



# FLUID RESOURCE MANAGEMENT



## COMMUNITY SERVICES DISTRICT WITH OCEAN DISCHARGE OPERATIONS | MAINTENANCE | MANAGEMENT

### CLIENT TYPE

Community Services District



### TREATMENT TYPE

Secondary treatment with fixed film reactor



### GALLONS PER DAY (GPD)

Maximum Daily Flow: 200,000 GPD



### PERMITS

Waste Discharge Requirements  
National Pollutant Discharge Elimination System



### DISCHARGE TYPE

Ocean



### COLLECTION SYSTEM

15,312 feet



### LIFT STATIONS

Two



### CONNECTIONS

Wastewater: 350 service laterals  
Water: 355 active connections



### WATER SYSTEM CLASSIFICATION

Community



### STORAGE

2 steel storage tanks with a total capacity of 855,000 gallons



## OVERVIEW

The original wastewater treatment plant for this small beach community was constructed in 1969. In 1997, the plant was expanded to include secondary treatment of the wastewater produced by 15,000 residents and a neighboring special district. Fluid Resource Management was contracted to provide operations and maintenance services in 2001. Because the District's outfall line discharges directly into the harbor just 2,700 feet from a popular beach, the Waste Discharge Requirements (WDR) are very stringent.

The water distribution system is gravity fed from two tanks with 855,000 gallons of combined storage. Water, purchased from a local treatment facility, is often pumped into the storage tanks and treated for Total Trihalomethanes (TTHM) reduction. The 200,000 gallon per day wastewater treatment plant is comprised of primary clarification, anaerobic digestion, a fixed film reactor, final clarification and a chlorine contact chamber. The collection system consists of gravity sewer piping and two lift stations.

Fluid Resource Management operates and maintains the water distribution system, wastewater treatment plant and collection system. The operations staff reads meters, samples the distribution system and maintains the system's valves and hydrants which includes annual line flushing. The wastewater treatment plant is staffed and sampled seven days per week to ensure compliance with the client's WDR. Maintenance technicians from FRM perform preventative maintenance on all plant equipment in accordance with manufacturers' specifications and assist the client with annual capital improvement project prioritization and budgeting. They also perform quarterly hot spot cleaning on the collection system as well as maintain the two sewer lift stations. Fluid Resource Management cleans the entire collection system annually with their Vactor truck.

Since assuming management of the three systems in 2001, FRM has assisted the client with the following: developing a sanitary sewer master plan, hot spot cleaning program, Fats, Oils and Greases (FOG) program, SCADA and controls system, TTHM reduction plan and treatment, lift station rehabilitation to reduce pumps plugging, multiple coatings projects, clarifier rehabilitation, digester cleaning, process pump upgrades, assembling a critical spare parts inventory and valve exercising program and schedule.