Oceano Community Services District

PROPOSAL FOR

Sanitary Sewer Capital Improvement Plan - Engineering & Related Services

Submittal Due Date: September 20, 2024 at 3pm
Oceano Community Services District
Attn: Carey Casciola | Business & Accounting Manager
1655 Front Street, Oceano, CA 93445 | 805.481.6730

MKN | 354 PACIFIC STREET | SAN LUIS OBISPO, CA 93401 | T 805.329.4773

September 20, 2024

Oceano Community Services District
Attn: Ms. Carey Casciola | Business & Accounting Manager
1655 Front Street, Oceano, CA 93445 | 805.481.6730
Submitted via email: carey@oceanocsd.org

Re: **Proposal for Sanitary Sewer Capital Improvement Plan - Engineering and Related Services**

Dear Carey,

Michael K. Nunley & Associates, Inc., (MKN) is pleased to submit this proposal for engineering and related services for the District's Sanitary Sewer Capital Improvement Plan (CIP). MKN staff have a long-standing presence on the Central Coast, having worked for local agencies for over 25 years.

MKN is a water and wastewater engineering firm located exclusively in California. Our firm was formed in 2012 in Arroyo Grande and has grown to over 75 professional engineers, planners, construction managers and support staff throughout nine California offices, including two in San Luis Obispo County.

The District needs to develop a CIP for the wastewater system to inform the upcoming 2025 rate study. MKN has based our project approach on meeting the three key drivers:

1 - Obtain Accurate Understanding of Infrastructure Condition

2 - Develop Well-Defined Near-Term Projects

3 - Prepare a Clear, Usable, and Prioritized Implementation Plan

Sections 3 and 4 of our proposal clearly detail our proposed approach and scope of work for this critical project for the District.

We are excited for the opportunity to work with the District on developing your sanitary sewer CIP. MKN is your ideal partner for this project and offers the following main advantages:

Unmatched Wastewater Experience:
MKN has completed over 30 wastewater planning and design projects just in the last 5 years on the Central Coast, including 10 lift station projects and 7 sewer pipeline replacement/rehabilitation projects. This experience is essential for developing realistic project descriptions for a responsible CIP.

Experienced Cost Estimating and Funding Support:
MKN's wastewater design experience allows for comprehensive and realistic project cost estimating. Paired with in-depth funding support services provided by our subconsultant, Rincon Consultants, our Team will prepare a comprehensive and usable wastewater CIP and develop funding options for effective planning.

MKN Completes Projects On Time and On Budget:
MKN repeatedly completes projects on time and on or under budget, and we invite you to contact our references. We recognize that this project has a specific timeline to meet to facilitate the District's rate study. MKN understands the importance of close communication and responsiveness to keep the project schedule from slipping. Our Project Manager, JJ Reichmuth, will stay in close contact with the District's project manager to help ensure deadlines are met.

Firm Name: MKN & Associates (S Corporation)

Address: 354 Pacific Street, San Luis Obispo, CA 93401

Website: www.mknassociates.us

Point of Contact:

JJ Reichmuth, PE
Project Manager
jreichmuth@mknassociates.us
805.329.4773

As requested in the RFP, MKN's detailed cost proposal has been submitted separately. We acknowledge receipt of the RFP and the addenda issued on August 21st, 28th, 29th, 30th, and September 3rd, 2024. This proposal will remain valid for 90 days from submission date of September 20, 2024.

We hope this proposal meets your expectations. We are excited to bring our agility, focus, and expertise to the District's critical project. Please feel free to reach out to either of us with any questions or comments. We look forward to this opportunity to help the District with this key project.

Sincerely,

JJ Reichmuth, PE
Project Manager

Eileen Shields, PE
Authorized Signer

TABLE OF CONTENTS

SECTION 1

FIRM AND STAFF QUALIFICATIONS

MKN's Client-Centric Origins

MKN and Associates, Inc. (MKN) is a water, wastewater, and recycled water engineering firm located in and focused exclusively on California. Our firm was formed in 2012 and has grown to over 75+ professional engineers, planners, construction managers/inspectors and support staff throughout nine offices to provide professional engineering services to agencies similar to the Oceano Community Services District (District). MKN has focused on meeting a growing need by public agencies for responsive, technically capable consultants who are committed to a long-term trusted advisor relationship based on excellence. MKN has provided condition assessment services and development of Capital Improvement Programs to public agencies for the past 12 years with team members providing these services over the last 20 years!

Leaders in Condition Assessment and Design of Wastewater Collection System Projects

Our team has performed condition assessments and developed Capital Improvement Plans for many agencies both locally and throughout the State, including the City of Grover Beach, City of Atascadero, City of Guadalupe and Selma-Kingsburg-Fowler County Sanitation District. MKN has the experience and commitment to address the key goals of this project including: condition assessment of the District's collection system; evaluation of improvement projects with a focus on near-term projects; investigation of potential funding sources; and development of a Capital Improvement Program.

MKN's key staff bring extensive Planning and Condition Assessment experience for agencies similar to the District. We understand the need to be a responsive partner to the District as well as be able to adapt to changing conditions. Most importantly, we seek to exceed the District's expectations in developing a thorough, comprehensive Capital Improvement Plan that can be relied on for years to come.

The District's CIP Development will be managed out of MKN's San Luis Obispo Office. Contact information for Project Manager JJ Reichmuth can be found in the Cover Letter.

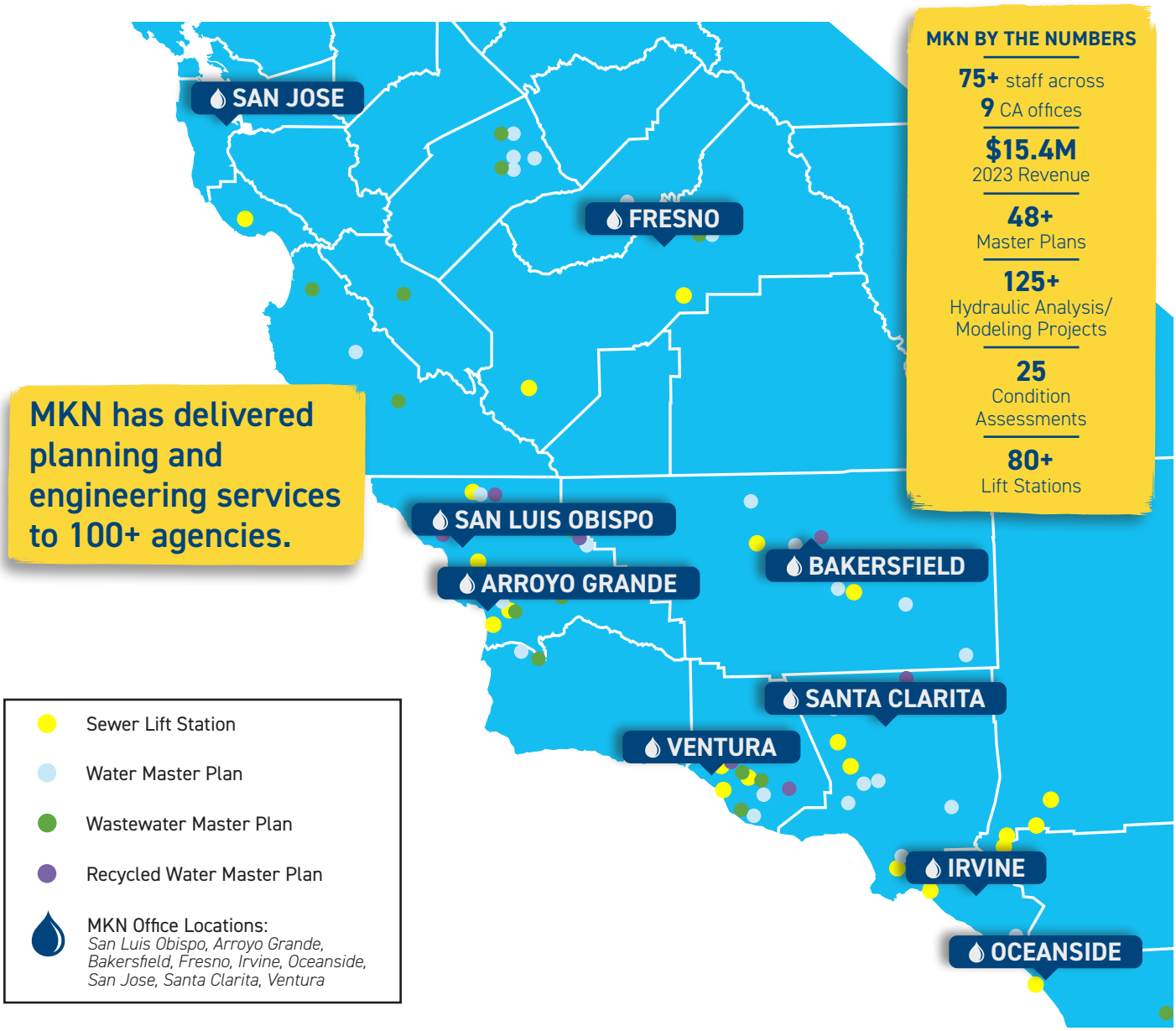
Wastewater Is Our Focus

Our principals and senior technical staff have decades of experience in management and leadership roles for some of the highest-ranked engineering firms in the world, and we are excited to bring our expertise to the District. MKN's practice groups include Treatment, Infrastructure, Program Management, Planning and Hydraulic Modeling, and Construction Management. MKN offers a wide range of water, wastewater and water reuse expertise, which represents the core competency for our firm.

MKN Is Committed to the Oceano Community Services District

MKN is local to San Luis Obispo County and committed to a long-term relationship with the District.

MKN's staff have been working throughout Central California for over two decades and are committed to the local water industry. MKN is proud to be one of the few civil and environmental consulting firms in the County of San Luis Obispo. From our local San Luis Obispo office we have delivered services to most of the County's agencies, including San Luis Obispo, Arroyo Grande, Atascadero, Grover Beach, Paso Robles, Templeton, Pismo Beach, Los Osos, Morro Bay and Nipomo. MKN's repeat projects with clients is a testament to our quality service and work products.



Sample List of Master Planning, Condition Assessment, and Sewer Lift Station Clients

City of Arroyo Grande
City of Arvin
City of Atascadero
Atascadero Mutual Water Company
City of Atwater
City of Bakersfield
Camrosa Water District
Channel Islands Beach Community Services District
Citrus Heights Water District
City of Coalinga
City of Delano
East Niles Community Services District
City of Grover Beach
City of Guadalupe
Gunner Ranch
Heritage Ranch Community Services District
City of Hollister
King City
City of Madera
City of Merced
City of Morro Bay
Nipomo Community Services District
City of Oxnard
Quartz Hill Water District
City of San Luis Obispo
City of Santa Paula
Seaside County Sanitation District
South Coast Water District
City of Tehachapi
City of Thousand Oaks
UC Merced
Valley Children's Hospital
Valley County Water District
City of Ventura
Yorba Linda Water District

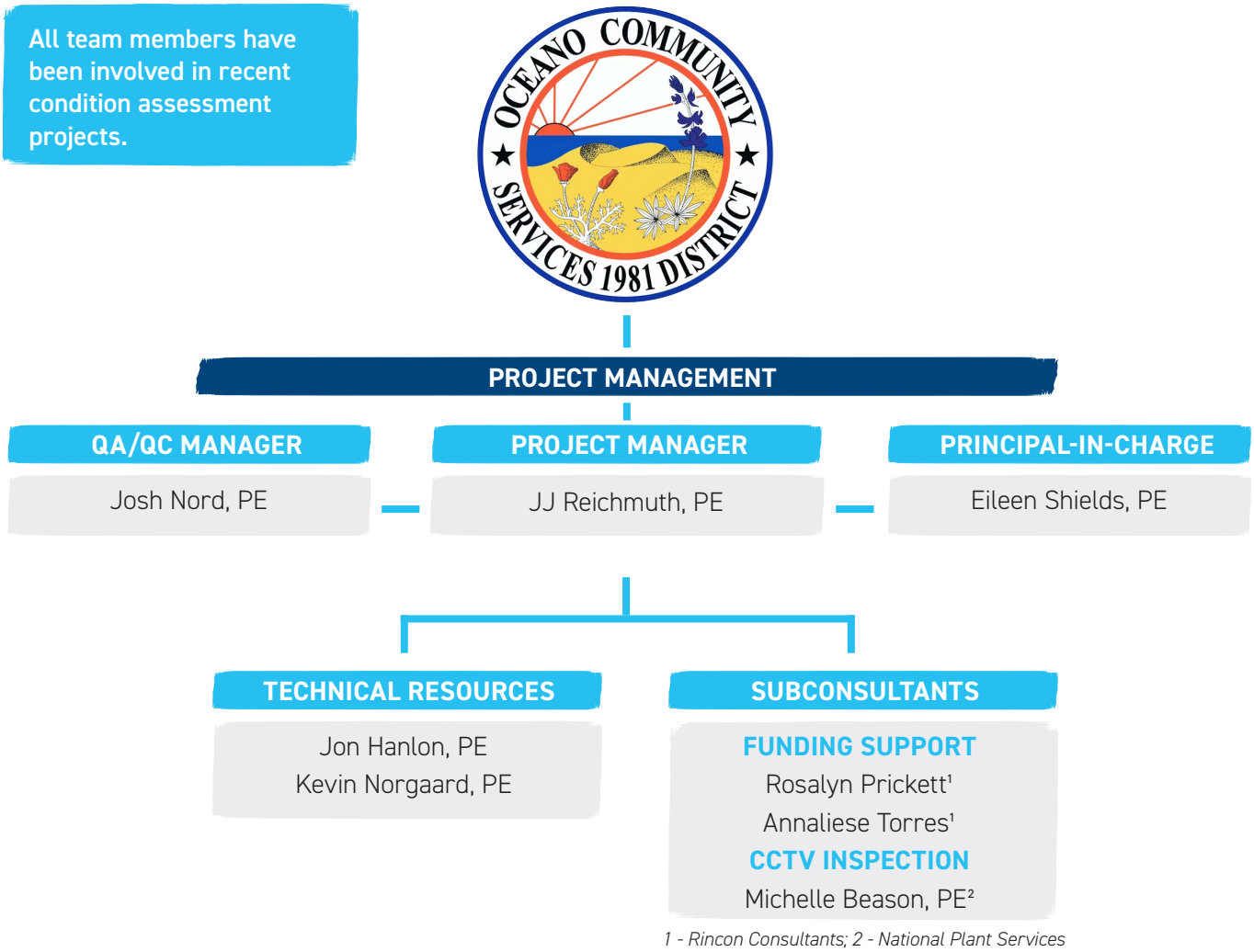
Project Team

As illustrated in our organization chart below, Project Manager JJ Reichmuth will report directly to the District and manage the entire technical team. Principal-in-Charge Eileen Shields will support JJ and the District with technical support and ensure quality and client satisfaction. This streamlined organizational structure leads to clear channels of communication, close collaboration, and project efficiency. Full resumes for all MKN staff and sub-consultants can be found in Appendix A - Resumes.

MKN Team Highlights:

1. **Strong Project Manager.** Local PM, JJ Reichmuth, PE, has been Project Manager or Project Engineer for over 30 wastewater projects within San Luis Obispo County, resulting in unmatched experience with lift stations and collection system rehabilitation projects.
2. **Best Value.** Project Team with over 25 projects involving condition assessments and developing CIPs.
3. **Infrastructure Resources.** For developing and estimating capital improvement projects, our team is supported by multiple technical resources specializing in every aspect of wastewater collection systems and wastewater treatment.

All team members have been involved in recent condition assessment projects.



1 - Rincon Consultants; 2 - National Plant Services

JJ Reichmuth, PE - Project Manager - San Luis Obispo Office

EDUCATION
BS, Civil Engineering, California Polytechnic State University, San Luis Obispo, CA

LICENSES & REGISTRATIONS
Professional Civil Engineer, CA No. 63124

Cured-in-Place Pipe (CIPP) Certified, NASSCO ITCP

Manhole Rehabilitation Certified, NASSCO ITCP

Mr. Reichmuth brings over 25 years of design and field engineering experience with an emphasis in pipeline design, ranging from condition assessment and rehabilitation to planning and design. Mr. Reichmuth has also been involved with the design and assessment of over 30 lift stations within the last 16 years. Pipeline design experience includes several force main and trunk main designs including those with various trenchless construction methods, such as horizontal directional drilling, jack-and-bore, cured-in-place pipe and pipe bursting.

Relevant Experience

- Lift Station Condition Assessment | Atascadero, CA
- Lift Station Condition Assessment | Camrosa Water District, Camarillo, CA
- Lift Station Condition Assessment | South Coast Water District, Laguna Beach, CA
- Collection System Cleaning and CCTV Inspection | Selma-Kingsburg-Fowler County Sanitation District, Fowler, CA
- Highway 101 Sewer Crossing Rehabilitation Project | Arroyo Grande, CA
- Outfall Sewer Manhole Assessment | North of River Sanitation District, Bakersfield, CA
- Sewer Rehabilitation CIP Development | Channel Islands Beach Community Services Department, Channel Islands Harbor, CA
- Sewer Master Plan | Grover Beach, CA

Eileen Shields, PE - Principal-in-Charge - San Luis Obispo Office

EDUCATION
MS, Civil & Environmental Engineering, California Polytechnic State University, San Luis Obispo, CA

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

LICENSES & REGISTRATIONS
Professional Civil Engineer, CA No. 74757

Eileen Shields joined MKN in 2013 following seven years in water and wastewater engineering with other firms. She has extensive experience in water, wastewater, and recycled water projects, covering master planning, design of conveyance and treatment facilities, and construction phase services. Ms. Shields effectively develops projects from concept through construction, including alternatives evaluation, design, permitting, hydraulic modeling, civil site design, and cost estimation. Her work encompasses pipeline design, bid and construction assistance, contractor prequalification, planning and design of water supply and conveyance, wastewater treatment, collection system planning, process evaluation, and treatment plant design.

Relevant Experience

- Sewer Upgrade Project for Existing Flows | Grover Beach, CA
- Frontage Road Trunk Sewer Replacement | Nipomo Community Services District, Nipomo, CA
- Calle Joaquin and Laguna Lift Station Replacements | San Luis Obispo, CA
- Wastewater Collection System Master Plan Update | Atascadero, CA
- Wastewater Collection System and Treatment Plant Master Plan | Guadalupe, CA
- Blacklake Sewer Master Plan | Nipomo Community Services District, Nipomo, CA
- WWTP Redundancy Project - Project Management Support | South San Luis Obispo County Sanitation District, Oceano, CA
- Wastewater Master Plan | King City, CA

Josh Nord, PE - QA/QC Manager - Bakersfield Office

EDUCATION
BS, Civil Engineering, California State University, Fresno, CA

LICENSES & REGISTRATIONS
Professional Civil Engineer, CA No. 61789

Josh Nord has been analyzing, designing, and providing quality control reviews for water and sewer infrastructure projects for over 26 years. Josh's design and quality control expertise covers treatment infrastructure, conveyance infrastructure (pumps and transmission mains), raw water facilities, and distribution and storage systems for municipalities, utilities, large-scale agricultural operations, and State Special Districts. Mr. Nord's experience includes wellhead treatment, pressurized water conveyance systems (e.g., lake intake pump stations, intermediate booster stations, and associated transmission mains), and open canal conveyance systems. Mr. Nord provides quality-related input to MKN's design teams from project initiation through bid package submittal.

Relevant Experience

- Downtown Master Sewer Study | Bakersfield, CA
- Outfall Sewer Rehabilitation Study | North of River Sanitary District, Bakersfield, CA
- Regional Wastewater Treatment Plant Feasibility Study | East Niles Community Services District, Bakersfield, CA
- Sanitary Sewer Management Plan | East Niles Community Services District, Bakersfield, CA
- Sewer Master Plan Update | Tehachapi, CA
- Urban Water Management Plan (Multiple Years) | East Niles Community Services District, Bakersfield, CA
- Urban Water Management Plan Peer Review | City of Delano, CA
- Water Master Plan | East Niles Community Services District, Bakersfield, CA

Jon Hanlon, PE - Technical Resource - San Luis Obispo Office

EDUCATION
BS, Mechanical Engineering, California Polytechnic State University, San Luis Obispo, CA

LICENSES & REGISTRATIONS
Professional Mechanical Engineer, CA No. 33232

Jon Hanlon, after over 20 years of serving as project engineer, project manager, and ultimately as an operations manager for a Fortune 500 consulting engineering firm, joined Michael K. Nunley and Associates, Inc. (MKN) specializing in water, wastewater, and water reuse engineering for public agencies. As a Principal Engineer at MKN, Mr. Hanlon's experience has included design, analysis, and management of complex multi-disciplined projects, including water and wastewater treatment facilities, pump stations, production wells, piping and valves, hydraulic analysis, master planning, and environmental permitting.

Relevant Experience

- Wastewater Collection System and Treatment Plant Master Plan | Guadalupe, CA
- Water Master Plan Update | Guadalupe, CA
- Hydraulic Model Update and Calibration | Cambria Community Services Department, Cambria, CA
- Infrastructure Condition Assessments | Camrosa Water District, Camarillo, CA
- Water Master Plan | City of Grover Beach, CA
- 18th Street Lift Station Replacement | Selma-Kingsburg-Fowler County Sanitation District, CA
- East Side Lift Stations and Force Main | Templeton CSD, CA
- Calle Joaquin and Laguna Lift Station Replacements | San Luis Obispo, CA

Kevin Norgaard, PE - Technical Resource - Fresno Office

EDUCATION
BS, Mechanical Engineering, California State University, Fresno, CA

LICENSES & REGISTRATIONS
Professional Mechanical Engineer, CA No. 27654

Pipeline Assessment Certification Program (PACP), NASSCO

Certification of Air Permitting Professionals (CAPP), No. 1078

Mr. Norgaard is a Senior Engineer and Project Manager with extensive experience managing capital improvement projects for wastewater treatment plants, recycled water and wastewater collection systems. Kevin has over 36 years experience in managing condition assessment, repair and rehabilitation projects in wastewater treatment and collection systems. Kevin has extensive experience in managing master plans as well as acting as plant engineer for wastewater treatment plants and digester facilities.

Relevant Experience

- Sewer Collection System Improvements | Fresno, CA
- Headworks Coating Repair and Gate Installation | Fresno, CA
- Phase 2A WWTP | Gunner Ranch, Madera, CA
- Collection System Cleaning and CCTV Inspection | Selma-Kingsburg-Fowler CSD, Fowler, CA
- PP7-1 Low-flow Efficiency Improvements | Westlands Water District, Tranquility, CA
- Southland WWTP Screw Press Project | Nipomo CSD, Oceano, CA
- Wastewater Trunk Line Upsize Along Olson Ave to WWTP & Headworks Improvement | Reedley, CA
- Valley Children's Hospital Rio Vista Pipeline and Well Improvements | Madera, CA

Rosalyn Prickett - Funding Support - Rincon Consultants

EDUCATION
MS, Landscape Architecture/ Environmental Planning, University of California, Berkeley, CA

MS, City and Regional Planning, University of California, Berkeley, CA

BS, City and Regional Planning, California Polytechnic State University, San Luis Obispo, CA

Rosalyn Prickett is a water resources planner with 23 years of experience leading water resources management programs and environmental compliance for water supply, wastewater, and recycled water infrastructure. She excels at managing stakeholder-based supply planning and engineering programs, including potable reuse, recycled water, and domestic water supply and sewer consolidation efforts. Rosalyn supports the planning phases of infrastructure projects from concept and feasibility studies to environmental and regulatory compliance to funding support. To support the planning phase of infrastructure projects, she also leads funding acquisition through a variety of federal, state, and local funding programs. Rosalyn is a versatile and collaborative leader with a passion for building client and stakeholder relationships. She has secured funding for a wide range of water resources and groundwater recharge projects throughout California, including San Diego County Water Authority, Three Valleys Municipal Water District, East Valley Water District, Coachella Valley Water District, Yucaipa Valley Water District, Sweetwater Authority, City of Oceanside, Olivenhain Municipal Water District, and City of San Diego.

Annaliese Torres - Funding Support - Rincon Consultants

EDUCATION

BS, Environmental Science, Texas Christian University, Fort Worth, TX

CEQA Practice Certificate, University of California, San Diego Extension, CA

Annaliese is an adaptive project manager who strives to provide clients with tailored, flexible solutions to complex environmental challenges in a conscientious manner that accounts for the schedule, cost, and implementation constraints often facing water agencies. She has over six years of experience in managing environmental assessments, technical studies, and grant tracking and writing services for water and wastewater infrastructure projects. She has worked with a number of water agencies, including Western Municipal Water District, Coachella Valley Water District, Water Replenishment District of Southern California, The Metropolitan Water District of Southern California, Three Valleys Municipal Water District (TVMWD), East Valley Water District, Inland Empire Utilities Agency, North San Diego Water Reuse Coalition, City of Oceanside, and Vallecitos Water District to prepare environmental documentation and provide grant tracking and writing services for infrastructure projects such as potable and non-potable water pipelines, groundwater wells, pump stations, treatment facilities, and reservoirs. Annaliese has also worked on other projects throughout Riverside and San Diego Counties, including projects for the University of California, Riverside, Southern California Edison, and private developers.

Michelle Beason, PE - CCTV Inspection - National Plant Services

EDUCATION

BS, Civil Engineering, Purdue University, West Lafayette, IN

LICENSES & REGISTRATIONS

Professional Civil Engineer, CA No. 55331

California General Engineering License A and General Contractor License B, CLSB No. 1010254

Pipeline, Lateral, and Manhole Assessment Certified (PACP/LACP/MACP), NASSCO No. U-413-17097

Water Distribution Operator Certification D-2, No. 46247

Ms. Beason is a Professional Civil Engineer and a personally licensed California A & B Contractor. She has been a nationally recognized expert in Condition Assessment and Asset Management of sewer and stormwater lines since 2010. Michelle has over 26 years of experience in water and wastewater asset management, design, engineering, rehabilitation, and O&M. She has been the Regional Manager for NPS since 2014.

Ms. Beason first began her water/wastewater career with a degree in Civil Engineering from Purdue University in 1993. Throughout her career, she has been involved with numerous wastewater inspection and improvement projects as an engineering consultant, and as a staff engineer for 12 years with the East Bay Municipal Utility District (EBMUD) in Oakland, CA. Since 2010, she has specialized in the inspection, asset management, and rehabilitation of sewer and stormwater lines: she was Director of Client Services/Key Account Manager with RedZone Robotics from 2010-2014, and then with National Plant Services from early 2014-present.

SECTION 2

REFERENCES AND EXPERIENCE

MKN's team has successfully completed several recent condition assessment projects for public agencies, developed Capital Improvement Programs, and performed related design of projects throughout Central California. We encourage you to reach out to our client references below!

Selma-Kingsburg-Fowler County Sanitation District	
Contact Name	Veronica Cazares, General Manager
Contact Info	(559) 897-6500 ext 230; vcazares@skfcsd.org
Address	11301 E Conejo Ave, Kingsburg, CA 93631
Relevant Services Provided	• Sewer System Capital Improvement Program - 2020 • FY 2021 Sewer System Rehabilitation Project - 2021 • Sewer System Capital Improvement Program Update - 2021 • **Sewer System Capital Improvement Program Update - 2023** • **City of Selma Sewer Upgrade Project - 2024** • **Collection System Improvement Project - Currently Under Design**

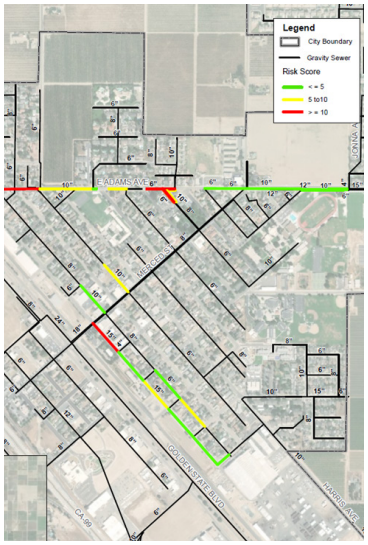
City of Grover Beach	
Contact Name	Gabriel Muñoz-Morris, MPA, PE, Senior Engineer
Contact Info	(805) 437-4536; gmunoz@GroverBeach.org
Address	154 S. 8th Street, Grover Beach, CA 93433
Relevant Services Provided	• Sewer Master Plan - 2019 • Highland Sewer Main Project - 2021 • **Sewer System Modeling (as-needed) - on-going** • **Sewer Main Improvement Project - 2022** • **Asset Management Support - 2022** • **Water Reservoir Capital Improvement Program - 2024**

City of Ridgecrest	
Contact Name	Travis Reed, PE, Public Works Director
Contact Info	(760) 499-5080; treed@ridgecrest-ca.gov
Address	100 W. California Avenue, Ridgecrest, CA 93555
Relevant Services Provided	• **Wastewater Treatment Plant Management Support - on-going** • **Sewer System Management Plan - 2022** • **Sewer Trunk Line Condition Assessment and CIP Development - 2024**

MKN has completed Capital Improvement Plans similar to what the District is seeking. In addition, MKN has provided condition assessments and waste water design projects similar to those that may be required within the District's sewer system. Example projects (completed and ongoing) are described below.

Sewer System Capital Improvement Plan

Selma-Kingsburg-Fowler County Sanitation District, CA



PROJECT DESCRIPTION

In 2019 the Selma-Kingsburg-Fowler County Sanitation District (District) retained **MKN to perform a condition assessment on several identified "hot spots" within the system and develop a 5-year Capital Improvement Program.** As part of the project MKN coordinated cleaning and CCTV inspections (National Plant Services) and based on these observations, condition ratings were assigned. MKN developed a 5-year CIP to address the identified collection system deficiencies while staying within the District's long-term budgeting guidelines. As part of this effort **MKN developed a dynamic grading system to allow additional projects to be inserted as they are identified, and budgets easily reassessed.** The Capital Improvement Plan is continually being updated and is currently in the third update by MKN.

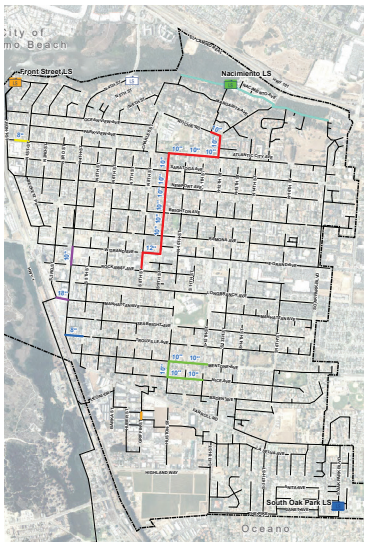
The District also retained MKN to provide design services on several of the identified rehabilitation projects. The projects include removal and replacement of existing sewer mains, lining of mains with cured-in-place pipe, and rehabilitation of manholes.

Pipe Ratings

Grade	Structural:					O&M:					Overall:				
	Amount of Defects	Segment Grade	Pipe Rating	Quick Rating	Pipe Rating Index	Amount of Defects	Segment Grade	Pipe Rating	Quick Rating	Pipe Rating Index	Pipe Rating	Pipe Rating Index	LoF	Risk
1	0	0	18	4225	2.6	0	0	0	0000	0.0	18	2.6	4.2	
2	5	10				0	0							
3	0	0				0	0							
4	2	8				0	0							
5	0	0				0	0							

Sewer Master Plan and Pipeline Improvements

City of Grover Beach, CA



PROJECT DESCRIPTION

The project consisted of a condition assessment and capacity evaluation of the City of Grover Beach's sewer collection system. Specific tasks included **evaluation of existing gravity pipelines, lift stations, and force mains**; creation of a GIS-based hydraulic model, preparation of a GIS-based system atlas, development of potential future requirements and evaluation of equipment alternatives; identification of deficiencies under existing and future conditions; and the **development of a Capital Improvement Program.**

Sewer System Capital Improvement Plan

City of Ridgecrest, CA

PROJECT DESCRIPTION

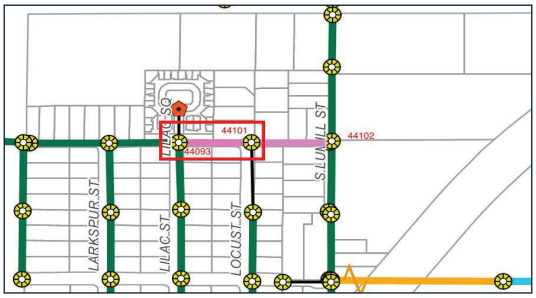
The City of Ridgecrest (City) retained MKN to prepare an assessment of multiple City trunk sewer lines, **to identify deficiencies requiring repair, and to provide prioritization recommendations for said deficiencies.** MKN reviewed over seventy-five (75) videos and used a prioritization scoring method to rank each identified defect. MKN incorporated the City's past methodology for determining repair vs. replacement (i.e., number of deficiencies between manholes) into the evaluation and recommendations. Once projects were identified and priority rankings were applied **MKN developed color-coded maps showing high-, medium- and low-risk segments.** MKN also prepared individual project sheets for each potential project showing:

- Project location: city, street type, alignment, and length
- Estimate of probable design and construction costs
- Project description: pipe size, material, depth, and justification for project
- Project map

MKN is currently performing pre-design tasks for the identified high-risk segments.

CITY OF RIDGECREST
WASTEWATER COLLECTION SYSTEM
CAPITAL PROJECT DESCRIPTION

Project: R-001
Project Location: 44093-44101



Project Trigger	Project Components	Project Need
☒ CCTV Inspection	☐ Upsize Gravity Main	☐ Insufficient Capacity for Existing Flow
☐ Future Development	☐ New Gravity Main	☐ Insufficient Capacity for Future Flow
☐ Hydraulic Modeling	☐ Gravity Main Rehab	☒ STR Defects/O&M Deficiency
☐ O&M Staff	☒ Gravity Main Replace	
	☒ Manhole Rehab	

Project Details		Project Description
Rehab Recommendation:	Replacement	The pipeline segment contains two grade 2 or lower defects with ten grade 3 or higher defects. Replacement of the pipeline is recommended.
Priority Level:	1	
Pipe Material:	VCP	
Pipe Size:	21-inch	
Pipe Length:	320ft	
No. of Grade ≥ 3 defects:	10	
No. of Grade < 3 defects:	2	

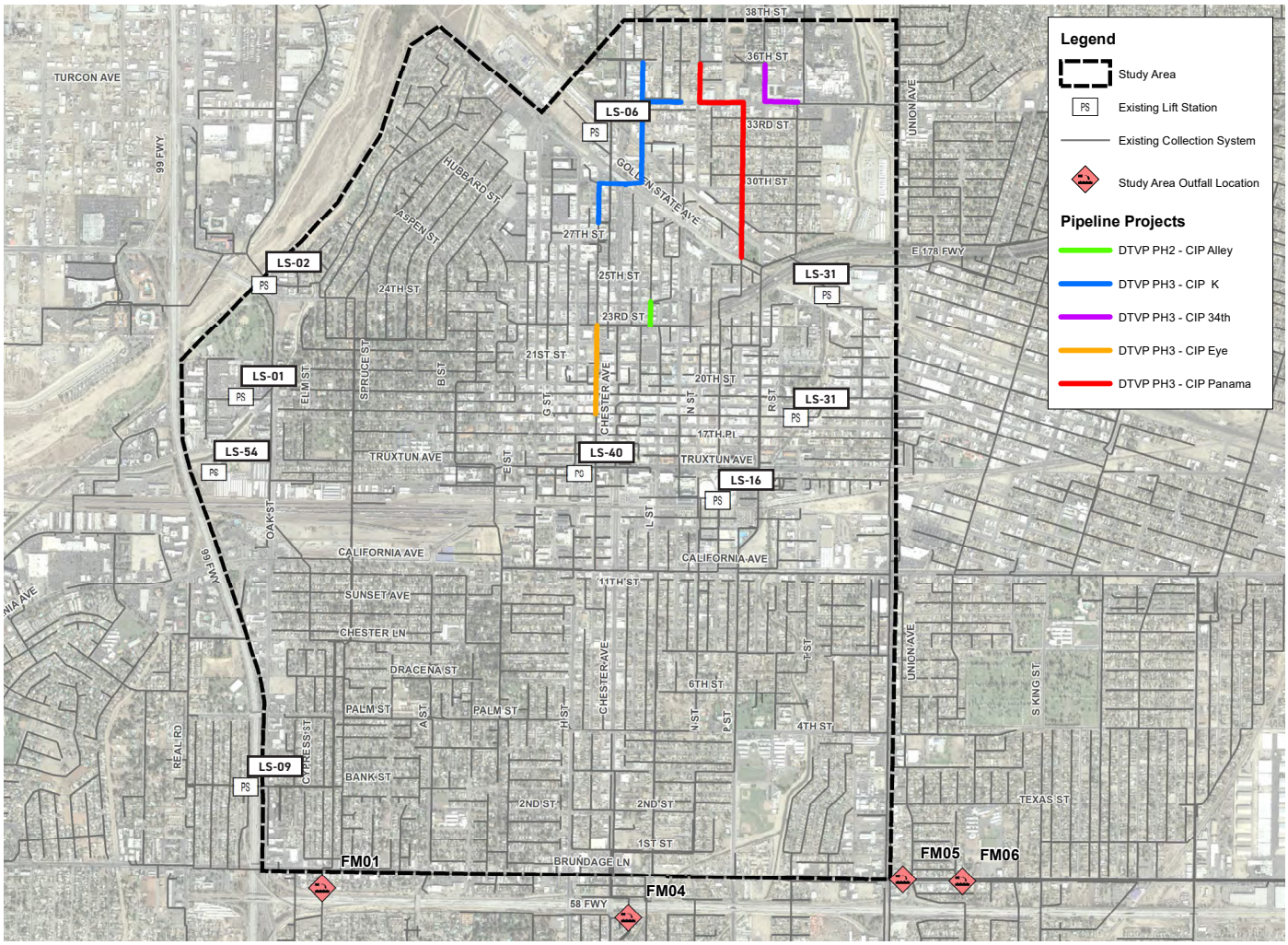
Ridgecrest– Sewer Inspections Project: R-001

Downtown Sewer Study

Bakersfield, CA

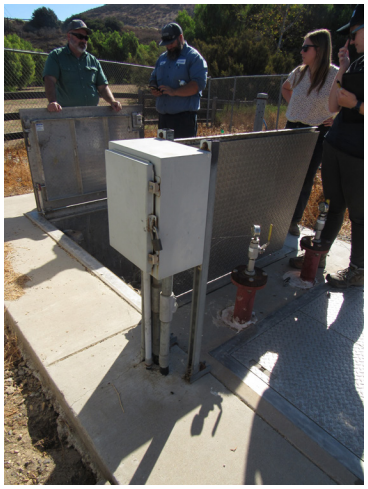
PROJECT DESCRIPTION

The goal of the Downtown Master Sewer Study was to complete a comprehensive capacity evaluation and condition assessment of the existing sewer collection system within the Downtown Bakersfield area in support of the Downtown Vision Plan, impact from the High Speed Rail, and other potential future development. The Project consisted of condition assessment of existing lift stations and limited number of sewer manholes; GPS survey of over 500 sewer manholes to update the existing GIS database; flow monitoring of key sewer tributary areas; development of existing and future flow conditions; identification of deficiencies under existing and future conditions; and **development of a Capital Improvement Program to address system deficiencies.**



Lift Station Condition Assessment for Master Plan

Camrosa, CA



PROJECT DESCRIPTION

Camrosa Water District (District) operates a potable water system, a non-potable (agricultural) water system, and a wastewater collections system. In 2022, the District contracted with MKN and Woodard and Curran to prepare a near-term capital improvements plan (CIP) to help identify and prioritize necessary repairs, rehabilitation, and replacement needs for their three systems. As a part of this work **MKN provided condition assessments** of all of the District's above-ground assets, including:

- 10 potable water storage tanks
- 4 non-potable water storage tanks
- 7 potable water well sites
- 3 non-potable water well sites
- 8 potable water pump stations
- 6 non-potable water pump stations
- **6 lift stations**
- Round Mountain Water Treatment Plant
- Water Reclamation Facility

Technical Memoranda were developed to **summarize recommended near-term projects, as well as associated cost estimates and prioritization.** This documentation supported the development of an overall near-term CIP which included both aboveground and underground assets, providing a plan for the District to allocate funding and prioritize projects over the next 10 years.

Lift Station Condition Assessments

Atascadero, CA

PROJECT DESCRIPTION

As part of the 2015 Sewer Master Plan several lift station improvement projects were identified. In 2021 the City of Atascadero (City) needed to update their Capital Improvement Plan and retained **MKN to perform a condition assessment on four of their lift stations that were previously identified to be improved.** As part of the project MKN developed standard condition assessment forms based on the City's goals and performed field evaluations of the lift stations. Based on these observations, condition ratings were assigned to various components including lift station capacity, coating conditions, site access, and operator safety. **Recommended improvements were reviewed with the City and defined capital improvement projects were identified.** A detailed opinion of construction costs was also developed for budgeting. The City then awarded design of the improvements for three of the four lift stations to MKN.

Sewer Rehabilitation Projects

Arroyo Grande, CA

PROJECT DESCRIPTION

The City of Arroyo Grande (City) completed a Wastewater Master Plan in 2012 and identified several sections of the sewer collection system in need of rehabilitation using cured-in-place pipe (CIPP). The areas identified included sections of the system where the sewer was within easements located within inaccessible areas such as within private backyards, over creeks, and under state highways.

MKN was selected by the City to provide construction documents to address these segments every two years as budgeted. As part of each project, **MKN performs a condition assessment to provide recommendations for point repairs prior to lining, to identify any constraints, and to identify site access in the construction documents.** Construction documents include detailed exhibits showing allowed points of entry and detailed technical specifications for bypass pumping and installation of the CIPP.

Since 2016 MKN has designed and provided construction management services for 5,810 feet of CIPP ranging from 6 inches to 16 inches and 900 feet of CIPP in storm drain pipe ranging from 24 inches to 42 inches.

Outfall Sewer Manhole Assessment

City of Grover Beach, CA

PROJECT DESCRIPTION

North of River Sanitary District (District) operates a wastewater treatment plant (WWTP) that is located approximately 5 miles west of Enos Lane on 7th Standard Road. The WWTP is connected to the District's service area via a 17-mile gravity sewer line referred to as the Outfall Sewer. The Outfall Sewer starts west of Highway 99 in Oildale (at the location of the old NORSD WWTP) and travels generally to the west towards the WWTP. The Outfall Sewer pipeline is constructed out of HDPE pipe and has concrete manholes at regular intervals along the alignment. The pipeline diameter varies from 33 inches at its beginning to 54 inches at the WWTP.

MKN performed the following services as part of the condition assessment.

- Observation and recording of manhole conditions
- Condition assessment and ranking of manholes observed
- Recommendations of applicable manhole rehabilitation methods
- Recommendations for system improvements including rehabilitation of concrete structures
- Review of concrete core samples for compression strength
- Phenolphthalein testing for determination of carbonation depth

Following the condition assessment MKN provided the District with a Capital Improvement Plan identifying high-risk projects that needed immediate attention. The District has retained MKN to provide Construction Documents for yearly manhole rehabilitation projects, and MKN has provided documents for six phases to date.

Highway 1 Lift Station and Trunk Main

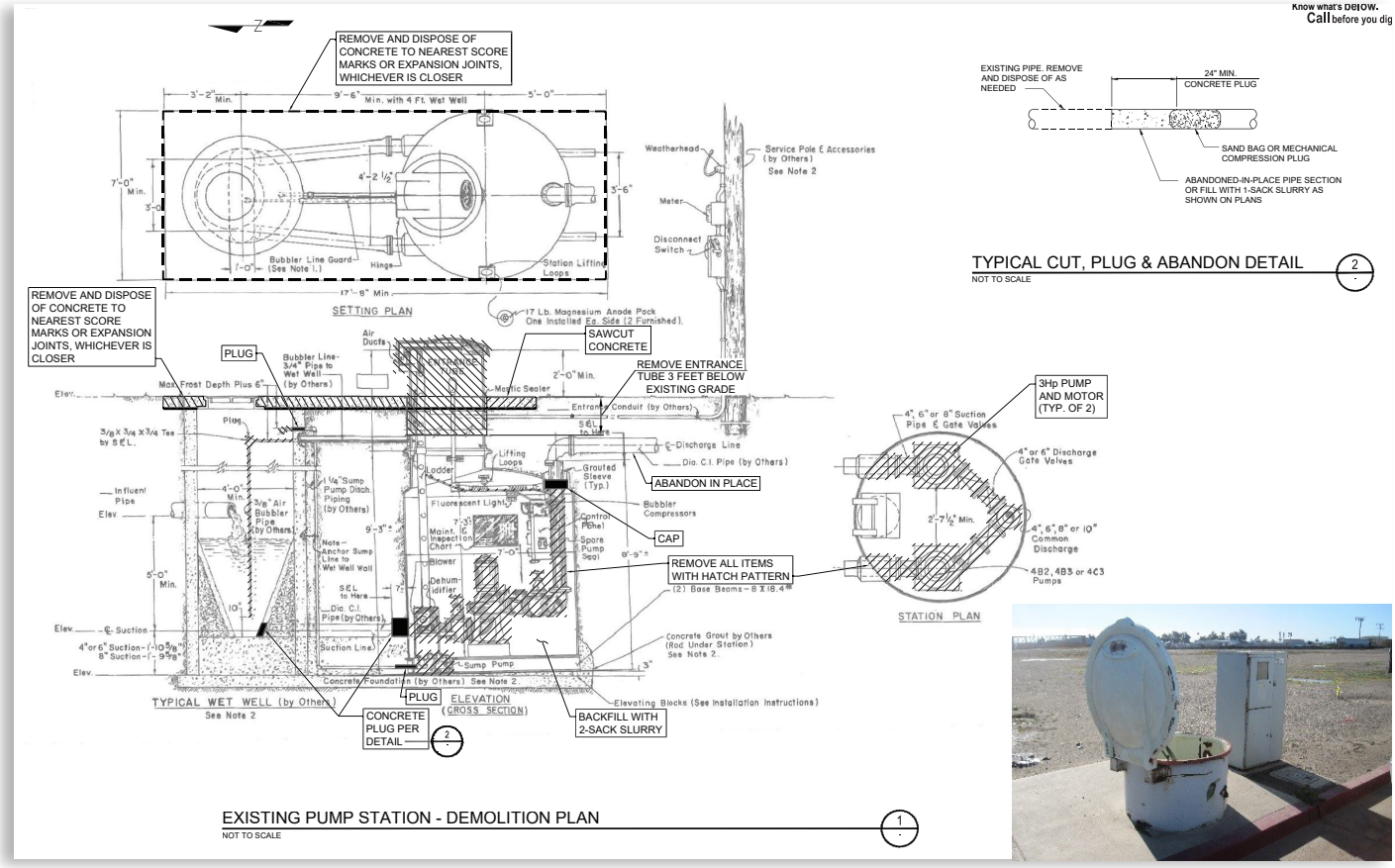
Guadalupe, CA

PROJECT DESCRIPTION

The Highway 1 Lift Station was constructed in 1968 by Caltrans as part of a Highway 1 widening project and is a Smith and Loveless pre-manufactured steel structure with a dry well/wet well design. The dry well is classified as a confined space, making ongoing repairs and maintenance more difficult to accomplish without requiring multiple staff members, gas monitoring equipment, and power ventilation for even the most basic tasks. As identified in the 2014 Wastewater Master Plan completed by MKN, this lift station had reached the end of its useful life, is a confined space safety hazard, and the pumps are undersized (Highway 1) for both existing and future flow conditions.

The Highway 1 Lift Station discharges to a 12-inch trunk sewer main that conveys 85% of the City of Guadalupe's wastewater flows. The 2014 Sewer Master Plan identified almost 3000 feet of the trunk main as being undersized. Field observations during the preliminary stages of the design for replacement of the trunk main confirmed the need for this recommendation as all manholes along the section to be replaced were surcharged with 1 to 2 feet of standing wastewater. In addition to being undersized, a portion of the trunk main ran diagonally through a residential area and under several residences.

MKN designed a new lift station adjacent to the existing lift station to prevent future access issues. This approach also allows for operation of the existing lift station while the new facility is constructed. MKN designed approximately 2,700 feet of sewer replacement pipeline, ranging in size from 18-inch to 24-inch. The sewer replacement design also included a segment to be installed via pipe bursting where the existing line traveled between two residences. This approach eliminated the need for open trenching adjacent to existing structures.



MKN's Team has delivered 200+ Condition Assessment and Master Planning projects with a sampling of relevant projects noted in the following tables!

Condition Assessment and Master Planning		
Project	Client	Service
Water Reclamation Facility Master Plan Update	Atascadero	WW
Collection System Master Plan Update	Atascadero	WW
Water Master Plan Update	Atascadero MWC	W
Sewer and Storm Drain Master Plan	Atwater	WW
Water Master Plan	Atwater	W
Downtown Master Sewer Study	Bakersfield	WW
Wastewater Infrastructure Report	Channel Islands BCSD	WW
Water Infrastructure Report	Channel Islands BCSD	W
2020 Wastewater Master Plan	Channel Islands BCSD	WW
2020 Water Master Plan	Channel Islands BCSD	W
Atlas Mapping, Water System Hydraulic Model, and Water Master Plan	City of Delano	W
2021 Water Master Plan	East Niles CSD	W
2008 Water Master Plan	East Niles CSD	W
Water Master Plan Update	El Monte	W
2018 Water Master Plan	Grover Beach	W
2018 Sewer Master Plan	Grover Beach	WW
2024 Collection System & WWTP Master Plan	Guadalupe	WW
2014 Collection System & WWTP Master Plan	Guadalupe	WW
2014 Water Master Plan	Guadalupe	W
2015 Water Master Plan Supplemental Report	Guadalupe	W
2021 Water Master Plan Update	Guadalupe	W
Infrastructure Master Plan	Gunner Ranch	W/WW
RW Study & WWTP Master Plan	Heritage Ranch CSD	W
Sanitary Sewer Collection System Master Plan	Hollister	WW
Wastewater Master Plan	King City	WW
Madera County IRWMP	Madera	W
Water System Master Plan Update	Madera	W
Water Master Plan Update	Merced	W
Water Master Plan	Merced	W
Master Water Reclamation Plan	Morro Bay	RW
Blacklake Collection System Master Plan	Nipomo CSD	WW
Recycled Water Facilities Plan	Oxnard	RW
Recycled Water Master Plan	Oxnard	RW
Water Master Plan Update	Oxnard	W
Water System Hydraulic Model and Water Master Plan	Quartz Hill Water District	W
Sewer Master Plan	Santa Paula	WW

W - Water; WW - Wastewater; RW - Recycled Water

Condition Assessment and Master Planning Cont.		
Project	Client	Service
Recycled Water Master Plan Update	Santa Paula	RW
Recycled Water Study Update	Santa Paula	RW
Sewer Master Plan	Seaside CSD	WW
Infrastructure Master Plan Update	South Coast WD	W/WW/RW
Sewer Model Report	Tehachapi	WW
Water System Master Plan Update	Tehachapi	W
2020 Hill Canyon Treatment Plant Master Plan	Thousand Oaks	WW/RW
UC Merced 2020 Project Utilities Evaluation	UC Merced	W
Water Master Plan & System Evaluation	Valley Children's Hospital	W
Water Master Plan	Ventura	W
Water Master Plan Update	Yorba Linda Water District	W

W - Water; WW - Wastewater; RW - Recycled Water

MKN is an industry leader in the planning, design, rehabilitation and inspection services for lift stations in Central and Southern California. The following table provides a sample of our team's lift station experience which includes over 80 lift stations.

Lift Stations	
Project	Client
Influent LS Assessment and Rehab	Avila Beach CSD
LS No. 1 Force Main Replacement	Arroyo Grande, City of
Lift Station No. 3 Rehabilitation	Arroyo Grande, City of
Lift Station No. 13 Replacement	Atascadero, City of
Lift Station No. 2 Replacement	Atascadero, City of
Lift Station No. 5 Rehabilitation	Atascadero, City of
24th & Oak Lift Station Feasibility Study	Bakersfield, City of
District Lift Station Feasibility Study	Bakersfield, City of
McCutchen Lift Station Study	Bakersfield, City of
Lift Station No. 9 and 11 Design Services	Calexico, City of
Lift Station B Evaluation and Design	Channel Islands Beach CSD
Pump Station B	Channel Islands Beach CSD
La Cuesta Lift Station Rehabilitation	Coalinga, City of
Arantine Hills Lift Station Construction	Corona, City of
Smith/Rincon Lift Station Design	Corona, City of
LS Condition Assessment (7 stations)	Emerald Bay Service District
DPW-1 Lift Station Construction	FivePoint
DPW-2 Lift Station Construction	FivePoint
Mission Village Lift Station Construction	FivePoint
Belgrave Lift Station Design	Garden Grove Sanitation District
Tiffany Lift Station Replacement	Garden Grove Sanitation District

Lift Stations Cont.	
Project	Client
Gularte Lift Station Evaluation	Guadalupe, City of
Pioneer Lift Station Replacement	Guadalupe, City of
WWTP Effluent LS Pump Replacement	Guadalupe, City of
WWTP Influent Lift Station Rehab	Guadalupe, City of
Central Park Lift Station Design	Huntington Beach, City of
Edgewater Lift Station Construction	Huntington Beach, City of
Lift Station No. 24 Construction	Huntington Beach, City of
Saybrook Lane Lift Station Replacement	Huntington Beach, City of
Lift Station No. 14 Improvements	Legacy Development (on behalf of City of Atascadero)
SD 03 Lift Station Design	Long Beach, City of
Lift Station Capacity Evaluation	Mission Hills CSD
Aliso Creek and Southwing LS Rehab	Moulton Niguel Water District
Paseo de Valencia LS Rehabilitation	Moulton Niguel Water District
Blacklake Lift Station Evaluation	Nipomo CSD
Southland WWTP Influent LS	Nipomo CSD
Tefft Street Lift Station Study	Nipomo CSD
Woodgreen Lift Station Rehabilitation	Nipomo CSD
Palomino Park Lift Station Design	Norco, City of
Harbor, Roja, and Pilgrim Creek LS Rehab	Oceanside, City of
North Valley Lift Station Improvements	Oceanside, City of
Seal Beach Lift Station Replacement	Orange County Sanitation District
Lift Station No. 3, 8, and 11 Rehab	Paso Robles, City of
Lift Station No. 4 Replacement	Paso Robles, City of
Lift Station Evaluation (5 stations)	Pismo Beach, City of
Lift Station No. 2 Improvements	Port San Luis Harbor District
Lift Station No. 3 Improvements	Port San Luis Harbor District
WWTP Influent LS Improvements	Reedley, City of
Avila Ranch Lift Station Design-Build	San Luis Obispo, City of
Calle Joaquin Lift Station Replacement	San Luis Obispo, City of
Laguna Lift Station Replacement	San Luis Obispo, City of
Margarita and Foothill LS Replacement	San Luis Obispo, City of
WRRF Influent LS Pump Replacement	San Luis Obispo, City of
Lopez Recreation Area LS Eval (5 total)	San Luis Obispo, County of
Lift Station Assessment (8 stations)	Santa Cruz Port District
18th Street (D-4) LS Replace. & CM	Selma-Kingsburg-Fowler CSD
D-1 and D-2 LS Condition Assessment	Selma-Kingsburg-Fowler CSD
North Street (D-3) LS Replacement	Selma-Kingsburg-Fowler CSD
LS Condition Assessment (12 stations)	South Coast Water District
Lift Station Condition Assessment	Tehachapi, City of
Eastside LS Design & Rehabilitation	Templeton CSD
Cal Poly Housing South LS Design	Webcor Builders

SECTION 3

PROJECT APPROACH

Creating a Capital Improvement Program for the District's wastewater system is necessary to inform the upcoming rate study (to be started in 2025) and will provide a road map for the District to use in planning much-needed improvement projects. The following approach is based on our review of the District's RFP, the 2020 Sewer System Management Plan Update, and our experience with similar efforts.

Key Project Drivers

Our team understands the three main drivers for this evaluation:

Obtain Accurate Understanding of Infrastructure Condition
It has been fifteen (15) years since the District's last wastewater assessment. A clear understanding of system rehabilitation needs is critical for realistic budget planning.

Develop Well-Defined Near-Term Projects
To accurately perform a rate study, the District will need detailed project costs and a clear understanding of the deficiencies and required improvements.

Prepare a Clear, Usable, and Prioritized Implementation Plan
The plan must be clear, well-organized, and thorough to provide a usable road map for completion of improvements.

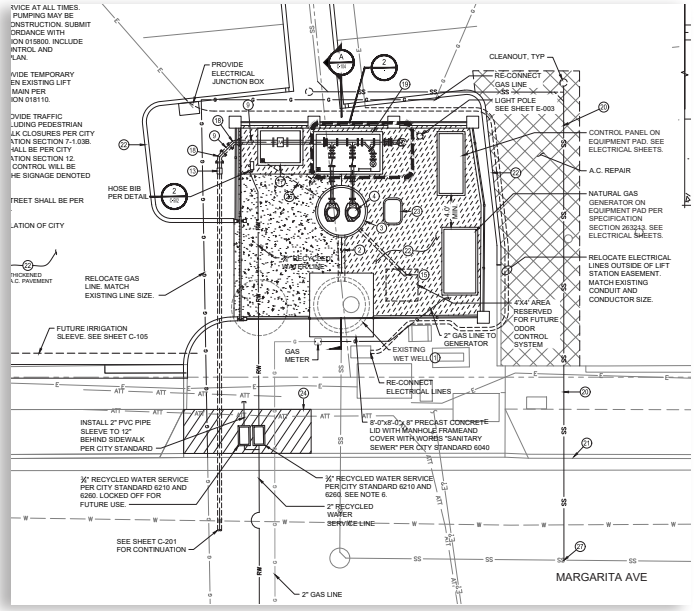
Recognizing these drivers, the following approach has been developed for this project. MKN's approach demonstrates our understanding of the District's needs and MKN's ability to develop a comprehensive and manageable CIP.

WE DO LIFT STATIONS

- **Condition assessment of over 30 lift stations within the last 10 years including 10 Smith and Loveless-type stations.**
- **Design of 15 lift stations within the last 5 years including 3 designs modifying or replacing Smith and Loveless type stations similar to the District's.**
- **Performed services involving condition assessment or design of lift stations for over 30 clients throughout California.**

Unmatched Experience

MKN has unmatched experience with both condition assessment and rehabilitation projects. MKN's team has a combined experience of over **100 years** performing condition assessment, design services, and construction-phase services on wastewater projects. This experience is critical in identifying system deficiencies and selecting the most appropriate rehabilitation method. In the event rehabilitation is not an option, MKN will develop a replacement solution incorporating the District's needs, site constraints, and past experience on similar projects.



PROVEN PROJECT EXPERIENCE
MKN designed a new lift station for the City of San Luis Obispo to replace a failing Smith and Loveless facility.

Project Rating System

MKN will utilize a comprehensive project scoring system that considers the likelihood, consequence, and cost of failure. This system provides a data-based method for prioritizing projects that focuses on severity of the risk to the District. MKN will work with the District to assign the appropriate weight to each portion of the scoring system so that all of the District's concerns are considered. Below provides an example of a developed project rating system used on past projects.

Project Rating System					
Parameter	**Assigned Ranking**				
	10	20	30	40	50
Likelihood of Failure					
Pipe Diameter (inch)	8 - 12	14 - 18	0 - 27	30 - 39	>39
PHF Hydraulic Capacity Surcharge	< 0.8	0.8-1.2	1.2-1.5	1.5-2	⩾ 2
Structural Defect	1	2	3	4	5
Pipe Age	Current-1990	1990-1980	1980-1970	1970-1960	Pre-1960
Service Calls per Month	No Service Calls	0 - 2	1 - 2	2 - 5	⩾ 5
High Maintenance Areas	Routine Maintenance	Annual	6-month	3-month	1-month
Consequence of Failure					
SSO Volume (MGD)	0.01 - 0.5 MGD	0.5 - 1 MGD	1 - 5 MGD	5 - 10 MGD	> 10 MGD
Access Constraints	Other	Collector	Arterial Street	Easement	State Highway or Railroad Crossing
Proximity to Waterways	-	Within 150 feet of Waterway	Within 100 feet of Waterway	Within 50 feet of Waterway	Waterway Crossing
Proximity to High-Traffic Pedestrian Area	-	-	Within 150'	Within 75'	Intersecting
Cost of Failure					
Fines	-	-	Low	Medium	High
Repair Costs	-	-	Low	Medium	High

POTENTIAL FUNDING SOURCES
CDBG Funding is available for planning, design, and construction of water and wastewater projects. The City of Guadalupe qualified for over $3.5 Million for the construction of two sewer lift stations.

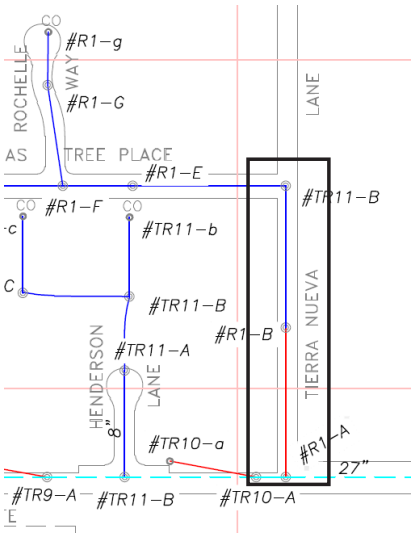
Grant Funding

Oceano is a small, disadvantaged community and would likely be eligible for grant or low-interest loan funding. However, the funding landscape is not secure, as evidenced by recent State funding cutbacks seen in the Clean Water and Drinking Water State Revolving Funds and the Bureau of Reclamation grant and loan programs. Alternative funding sources such as the US Department of of Housing and Urban Development's Community Development Block Grant program will be reviewed. Neighboring communities including Grover Beach and Guadalupe have been awarded these grants for funding infrastructure improvement projects including replacement of lift stations.

Realistic Cost Estimates

Creating realistic project costs is critical in establishing appropriate rate increases and adequate future budgets. MKN has completed 10 sewer-collection-related construction projects throughout SLO County within the last three years. These projects include construction of new lift stations and force mains, replacement of gravity sewer lines, rehabilitation of manholes, and lining of existing sewer lines. Using recent, local bids will enable MKN to provide accurate and thorough cost opinions for the determined projects, which will help ensure the District has adequate funding when needed. Using costs derived from recent local bids on work similar to the proposed project, **MKN has created example project sheets for one of the District's potential CIP projects.**

Project: R-001
Project Location: TR11-B - R1-A



Project Trigger	Project Components	Project Need
☐ CCTV Inspection	☐ Upsize Gravity Main	☐ Insufficient Capacity for Existing Flow
☐ Future Development	☐ New Gravity Main	☐ Insufficient Capacity for Future Flow
☐ Hydraulic Modeling	☒ Gravity Main Rehab	☒ STR Defects/O&M Deficiency
☒ O&M Staff	☐ Gravity Main Replace	
	☐ Manhole Rehab	

Project Details		Project Description
Rehab Recommendation:	CIPP lining	There are 2 grade 2 defects and 2 grade 4 defects due to root intrusion at joints and lateral connections. CIPP lining is recommended for the pipeline segments followed by installation of lateral liners.
Priority:	1	
Pipe Material:	PVC	
Pipe Size:	6-inch and 8-inch	
Pipe Length:	370ft/350ft	
No. of Grade > 3 defects:	2	
No. of Grade ≤ 3 defects:	2	

Example Sheet 1

OCEANO COMMUNITY SERVICES DISTRICT
WASTEWATER COLLECTION SYSTEM
CAPITAL IMPROVEMENT PROJECT DESCRIPTION

Item	Description	Unit	Price per Unit	Quantity	Total Cost
1	MOBILIZATION & DEMOBILIZATION	LS	-	7%	$ 7,300
3	TRAFFIC CONTROL	LS	$ 2,000	1	$ 2,000
4	CCTV VIDEO AND CLEANING	LF	$ 46	720	$ 33,120
5	6-INCH CIPP LINER	LF	$ 72	370	$ 26,640
6	8-INCH CIPP LINER	LF	$ 87	350	$ 30,450
7	LATERAL LINER	EA	$ 2,400	5	$ 12,000
				Subtotal	**$ 111,510**
8	DESIGN, CONSTRUCTION MANAGEMENT, ADMINISTRATION	LS	-	30%	$ 33,500
9	CONTINGENCY	LS	-	20%	$ 22,300
				Total	**$ 167,310**
Revision Date: 09/20/24, LA ENR CCI: 15379.68 (August 2024)					

OCSD– Sewer CIP Project: R-001

Example Sheet 2

CIP Tool

MKN will help the District develop a CIP budgeting tool that can be used by the District to plan the timing of CIP projects. It will contain a brief description of the project, reason for the project, design engineering costs, construction costs, maintenance cost, priority rating and other items the District would like to track. In Excel format, the District can easily use this tool annually during the budgeting process and update it mid-year as project priorities change or as new information is gathered. As construction bids for projects come in, District staff can easily update the tool with new estimates of construction and bid values to help the District react quickly to changes in project costing.

SKFCSD 5-10 Year CIP Budgeting Template

City	Project Description	Project Priority		FY2020	FY2021	FY2022	FY2023	FY2024	FUNDING	Source	CCTV Grade
Selma	Sewer Improvement: Tucker/E. Front and 2nd/center (replace 1,615 LF)	3	P	$ 90,000					Selma R&R	Field (end of life)	
			C	$ 360,000							
Selma	Sewer Improvement: Willow/Thompson and Floral/Chandler and Willow/Wright	2	P	$ 45,000					Selma R&R	Field observation	
			C	$ 355,000							
Selma	SP-1~SP-10 Multiple Priority Point Repairs. Point repairs identified during CCTV inspections summer 2020	1-2	P	$ 10,000					Selma R&R	FY20 CCTV	
			C	$ 70,000							
Selma	S-1 Replace 990 LF of 6" and 403 LF of 8" sewer Between B & C St from Tulare to Stillman; East of D St from Tulare to Stallman; Between Gaither & Merced from Logan to Lee St	1-2	P		$ 85,000				Selma R&R	FY20 CCTV	
			C		$ 545,000						
Selma	S-2 Replace 1,076 LF of 6" sewer West of Orange St to Floral Ave; Between C St and D St from Stillman St to Gaither St	2	C		$ 50,000				Selma R&R	FY20 CCTV	
			P		$ 310,000						
Selma	S-3 Replace 1,434 LF of 15" & 12" sewer in Lee from Arrants to Gaither. Between manholes 2NO0-0300 and 2NO0-0900	3	P			$ 104,000			Selma R&R	FY20 CCTV	
			C			$ 662,500					
Selma	S-4 Replace 1,313 LF of 12" sewer in Lee from Maple to Gaither. Between manholes 2NO0-1500 and 2NO0-0900	3	P				$ 70,000		Selma R&R	FY20 CCTV	
			C				$ 465,000				
Selma	S-5 Replace 1,027 LF of 6" sewer along Gaither from D St to Orange St; between B St and C St from Stillman St to Gaither St	3	P				$ 60,000		Selma R&R	FY20 CCTV	
			C				$ 380,000				
Selma	S-6 Replace 638 LF of 8" sewer in Floral from A to C streets (2NJ0-0200 to 2NJ0-0100); in Gaither from McCall to A streets (2NJ0-0400 to 2NJ0-0300)	3-4	P					$ 35,000	Selma R&R	FY20 CCTV	
			C					$ 230,000			
Selma	S-7 Replace 826 LF of 6" sewer in alley between Floral Ave & Chestnut St from Wright St to Lee St	4						$ 40,000	Selma R&R	FY20 CCTV	
								$ 260,000			
Selma	S-8 Replacement 827 LF of 6" sewer alley between Chestnut/Gaither and Lee/Wright. Between manholes 2NK0-0100 and 2NHO0-1100	4	P					$ 50,000	Selma R&R	FY20 CCTV	
			C					$ 300,000			
Selma	Future Project									FY20 CCTV	
Selma	Future Project									FY20 CCTV	
City of Selma Sub Total				**$ 930,000**	**$ 990,000**	**$ 766,500**	**$ 975,000**	**$ 915,000**			
Kingsburg	Tulare Street Alley Sewer Improvements	1	P	$ 30,000					Kingsburg R&R	eld observatio	
			C	$ 170,000							
Kingsburg	Lift Station D-4 Rehabilitation	1	P	??					Kingsburg R&R	Inspection	
			C	$ 1,986,347							
Kingsburg	KP-1~KP10 Multiple Priority Point Repairs. Point repairs identified during CCTV inspections summer 2020	1-3	P	$ 14,000					Kingsburg R&R	FY20 CCTV	
			C	$ 92,000							
Kingsburg	K-1 Rehabilite 12" sewer in Eighteenth Street between Lewis Street and Pulmas Street. CIPP	1	P	$ 8,000					Kingsburg R&R	FY20 CCTV	
			C	$ 59,000							

A custom CIP Tool was developed for SKF Sanitation District. The District regularly updates this file for use in yearly budgeting.

Focused Workshops with District Staff

District staff have invaluable information regarding how the existing system performs and what is needed. MKN proposes having a combined kickoff and workshop meeting to fully understand the needs of the District and further tailor the approach during the project research and field investigation phases to provide the most information while being conscious of budget. This workshop would also be used to establish the risk values used in ranking of CIP projects.

Following development of projects to be included in the CIP another workshop would be held to gather opinions from District staff to discuss the CIP projects identified and their risk-based rankings. Having a focused discussion of the projects with staff will provide MKN with a consolidated set of detailed review comments leading to a complete final deliverable within a shorter period of time.

Based on discussions with District Staff, the known priority projects and approach are presented and detailed on the following pages.

MKN has identified High Risk Areas that are recommended for CCTV inspection as part of the effort to develop the District's CIP. These areas were identified based on location (highway/ railroad crossing) and/or pipe size, where the consequences of failure would be high.

LEGEND

- 6" FORCE MAIN
- 6"
- 8"
- 10"
- 12"
- SSLOCSD TRUNK SEWER
- HOT SPOT
- SPECIAL OBSERVATION
- LIFT STATION (LS)

Pier Avenue Lift Station Replacement

Belridge Street Sewer Replacement

City of Arroyo Grande Shared Sewer

High Risk Areas

High Risk Area

High Risk Area

Beach/Cienega FOG Project

Tierra Nueva CIPP Project

N W E S

400' 0' 400' 800'

SCALE: 1"=400'

City of Arroyo Grande Shared Sewer Main

KNOWN ISSUES:

The City of Arroyo Grande utilizes a portion of the District's gravity sewer system prior to connection to the SSLOCSD Trunk Main. Arroyo Grande connects to the District's system just south of The Pike on South Elm Street. From this point, the shared sewer line travels south to Wilmar Avenue and then runs within Wilmar Avenue to 23rd Street where it connects to the SSLOCSD trunk main. This portion of the District's system requires additional maintenance activities to remove grit and debris and can, at least in-part, be contributed to the incoming flow from Arroyo Grande.

MKN SOLUTIONS:

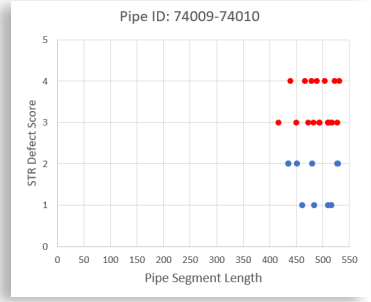
Based on review of the City of Arroyo Grande and District's Sewer Atlases, the collection line sees almost equal flow from each agency.

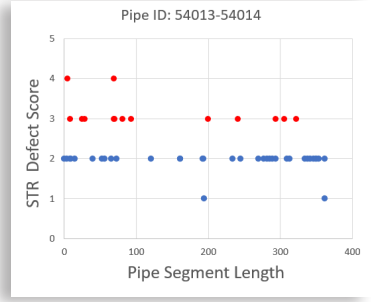
MKN recommends initiating discussions with the City of Arroyo Grande regarding an agreement for shared maintenance funding for this portion of the system. The costs could be divided based on flow rates. Alternatively, construction of a new parallel line could be considered. The new line would only serve District customers and the existing line would be dedicated to the City of Arroyo Grande. MKN would evaluate the cost of construction of this line as compared to the yearly maintenance costs for the existing pipeline to provide the District with a complete assessment of the options.

Belridge Street Sewer Replacement

KNOWN ISSUES:

The existing 8-inch gravity sewer located within Belridge Street and Highway 1 is known to have significant bellies due to settled sections of the sewer pipe. These bellies allow accumulation of debris and create plugs that cause sewage to back up in the collection system, including at the apartment complex located to the north of Belridge Street.





Identified deficiencies were plotted for each segment for the City of Ridgecrest to clearly identify where point repairs would be recommended as opposed to full replacement.

MKN SOLUTIONS:

Since the existing sewer has large bellies, replacement by open trench methods will be required. Trenchless replacement methods such as CIPP or pipe-busting follow the alignment of the original pipe and therefore would not correct the current issues. MKN recommends performing a CCTV inspection of these pipelines to identify the severity and locations of the bellies. The inspection will identify the exact locations and severity of any deficiencies, including bellies. This information will be utilized to determine the required extent of the project. It's possible all deficiencies are localized to one area of the sewer, which could be corrected with a point repair as opposed to replacement of the entire pipe segment (manhole to manhole).

Alternatively, to reduce cost in the near-term, the District could defer CCTV inspection of the sewer within Belridge and Highway 1 to a later date. CCTV could be performed as part of the preliminary tasks of a future design project once funded. For developing the CIP, MKN would assume replacement of the entire length of the identified problem sewer area for estimating project costs to be conservative and ensure sufficient funding. If it's later determined that a smaller project is required, the remaining budget can be shifted to fund projects slated for later start dates.

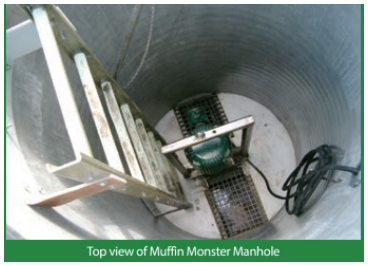
Pier Avenue Lift Station Replacement

KNOWN ISSUES:

The Pier Avenue Lift Station, constructed in 1967, is a Smith and Loveless station that includes a concrete wet well and steel dry well containing two 5-Hp pumps. The District has reported that both pumps are required to run during high-flow periods indicating a need for additional capacity. In addition, the lift station experiences high amounts of debris requiring District staff to routinely clean trash screens installed on the wet well inlets to mitigate damage and clogging of the pumps. In addition to having capacity and debris issues, the lift station is located within the sidewalk of Pier Avenue, a road that regularly becomes backed up with traffic during the summer and is in the flood plain. By design, confined space entry protocol is required to enter the dry well to service pumps and valves.

MKN staff have prepared construction documents for rehabilitation of Smith and Loveless lift stations for the following surrounding Cities:

- San Luis Obispo
- Guadalupe
- Arroyo Grande
- Pismo Beach
- Paso Robles



Top view of Muffin Monster Manhole

JWC Environmental provides an inline grinder within a fiberglass manhole (Muffin Monster Manhole) to grind incoming debris into a passable size. Owners have reported no clogging issues when installed upstream of lift stations.

Diesel-driven bypass pumps provide an additional layer of resiliency to the lift station, allowing the lift station to continue operation regardless of power failure or primary pump failure.

MKN SOLUTIONS:

MKN staff have provided construction documents for several SLO County agencies and cities for rehabilitating existing lift stations similar to the District's by abandoning the dry well and installing solids-handling submersible pumps within the wet well. Where the wet well is too small for this approach, new lift stations were designed adjacent to the existing lift station and the wet well was converted to an approach manhole.

Ideally, the District would obtain additional easement or property to construct a new lift station with sufficient space for maintenance activities. A new easement could be negotiated with the State of California property to construct north of the existing lift station or the District could investigate purchasing of property located along Lakeside Road north of Pier Avenue. This road is a "paper road" with vacant adjacent properties that could possibly be purchased.

Based on MKN's recent lift station design experience and our understanding of the District's needs for this Project, the recommended elements for a new lift station include:

- Polymer concrete wet well
- Submersible solids-handling pumps
- Flood-tight access doors (unless constructed above flood plain)
- Elevated controls above flood plain
- Inline grinder to mitigate large quantities of debris
- SCADA Coordination
- Permanent emergency generator or permanent bypass pump
- Portable bypass pump connection (if permanent bypass pump is not included)
- Site security and room for maintenance vehicles

Depending on the funding and/or easement/land procurement timelines, an initial lift station improvement project could include adding a bypass pump connection to the existing lift station and adding an in-line grinder to extend the life of the existing lift station and provide additional redundancy.

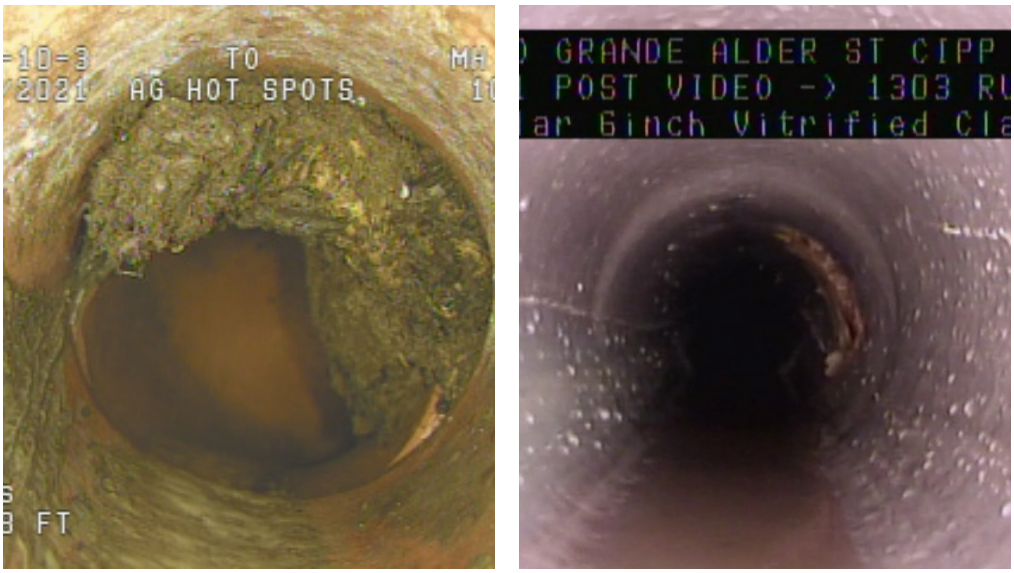
Tierra Nueva CIPP Project

KNOWN ISSUES:
The District has experienced overflows within Tierra Nueva resulting from large quantities of roots within the gravity line. A large grove of eucalyptus trees lines the east side of Tierra Nueva and is likely the cause of the root issues.

Dense Eucalyptus trees line Tierra Nueva resulting in root intrusion in the gravity sewer lines.

MKN SOLUTIONS:

The District is currently treating segments of sewer within Tierra Nueva with a root killer (RootX). This approach may require application every 1 to 2 years if proven effective. MKN has developed construction documents for several cured-in-place pipe (CIPP) projects for the City of Arroyo Grande to mitigate root intrusion issues in gravity sewer lines similar to the District's. As part of the preliminary phases of this potential project, the pipe segments would be CCTV-inspected to quantify the severity of the root intrusion for the bidding contractors, since the roots will need to be removed prior to installation of the liner. Lateral liners, such as Top Hats, are recommended to eliminate any joints that roots can penetrate following installation of the CIPP.



Before and after photos of gravity sewer in the City of Arroyo Grande lined with CIPP to mitigate heavy root intrusion.

Beach and Cienaga FOG Project

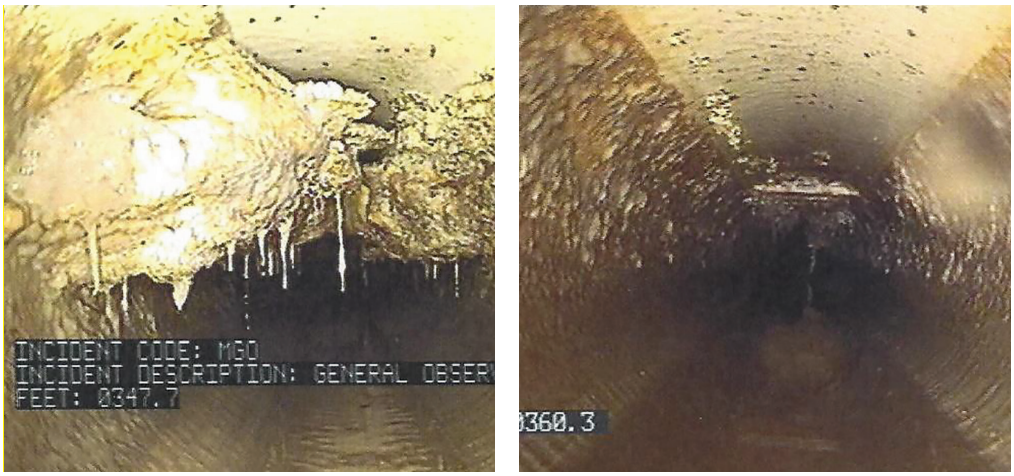
KNOWN ISSUES:
The collection system east of Highway 1 between Beach Street and Cienaga Street requires frequent maintenance activities by the District due to heavy grease deposits. The 6-inch gravity sewer lines are fed by a high concentration of food service businesses. The District manages a FOG control program and inspects restaurant grease traps; however, the issues still persist.

MKN will investigate cost-effective solutions to the District's FOG issue in the Beach/Cienaga Street area including review of using additives to the line. Recently the City of Atascadero has started adding Microbe-Lift by Ecological Laboratories to treat FOG and odors at one of their lift stations. The City has seen immediate success at a product cost of less than $20 per day.

MKN SOLUTIONS:

There are several options available to the District to address this maintenance issue including the following:

- Detailed Investigation of Dischargers - Although the District is diligent in the compliance inspections for permitted facilities, a more in-depth review and inspection may be required. This would include dye-testing of all drains within the establishment to verify connection to the grease trap or interceptor, review of facility waste flows and size of grease trap/interceptor, and review of establishment adherence to the Best Management Practices (BMP) manual.
- Chemical Additives - The use of chemical additives at the known hot spot could alleviate the need for frequent cleaning. This includes regular dosing with specifically formulated strains of bacteria that naturally attack the FOG, avoiding the use of harsh chemicals.
- Pipe Material - Consideration could be made for lining of the existing clay pipe with cured-in-place pipe (CIPP). CIPP final product has a smoother surface than clay pipe and could result in a reduction of FOG adherence to pipe sidewalls. Upsizing of the pipe was briefly discussed with the District and, although capacity of the line would increase, the large diameter would decrease flow velocities allowing more time for FOG to cool and collect within the pipe.



Microbe-Lift was used to treat 10-inch sewer line with recurring heavy grease buildup. Before and after photos show level of FOG reduction after five months of once a week treatment in a manhole 500 feet upstream.

SECTION 4

SCOPE OF WORK

MKN has developed a proposed scope of work to meet the District's goals while recognizing the available budget may be limited. While this project has not been budgeted by the District, it is required to provide necessary information to support the upcoming rate study, and to provide an overall assessment of the District's needs for the sewer system. Where possible, optional tasks have been identified to provide the District with flexibility in determining the scope of the project. MKN welcomes the opportunity to discuss with the District the proposed scope as outlined below, and provide revisions to address goals and objectives along with budget limitations.

1 TASK 1 Project Research

Task 1.1 | Kickoff/Workshop Meeting

MKN will meet in person to review the project scope, schedule and budget and provide the District with a data needs list. MKN will also discuss the following items:

- Near-term goals
- Long-term goals
- Discuss MKN field investigation approach
- Review of identified "Hot Spots" within the system and possible corrective measures
- Review of any known I&I areas or known high-flow levels within the system
- Review of portion of system impacted by City of Arroyo Grande flows and possible solutions to investigate
- Review of proposed sections of the system to be cleaned and videoed as part of this project
- Discuss risk scoring of CIP projects and determine weights of various risks

The goal of this meeting will be to focus the efforts of the field investigation (Task 2) and to establish a scoring system to be used in ranking of identified CIP projects.

Deliverables:

- *One (1) electronic PDF copy of Workshop/Meeting agenda and minutes*

Task 1.2 | Data Review

A list of information required for completing this task will be submitted to the District prior to attending the Kickoff/Workshop meeting. MKN will review existing maps, flow data, and record information relevant to this task and identify additional information (if needed).

Deliverables:

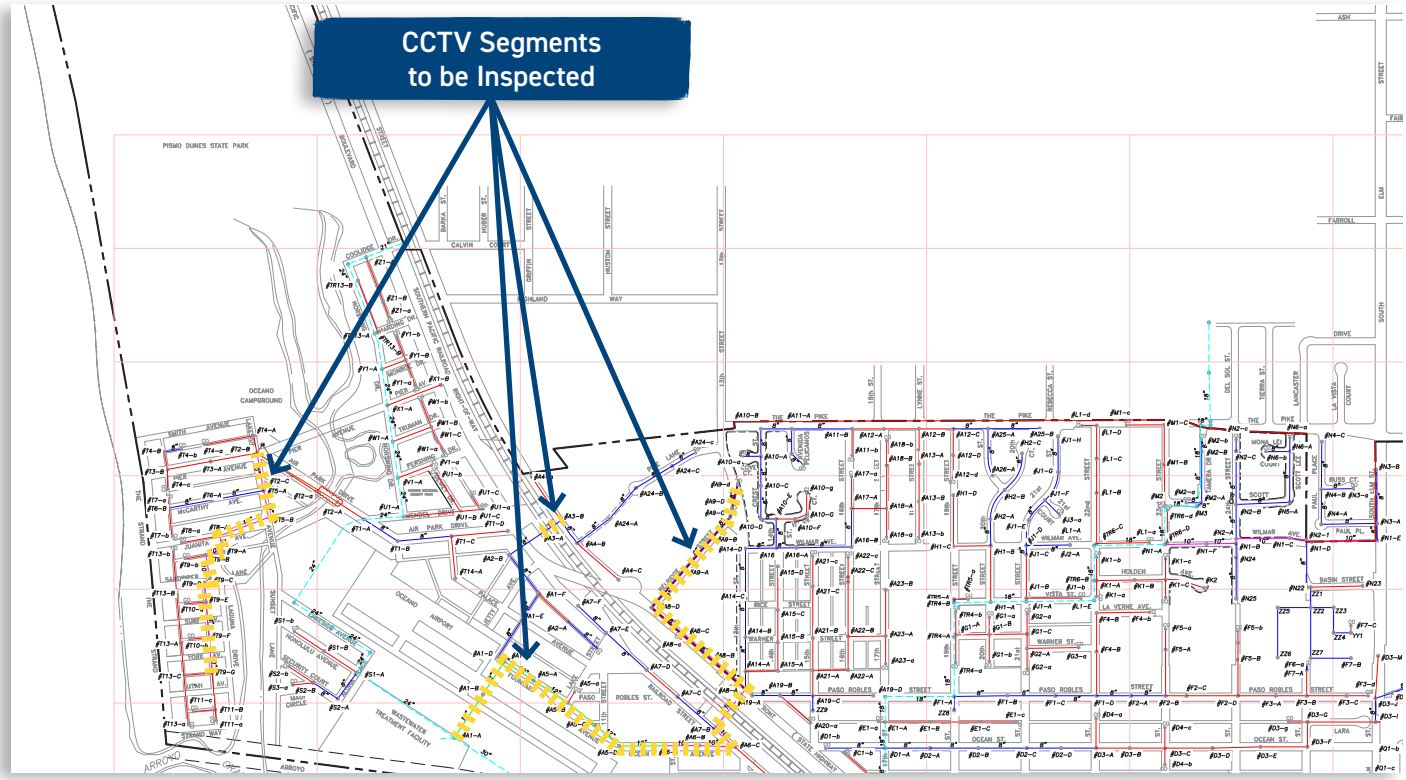
- *One (1) electronic PDF copy of Data Needs List*

2 TASK 2 Field Investigations

Task 2.1 | CCTV Inspection of Sewers

The District's last CCTV effort of the collection system occurred in the 1990's and is available on VHS tapes. Considering the age of the videos it's recommended CCTV of the system be performed. It is recommended a limited area of the system be videoed as part of this project focusing on critical segments where risk of failure is high such as Highway 1 and railroad crossings and larger pipes (⩾10-inch). It's not recommended that known hot spots such as within 8th Street and Tierra Nueva be inspected since the reason for the deficiency is likely known and video of the segments could be performed during design. This approach defers the cost of the inspection until funding of the project is planned or obtained. It is recommended the remaining portions of the District's system be inspected in segments over several years as budgeted CIPs.

Recommended sections to be inspected using CCTV as part of this project are highlighted on the figure on the next page and include the highway/railroad crossings north of Pike Lane and between Front Street (Highway 1) and Railroad Street north of Ocean Avenue, and all segments that are 10 inches in diameter and greater, as well as along Belridge Street and Highway 1 to investigate extent of bellies. These segments would pose the highest risk to the District if a failure occurs. Extents of the CCTV inspection will be reviewed with the District and can be adjusted if needed during discussion of the proposed scope.



Following cleaning of the segments to be inspected (see Optional Task 2.4) CCTV crews will perform inspection and PACP coding of the sewer lines, inspecting from Upstream to Downstream access points. NPS will inspect as far as possible from one access point, before moving to set up at another access location. Major intersections or areas within Highway 1 will be avoided whenever possible. It is assumed at least one manhole will be accessible for inspection of each segment.

If the sewer line is still found to have debris or roots, the lines will be cleaned with additional passes with the jet/vac, as needed, then reinspected and PACP-coded. A variety of CCTV cameras and tractor/raft platforms will be used to ensure that the correct equipment for the conditions/pipe sizes is employed.

The inspections will follow all NASSCO CCTV Inspection guidelines and will not proceed faster than 30 feet per minute. Operators will stop at all defects and code using the PACP-coding system. If an obstruction is encountered that prevents passage of the CCTV camera, the operators will relocate to the downstream manhole and provide a reverse inspection. Any critical issues discovered in the field (collapses, blockages, etc.) will be reported to MKN and the District immediately via email and phone upon discovery.

Any pipeline attributes (diameter, material, length) that differ from the District's Atlas will be noted, and a discrepancy report provided at the conclusion of the project so that updates can be made.

Assumptions:

- All identified areas will be inspected. The inspections will be performed during the same time period. MKN can provide the District with an updated fee if scope of work is reduced.
- It is assumed traffic control will be limited to partial lane closures. Full lane closures and use of flaggers is not anticipated.
- District to coordinate access to manholes where required.

Deliverables:

- *Digital PACP-coded sewer inspection files*

Task 2.2 | Sanitary Sewer Manhole Inspections

MKN will perform a Level 2 inspection on up to ten manholes identified by the District. Defects shall be recorded on a MACP-compliant inspection form using NASSCO Manhole Level 2 inspection procedures. A Level 2 MACP inspection includes documenting existing

defects, determining the condition of a manhole, and providing specific information to recommend or specify corrective actions. Level 2 inspections include a camera capable of observing and photographing components and defects throughout the manhole. Photos shall also be taken of each incoming/outgoing pipe. Finally, the distance between rim and flow lines will be measured.

Deliverables:

- *Electronic MACP Inspection Forms with digital video and photographs*

Task 2.3 | Pier Avenue Lift Station Condition Assessment

MKN will visit the District's Pier Avenue lift station to complete a visual inspection (including digital photos) to confirm and supplement as-built information and document existing condition and deficiencies. The evaluation will include visual inspection of the dry well (from ground level), wet well, piping, valves, and panels to document existing and potential deficiencies and provide recommendations for improvements. The field assessments will include discussions with District staff with respect to operational issues, age of facilities, and Staff-requested improvements. Assessment of the lift station will include the following:

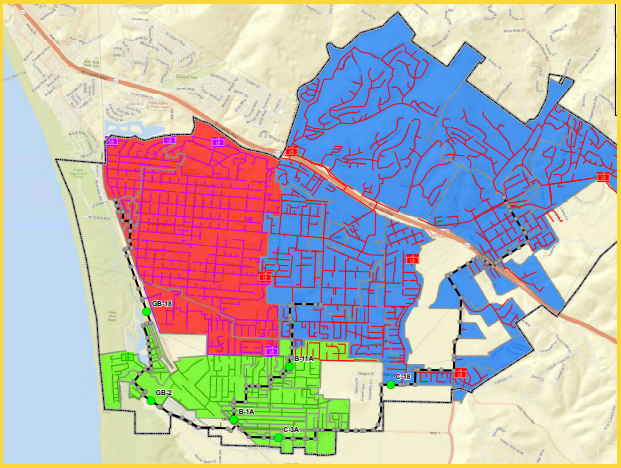
- Safety compliance
- Flood resilience
- Backup power provisions (including on-site generators and/or connections for a portable generator)
- Any signs of wet well corrosion including exposed rebar or delamination, which typically occur near the top of the wet well
- Failure of pipe or mechanical system coatings
- Operation/maintenance access
- Bypassing provisions
- Safety issues for operator access

OPTIONAL Task 2.4 | Flow Monitoring Data Review

MKN is currently performing flow monitoring along the South San Luis Obispo County Sanitation District (SSLOCSD) Trunk Main including within the District's boundaries as part of a capacity evaluation. Flow monitoring will be concluded in October/November. Although this study is concatenated on the SSLOCSD trunk main it may be helpful in identifying high-flow areas within the District. Once complete this information should be reviewed with District staff to identify the need for additional flow monitoring within the District.

District staff have not indicated areas within the system where surcharging manholes have been observed during peak flow time periods. In addition, significant growth within the District is not anticipated. Based on these parameters and the timeline of the project, MKN does not see the need for flow monitoring to be performed as part of this project. This will be reevaluated following the SSLOCSD trunk main evaluation. However, if during the kickoff meeting/ workshop it is determined that flow monitoring would be beneficial in developing near-term CIP projects MKN can proceed with this optional task as outlined below.

MKN is currently providing flow monitoring along the SSLOCSD Trunk Main as part of a capacity evaluation



MKN will install temporary flow monitoring equipment and provide maintenance and data collection for a total of 5 temporary monitors and 1 rain gauge for a total of 14 days in January or February to capture wet weather flows. Typically, dry weather flows would also be measured; however, sufficient time is not available within this project to perform this task. MKN will review and analyze flow monitoring and rainfall data to determine minimum, average, and peak wet weather flow rates for each of the monitoring locations. These flows will be compared with calculated peak dry weather flow rates using water billing data to identify areas of possible large I&I flows.

Deliverables:

- *One (1) electronic PDF copy of Summary Flow Monitoring report*

OPTIONAL Task 2.5 | Cleaning Operations Prior to CCTV

Cleaning of gravity sewer segments prior to CCTV is required to mitigate the risk of a failed video due to obstructions and to obtain a clear picture of the pipe and condition. District staff has equipment to perform this cleaning in-house however the District may elect to have this cleaning done by NPS.

If selected, cleaning and inspection operations procedures will be completed by segment area starting at the highest point and proceeding to the lowest point in the segment. NPS's cleaning truck will be set up at the downstream manhole and will clean upstream until all debris is removed. NPS has a variety of nozzles to handle any type of debris. NPS will use the appropriate nozzles necessary based on the sewer line condition and debris levels. Cleaning crews will maintain debris logs noting the amount and composition of debris removed.

It is assumed that all sewer lines will be cleaned and inspected while in service, and with no bypass. It is also assumed debris removed from the sewer lines can be deposited at the SSLOCSD WWTP. If a bypass is required due to high-flow levels, or submerged pipe, MKN can provide optional bypass pricing.

The requirements for sewer cleaning will be discussed fully with the District at the kickoff meeting. Cleaning will be completed in advance of CCTV work, but within a narrow window to prevent additional buildup from occurring before inspection takes place. NPS will clean the sewer lines until cleaned to the satisfaction of the District.

It is assumed that any debris removed from the sewer pipes will be disposed of at the South San Luis Obispo County Sanitation District WWTP.

Assumptions:

- Cleaning performed at time of CCTV inspection.
- Fees related to disposal of solids to be paid by District.

3 TASK 3 Project-Priority Map

Task 3.1 | Draft High-Priority Project List and Project-Priority Map

MKN will review the pipeline inspection reports prepared by NPS (Task 2.1) to identify segments requiring rehabilitation or replacement and define individual projects. In addition, MKN will identify specific projects to address known system deficiencies such as improvements to Pier Avenue Lift Station, 8th Street sewer with several known bellies, and areas with known root intrusion along Tierra Nueva.

MKN will use a prioritization scoring method, approved by the District, to rank each project. The scoring method will be based on:

Likelihood of Failure

This condition would rate facilities based on pipe diameter (from District Atlas and/or as-builts), peak-hour flow hydraulic-capacity deficiencies (based on observed conditions), structural defect rating (based on pipeline video survey and manhole inspections), pipeline age (based on as-built plans or other source), and maintenance history (based on District information).

Consequence of Failure

This condition would rate facilities based on potential peak-hour flow spill volumes during a sanitary sewer overflow (SSO) event, access constraints and location of facility to repair, proximity to waterways, and proximity to high-traffic areas.

Cost of Failure

This condition would rate facilities based on the social and environmental costs (e.g., remediation, fines, etc.), in addition to the cost of the required repair.

These rankings will be used to identify projects as high-, medium-, or low-priority. High-priority projects will include those that are recommended to be performed within the next three years. Medium-priority projects would be recommended within 10 years and low-priority projects would be recommended to be completed beyond the next 10 years.

Color-coded maps will be created showing high-, medium-, and low-priority projects. Where possible MKN will group smaller projects into logical construction projects. Grouping segments into larger projects will help to reduce costs and impacts on the public and will speed the construction delivery.

Costs for each project will be developed to accompany the draft priority lists (see Task 5). Costs will be more developed for high-priority projects to inform the 2025 rate study.

The draft prioritization list, project costs, and color-coded maps will be the focus of the second workshop identified in Task 3.2.

Assumptions:

- Up to 20 projects will be identified.

Deliverables:

- *One (1) electronic PDF copy of Draft Project-Priority List and Project-Priority Map*

Task 3.2 | Project-Priority Review Workshop

MKN will meet in-person to review the following:

- Findings of field investigations
- Identified CIP projects with emphasis on high-priority projects
- Ranking of CIP projects

Task 3.3 | Final High-Priority Project List and Project-Priority Map

Following the Project-Priority Review Workshop MKN will incorporate District comments and finalize the project-priority list, project costs, and associated maps.

Deliverables:

- *One (1) electronic PDF copy of Final Project-Priority List and Project-Priority Map*

OPTIONAL Task 3.4 | GIS-Based Project-Priority Map

The data collected from the inspections and reviews shall be entered into a computer database program and provided to the District. The database will be structured/designed such that its usefulness extends beyond the preparation of this CIP and can be linked to other databases and maps developed by the District in the future.

Deliverables:

- *One (1) electronic PDF copy of Final Project-Priority List and Project-Priority Map*

TASK 4

4 Engineering Analysis and Recommendations Report

Task 4.1 | Capital Improvement Plan

Using the developed project-priority list MKN will develop a 10-Year capital improvement plan (CIP). The CIP will be based on project-priority list, estimated construction costs, and District budgets to develop a sustainable dynamic multiyear CIP. As part of this effort MKN will provide a tool to use in managing the CIP. An example of this is provided in Section 3.

Deliverables:

- *One (1) electronic Excel copy of CIP tool*

Task 4.2 | Funding Source Identification and Funding Plan

MKN's sub consultant, Rincon, will review the projects proposed in the Sanitary Sewer CIP; research available federal, state, regional, and private grants and low-financing loans; and cross-walk those funding opportunities with the key projects in need of funding. Potential funding sources may include, but would not be limited to, the State Water Resources Control Board's Clean Water State Revolving Fund, IBank's Infrastructure State Revolving Fund, USDA's Rural Development Water and Waste Disposal Loan and Grant Program and Community Facilities Direct Loans and Grants Program, the United States Department of Housing and Urban Development's Community Development Block Grant, and the Federal Emergency Management Agency's Flood Mitigation Assistance and Building Resilient Infrastructure and Communities programs.

! Rincon's funding team has developed grant applications securing nearly $100 million for water/wastewater districts, municipalities, and public utilities. Rincon is familiar with the District and District staff through their recent work on federal and state environmental compliance efforts for waterline improvement projects.

Rincon will prepare a brief Funding Plan that will outline known funding programs in relation to priority Sanitary Sewer CIP projects and recommendations for pursuit of one or more funding opportunities based on project type and status. For recommended funding opportunities, Rincon will identify eligibility and submittal requirements, including any supporting materials (e.g., feasibility study, design, California Environmental Quality Act/National Environmental Policy Act documentation) that would need to be prepared for a complete application.

Deliverables:

- *One (1) electronic PDF copy of Funding Plan Technical Memorandum*

Task 4.3 | Administrative Draft Engineering Analysis and Recommendation Report

MKN will prepare an Administrative Draft Engineering Analysis and Recommendation Report for the proposed CIP. This report will summarize findings of all efforts identified in this proposal. The report will summarize the following:

- CCTV inspections
- Manhole inspections
- Development of prioritization ranking
- Identified projects and total cost
- CIP
- Potential outside funding sources
- Project Information Sheets in Report Appendix (See Task 5)

Deliverables:

- *One (1) electronic PDF copy of Administrative Draft Engineering Analysis and Recommendation Report.*

Task 4.4 | Administrative Draft Engineering Analysis and Recommendation Report Workshop

MKN will meet in person or by MS Teams to discuss staff comments on Administrative Draft Report.

Task 4.5 | Draft Engineering Analysis and Recommendation Report

MKN will incorporate comments received during the draft report meeting and prepare a draft report for presentation to the Board.

Deliverables:

- *One (1) electronic PDF copy of Draft Engineering Analysis and Recommendation Report*

Task 4.6 | Board Meeting Presentation

MKN will present a summary of the Draft Engineering Analysis and Recommendation Report to the District Board.

Task 4.7 | Final Engineering Analysis and Recommendation Report

Following the District Board meeting, MKN will receive consolidated draft report review comments for incorporation into the final report. Review comments will be addressed and the report will be provided to the District for review. Additional District review comments (if any) will be incorporated and the report will be finalized.

Deliverables:

- *One (1) electronic PDF copy of Final Engineering Analysis and Recommendation Report*

OPTIONAL Task 4.8 | Funding Tracking and Application Support

Rincon can also provide funding tracking application support to the District for Sanitary Sewer CIP projects. A Funding Matrix would be developed that identifies funding programs, available funds, project partnerships, schedules for application and award of funds, and website links for applicable grants. Regular meetings with District staff can be scheduled to review upcoming funding opportunities and provide strategic advising and recommendations for which opportunities to pursue. If a funding program is identified that the District would like to pursue for a certain project(s), Rincon can prepare an application for the desired project(s). The process would generally involve gathering technical project information (e.g., design details, performance measures, cost estimate) and require supporting materials (e.g., letters of commitment/support, forms) from the District, drafting a technical proposal and evaluation criteria analysis, compiling materials into the grant-specific format, and submitting the grant application to the applicable agency upon District approval. A defined scope and fee for this task can be provided upon request following the completion of Task 4.2.

5 TASK 5
Engineer's Cost Estimate

Task 5.1 | Project Information Sheets

Individual project sheets will be created for each project showing:

- Project location: city, street type, alignment, and length
- Project description: pipe size, material, depth, justification for project
- Estimate of probable costs
- Design costs
- Administration costs
- Breakdown of Construction costs
- Engineering News Record Cost Index
- Project map
- Estimated construction year

Project sheets developed during Task 3.1 will be included in the appendix of the Engineering Analysis and Recommendation Report.

6 TASK 6
Project Management and QA/QC

Task 6.1 | Project Management

Overall project management, which includes supervision of in-house staff, planning and monitoring of contract budget and schedule, and coordination with the District will be conducted by the Project Manager.

Task 6.2 | QA/QC

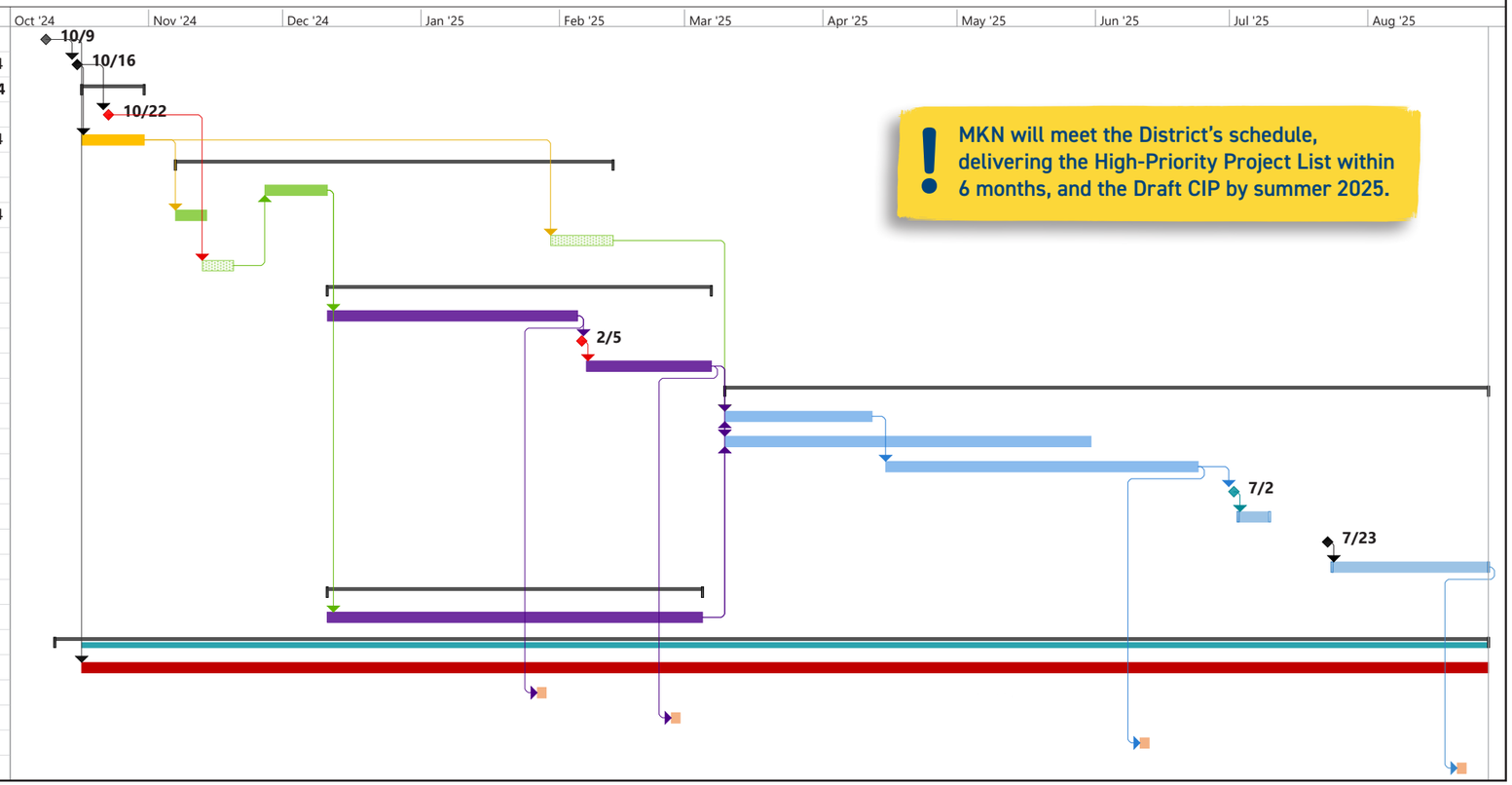
MKN will perform quality control reviews of all deliverables prior to submitting to the District. A Principal Engineer who is not involved in the day-to-day effort will perform an independent review of the project to verify project goals are being met and to confirm completeness of the project documents.

SECTION 5

SCHEDULE

Oceano Community Services District
Sanitary Sewer Capital Improvement Plan
Project Schedule

ID	Task Name	Duration	Start	Finish
1	District Board Award	0 days	Wed 10/9/24	Wed 10/9/24
2	Notice to Proceed	0 days	Wed 10/16/24	Wed 10/16/24
3	**Project Research**	**10 days**	**Thu 10/17/24**	**Wed 10/30/24**
4	Kickoff Workshop/Meeting	0 days	Tue 10/22/24	Tue 10/22/24
5	Data Review	10 days	Thu 10/17/24	Wed 10/30/24
6	**Field Investigations**	**70 days**	**Thu 11/7/24**	**Wed 2/12/25**
7	CCTV Inspection	10 days	Wed 11/27/24	Tue 12/10/24
8	Sanitary Sewer Manhole Inspections	5 days	Thu 11/7/24	Wed 11/13/24
9	Flow Monitoring (Optional)	10 days	Thu 1/30/25	Wed 2/12/25
10	Cleaning Prior to CCTV (Optional)	5 days	Wed 11/13/24	Tue 11/19/24
11	**Project-Priority Map**	**62 days**	**Wed 12/11/24**	**Thu 3/6/25**
12	Draft High-Priority Project List and Map	40 days	Wed 12/11/24	Tue 2/4/25
13	Project-Priority Review Workshop	0 days	Wed 2/5/25	Wed 2/5/25
14	Final High-Priority Project List and Project Map	20 days	Fri 2/7/25	Thu 3/6/25
15	**Engineering Analysis and Recommendations Report**	**123 days**	**Mon 3/10/25**	**Wed 8/27/25**
16	Capital Improvement Program	25 days	Mon 3/10/25	Fri 4/11/25
17	Funding Source Identification and Plan TM	60 days	Mon 3/10/25	Fri 5/30/25
18	Adninistrative Draft Engineering Report	50 days	Tue 4/15/25	Mon 6/23/25
19	Administrative Draft Report Review Workshop	0 days	Wed 7/2/25	Wed 7/2/25
20	Draft Engineering Report	5 days	Thu 7/3/25	Wed 7/9/25
21	Board Presentation	0 days	Wed 7/23/25	Wed 7/23/25
22	Final Engineering Report	25 days	Thu 7/24/25	Wed 8/27/25
23	**Engineer's Cost Estimate**	**60 days**	**Wed 12/11/24**	**Tue 3/4/25**
24	Project Information Sheets	60 days	Wed 12/11/24	Tue 3/4/25
25	**Project Management and QA/QC**	**229 days**	**Fri 10/11/24**	**Wed 8/27/25**
26	Project Management	225 days	Thu 10/17/24	Wed 8/27/25
27	Draft High-Priority Project List QA/QC Review	2 days	Mon 1/27/25	Tue 1/28/25
28	Final High-Priority Project List QA/QC Review	2 days	Wed 2/26/25	Thu 2/27/25
29	Draft Engineering Report QA/QC Review	2 days	Wed 6/11/25	Thu 6/12/25
30	Final Engineering Report QA/QC Review	2 days	Thu 8/21/25	Fri 8/22/25



APPENDIX A
RESUMES

Mr. Reichmuth brings over 25 years of design and field engineering experience with an emphasis in pipeline design, ranging from condition assessment and rehabilitation to planning and design. Mr. Reichmuth has also been involved with the design and assessment of over 30 lift stations within the last 16 years. Pipeline design experience includes several force main and trunk main designs including those with various trenchless construction methods, such as horizontal directional drilling, jack-and-bore, cured-in-place pipe and pipe bursting.

JJ REICHMUTH, PE
PROJECT MANAGER

EDUCATION

BS, Civil Engineering, California Polytechnic State University, San Luis Obispo, CA

LICENSES & REGISTRATIONS

Professional Civil Engineer, CA No. 63124

Cured-in-Place Pipe (CIPP) Certified, NASSCO ITCP

Manhole Rehabilitation Certified, NASSCO ITCP

PROFESSIONAL ASSOCIATIONS

American Society of Civil Engineers (ASCE)

North American Society for Trenchless Technology (NASTT)

Relevant Experience

Lift Station Condition Assessment (4 Lift Stations) | Atascadero, CA

Project Engineer for condition assessment of 4 lift stations for the City of Atascadero. Lift stations were selected to update previously identified projects in the 2015 Master Plan for future panning and budgeting. Efforts included development of a standard condition assessment form, field evaluation of all lift stations, preparation of observations and condition ratings, and opinion of constriction cost for recommended improvements.

Lift Station Condition Assessment (6 Lift Stations) | Camrosa Water District, Camarillo, CA

Project Engineer for condition assessment of 6 lift stations for the Camrosa Water District to be used for development of a Near-Term Capital Improvements Program. Efforts included field evaluation of all lift stations and preparation of observations and condition ratings. Results were used to establish future projects based on prioritization ranking and collaboration with District operations staff.

Lift Station Condition Assessment (12 Lift Stations) | South Coast Water District, Laguna Beach, CA

Project Engineer for condition assessment of 12 lift stations for South Coast Water District. Efforts included development of a standard condition assessment form, field evaluation of all lift stations, preparation of observations and condition ratings, and uploading data and form into online ArcGIS platform. Results were used to establish over 160 projects and a 10-year implementation plan based on prioritization ranking and collaboration with District operations staff.

Selma-Kingsburg-Fowler Collection System Cleaning and CCTV Inspection | Fowler, CA

Technical Advisor. Project included cleaning and inspection of gravity sewer pipe and development of a 5-year CIP to address collection system deficiencies identified and stay within the District's long-term budgeting guidelines. A dynamic grading system was developed to allow additional projects to be inserted as they are identified, and budgets easily reassessed.

JJ REICHMUTH, PE
Relevant Experience (Cont.)

Arroyo Grande Highway 101 Sewer Crossing Rehabilitation Project | Arroyo Grande, CA

Project Engineer. Developed construction documents for the rehabilitation of 800 feet of aging sewer main for the City of Arroyo Grande including under Highway 101 and through the Arroyo Grande Cemetery. The existing sewer line crossing under Highway 101 was cast iron pipe showing signs of corrosion during recent CCTV inspection. Due to its location MKN proposed the use of cured-in-place pipe (CIPP) to provide the City with a new sewer line without construction of a new crossing. Construction phase services were also performed for the City.

Outfall Sewer Manhole Assessment Project | North of River Sanitation District, Bakersfield, CA

Project Engineer for the ongoing multiple phase project that included investigation and condition assessment of manholes along the District's 17 mile outfall sewer, manhole rehabilitation recommendations, development of construction documents and bid phase services. Work included review of field investigation reports, compilation and analysis of field data, generation of the Outfall Sewer Manhole Assessment report, recommendations to the District, and design and development of construction documents.

Sewer Rehabilitation CIP Development | Channel Islands Beach Community Services District, Channel Islands Harbor, CA

Quality Assurance/Quality Control (QA/QC) Lead. Developed rehabilitation plan based on review of CCTV and inspection results. Prepared 5-Year CIP based on identification and grouping of priority rehabilitation projects, and conceptual cost estimates. Projects include cured-in-place pipe (CIPP) liners, spot repair projects, and manhole rehabilitation. Estimated construction is $750,000.

Sewer Master Plan | Grover Beach, CA

Project Engineer. Project consisted of a condition assessment and capacity evaluation of the City of Grover Beach sewer collection system. Provided evaluation of existing gravity pipelines, lift stations, and force mains and assisted in development of a Capital Improvements Program and cost opinions for existing and future improvements.

Downtown Master Sewer Study | Bakersfield, CA

Project Engineer. The goal of Downtown Master Sewer Study was to develop a comprehensive collection system evaluation report (including updated GIS mapping) of the existing sewer collection system within the Downtown Bakersfield area in support of the Downtown Vision Plan and other potential future development within the Study Area. Provided condition assessment of existing lift stations and a limited number of sewer manholes within Study Area and developed Capital Improvements Program and cost opinions for existing and future improvements.

Sewer Upgrade Project for Existing Flows (CIP 5002) | City of Grover Beach, CA

Project Engineer. Project consists of replacement of approximately 5,700 linear feet of sewer pipeline with larger diameter sewer lines to accommodate existing and anticipated future peak flows. The sewer pipelines traverse residential and commercial areas, some through highly trafficked areas, and transport a large portion of the City's sewer flows. MKN prepared a preliminary design to evaluate existing utilities, feasibility for pipe bursting, method of replacement, bypassing, traffic control, etc., and provided design recommendations and preliminary alignments. MKN developed construction documents and an opinion of probable construction cost for public bidding, and provided office engineering services during the bid and construction phases. Additionally, MKN developed and led a contractor prequalification process prior to bidding.

Two Lift Stations and Trunk Sewer Main Replacement | Guadalupe, CA

Project Engineer. Project to replace two City sewer lift Stations and force mains involving a variety of challenges such as property acquisition, proximity to residences, constrained site access, traffic impacts and the need for temporary operations to maintain continuous service throughout the construction duration.

Arroyo Grande Creek Sewer Rehabilitation Project | Arroyo Grande, CA

Project Engineer. Developed construction documents for the rehabilitation of 2,400 feet of aging sewer main for the City of Arroyo Grande. Due to the close proximity of the sewer main to the Arroyo Grande Creek, cured-in-place pipe (CIPP) was proposed. Construction phase services were also performed for the City.

Arroyo Grande Manhole Rehabilitation Project | Arroyo Grande, CA

Project Engineer. Provided a condition assessment on 12 concrete manholes located downstream of a force main discharge location. Developed rehabilitation construction documents and performed construction observation.

JJ REICHMUTH, PE
Relevant Experience (Cont.)

Eastside Force Main Project | Templeton Community Services District, Templeton, CA

Project Manager. Designed and prepared construction documents for two sewage lift stations. The new lift stations diverted flow currently being conveyed to the City of Paso Robles to the District's Meadowbrook WWTP. Design included two lift stations consisting of solids-handling submersible pumps, rehabilitation of an existing lift station, and a total combined force main length of over 2.5 miles. The force main included three creek crossings and crossing under Highway 101. In addition to open cut trenching of the force main the design included HDD and jack and bore construction techniques. Managed construction phase services including submittal reviews, RFI responses, progress payment reviews, and field observations.

Highland Way Sewer Line Project | Grover Beach, CA

Project Manager. Developed construction documents for installation of 1,300 linear feet of new sewer line for the City of Grover Beach. This new extent of the sewer collection system is intended to service customers within the City limits and to eliminate on-site wastewater disposal systems. Project included coordination with proposed construction plans for future development along the alignment.

Lift Station #3 Upgrade | Arroyo Grande, CA

Project Manager. Designed and prepared construction documents for retrofitting an existing dry-pit/wet-pit sewage lift station to a duplex submersible pump sewage lift station. The new lift station contains two submersible solids-handling pumps on variable frequency drives, capable of pumping a peak flow of 315 gpm.

Frontage Road Trunk Sewer Replacement | Nipomo CSD, Nipomo, CA

Project Engineer. The Nipomo CSD Wastewater Master Plan recommended replacement of the Frontage Road Trunk Sewer to accommodate future sewer flows. MKN was retained to develop the design and cost opinion and provide construction documents (plans and specifications) for public bidding. The project consists of replacing over 4,800 linear feet of sewer and includes a 370-LF pilot-tube guided bore under a busy intersection adjacent to and through CalTrans Highway 101 right-of-way. MKN prepared the design, prepared a contractor prequalification package, and assisted the District with encroachment permits from San Luis Obispo County and CalTrans. Services will include engineering support during bidding and office engineering during construction.

Lift Station No. 1 Force Main Replacement Project | Arroyo Grande, CA

Project Engineer. Designed and prepared construction documents for over 3,000 feet of force main. The new force main replaces a 60-year-old failing steel force main. The project is situated along the City's busiest commercial and shopping area so the use of horizontal directional drilling (HDD) was proposed to limit traffic interruptions and impacts to adjacent businesses. In addition, an alternative discharge location was identified to eliminate the requirement for crossing Highway 101.

Lift Station No. 13 Replacement Project | Atascadero, CA

Project Manager/Engineer. The City's 2015 Wastewater Collection System Master Plan identified Lift Station No. 13 to be in need of upgrades to meet future demands and mitigate downstream odor issues. The City decided to replace the lift station in its entirety and re-route the force main. Project elements included design of a new submersible pump lift station on an adjacent property and 2 miles of new force main. Due to the topography of the force main alignment a surge analysis was performed and it was recommend a portion of the alignment be installed via HDD to eliminate an intermediate high spot on the force main profile.

Lift Station Rehabilitation Project | Pismo Beach, CA

Project Engineer. Developed construction documents for the rehabilitation of five sewage lift stations for the City of Pismo Beach, including modifications to piping, replacement of submersible pumps, coating of pipes and equipment, protective concrete coatings, and upgrades to electrical controls Construction cost opinions for the work were also developed.

Los Olivos Wastewater Preliminary Engineering Report | Santa Barbara County, CA

Served as Project Engineer to develop a draft engineering report with alternatives for collecting, treating, and disposing of or reusing wastewater from the Los Olivos community in Santa Barbara. Report addressed phasing, schedule, and capital and O&M costs.

Margarita and Foothill Lift Station Replacements | San Luis Obispo, CA

Project Engineer. Project to replace two City sewer lift Stations, involving a variety of challenges such as proximity to residences, constrained site access, traffic impacts and the need for temporary operations to maintain continuous service throughout the construction duration.

EILEEN SHIELDS, PE

PRINCIPAL-IN-CHARGE

EDUCATION

MS, Civil & Environmental Engineering, California Polytechnic State University, San Luis Obispo, CA

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

LICENSES & REGISTRATIONS

Professional Civil Engineer, CA No. 74757

PROFESSIONAL ASSOCIATIONS

American Society of Civil Engineers (ASCE)

Engineers Without Borders USA (EWB-USA)

Eileen Shields joined MKN in 2013, following seven years in water and wastewater engineering with other firms. She has extensive experience in water, wastewater, and recycled water projects, covering master planning, design of conveyance and treatment facilities, and construction phase services. Ms. Shields effectively develops projects from concept through construction, including alternatives evaluation, design, permitting, hydraulic modeling, civil site design, and cost estimation. Her work encompasses pipeline design, bid and construction assistance, contractor prequalification, planning and design of water supply and conveyance, wastewater treatment, collection system planning, process evaluation, and treatment plant design.

Relevant Experience

Sewer Upgrade Project for Existing Flows | City of Grover Beach, CA

Project Manager. Project consists of replacement of approximately 5,700 linear feet of sewer pipeline with larger diameter sewer lines to accommodate existing and anticipated future peak flows. The sewer pipelines traverse residential and commercial areas, some through highly trafficked areas, and transport a large portion of the City's sewer flows. MKN prepared a preliminary design to evaluate existing utilities, feasibility for pipe bursting, method of replacement, bypassing, traffic control, etc., and provided design recommendations and preliminary alignments. MKN developed construction documents and an opinion of probable construction cost for public bidding, and provided office engineering services during the bid and construction phases. Additionally, MKN developed and led a contractor prequalification process prior to bidding.

Frontage Road Trunk Sewer Replacement | Nipomo CSD, Nipomo, CA

Project Manager. The Nipomo CSD Wastewater Master Plan recommended replacement of the Frontage Road Trunk Sewer to accommodate future sewer flows. MKN was retained to develop the design and cost opinion and provide construction documents (plans and specifications) for public bidding. The project consists of design of over 4,800 linear feet of 15- and 18-inch sewer, including a 370-LF pilot-tube guided bore under a busy intersection adjacent to and through CalTrans Highway 101 right-of-way. MKN prepared the design, prepared a contractor prequalification package, and assisted the District with encroachment permits from San Luis Obispo County and CalTrans. Services will include engineering support during bidding and office engineering during construction.

Calle Joaquin and Laguna Lift Station Replacements | San Luis Obispo, CA

Project Engineer. Project to replace two City sewer lift stations, involving a variety of challenges such as a 750 foot horizontal directional drilled river crossing, high groundwater, traffic impacts and the need for temporary operations to maintain continuous service throughout the construction duration. Responsibilities included overseeing pump selection hydraulic analysis, development of civil site layout and coordination of plans and specifications with City purchased equipment, development of plans and specifications for public bid, bid analysis, submittal review, and office engineering during construction.

Wastewater Collection System Master Plan Update | Atascadero, CA

Project Engineer for update of collection system GIS, hydraulic model, infiltration/inflow study, lift station analysis, and development of capital improvement plan.

Wastewater Collection System and Treatment Plant Master Plan | Guadalupe, CA

Project Engineer. Project consisted of a condition assessment and capacity evaluation of the City of Guadalupe wastewater collection system and treatment plant. Tasks included

EILEEN SHIELDS, PE
Relevant Experience (Cont.)

evaluation of existing wastewater flow conditions, creation of a GIS-based hydraulic Sewer CAD model, preparation of GIS-based system atlas, identification of deficiencies under existing and future conditions, development of Capital Improvements Program (CIP) and cost opinions for existing and future improvements.

Blacklake Sewer Master Plan | Nipomo CSD, Nipomo, CA

Project Engineer. Project consists of a condition assessment and capacity evaluation of the Blacklake community sewer collection system and wastewater treatment facility. Specific responsibilities included evaluation of existing wastewater treatment facility equipment and processes; review of treated effluent water quality requirements and goals; review of existing and potential future salts management procedures; review of existing and potential future sludge management procedures; development of potential future treatment processes and evaluation of equipment alternatives; development of cost opinions for repair/replacement of existing collection system and treatment facility equipment and future improvement alternatives; development of cost opinions for potential future wastewater treatment and sludge processing equipment; development of capital improvements plan and recommendations.

WWTP Redundancy Project – Project Management Support | South San Luis Obispo County Sanitation District, Oceano, CA

Project Manager. Serving as an extension of District staff to provide Project Management Services for the District's WWTP Redundancy Project. Project includes construction of a redundant 5-MGD secondary treatment system consisting of two activated sludge aeration basins, a secondary clarifier, sludge thickening systems, a new blower and controls building, return activated sludge pump station, and support systems including piping, electrical, site work, flood proofing, and instrumentation. MKN developed the RFQ and RFP and led the procurement of construction management services and startup and commissioning services, assisted in completion of construction bidding documents with regard to permitting and federal funding requirements, led General Contractor prequalification, and is providing coordination of District Project consultants, coordination and support for grant and loan applications, review of and support for permitting compliance, and bid and construction phase project management services.

Wastewater Master Plan | King City, CA

Assistant Engineer. Prepared wastewater treatment plant master plan, reviewed plant performance and capacity, developed design criteria, determined recommended improvements, and evaluated alternatives for treatment process improvements and options for disposal and/or reuse of effluent.

Lift Station Evaluation, Mission Hills CSD | Lompoc, CA

Project Manager. Project consists of reviewing the capacity of an existing sewage lift station to handle the flows from three potential future development scenarios. Existing and future flow estimates were developed, existing pumping capacity was estimated, and improvement alternatives were provided, with planning-level cost opinions. MKN also assisted in wet well drawdown tests and prepared a summary of the testing results to evaluate apparent pumping rates.

Project Scoping Lift Station #2 Improvements | Port Luis Harbor District, CA

Project Engineer. Preliminary assessment and development of project scope and budgetary cost opinion for improvements to the District's sewage lift station #2. Project involves replacing aged suction lift pumps with submersible pumps, and installation/replacement of associated discharge piping, valves, controls, and electrical improvements.

South Frontage Road Trunk Sewer Replacement Project | Nipomo CSD, Nipomo, CA

Project Manager. Project included design of over 4200 feet of 24-inch trunk sewer replacement. Provided cost opinion, specifications and plans for public bid; bid phase services; and office engineering during construction.

Paso Robles River Road Sewer Upgrade – Construction Phase Services | Paso Robles, CA

Construction Observer. Performed construction observation services for installation of 36-in and a 30-in diameter sewer lines.

Project Scoping Lift Station #2 Improvements | Port Luis Harbor District, CA

Project Engineer. Preliminary assessment and development of project scope and budgetary cost opinion for improvements to the District's sewage lift station #2. Project involves replacing aged suction lift pumps with submersible pumps, and installation/replacement of associated discharge piping, valves, controls, and electrical improvements.

JOSH NORD, PE

QA/QC MANAGER

EDUCATION

BS, Civil Engineering, California State University, Fresno, CA

LICENSES & REGISTRATIONS

Professional Civil Engineer, CA No. 61789

PROFESSIONAL ASSOCIATIONS

American Public Works Association (APWA), Kern Branch (Past President)

American Society of Civil Engineers (ASCE)

Josh Nord has been analyzing, designing, and providing quality control reviews for water and sewer infrastructure projects for over 26 years. Josh's design and quality control expertise covers treatment infrastructure, conveyance infrastructure (pumps and transmission mains), raw water facilities, and distribution and storage systems for municipalities, utilities, large-scale agricultural operations, and State Special Districts. Mr. Nord's experience includes wellhead treatment, pressurized water conveyance systems (e.g., lake intake pump stations, intermediate booster stations, and associated transmission mains), and open canal conveyance systems. Mr. Nord provides quality-related input to MKN's design teams from project initiation through bid package submittal.

Relevant Experience

Downtown Master Sewer Study | City of Bakersfield Public Works Department, Bakersfield, CA

Project Manager. Preparation of a comprehensive master sewer study for Downtown Bakersfield. The analysis includes building a hydraulic model, surveying 450 key manholes, performing flow monitoring, performing condition assessment (manholes and lift stations) and analyzing impacts of growth in order to identify capital projects and triggers.

Outfall Sewer Rehabilitation Study | North of River Sanitary District No. 1, Bakersfield, CA

Principal-in-Charge. Preparation of the Outfall Sewer Rehabilitation Study. The Study included the analysis and definition of rehabilitation methods for the 60- to 84-inch diameter manholes located along the District's 18.5-mile long outfall sewer many of which were in various states of disrepair due to high hydrogen sulfide levels in the sewer. Work tasks included identifying critical manholes, performing field evaluations of the manhole condition (including coring for strength and chemical testing), ranking the manhole condition to identify priorities, and recommending a 10-year capital improvement plan to implement the recommended rehabilitation methods. Various methods were identified based on the type and nature of defects found.

Regional Wastewater Treatment Plant Feasibility Study | East Niles Community Services District, Bakersfield, CA

Project Manager. The Study included the analysis of the collection and treatment components required to provide service to the District's Sphere of Influence. Several alternatives were developed including a stand-alone plant and plant construction in conjunction with partners. The study was used by the Board to evaluate options for entering into wastewater treatment and disposal services.

Sanitary Sewer Management Plan | East Niles Community Services District, Bakersfield, CA

Project Manager/Project Engineer. Preparation of the District's Sanitary Sewer Management Plan. Work included summarizing regulatory requirements and preparing compliance and reporting processes related to sanitary sewer overflows.

Sewer Master Plan Update | City of Tehachapi, Tehachapi, CA

Project Manager. Project consisted of a condition assessment and capacity evaluation of the City of Tehachapi sewer collection system. Specific responsibilities included evaluation of existing gravity pipelines, lift stations, and force mains; creation of a GIS-based hydraulic sewer model, preparation of GIS-based system atlas, development of potential future requirements and evaluation of equipment alternatives; identification of deficiencies under existing and future conditions; and development of Capital Improvements Program and cost opinions for existing and future improvements.

JOSH NORD, PE
Relevant Experience (Cont.)

Urban Water Management Plan (2000, 2005, 2010, and 2015) | East Niles Community Services District, Bakersfield, CA

Project Manager/Project Engineer. Preparation of the District's Urban Water Management Plan. Work included preparing projections for supply, consumption, and best management practices.

Urban Water Management Plan Peer Review | City of Delano, CA

Project Manager during the peer review of the City's 2015 Urban Water Management Plan. Services included reviewing the document against State requirements and presenting an overview of the UWMP to a local water oversight committee.

Water Master Plan | East Niles Community Services District, Bakersfield, CA

Project Engineer. Work included evaluating the existing infrastructure (water sources, pump stations, storage, and pipelines) and identifying additional facilities that would be needed to serve the District at build-out. The work included preparing cost opinions for the improvements as well as phasing recommendations.

Water System Master Plan Update | City of Tehachapi, CA

Project consisted of a condition assessment and capacity evaluation of the City of Tehachapi water distribution system. Specific responsibilities included evaluation of existing water production, storage, and distribution facilities; creation of a GIS-based hydraulic water model, preparation of GIS-based system atlas, and review of water quality requirements and goals; development of potential future requirements and evaluation of equipment alternatives; identification of deficiencies under existing and future conditions; and development of Capital Improvements Program and cost opinions for existing and future improvements.

Build-out Evaluation | City of Tehachapi, CA

Technical Lead. Preparation of an analysis of the City of Tehachapi's current demands and build-out demands based on City General Plan and other specific planning documents. The analysis compared the City's existing supplies and treatment plant capacity against the projected demands and identified triggers for implementing expansions.

District Lift Station | City of Bakersfield Public Works Department, Bakersfield, CA

Project Manager/Project Engineer. Preparation of a sewer lift station study comparing the feasibility of repairing/rehabilitating the existing lift station versus constructing a new parallel lift station. The study analyzed the condition of existing facilities (i.e., liners, air handling equipment, pumps, and piping) as well as operational concerns voiced by the City (i.e., bar screen cleaning methodologies, odor control issues). The study suggested the facility can be more economically repaired/rehabilitated in place pending additional study of the concrete integrity.

Fernvale Sewer Relocation (Phases 1 and 2) | East Niles Community Services District, Bakersfield, CA

Project Manager. Preparation of plans, specifications, and estimates for a sewer line abandonment and multiple tie-ins to an adjacent trunk sewer. Services included assistance with locating the existing on-site sewers, identifying routes through congested properties, and identifying abandonment requirements. MKN staff provided design, bidding, and construction phase services.

McCutchen Lift Station Study | City of Bakersfield Public Works Department, Bakersfield, CA

Project Manager/Project Engineer. Preparation of a sewer lift station study identifying potential modifications to be made to the existing 20-MGD lift station in order to reduce maintenance costs associated with bar screen clogging, scum formation, and pump clogging. The study suggested several minimal cost alternatives to current operations that should significantly reduce effort associated with the target maintenance issues.

Jon Hanlon, after over 20 years of serving as project engineer, project manager, and ultimately as an operations manager for a Fortune 500 consulting engineering firm, joined Michael K. Nunley and Associates, Inc. (MKN) specializing in water, wastewater, and water reuse engineering for public agencies. As a Principal Engineer at MKN, Mr. Hanlon's experience has included design, analysis, and management of complex multi-disciplined projects, including water and wastewater treatment facilities, pump stations, production wells, piping and valves, hydraulic analysis, master planning, and environmental permitting.

JON HANLON, PE

TECHNICAL RESOURCE

EDUCATION

BS, Mechanical Engineering, California Polytechnic State University, San Luis Obispo, CA

LICENSES & REGISTRATIONS

Professional Mechanical Engineer, CA No. 33232

Certified Coating Inspector, AMPP No. 10431924

PROFESSIONAL ASSOCIATIONS

American Public Works Association (APWA)

American Society of Mechanical Engineers (ASME)

American Water Works Association (AWWA)

Relevant Experience

Wastewater Collection System and Treatment Plant Master Plan | Guadalupe, CA

Project Manager. Project consisted of a condition assessment and capacity evaluation of the City of Guadalupe wastewater collection system and treatment plant. Tasks included evaluation of existing wastewater flow conditions, creation of a GIS-based hydraulic Sewer CAD model, preparation of a GIS-based system atlas, identification of deficiencies under existing and future conditions, development of Capital Improvements Program (CIP), and cost opinions for existing and future improvements.

Water Master Plan Update | Guadalupe, CA

Water Resource Planner. Project consisted of a capacity evaluation of the City of Guadalupe water distribution system. Specific responsibilities included evaluation of existing water production, storage, and distribution facilities; creation of a GIS-based hydraulic water model, preparation of GIS-based system atlas, review of water quality requirements and goals; development of potential future requirements and evaluation of equipment alternatives; identification of deficiencies under existing and future conditions; and development of Capital Improvements Program (CIP) and cost opinions for existing and future improvements.

Hydraulic Model Update and Calibration | Cambria CSD, Cambria, CA

Project Engineer. Project to develop and calibrate a District-wide hydraulic model to assist the District in identifying deficiencies in the water distribution system. Deficiencies in delivery and fire protection were identified through the modeling, allowing the District to develop and prioritize capital improvement projects (CIPs).

Infrastructure Condition Assessments | Camrosa Water District, Camarillo, CA

Project Engineer. Performed Condition Assessment of 31 District Tanks, Groundwater Wells, and Pump Stations to develop priority-based CIP and conceptual cost estimates. Work included preparation of field investigation reports, compilation and analysis of field data, generation of the Assessment Report, and developing recommendations to the District for prioritization of recommended improvements.

Water Master Plan | City of Grover Beach, CA

Project Engineer. Project consisted of a condition assessment and capacity evaluation of the City of Grover Beach water distribution system. Specific responsibilities included evaluation and condition assessment of existing water production, storage, and distribution facilities; development of potential future requirements and evaluation of equipment alternatives; development of Capital Improvements Program (CIP); and cost opinions for existing and future improvements.

JON HANLON, PE
Relevant Experience (Cont.)

18th Street Lift Station Replacement Project | Selma-Kingsburg-Fowler County Sanitation District, CA

Project Engineer. Project to replace an existing lift station that was constructed in the 1940's as the headworks structure to the previous WWTP. Project elements included design of a new submersible lift station and pumps, odor control facilities, force main, removal of existing wet well and concrete block building structures, installation of piping, and installation of new generator, electrical, SCADA, and motor control center.

East Side Lift Stations and Force Main | Templeton CSD, CA

Project Manager. Project to develop a Preliminary Design Report evaluating the technical and economic feasibility of collecting and conveying all wastewater from within the District to the District's Meadowbrook Wastewater Treatment Plant. In order to capture flows currently conveyed outside District boundaries and redirect them south to the District's facilities, it is anticipated that significant capital improvements including two new lift stations and 13,000 feet of new force main must be designed and constructed.

Calle Joaquin and Laguna Lift Station Replacements | San Luis Obispo, CA

Project Manager. Project to replace two City sewer lift Stations, involving a variety of challenges such as a 750 foot horizontal directional drilled river crossing, high groundwater, traffic impacts and the need for temporary operations to maintain continuous service throughout the construction duration. The complex project also includes designing 2500 feet of force main, an inverted siphon crossing under U.S. Highway 101, and full CEQA and environmental permitting compliance.

Main Street Sewer Capacity Analysis | Cayucos Sanitary District, CA

Project Manager. Estimated hydraulic capacity and evaluated project alternatives to increase capacity in the sewer trunk main that receives flows from the Cayucos Sanitary District.

Margarita and Foothill Lift Station Replacements | San Luis Obispo, CA

Project Manager. Project to replace two City sewer lift Stations, involving a variety of challenges such as proximity to residences, constrained site access, traffic impacts, and the need for temporary operations to maintain continuous service throughout the construction duration.

Two Lift Stations and Trunk Sewer Main Replacement | Guadalupe, CA

Project Manager. Project to replace two City sewer lift Stations and force mains, and over 3300 feet of 18 and 24-inch gravity sewer pipe. The project involved a variety of challenges such as property acquisition, proximity to residences, constrained site access, traffic impacts and the need for temporary operations to maintain continuous service throughout the construction duration.

Wastewater Treatment Facility Equipment and Process Optimization | Oxnard, CA

Project Engineer. Reviewed existing Wastewater Treatment Facility (WWTF) equipment and processes for a 22-MGD plant, including primary sedimentation tanks, biotowers, activated sludge treatment, secondary sedimentation tanks, chlorination/dechlorination, primary sludge treatment, dissolved air flotation, anaerobic digesters, and belt filter presses.

Wastewater Treatment Facility Expansion | Santa Maria, CA

Principal-in-Charge. Project included constructability review and construction management of a $16+ million WWTF expansion (from 9.5-MGD to 13.5-MGD), including construction of additional screening, grit chamber and screw conveyor, primary clarifier, primary trickling filter, digester, control building, and percolation pond pump station. Project also includes significant modifications to existing facilities.

Sewer Pipeline Improvements | Cayucos Sanitary District, CA

Project Manager. Project to design and provide construction management services for replacement of 3,500 feet of sanitary sewer pipeline.

Inflow and Infiltration Study | Cayucos Sanitary District, CA

Project Manager. This study determined sources and locations of sewer collection system inflow and infiltration to coordinate with maintenance and replacement program.

Mr. Norgaard is a Senior Engineer and Project Manager with extensive experience managing capital improvement projects for wastewater treatment plants and recycled water and wastewater collection systems. Kevin has over 36 years experience in managing condition assessment, repair and rehabilitation projects in wastewater treatment and collection systems. Kevin has extensive experience in managing master plans as well as acting as plant engineer for wastewater treatment plants and digester facilities.

KEVIN NORGAARD, PE

TECHNICAL RESOURCE

EDUCATION

BS, Mechanical Engineering, California State University, Fresno, CA

LICENSES & REGISTRATIONS

Professional Mechanical Engineer, CA No. 27654

Pipeline Assessment Certification Program (PACP), NASSCO

Certification of Air Permitting Professionals (CAPP), No. 1078

PROFESSIONAL ASSOCIATIONS

California Water Environment Association (CWEA)

Water Environment Federation (WEF)

Relevant Experience

Sewer Collection System Improvements | Fresno, CA

Acting as Supervising Professional Engineer he managed the city's wastewater technical services division, consultants and construction management teams. The projects included of over 65 individual projects of pipe, manholes, diversion structures and lift stations. Projects were designed by city staff or consultants. Projects included replacement, rehabilitation, and new installations.

Headworks Coating Repair & Gate Installation Design Build | Fresno, CA

Acting as Project Manager he supervised the RFP design staff, managed procurement process, coordinated with special inspections and supervised inhouse construction manager. This City of Fresno project bypassed the 80 mgd headworks building, repaired rebar damage, removed and replaced failed coatings and concrete and installed two new slide gates. The first key to success of this project was proactively developing repair methods for missing rebar, concrete and coatings and including them in the bid package and second, the ability to investigate corrosion damaged structural members, coatings and concrete after the bypass was in place and determine extent of repairs required.

Phase 2A WWTP | Gunner Ranch Incorporated, Madera, CA

Construction Manager. He acted as the construction manager $5.82 million-dollar installation of a 0.25 mgd wastewater treatment plant and effluent percolation ponds. He coordinated with the special inspections and specialty inspections (ie Pond Liner).

Collection System Cleaning and CCTV Inspection | Selma-Kingsburg-Fowler CSD, Fowler, CA

Acting as project engineer, he directed the cleaning operations and is developing a 5-year CIP to address collection system deficiencies identified and stay within the District's long term budgeting guidelines. He is developing a dynamic grading system to allow additional projects to be inserted as they are identified, and budgets easily reassessed.

PP7-1 Low-flow Efficiency Improvements | Westlands Water District, Tranquility, CA

Construction Manager. He is acting as the construction manager for the $1.8 million-dollar canal diversion structure modification, installation of 350-hp vertical turbine pump, electrical service, and controls.

Southland WWTP Screw Press Project | Nipomo CSD, Oceano, CA

Project Engineer. He prepared the preliminary design report and Final design documents to add a new screw press in series with an existing gravity belt thickener. He included a provision to bypass the existing GBT to save operational costs.

KEVIN NORGAARD, PE
Relevant Experience (Cont.)

Wastewater Trunk Line Upsize Along Olson Ave to WWTP & Headworks Improvement | Reedley, CA

Acting as Technical Lead and Project Engineer, he designed the replacement of an existing 21" sewer main including an inverted siphon. The new 36" sewer alignment avoided the need of a siphon. The project included 2 structures with non-rising stem stainless steel slide gates. Additionally, the WWTP headworks lift station was rehabilitated by repairing concrete damage.

Valley Children's Hospital Rio Vista Pipeline and Well Improvements | Madera, CA

Construction Manager for the $1.46 million-dollar project consisting of the installation of 1600 LF of 10" PVC Water transmission main, and modifications necessary to convert an irrigation well to a potable water well. The transmission main alignment included a 225' elevation gain through steep terrain.

Digesters 3, 4 and 7 Rehabilitation | Fresno, CA

Acting as the City of Fresno's Project Manager coordinating the design, managed the bidding process, special inspections, and construction management. The project consisted of removing the existing floating metal covers, removing the existing coatings, installing new coatings, installing 2 new metal digester covers and installing a new double membrane digester cover. These digesters varied in size from 925,300-1,144,500 gallons. The existing coatings and metal covers had failed. The key to success in this project was requiring qualified coatings contractor and the use of a specialty coatings inspector.

D-4 Lift Station Improvements | Selma-Kingsburg-Fowler CSD, Kingsburg, CA

Acting as the Construction Manager he managed the replacement of the existing lift station. The project included a new wetwell with (3) 1200 GPM pumps, electrical and controls building, metering vault, valve vault, demolition of the existing lift station and the installation of a new 600-foot force main.

Organic Upgrade | Fresno, CA

Acting as the City of Fresno's Project Manager coordinating the design, managed the bidding, special inspections, and construction management. The City of Fresno Organic Upgrade included the Construction of $105,000,000 of new facilities including one 1,870,100-gallon digester, two aeration basins, two final clarifiers, numerous junction structures, and the rehabilitation of two dissolved air flotation thickeners. All these structures included new coating applications. The required new mechanical equipment included the sludge box and sludge rakes. The key to success of this project was the adherence to the manufacturer's installation requirements, proper surface preparation, and contracting with a special coating inspector.

Phase 2A WWTP | Gunner Ranch Incorporated, Madera, CA

Construction Manager. He acted as the construction manager for a $3.85 million-dollar installation of 9,500 LF of 30"-8" sewer main. The installation project included numerous critical traffic control points with Madera County and Valley Children's Hospital. The original design was modified, and a zero-cost change order negotiated to avoid a high-pressure natural gas main

Final Clarifier Weir Leveling | Fresno, CA

Acting as the City of Fresno's Project Manager, supervised the design staff, managed the bidding process and acted as the construction manager. The weir leveling project included removing, cleaning, leveling, reinstallation and caulking of more than two thousand of feet of saw tooth weirs. The key to success of this project was careful selection of a robust caulking material capable of withstanding the wastewater environment and proper level control during reinstallation to ensure even flow distribution.

G-Dock Lift Station Upgrade| Santa Cruz Port District, CA

Acting as Technical Lead and Project Engineer, he designed the replacement of an existing 52-inch diameter sewer lift station. The project included the replacement of all controls, power supply, duplex pumps, new valve vault, and 24-feet of force sewer. The existing wet well will be salvaged by installing a HDPE liner, saving the district the time and money it would have cost to excavate a new wetwell.

EDUCATION

MS, Landscape Architecture/ Environmental Planning, University of California, Berkeley

MS, City & Regional Planning, University of California, Berkeley

BS, City & Regional Planning, California Polytechnical State University, San Luis Obispo

YEARS OF EXPERIENCE

23

Rosalyn Prickett

Principal, Water Resources Planning

Rosalyn Prickett is a water resources planner with 23 years of experience leading water resources management programs and environmental compliance for water supply, wastewater, and recycled water infrastructure. She excels at managing stakeholder-based supply planning and engineering programs, including potable reuse, recycled water, and domestic water supply and sewer consolidation efforts. Rosalyn supports the planning phases of infrastructure projects from concept and feasibility studies to environmental and regulatory compliance to funding support. To support the planning phase of infrastructure projects, she also leads funding acquisition through a variety of federal, state, and local funding programs. Rosalyn is a versatile and collaborative leader with a passion for building client and stakeholder relationships. She has secured funding for a wide range of water resources and groundwater recharge projects throughout California, including San Diego County Water Authority, Three Valleys Municipal Water District, East Valley Water District, Coachella Valley Water District, Yucaipa Valley Water District, Sweetwater Authority, City of Oceanside, Olivenhain Municipal Water District, and City of San Diego.

SELECT PROJECT EXPERIENCE

Principal-in-Charge, Three Valleys Municipal Water District – Master On Call Consulting Services, Los Angeles
Rosalyn serves as Principal for Rincon's on-call professional services agreement with TVMWD for grants tracking and writing. She led development of an overall funding strategy for the District and preparation of three grant applications: 1) Regional Resilience Grant Program under California's Office of Planning and Research, 2) WaterSMART Applied Science Grant for USBR, and 3) WaterSMART Drought Resiliency Projects Grant for USBR.

Principal-in-Charge, Olivenhain Municipal Water District – North San Diego Water Reuse Coalition, San Diego County
Rosalyn has supported monthly meetings of the Coalition since 2014, a role that continues at Rincon. She prepared a Regional Recycled Water Feasibility Study, Program EIR, and four funding applications under Title XVI. She has helped the Coalition secure $30 million in USBR Title XVI funding and $8 million in DWR IRWM funding. Rosalyn is currently managing the Title XVI funding awards and NEPA compliance with USBR.

Principal-in-Charge/Contract Manager, Coachella Valley Water District – Grant Administration On Call, Riverside County
Rosalyn managed three separate Master Agreements serving CVWD's engineering and finance teams, including a Grants Administration On Call. Task orders involved a variety of SWRCB DWSRF and CWSRF, USBR Title XVI, and USDA Rural Development Program applications for wastewater, domestic water, and recycled water facilities, including East Coachella Valley Water Supply Project, Non-Potable Water System Expansion, Avenue 66/Sunbird Truck Sewer Project, IXTP 7991, Tanks 7101 and 4711, Highway 86 Phases 3 and 4, and water consolidations.

Principal-in-Charge, City of Oceanside – Funding On Call, Oceanside
Rosalyn has prepared multiple applications under USBRs WaterSMART programs, including: 1) Water and Energy Efficiency Program for construction of the San Luis Rey Water Reclamation Facility Efficiency Upgrades - Phase I; 2) Water Reclamation and Reuse Program for Pure Water Oceanside (multiple submittals); and 3) Water Reclamation and Reuse-Desalination for Mission Basin Groundwater Purification Facility and associated extraction wells.

FUNDING SUPPORT

Project Manager, City of Oceanside – Recycled Water and Wells Feasibility Studies, Oceanside
Rosalyn led development of two separate feasibility studies to achieve eligibility for USBR Title XVI grants. One evaluated the cost effectiveness and benefits of expanding the City's recycled water system and the other evaluated the hydrogeologic feasibility of installing multiple new production wells in the Mission Basin.

Principal-in-Charge, Ramona Municipal Water District – Ramona Barona Climate Adaptation Grant Application, Ramona
Rosalyn served as Principal for preparation of a successful $600,000 grant application for Ramona Municipal Water District in support of the Ramona Barona Climate Adaptation and Action Plan (CAAP) through the Government's Office of Planning and Research's Integrated Climate Adaptation and Resiliency Program. This CAAP will focus on adaptation and mitigation measures in response to climate risks. Rosalyn is currently serving as Principal for the CAAP planning process and community outreach/engagement.

Principal-in-Charge, Calleguas Municipal Water District – Calleguas Watershed Brackish Groundwater Program, Thousand Oaks
Rosalyn led development of a Feasibility Study assessing the proposed brackish groundwater development program, including two desalters and a brine discharge pipeline. The Feasibility Study was prepared in compliance with USBR's Title XVI Water Reclamation and Reuse/Desalination program. Following submittal of the Feasibility Study for USBR approval, Rosalyn led development of a grant application for project construction under the Title XVI program.

Project Manager, Coachella Valley Water District – Sustainable Groundwater Management Act (SGMA) On Call, Riverside County
Under Todd Groundwater as prime, Rosalyn led demand forecast, local supply analysis, and GSP development. She focused on analysis of all local (non-groundwater) sources including imported water used for groundwater recharge, surface water diversions, non-potable supplies from Coachella Canal, and recycled water. She prepared two successful funding applications for GSP planning grants under Proposition 68.

Principal-in-Charge, East Valley Water District (EVWD) – Sterling Natural Resource Center (SNRC), Highland
Formerly the Project Manager, Rosaly has led overall permitting and project approval for SNRC since 2017, including a SWRCB 1211 Change Petition, DDW GRRP Conditional Approvals, and RWQCB WDRs/WRRs. She prepared a successful CWSRF application to support plant construction. She is currently building a regional coalition to establish a collaborative approach for salt management in the Bunker Hill-B basin. She is also continuing to lead hydrogeological studies for the operational phases of SNRC, which started up in January 2024.

Principal-in-Charge, Various Clients – San Diego IRWM Program, San Diego County
Rosalyn supported the San Diego IRWM Region in planning, stakeholder engagement, and funding for over a decade. She led the Region in seven (7) successful funding applications under the IRWM program, including planning, disadvantaged community engagement, and implementation grants. She supported the project selection process with an 18-member working group of regional stakeholders and negotiations with DWR on grant agreement terms.

Principal-in-Charge, Various Clients – Coachella Valley IRWM Program, Riverside County
Rosalyn supported the Coachella Valley IRWM Region in planning, stakeholder engagement, and funding for over a decade. She led six (6) successful grant applications for DWR's IRWM program, including Proposition 84 and Proposition 1 planning and implementation grants. She supported the project selection process with a 12-member regional water management group and negotiations with DWR on grant agreement terms.

Project Manager, Sweetwater Authority – Richard A. Reynolds Groundwater Desalination Facility & Funding Support, Chula Vista
Rosalyn served as Project Manager for the development of two (2) successful Title XVI funding applications for Sweetwater Authority's expansion of its brackish groundwater desalination facility.

Project Manager, Multiple Agencies – Proposition 1E Stormwater and Flood Management Funding Support
Rosalyn prepared application under Proposition 1E Stormwater and Flood Management Grant Program for the Lake Wohlford Dam Replacement Project (City of Escondido) and the San Marcos Creek Floodway Improvement Project (City of San Marcos). She prepared extensive technical justification and economic analyses of the projects to support the funding applications.

Annaliese Torres

Senior Planner/Project Manager

Annaliese is an adaptive project manager who strives to provide clients with tailored, flexible solutions to complex environmental challenges in a conscientious manner that accounts for the schedule, cost, and implementation constraints often facing water agencies. She has over six years of experience in managing environmental assessments, technical studies, and grant tracking and writing services for water and wastewater infrastructure projects. She has worked with a number of water agencies, including Western Municipal Water District, Coachella Valley Water District, Water Replenishment District of Southern California, The Metropolitan Water District of Southern California, Three Valleys Municipal Water District (TVMWD), East Valley Water District, Inland Empire Utilities Agency, North San Diego Water Reuse Coalition, City of Oceanside, and Vallecitos Water District to prepare environmental documentation and provide grant tracking and writing services for infrastructure projects such as potable and non-potable water pipelines, groundwater wells, pump stations, treatment facilities, and reservoirs. Annaliese has also worked on other projects throughout Riverside and San Diego counties, including projects for the University of California, Riverside, Southern California Edison, and private developers.

EDUCATION

BS, Environmental Science, Texas Christian University

CEQA Practice Certificate, University of California, San Diego Extension

AFFILIATIONS

WateReuse Association, California Section, Orange County Chapter

YEARS OF EXPERIENCE

7

SELECT PROJECT EXPERIENCE

Project Manager/Grant Writer, Three Valleys Municipal Water District – Master On-call Consulting Services, Los Angeles County

Annaliese oversees Rincon's on-call professional services agreement with TVMWD under which she is currently managing the following consulting tasks related to grant tracking and writing:

- Grant Funding Opportunity and Tracking. Annaliese oversees staff in the identification and tracking of grant opportunities for priority capital improvement projects and other initiatives for which TVMWD is interested in receiving low-cost financing and/or grant funding. Annaliese developed a funding strategy in collaboration with TVMWD staff and now provides monthly updates to TVMWD for the grant opportunities that are being tracked via our Funding Matrix.
- WaterSMART Applied Science Grant Application. Annaliese oversaw preparation of a WaterSMART Applied Science grant application for TVMWD's Water Use Efficiency Dashboard initiative, which is intended to provide TVMWD and its 13 member agencies with valuable water usage data based on aerial imagery to better inform water resource management and targeted efficiency program outreach. This grant applicant was successful, and USBR awarded TVMWD $84,391 for this initiative.
- WaterSMART Drought Resiliency Projects Grant Application. Annaliese oversaw preparation of a WaterSMART Drought Resiliency Projects grant application for TVMWD's Miramar Pumpback Upgrades project, which involves a partnership with Metropolitan to upgrade three pump stations that will pump from the Weymouth Water Treatment Plant to TVMWD's service area to increase water supply reliability in State Water Project-dependent communities.
- WaterSMART Planning and Project Design Grant Application. Annaliese oversaw preparation of a WaterSMART Planning and Project Design grant application for the Regional Distribution Network component of TVMWD's larger Groundwater Reliability Improvements Program, which involves a partnership with Puente Basin Water Agency and City of Glendora to develop a more resilient, local water

supply source through construction of three new groundwater wells, a groundwater treatment plant, and groundwater replenishment and storage of untreated imported water supplies in the Main San Gabriel Basin during wet years.

- Regional Resilience Grant Program (RRGP) Application. Annaliese oversaw preparation of an RRGP application for TVMWD's proposed Climate Adaptation Plan, which involves evaluating existing vulnerabilities to climate change across the water infrastructure systems of TVMWD and its member agencies and identifying high-priority adaptation projects and initiatives to address the identified vulnerabilities. The Climate Adaptation Plan will also be developed in partnership with the Los Angeles Regional Collaborative for Climate Action and Sustainability and with extensive community engagement and input from the communities in the TVMWD service area.

Grant Writer, Coachella Valley Water District (sub to Todd Groundwater) – Sustainable Groundwater Management Grant Program Round 2 Implementation Grant Applications for the Indio Subbasin and Mission Creek Subbasin, Riverside County
Annaliese assisted in preparation of the Sustainable Groundwater Management Grant Program Round 2 implementation grant applications on behalf of five GSAs in Coachella Valley: Coachella Valley Water District, Desert Water Agency, Indio Water Authority, Coachella Water Authority, and Mission Springs Water District. The grant applications covered a suite of implementation projects for the Indio and Mission Creek Subbasins. Annaliese compiled project information for a DWA recycled water feasibility study, tertiary treatment expansion at CVWD's WRP-7, and recycled water upgrades to the MSWD Horton Wastewater Treatment Plant.

Project Manager, Olivenhain Municipal Water District – North San Diego Water Reuse Coalition FY22 and FY23 Support for Regional Recycled Water Program, San Diego County
Annaliese is serving as the Project Manager for provision of ongoing funding support for the North San Diego Water Reuse Coalition's Regional Recycled Water Program. Support includes grant administration and NEPA compliance for the Coalition's awarded FY22 USBR Title XVI grant and preparation of the grant application for the FY23 USBR Title XVI grant cycle. The project involves connecting discrete recycled water systems across nine agencies, increasing recycled water storage capacity, and distributing recycled water to effectively meet recycled water demands. To date, Annaliese has coordinated with USBR staff to ensure timely processing of the Biological Assessment and Cultural Resources Assessment previously submitted to USBR by Rincon and provided senior review of the Coalition's FY23 Title XVI grant application.

Project Manager, West Basin Municipal Water District – Palos Verdes Recycled Water Pipeline Project Clean Water State Revolving Fund Environmental Alternative Analysis and Grant Support, Torrance and Palos Verdes, Los Angeles County
Annaliese served the Project Manager for preparation of an environmental alternative analysis and provision of Clean Water State Revolving Fund compliance support for the Palos Verdes Recycled Water Pipeline Project, which involves extension of the existing Anza Lateral approximately 20,000 linear feet from Torrance to the Palos Verdes Golf Course to provide recycled water to the golf course and other municipal customers (e.g., schools, parks) along the pipeline alignment. The environmental alternative analysis evaluated three project alternatives, including one "no project" alternative and two "build" alternatives, and was prepared on an expedited timeline to enable timely progress through the completion of a funding agreement. Rincon also provided supplemental materials related to the cultural resources assessment at the request of State Water Resources Control Board staff.

Project Manager, East Valley Water District – Plant 134 Granular Activated Carbon (GAC) Improvements Project CEQA-Plus Categorical Exemption Documentation and Environmental Package, San Bernardino County
Annaliese served as Project Manager for the preparation of CEQA-Plus Categorical Exemption documentation for the proposed Plant 134 GAC Improvements Project, located in unincorporated San Bernardino County near Highland Avenue and State Route 330. The project involves construction and operation of GAC equipment at the Plant 134 Water Filtration Facility to reduce disinfection byproduct precursors. Work on this project included a Biological Resources Assessment, Cultural Resources Technical Report, Paleontological Resources Assessment, Federal Clean Air Act Conformity Analysis, CEQA Categorical Exemption documentation, and the Environmental Package for the Drinking Water State Revolving Fund application. Key issues included the potential presence of coastal California gnatcatcher in the project site vicinity and potential water quality impacts during construction activities.

CCTV INSPECTION

MICHELLE D. BEASON, PE

EDUCATION

Purdue University, West Lafayette, IN
BACHELOR OF SCIENCE IN CIVIL ENGINEERING, 1993
California State University, East Bay, Hayward, CA
COURSEWORK TOWARD MASTER OF BUSINESS ADMINISTRATION (NOT COMPLETED)

CERTIFICATIONS

Professional Civil Engineer License #C55331
CA General Engineering "A" and "B" Contractor License #1010254
PACP/LACP/MACP Certification U-413-17097
Water Distribution Operator Certification, D-2, #46247
Standardized Emergency Management System (SEMS)/ICS Training

EXECUTIVE CAREER HISTORY AND MILESTONES

NATIONAL PLANT SERVICES, INC., HAYWARD, CA
Regional Manager, March 2014 - Present

- Regional Manager over western operations for numerous concurrent sewer, water, and storm water cleaning, inspection, and trenchless rehabilitation projects (CIPP lining, structural coatings, injection grouting, etc).
- Lead Design Engineer and Project Manager on the development of a new robotic 3D Laser advanced inspection technology.
- Develop and provide technical presentations to City Management and to Engineering firms regarding our many service offerings; design appropriate rehabilitation alternatives; develop Specifications and preliminary engineers' estimates.
- Develop and respond to Request for Proposals including project schedule and cost analysis; attend final project interviews; negotiate final contracts and subcontract agreements. Manage subconsultant contracts.
- Analyze pipeline multi-sensor inspection results and provide final recommendation reports including RUL (remaining useful life), rehabilitation recommendations, cleaning and inspection frequencies, and CIP planning.
- Direct Pacific Northwest operations; Develop training procedures and SOPs for the field personnel.
- Also serves as an elected Board Member of NASSCO, Chair of NASSCO Infrastructure Assessment Committee, Board Member of Western Chapter of North American Society for Trenchless Technology.

REDZONE ROBOTICS, INC. / ICOMMM, INC., SAN RAMON, CA
Director of Client Services/Key Account Manager, April 2010 – March 2014

- Advised key personnel at hundreds of Cities on BMPs for sewer inspections and maintenance, and in the development of unique Asset Management Programs. Analyzed and provided remaining useful life, rehabilitation, and re-inspection recommendations based on inspection results.8/94
- Guided and managed the development and implementation of CMMS Asset Management software for numerous cities including PM and CM creation and scheduling, and CIP planning.
- Reviewed CCTV and multi-sensor inspection reports to determine RUL and rehabilitation recommendations for sewer and storm pipelines for cities across the US and Canada. Prepare final reports.
- Consulting, business development, and technical sales for laser and sonar robotic inspection services and cloud-based SAAS software sales to C-level staff, marketing, presentations, response to technical proposals and RFP's, new client interviews and negotiations, project management, and client satisfaction for clients across the 10 Western States and Canada.
- Develop and provide technical presentations to City Management and to Engineering firms regarding our many service offerings; develop Specifications for client budgeting process.
- Troubleshooting and recommending improvements for the ICOM3 software, robotic technology inspection technology, and work processes.

CAMELOT ENGINEERING & CONSTRUCTION, INC., WALNUT CREEK, CA
President / Owner • 2005–2010

- Responsible for all company operation and managerial duties including: client negotiations, cost estimating, contract preparation, scheduling and material procurement, client satisfaction, bookkeeping, residential structures design, permitting, traffic control, safety, training, and labor management for all phases of residential construction projects.

MICHELLE D. BEASON, PE

- Installed new sewer laterals and PG&E Joint Trench for various projects; replaced broken sewer laterals.
- Coordinated with local and state governments.
- Recruited, hired, and trained 17 employees and directed and supervised all work.
- Ensured timely, accurate, and within budget completion of all projects, including work of sub-contractors.
- Successfully established and managed a proprietary-owned contracting business; directed the construction of 4 new single-family residences and dozens of remodels and additions on time and within budget.

EAST BAY MUNICIPAL UTILITY DISTRICT (EBMUD), OAKLAND, CA
Associate Civil Engineering / Acting Senior Civil Engineer • 1994–2005

- Earned 2005 EBMUD Employee Leadership Award for effective management and coordination of 60 simultaneous Capital and Operating construction projects.
- Developed and implemented a project tracking procedure, including budget preparation, project scheduling, resource loading, and cost tracking for the O&M Department.
- Developed and controlled capital and operating budgets; set long-range CIP schedule.
- Designed a GIS-based application for the selection of critical and backbone facilities, as well as interfaces with MAXIMO database.
- Developed consultant contracts. Managed various consultant contracts, including the CH2M Hill contract for the Claremont Tunnel outage planning phase.
- Directed Reliability Centered Maintenance planning efforts; coordinated with O&M staff to determine maintenance schedules, and run to failure designations for District infrastructure.
- Situation Status lead for the EBMUD Emergency Operations Team for 7 years; rendered prompt response to all District emergency situations.
- Performed the role of Acting Senior Civil Engineer; directed and supervised 5 employees.
- Developed Microsoft Project Schedules and a Project Tracking system for the Pipeline Construction Division and the Construction Maintenance Division, trained Supervisors on the use of Microsoft Project and managed all scheduling.
- Developed the "Maintenance Hydraulic Training" for the field personnel. This is a comprehensive training program that is still provided on DVD to new hires. It provides an overview of the EBMUD system, and instructs the crews on basic system hydraulics.
- Completed numerous water service estimates, and several large pressure zone studies/master plans.
- Initiated and was the Chairperson of the District Outage Review Committee. Coordinated all work between Planning, Engineering, Operations, and Maintenance departments.
- Coordinated JPA and agency transfer of reclaimed water pump stations between EBMUD/LAVWMA/Caltrans.

BLACK & VEATCH, KANSAS CITY, MO
Project Engineer / Consultant • 1993–1994

- Administered the development of contracts and scope of work; final system reports; and recommendation of system improvements for various municipalities. Performed hydraulic modeling using EPANET and KYPIPE.
- Presided over systems planning and hydraulic modeling of water distribution systems across the United States; business development for new clients; upselling and customer satisfaction for existing clients.

CAPITOL ENGINEERING, INDIANAPOLIS, IN
Project Engineer / Consultant • 1993

Project Manager for a new wastewater treatment plant: Responsible for the planning, design, NPDES permitting, subcontractor selection, and construction management of a 60,000 gpd wastewater treatment plant and lift station in Hendricks County, IN. Project was completed on time and within budget.

Assistant Project Engineer for various small wastewater projects in the Midwest.

U.S. ENVIRONMENTAL PROTECTION AGENCY, GROSSE ILE, MI
Student Intern/Junior On-Scene Coordinator • 1986-1993

Hired as a student intern working part time after High School classes, and was promoted to Junior On-Scene Coordinator (OSC) during my last two years at Purdue University. Responsible for writing technical final project reports after each Superfund Site cleanup, and technical assistance.

As a Junior OSC, I was responsible for cleanup operations at Superfund Cleanup sites in the Midwest: scheduled and coordinated all cleanup contractors, managed technical assistance team members, determined level of PPE required, handled disposal logs and waste manifests.

Arroyo Grande/Corporate Office
530 Paulding Circle, Suite B
Arroyo Grande, CA 93420

Bakersfield
1800 21st Street, Suite C
Bakersfield, CA 93301

Fresno
8405 N. Fresno Street, Suite 120
Fresno, CA 93720

Irvine
16310 Bake Parkway
Irvine, CA 92618

Oceanside
702 Civic Center Drive, Suite104
Oceanside, CA 92054

San Jose
101 Metro Drive, Suite 370
San Jose, CA 95110

San Luis Obispo
354 Pacific Street
San Luis Obispo, CA 93401

Santa Clarita
23942 Lyons Avenue, Suite 215
Newhall, CA 91321

Ventura
121 North Fir Street, Suite G
Ventura, CA 93001

mkn