Bill Slenter, PE

Principal

Bill is a civil engineer with 32 years of experience. His areas of expertise include permitting, funding, planning, design, and construction support of wastewater, water, and recycled water systems. A principal with HydroScience, he has served as principal, project manager and project engineer on a wide range of water and wastewater projects.

EDUCATION
B.S., Civil Engineering, San Francisco State University

REGISTRATION
Civil Engineer, California, Registration No. 57640

AFFILIATIONS
California Water Environment Association (CWEA)

Central Valley Clean Water Association – Outreach Committee Chairperson

Former Chairperson, CWEA San Francisco Bay Section Communications Committee

CWEA Sacramento Area Section

SELECT PROJECT EXPERIENCE

Wastewater Master Plans

City of Sutter Creek and Amador Regional Sanitation Authority (ARSA), Amador County, California

Principal-in-Charge. The City of Sutter Creek owns and operates a regional wastewater treatment plant (WWTP) which discharges it effluent to the Amador Regional Sanitation Authority (ARSA) for disposal. Since the City's WWTP is nearing capacity, and the ARSA storage and disposal infrastructure is in need of full rehabilitation, the agencies are considering joining a potential regional WWTP in the City of Ione. Using an asset-management approach of cost and risk assessments, HydroScience conducted an alternatives evaluation of four potential WWTP locations and their related conveyance, storage, and disposal options to guide the City and ARSA in choosing the option which best meets their long-term needs. Once the long-term wastewater management alternative is chosen, it will be developed further and incorporated into the existing Wastewater Master Plans for both agencies.

Wastewater Treatment Plant Reliability Improvements

Silicon Valley Clean Water, Redwood City, California

Principal-in-Charge and QA/QC. HydroScience was the engineer-of-record for the Overaa/HydroScience design-build team for this design-build project to provide plant reliability improvements for Silicon Valley Clean Water's 24 MGD WWTP in Redwood Shores, California. Work included upgrading the aeration basin blower system to high speed turbo blowers with all new distribution piping and control valves, correcting basin flow split issues, installing a fan press solids dewatering system and conveyors, and replacing their granular media filter backwash pumps. Electrical improvements included installing new VFDs and turbo blower, enhancing the aeration control, installing new rotary presses with an integrated control scheme that allowed for redundant control/ power systems, replacing 125 HP Dual Media Filter Backwash Pump with more efficient pump while maintaining the existing power draw and updating the process control narratives.

Davis WWTP Secondary and Tertiary Improvements

City of Davis, California

Principal-in-Charge. HydroScience provided process design, coordination, and commissioning assistance as part of a design-build team for the construction of secondary and tertiary improvements at the City's WWTP. The peak treatment capacity is 18 MGD. This $70M upgrade modernized the facility and brought it into compliance with current discharge regulations. The project included design and construction of activated sludge secondary treatment facilities (aeration and clarification), tertiary disc filters, chlorine disinfection, post-aeration, effluent pumping, flood control facilities, and a new administration building. HydroScience's core areas of responsibility on this project included the chlorine contact basin, chemical mixers, chlorine residual monitors, utility water systems, effluent reaeration system, field instrumentation, leading roles on commissioning and process transitioning, and support for plant tie-ins and owner coordination.

Regional Wastewater Control Facilities

City of Stockton, California

Principal-in-Charge. HydroScience played a lead role on the rehabilitation of the primary clarifiers and sludge and scum pumping systems as part of this Progressive Design-Build project. The existing clarifiers consisted of three discrete banks constructed at different

times (as far back as the 1940s) and configured differently. Two of the clarifiers were "squircular" (circular mechanisms in square tanks) while the remaining ones are rectangular. HydroScience performed a mechanical condition assessment, utilized a facility mass balance to determine anticipated future sludge removal rates and flows for pumping, developed proposed rehabilitation approaches for the clarifiers, worked with the contractor to refine construction approach and develop cost estimates for the improvements, and presented our findings in a workshop to City staff. HydroScience helped develop the process control narratives and finalized the construction plans and specifications and is currently providing review of construction submittals. Once construction is complete, the clarifiers will have a total capacity of 80 MGD.

Copper Cove WWTF Tertiary and Pond 6 Utilities Upgrades

Calaveras County Water District, California

Project Manager. The Copper Cove Wastewater Treatment Facility treats mostly domestic wastewater in a series of aerated ponds and storage ponds. Secondary effluent is stored in a large effluent storage pond, Pond 6. Water from this pond is treated to Title 22 tertiary recycled water standards using a Trident Microfloc filter, disinfected in a single-channel UV disinfection process, and delivered to the Saddle Creek Golf Course for irrigation reuse with a portion discharged to wetlands. HydroScience is preparing the design to replace the aging and poorly performing existing filter unit with a continuous backwash sand filtration process, add algae removal pretreatment utilizing suspended air floatation, add solids dewatering for treating tertiary sludge, and relocate pumps and piping. CEQA documentation is also being completed under HydroScience's oversight. Expandability provisions for future buildout conditions are incorporated into the design, and the construction sequencing will implement the upgrades around ongoing facility operations. A separate design package also being prepared by HydroScience will relocate buried piping and two pump stations to make room for enlargement of the Pond 6 dam. HydroScience is also assisting with US Army Corps of Engineers (USACE) grant funding coordination.

St. Helena WWTRP Upgrades

City of St. Helena, California

QA/QC. The City of St. Helena was issued a CDO containing effluent limitations the City could not reliably obtain with their existing pond treatment plant. The City commissioned HydroScience Engineers to develop a Conceptual Design Report (CDR) to analyze treatment alternatives that would comply with the new NPDES effluent discharge limitations, while also modernizing the facility's treatment process. HydroScience identified a packaged MBR treatment system as the preferred WWTRP upgrade alternative, and developed the design around this approach. The WWTRP will maintain its permitted capacity of 0.5 MGD with the flexibility to operate the plant at a peak day hydraulic capacity of 1.33 MGD. This new system will result in tens of millions of dollars in cost savings when combined with repurposing four of the existing WWTRP ponds for use as flow equalization. The design is modular so that the City can cost-effectively expand the new system to meet anticipated build-out flows, if necessary. The RWQCB accepted the CDR findings without comment.

Memorial Park Wastewater Treatment Facilities Improvements

County of San Mateo, California

Project Manager. Memorial County Park is a family and group campground facility. Wastewater generated within the park is collected in two separate collection systems, with a total length of approximately 1.8 miles of 4- to 8-inch gravity sewer. Most of the wastewater flowed to a 30,000 gallon per day (gpd) extended aeration WWTP. Wastewater was treated to secondary standards, disinfected, and discharged to a dedicated spray field with an unlined retention lagoon to handle larger flows. The remainder of the wastewater flows to a septic tank and leach field system. The collection system and WWTP were over 50 years old. Due to age, poor performance, reliability concerns, and high maintenance requirements, HydroScience planned, designed, and oversaw construction for a new, modern 50,000 gpd sequencing batch reactor WWTP. The design included new yard piping and modifications to the existing WWTP, to repurpose it as a new sewer lift station. HydroScience developed a collaborative, forward-looking project approach that provides reliable operation and permit compliance in a small, low-impact footprint, and that reduces the cost and staff time to operate and maintain.

Wastewater Treatment and Effluent Management Facilities

Lytton Rancheria, Sonoma County, California

Design Manager. As part of a design/build team, HydroScience completed design of wastewater and recycled water facilities serving a new tribal residential development in Sonoma County. The Lytton Rancheria project consists of construction of new homes, a community center, and a retreat center. HydroScience designed a complete Membrane Bioreactor (MBR) Wastewater Treatment Facility utilizing shop-fabricated treatment units to treat 250,000 gpd of peak dry weather flow. The design includes an administration building, UV disinfection, solids dewatering system using screw presses, effluent storage pond, and recycled water pump station. The design was developed through a collaborative progressive design build process.