

### **PLANT O/M INFORMATION:**

#### **Treatment Process**

Wastewater is treated through a series of mechanical and biological processes to assist nature with the removal of pollutants introduced by humans during the use of water. The Mud Creek WPCP is designed to process domestic, commercial, and light industrial wastewater to meet Georgia EPD's, (Environmental Protection Division) NPDES (National Pollutant Discharge Elimination System) requirements, and effluent quality limitations have been written into the plant's NPDES discharge permit. When properly operated, the effluent discharged by the Mud Creek WPCP conforms to the water quality standards established in the NPDES permit.

The most recent expansion in 2012 included building a new treatment process and upgrading existing structures to a modified Ludzack-Ettinger Process (MLE). Innovative technologies, including high-efficiency turbo blowers, high-level ultraviolet disinfection, fine bubble diffusion system and supervisory control and data acquisition (SCADA) system were incorporated to improve the efficiency of plant operations and maintenance and to meet the new permit effluent limits.

#### **Major process systems listed below in order of flow through the treatment plant:**

- Treatment Plant Influent Pumping Station (IPS)
- Plant Headworks
- Activated Sludge Process
- Tertiary Filtration System
- Reaeration System
- Ultra-violet (UV) Disinfection
- Outfall
- Chemical Storage and Feed system
- Solids Handling Systems

#### **Treatment Plant Utilities**

- Plant Potable Water system
- Plant Reuse Water

#### **Treatment Plant Operation and Maintenance (O/M)**

The operation of the WW treatment plant is 24/7, with three eight-hour shifts. Operational/process control of plant is directed by the Plant Superintendent and Asst. Supt. Superintendent and Asst. Supt. are Class 1 State of Georgia Wastewater Treatment System Operators. All WW treatment plant operators are Class 3 or higher certified State of Georgia Wastewater Treatment System Operators.

All equipment maintenance at the facility performed by Central Maintenance Division personnel using a Computer Management Maintenance System (CMMS) based program. Scheduled maintenance performed as per equipment manufacturer's recommendations. Central Maintenance Superintendent and Asst. Supt. manages division.