CAMPGROUND RECREATIONAL AREA AND FULL CONTACT LAKE

OPERATIONS | MAINTENANCE | MANAGEMENT

CLIENT TYPE
Campground and recreational area

TREATMENT TYPE
Activated sludge

GALLONS PER DAY (GPD)
Maximum Daily Flow: 40,000 GPD

PERMITS
Waste Discharge Requirements

DISCHARGE TYPE
Three percolation ponds

COLLECTION SYSTEM
23,760 feet

LIFT STATIONS
Five

CONNECTIONS
191 service laterals

WATER SYSTEM CLASSIFICATION
Transient non-community

STORAGE
One steel tank with a capacity of 238,000 gallons

OVERVIEW

The infrastructure at this 350-space campground and recreational area was constructed in the late 1960s. Fluid Resource Management has performed operations and maintenance services on the water distribution, wastewater treatment and collection systems since 2008.

Four wells under the influence of surface water feed the distribution system. The system has six pressure zones controlled by pressure reducing valves. The wells are disinfected and pumped directly to the storage tank at the facility's highest elevation. The tank then feeds the distribution system via the various pressure zones. The wastewater treatment plant consists of an influent grinder, three aeration basins, two clarifiers, an effluent pump station and an aerobic digester. The plant discharges into three percolation and evaporation ponds. The collection system includes gravity sewer piping and five lift stations.

FRM staff collect routine drinking water samples and conduct additional monitoring of the wells required due to the influence of surface water on the aquifer. The wastewater treatment plant is staffed and sampled seven days per week to meet requirements of the discharge permit. FRM operators monitor alarms in real time to verify plant operation during frequent power outages due to the remote location of the facility. The primary operational challenge is a flow range that is low during the winter and ultimately increases up to 400% during summer months and holidays. Technicians perform preventative maintenance on all plant equipment and assist with annual capital improvement project prioritization and budgeting.

The five lift stations are inspected weekly and the entire collection system is cleaned annually.

Fluid Resource Management has also assisted the client with: valve and asset mapping, an energy efficiency audit and upgrades, assembling a critical spare parts inventory, emergency installation of a new well, rehabilitation of an effluent pump station, upgrading the controls system and rehabilitation of both of the clarifiers.