



FLUID RESOURCE MANAGEMENT



1,300-HOME RESIDENTIAL DEVELOPMENT WITH GOLF COURSE OPERATIONS | MAINTENANCE | MANAGEMENT

CLIENT TYPE

Private development with a mutual water company



TREATMENT TYPE

Advanced Integrated Pond System (AIPS) with Pall Filtration membrane tertiary treatment



GALLONS PER DAY (GPD)

Maximum Daily Flow: 375,000 GPD



PERMITS

Waste Discharge Requirements and Water Reuse Requirements



DISCHARGE TYPE

Reuse



COLLECTION SYSTEM

58,080 feet



LIFT STATIONS

One high-head lift station



CONNECTIONS

Wastewater: 900 service laterals
Water: 1,150 active service connections



WATER SYSTEM CLASSIFICATION

Community



STORAGE

Two coated steel tanks each with a capacity of 510,000 gallons



OVERVIEW

As a result of Fluid Resource Management's reputation for excellence in the water and wastewater industry, the developers of a 1,300-home project with multiple golf courses and commercial and industrial centers sole-sourced FRM to construct the mechanical portions of the distribution system and wastewater treatment plant. Fluid Resource Management built the booster station and performed all of the mechanical installations including design and fabrication of the custom piping header and supports and an automated controls system for the booster station. They also performed the mechanical and controls installation at the wastewater treatment plant including: influent headworks grinder/auger, custom stainless steel bypass bar screen, influent flume and flow meter, mechanical brush aeration for each pond, pond splitter boxes, a Pall Microfiltration filter, effluent pump station and chlorine contact chamber.

Three potable water wells provide water for the distribution system. The wells are disinfected and fill two 510,000 gallon tanks. The distribution system is fed from a pump station that produces 4,000 GPM. The wastewater reclamation plant has a grinder/auger for solids removal, three Advanced Integrated Pond System (AIPS) ponds with mechanical brush aeration, a Pall Microfiltration unit designed to treat wastewater to meet Title 22 Standards, a chlorine contact chamber and effluent pump station. The collection system is comprised of gravity sewer piping and a duplex high-head lift station.

FRM staff read meters, sample the distribution system and maintain the system's valves and hydrants, including annual line flushing. Since effluent can be directed to either golf course or vineyard irrigation ponds, operators monitor the ponds for compliance with reclamation requirements. The wastewater treatment plant is staffed and sampled seven days per week. The Maintenance Division performs preventative maintenance on plant equipment and assists the client with annual capital improvement projects. FRM performs quarterly maintenance on the high-head lift station and the entire collection system is cleaned bi-annually.

Fluid Resource Management also assists the client with value engineering and construction coordination as the development moves toward full build-out.