safety and the reliability of local groundwater supplies by providing additional emergency and fire flow (FF) storage, and improving water management by providing more flexibility for operations to maintain high water quality in the reservoir and an acceptable range of distribution system pressures. Given Mr. Goymerac's experience with design and construction of new concrete reservoirs, he was the primary author for the site alternatives analysis, conceptual site screening, conceptual design, and permitting and construction consideration sections. During preparation of the report, tasks included analyzing pressures, sizing pumps and volume, piping configuration, site improvements, preliminary cost research, permitting considerations, and constructability review for the new reservoir and pump station. The report included an overall project schedule and program timeline to assist the City in moving towards design and construction.

# Dylan Wade PE, CCM



## PROFESSIONAL EXPERIENCE

Dylan Wade is a professional engineer with over 25 years of professional experience including design, resident engineering, construction management, project delivery, and utility management. Dylan has served as the Owner Representative on many large, high-profile and multi-jurisdictional water resources projects including design and construction of intake facilities, water treatment plants, wastewater treatment plants, and major public works programs. These projects have been tremendous successes and some have won national recognition. He is responsible for managing numerous projects from initial planning to finished product. Dylan's extensive utility experience enables him to solve problems from an owner's perspective, while his construction background and expertise in contract management facilitates successful project delivery.

## REPRESENTATIVE PROJECTS

**Cayucos Sustainable Water Project, Cayucos Sanitary District, CA. Program Manager/ Engineer of Record.** Provided the planning, design, program management and construction management for a program to create a sustainable water source for the community of Cayucos, cumulating in the design and construction of a 1.2 mgd (max day) greenfield Water Resource Recovery Facility. Program Management services included alternative project delivery, schedule management; stakeholder outreach coordination; meeting coordination and facilitation; risk management; and subconsultant management. Project development included project chartering, wastewater characterization, siting analysis, funding and financial strategy, rate setting, Proposition 218 process, wastewater collection system evaluation, and \$28 million dollars of USDA grants and low interest loans. Project also required evaluating regulatory and permitting requirements of potential disposal and beneficial use alternatives and coordinating with the Regional Water Quality Control Board for a new National Pollutant Discharge Elimination System (NPDES) permit and the permitting of a new ocean outfall through the California Coastal Commission. Prepared the design packages for the multiple projects in the program and provided construction management and engineering services during construction of the WRRF, which includes a Lift

Station, Pipeline project with directional drilling under Toro Creek, Coarse Screens, Fine Screens, Grit Removal, Equalization, Membrane bioreactor and UV disinfection treatment processes for California Title 22 compliance, Dewatering facilities, Chemical Storage and feed systems, pump stations, Operations and Maintenance Facilities, Well based Potable Water System, tanks, piping, and associated appurtenances. Led a value engineering and rebid of a project Lift Station project to produce over \$1.4 million in project savings in a two month period.

**Toro Creek Bridge Pipeline Replacement, Cayucos Sanitary District, CA. Construction Manager.** Provided design and construction management services to construct a temporary bridge for an existing sewerline across Toro Creek while Caltrans demolishes and replaces the existing bridge. Once the new Caltrans bridge is complete, a new force main will be hung from the new Caltrans bridge and the existing and temporary facilities will be removed and replaced. Responsible for coordination and outreach with Caltrans, reimbursement agreement negotiations, engineering and construction management.

**Owner's Representative, Wastewater Treatment Plant Upgrade, Brackish Water Reverse Osmosis (BWRO) Design Build Project, City of Morro Bay, CA. Project Manager.** Owner's Project Manager for the development of a \$34 million wastewater treatment plant upgrade project with preliminary

## EDUCATION

BS, Civil and Environmental Engineering, Brigham Young University, Provo, UT

AA, Liberal Arts, West Valley Community College, Cupertino, CA

## PROFESSIONAL REGISTRATIONS

Professional Engineer - Civil, California, No. C64044

Certified Construction Manager - No. 5761

**"I love working in the water and wastewater industry, where we get to make the world a better place while also making a difference for the communities we serve."**

*Dylan Wade*



**Dylan Wade** PE, CCM continued...

design complete, CEQA complete, Coastal Development Permitting efforts, and SRF funding anticipated. Emergency design and retrofit of BWRO treatment trains for an existing desalination plant include acquiring both CDPH and NPDES revised permits.

**Lopez Lake Water Treatment Plant Upgrade, San Luis Obispo County, CA. Resident Engineer.** \$15 million upgrade to the WTP. Upgrades included owner-procured membrane filtration, chlorine dioxide generation equipment, and significant SCADA modifications on an aging operational plant.

**Water Reclamation Facility Upgrade, Heritage Ranch Community Services District, Paso Robles, CA. Project Manager.** Lead for design services for upgrading the District's WRF for compliance with National Pollutant Discharge Elimination System (NPDES) requirements and a Time Schedule Order (TSO) for copper, un-ionized ammonia, and nitrate effluent limits. The project replaces the District's secondary wastewater treatment pond system with a new membrane bioreactor (MBR) system. Critical project elements include selecting the optimal site configuration and process options; procuring equipment quickly, competitively, and cost-effectively; efficiently navigating environmental and permitting requirements; providing accurate cost estimating; integrating lifecycle costs; and assisting in meeting United States Department of Agriculture (USDA) requirements and identifying other funding/financing opportunities.

**Water Reclamation Facility Alternatives Analysis City of Atascadero, CA. Principal In Charge.** Oversight and technical guidance for alternatives analysis for the City of Atascadero's WRF for treatment compliance relative to current and future regulations. The initial alternatives analysis establishes effluent limit targets, updates WRF flows and loads, and creates two alternatives for further economic and non-economic evaluations. The proposed alternatives include upgrading the current planned improvements to include membrane or MBR filtration with side stream reverse osmosis for salt reduction. The final alternatives will depend on effluent limits, specifically TTDs and chloride. The alternatives will also be evaluated using a pair-wise analysis that considers: 1) ability to meet shifting regulations, 2) flexibility for expansion to meet changing flows, 3) operational reliability, 4) environmental stewardship, 5) potential for odor, 6) redundancy, 7) level of automation, and 8) operator certifications and staffing. Cost analysis includes construction capital costs and comparative life cycle costs, and comparative life cycle cost analysis focuses on understanding the differences in near-term and future costs for the alternatives.

**Thousand Oaks Interconnection Projects, California American Water, Thousand Oaks, CA. Technical Advisor.** Provided QA/QC review of 60% design plans and specifications for two interconnection projects in the City of Thousand Oaks. The Borchard Road project included the design for more than 300-LF of 8-inch mainline to connect CAW's system to an existing Calleguas Municipal Water District turnout connection. The Gainsborough Road project connected CAW's system to the City of Thousand Oaks' water system. WSC designed 220-LF of 8-inch pipeline and two buried vaults, one for a two-way mag meter and the other for a pressure regulating valve.

**Rehabilitation of the City of Morro Bay Lift Stations #2 & #3, Morro Bay, CA. Project Manager.** Owner's Project Manager for the design, right-of-way negotiations, permit acquisition, and construction to replace two vintage wet well/drywell lift stations with wet well only facilities. Extensive dewatering and NPDES permitting was required to protect estuary and riparian habitats. Authored front-end documents to serve as a new standard for the City of Morro Bay.

**Wastewater Collection System Assessment and Rehabilitation Plan, City of Morro Bay, CA. Capital Projects Manager.** Created an asset management-based pipeline condition assessment and rehabilitation program. The cutting-edge program uses pre-designed standards, performance-based specifications, and GIS-enabled maps to reduce the rehabilitation project preparation timeline from several months to several days. Trenchless technologies were used extensively to increase repair efficiencies.

**Design-Build San Clemente Dam Removal and Carmel River Reroute Project, California American Water, Monterey, CA. Construction Manager/Project Manager.** Project included the re-routing and reconstruction of the Carmel River and removing the San Clemente Dam. This project is the largest dam removal project ever completed in California and required close coordination with Department of Water Resources Division of safety of dams. Project was implemented as a public-private partnership between California American Water, the California Coastal Conservancy, and the National Marine Fisheries Service using the design/build delivery method.

**Los Osos Wastewater Treatment Plant Construction, Los Osos, CA. Resident Engineer.** \$135 million program including \$35 million Wastewater Treatment Plant. Resident Engineer when the project was suspended at 5% completion through a recall election and agency default on an SRF loan. This created unique financial and legal ramifications ultimately resolved through state legislative action. Participated in the development of approximately \$10 million in value engineering at the time the work was stopped.

**City of Morro Bay Cayucos Sanitary District Joint Powers Authority Wastewater Treatment Plant Upgrade Project, City of Morro Bay, CA. Project Manager.** Owner's Project Manager for the development of a \$34 million wastewater treatment plant upgrade project with preliminary design complete, CEQA complete, Coastal Development Permitting efforts, and SRF funding anticipated.

**EA Fairbairn Water Treatment Plant (\$53.9M) and Intake (\$14M), City of Sacramento, CA. Construction Manager/Resident Engineer.** Led the E.A. Fairbairn Intake project, located in the American River, completed one year early and under the original budget. Designed the retrofit and expansion of the existing structure with fish screens, diffuser plates, and a seismic retrofit. Served as Owner's representative for this project from construction of the coffer dam slab to the fish screen dive inspection by NOAA and facility start-up.

# Heather Freed PE, MS



## PROFESSIONAL EXPERIENCE

Heather Freed is a Professional Engineer with over 6 years of experience in the evaluation, planning and design of water supply, treatment, and distribution systems. She has supported integrated water resources planning projects that evaluate demand projections and water supplies, including surface water, imported water, groundwater, recycled water, stormwater, and desalinated water supply availability, constraints, future risks, and costs, to develop and recommend a future supply portfolio. She has performed hydraulic modeling and distribution system analysis for future demand projection, capacity evaluation, supply balancing, system operations, and infrastructure analysis for design projects.

## REPRESENTATIVE PROJECTS

**South Bay Well Site Water Transmission Main, Los Osos Community Services District, CA. Staff Engineer.** Prepared the design documents for the installation of approximately 2400 linear feet of new 8-inch PVC pipeline in the County Right of Way. The project included the preparation of design plans, technical specifications, engineer's opinion of construction cost, and permitting support.

**Main West Tank, City of Paso Robles, CA. Engineering Support.** Provided hydraulic modeling of the tank connection and contract administration support for the design of a new 4 MG partially buried pre-stressed concrete tank on the site of an existing 4 MG reservoir which has reached the end of its useful life. The project has been a long-planned and essential component of the City's efforts to advance the overall performance, reliability, and usefulness of its water system. Once complete, the project will allow the City to address aging infrastructure, improve water system hydraulics, and enhance the seismic safety of the water distribution system.

**Hillcrest Drive Waterline Design, City of Paso Robles, CA. Staff Engineer.** Project includes the design and replacement of 700 LF of existing 4-inch asbestos cement (AC) water mains with new 8-inch PVC pipe along Hillcrest Drive.

**Chino Basin Program Preliminary Design Report, Inland Empire Utilities Agency, Ontario, CA. Staff Engineer.** Evaluated recycled water system seasonal demand fluctuations and performed hydraulic model runs to evaluate system capacity and storage

needs for multiple future system alternatives and seasonal operations. Evaluated system upgrades including new pipeline and pump sizing. Prepared preliminary design report for recycled water alternatives and new facilities.

**Water System Hydraulic Model, Camrosa Water District, Ventura, CA. Hydraulic Modeling Lead.** Developed and calibrated a hydraulic model of the Camrosa Potable Water System. Evaluated customer consumption and production data to determine a spatial demand for loading in the model. Performed steady state and extended period model runs to evaluate the distribution system capacity and water age. Used the calibrated model to evaluate tank fluctuations and determine operational storage needs and overall storage requirements.

**Division Drive Lift Station Replacement Design, Big Bear City Community Services District, CA. Staff Engineer.** Prepared design plans and specification for the replacement of the Division Drive Lift Station. The project included the replacement of aging infrastructure with two 5-HP wet well mounted pumps, a new control panel, and site piping.

**Hillcrest Drive Water Modeling, City of Paso Robles, CA. Engineering Support.** Conducted a fireflow analysis for the 12th St. Zone with pipeline upgrades on and around Hillcrest Drive. Evaluated multiple scenarios to optimize the fire flow at buildout and maximum daily demand water use in the 12th St. Zone for the lowest cost. Prepared cost calculations and a technical report with the findings.



## EDUCATION

MS, Civil and Environmental Engineering, Cal Poly, San Luis Obispo

BS, Environmental Engineering, Cal Poly, San Luis Obispo

## PROFESSIONAL REGISTRATIONS

PE – Civil, CA, No. 89406

“Water is life, and I’m motivated to help our clients find creative solutions for their water resources to continue to provide clean, reliable, and affordable water to our communities.”

*Heather Freed*

**Heather Freed** <sup>PE, MS</sup> *continued...***Project Management Support, City of Camarillo, CA. Staff Engineer.**

Performed hydraulic modeling analysis to evaluate seasonal demand fluctuations and operations in the water distribution system. Evaluated system operation and system hydraulic balance with a new desalter supply source serving the distribution system. Performed a seasonal analysis to determine recommend a desalter capacity to meet peak demands and utilize full desalter capacity in the minimum demand months.

**On-Call Groundwater Modeling and Well Equipping, City of San Luis Obispo, CA. Engineering Support.** Prepared design plans and specifications for equipping a new well to supplement the City's recycled water system. The project included new well pump and motor, electrical, controls, site piping, disinfection, and granular activated carbon well head treatment system to treat PCE contamination.

**Atascadero State Hospital Waste Water Treatment and Collection System Analysis, GHD, Inc., Atascadero, CA. Staff Engineer.** Developed a sewer capacity spreadsheet model of the Atascadero State Hospital collection system to evaluate existing and future sewer system capacity. Developed future system flows from a proposed 250-bed expansion and recommended collection system peaking factors to evaluate the system under a range of scenarios.

**Water Master Plan, San Luis Obispo County Operations Center, San Luis Obispo, CA. Project Engineer.** Prepared a detailed database of the Company's infrastructure and evaluated facility condition and age that will result in a Master Plan which includes a comprehensive Asset Management Program. Updated the distribution system hydraulic model based on recent as-builts and calibrated the model using hydrant flow testing data. Evaluated the water system capacity including system pressure, fire flow, and velocity. Assessed the water system resilience, and recommended alternatives to improve operational flexibility and maintain system service with pipeline shutdowns or repairs.

**Water System Hydraulic Model, Casitas Municipal Water District, Ventura, CA. Hydraulic Modeling Lead.** Developed and calibrated a hydraulic model of the Casitas Water System and incorporated it into the existing Ojai Water System hydraulic model. Evaluated consumption and production data to determine spatial demand scenarios and evaluate the capacity distribution system.

**2018 Comprehensive Planning Study and Condition Based Assessment, California American Water, Monterey District, CA. Engineering Support.** Updated the California American Water Monterey County water distribution system Comprehensive Planning Study. Built and calibrated a hydraulic model with over 600 miles of pipelines and 50 pressure zones to evaluate system capacity and operations. Evaluated system condition based on asset data and site inspection reports. Developed a comprehensive CIP list for future rate studies.

**Black Road Lift Station Preliminary Engineering, City of Santa Maria, CA. Engineering Support.** Preliminary engineering for the Black Road Lift Station. Evaluated lift station service area for multiple wet well depths and sewer pipe slopes. Developed sewer flows based on expected service area and rate of development. Recommended lift station site layout, force main

alignment, initial pump selection, and wet well configuration. Prepared opinion of construction costs for City budget planning.

**On-Call Engineering and Technical Support for Energy Efficiency Projects: San Miguel Wastewater Treatment Plant Aerator Retrofit, County of San Luis Obispo Energy Division, CA. Engineering Support.** Developed sampling plan for District to quantify effectiveness of treatment process and the theoretical oxygen demand. Prepared recommendations for an aeration retrofit based on sampling results. Determined baseline energy usage to compare energy saving from the retrofit. Prepared project cost estimates and PG&E loan amount and term for On-Bill Financing—Alternative Pathway.

**Phase I Construction Support, Commissioning, and Phase II Design for Main Garrison Wastewater Treatment Plant, Camp Roberts, CA. Engineering Support.** Developed an infrastructure and operational evaluation of Camp Roberts Army Base water production, water distribution system, and wastewater treatment facilities. The Camp Roberts Main Garrison WWTP upgraded their facility to achieve compliance with their new wastewater discharge permit requirements. As part of the evaluation, the WWTP upgrade design and construction also ensured that the upgraded facility could achieve compliance with the new permit requirements. The upgrades consisted of retrofitting the existing facility to provide secondary clarification and denitrification abilities.

**Cayucos Sustainable Water Project, Cayucos Sanitary District, CA. Engineering Support.** Provided engineering services to identify candidate sites Cayucos Sanitary District's new Water Resource Recovery Facility, characterize the District's domestic wastewater flows, perform preliminary engineering investigations, evaluate beneficial use alternatives and prepare a Facilities Plan for implementation of the Sustainable Water Project. Project included assisting in the pursuit of state and federal funding, environmental document preparation, permit acquisition, stakeholder outreach and coordination and public outreach.

**Lytle Creek Ranch Water Development, West Valley Water District, Rialto, CA. Engineering Support.** Included updating the Water Facilities Study for the Lytle Creek Ranch Development, including verifying design criteria, demand projections, supply facilities, infrastructure facilities, and the facility requirements. Conducted a financial analysis and updated the previously developed report.

# Christopher J. Durbin



## PROFESSIONAL EXPERIENCE

Mr. Durbin is a CADD operator with over 10 years of experience as a civil drafter. With the use of Autodesk Civil 3D software, he has assisted in the plan preparation of numerous water, sewer, reclaimed water, and treatment plant projects. Included in these projects are pipeline plans and profiles, pump stations, and associated civil and mechanical details.

## REPRESENTATIVE PROJECTS

South Bay Well Site Water Transmission Main, Los Osos Community Services District, Los Osos, CA

Main West Tank And Airport Area Utilities Extension Projects, City of Paso Robles, Paso Robles, CA

Toro Creek Bridge Replacement Pipeline Improvements, Cayucos Sanitary District, Cayucos, CA

Water Systems Improvement Projects, Big Bear Lake Department of Water and Power, Big Bear Lake, CA

Conejo Creek Waterline Replacement, City of Thousand Oaks, CA

Downtown and Terramar Small Diameter Water Main Replacement, Carlsbad Municipal Water District, Carlsbad, CA

Wilson Avenue Water Main Replacement, Mesa Water District, Costa Mesa, CA

Wildwood Booster Pump Station Upgrade, California American Water, Thousand Oaks, CA

Creek Crossing Pipeline Repairs, Sacramento Area Sewer District, Sacramento, CA

Pump Station Decommissioning Project, City of Bend, OR

Dana Point Town Center Infrastructure Improvements, South Coast Water District, Dana Point, California

Coastal Treatment Plant Export Sludge Forcemain, South Orange County Water District, Dana Point, California

Fiscal Year 2012–2013 Sewer Lining and Repair, City of South Pasadena, California

Recycled Water Conversion Projects, City of San Juan Capistrano, California

6-19 Southwest Costa Mesa Trunk Sewer, Orange County Sanitation District, Costa Mesa, California

Spring Valley Outfall Sewer, County of San Diego, California

La Serranos and La Hermosa Sewer Rehabilitation, Moulton Niguel Water District, Laguna Niguel, California

Trunk D Sewer Replacement, County of San Diego, California

Oak Knoll Sewer Siphon Structure Project, City of Poway, California

Inland Empire Brineline Reach V Rehabilitation and Improvement Project, Santa Ana Watershed Project Authority, City of Corona to City of Lake Elsinore, California

Water Valve Replacement Project, San Dieguito Water District, Encinitas, California

Oro Grande Pipeline, Victor Valley Wastewater Reclamation Authority, Victor Valley, California

Ossum Wash Interceptor, Victor Valley Wastewater Reclamation Authority, Victor Valley, California

84-inch Plant No. 2 Primary Influent Line, Orange County Sanitation District, Huntington Beach, California



## EDUCATION

Palomar Community College,  
San Marcos, CA

“I’m committed to helping our clients develop sustainable water solutions by providing them with efficiently designed plans of the highest quality.”

A handwritten signature in black ink that reads "Chris Durbin".



Appendix B. Requested Revisions to the Agreement for Services

**Appendix B. Requested Revisions to the Agreement for Services**

## Attachment B: Professional Services Agreement

### 2.05 Indemnification: Design Professional:

(a) To the fullest extent permitted by law, the Design Professional shall indemnify and defend (but, for claims alleging professional liability, shall not defend), pursuant to the limitations set forth in the California Civil Section 2782.8, the LOCS D, and its elected officials, officers, and employees from and against all liabilities that arise out of a third party tort claim, ~~pertain to, or relate~~ to the extent caused by the negligent acts, errors or omissions, or willful misconduct of the Design Professional, or its employees, agents, or subcontractors. Such Liabilities to the extent caused by the Design Professional and subject to the obligation to indemnify include all third party claims, losses, damages, defense costs, including but not limited to reasonable attorneys' fees; court costs; and costs of alternative dispute resolution. The Design Professional's obligation to indemnify applies unless it is finally adjudicated that the liability was caused by the sole active negligence or sole willful misconduct of an indemnified party. If it is finally adjudicated that liability is caused by the comparative active negligence or willful misconduct of an indemnified party, then Design Professional's indemnification obligation shall be reduced in proportion to the established comparative liability.

The duty to defend is a separate and distinct obligation from Design Professional's duty to indemnify. Design Professional shall be obligated to defend (to the extent covered by General Liability insurance), pursuant to the limitations in California Civil Section 2782.8, the LOCS D in all legal, equitable, administrative, or special proceedings, with counsel approved by the LOCS D, the LOCS D and its elected officials, officers, and employees, immediately upon tender to Design Professional of the claim in any form or at any stage of an action or proceeding, whether or not liability is established. An allegation or determination that persons other than Design Professional are responsible for the claim does not relieve Design Professional from its separate and distinct obligation to defend under this section. The obligation to defend extends through final judgment, including exhaustion of any appeals. The defense obligation includes an obligation to provide independent defense counsel if Design Professional asserts that liability is caused by the negligence or willful misconduct of the indemnified party. If it is finally adjudicated that liability was caused by the comparative active negligence or willful misconduct of an indemnified party, Design Professional may submit a claim to the LOCS D for reimbursement of reasonable attorneys' fees and defense costs in proportion to the established comparative liability of the indemnified party.

5.02 Time Schedule: Consultant is to begin work upon receipt and execution of LOCS D contract. It is contemplated that most of the services hereunder, including but not limited to preparation, public and agency review, and submission of the Final Plans, Specifications and Estimate (PS&E) (final construction contract documents) to the General Manager and LOCS D Board of Directors for approval for public bidding, will be completed on or before , 2020. TIME IS OF CARDINAL IMPORTANCE TO THIS CONTRACT. Consultant agrees to perform its services to meet the schedule set forth in Exhibit A and incorporated herein as expeditiously as is consistent with the exercise of professional skill and care and the orderly progress of the Project~~engage its best efforts to adhere strictly to the schedule set forth in Exhibit A and incorporated herein.~~ Notwithstanding any clause in this Agreement to the contrary,

Appendix B. Requested Revisions to the Agreement for Services

Consultant expressly disclaims all express or implied warranties and guarantees with respect to the quality of performance of professional services.

5.04 Confidentiality:

(b) Limitation on use and disclosure. Consultant agrees that it will not use any information obtained as a consequence of the performance of work for any purpose other than fulfillment of Consultant's scope of work. Consultant will not disclose any information prepared for the LOCSD, or obtained from the LOCSD or obtained as a consequence of the performance of work to any person other than the LOCSD, or its own employees, agents or subcontractors who have a need for the information for the performance of work under this contract unless such disclosure is specifically authorized in writing by the LOCSD, except when required by law, arbitrator's order, or court order, including a subpoena or other form of compulsory legal process issued by a court or governmental entity, or to the extent such information is reasonably necessary for the receiving party to defend itself in any dispute.

All obligations of confidentiality and all restrictions on the use of Confidential Information under this Agreement shall remain in effect for a period of three (3) years following the Effective Date of this Agreement.

6.06 Ownership of Work Product: Upon delivery, the work product, including without limitation, all original reports, writings, recordings, drawings, files, and detailed calculations developed under this contract are the property of the LOCSD, provided Consultant has been paid all outstanding invoices owing under this Agreement. Consultant agrees that all copyrights, which arise from creation of the work pursuant to this contract, shall be vested in the LOCSD and waives and relinquishes all claims to copyright or other intellectual property rights in favor of the LOCSD, upon payment of all invoices owing to Consultant under this Agreement. LOCSD acknowledges that its use of the work product is limited to the purposes contemplated by the scope of work and that the Consultant makes no representation of the suitability of the work product for use in or application to circumstances not contemplated by the scope of work, and LOCSD agrees to indemnify, defend and hold the Consultant harmless from and against any claims or damages that may result from the subsequent use, reuse, transfer or modification of such Work Product, except on projects where the Consultant has been retained to provide services.

Notwithstanding the foregoing, Consultant shall retain ownership to any of its standard drawings, documents, details and specifications ("Consultant's Standards") that may be incorporated into the Work Product. LOCSD shall be granted a nonexclusive license to use Consultant's Standards as part of its use of the Work Product.

6.10. Attorney Fees: In the event of any controversy, claim or dispute between the parties hereto, arising out of or relating to this agreement, or the breach hereof, the prevailing party shall be entitled, in addition to other such relief as may be granted, to a reasonable sum as and for attorney fees. The "Prevailing party" is the party who recovers at least 67% of its total claims in the action or who is required to pay no more than 32% of the other party's total claims in the action when considered in the totality of claims and counterclaims, if any. In claims for monetary damages, the total amount of recoverable attorney's fees and costs shall not exceed the net monetary award of the Prevailing Party.

## Attachment C: Insurance Requirements

General conditions pertaining to provision of insurance coverage by Consultant. Consultant and LOCSD agree to the following with respect to insurance provided by Consultant:

11. Consultant agrees not to self-insure or to use any self-insured retentions or deductibles on any portion of the insurance required herein with the exception of Professional Liability and further agrees that it will not allow any contractor, subcontractor, Architect, Engineer or other entity or person in any way involved in the performance of work on the project contemplated by this agreement to self-insure its obligations to LOCSD. If Consultant's existing coverage includes a deductible or self-insured retention, the deductible or self-insured retention must be declared to the LOCSD. At that time the LOCSD shall review options with the Consultant, which may include reduction or elimination of the deductible or self-insured retention, substitution of other coverage, or other solutions.



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