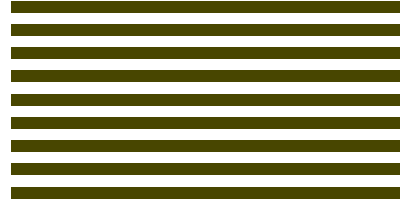
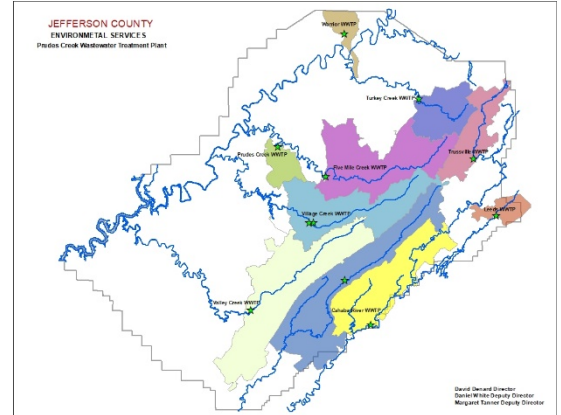




JEFFERSON COUNTY ENVIRONMENTAL SERVICES PRUDES CREEK WATER RECLAMATION FACILITY



CONSTRUCTED: 1986 | PERMITTED AVERAGE CAPACITY: 0.9 MGD | PEAK FLOW CAPACITY: 3.5 MGD



500 Water Trail Graysville, AL 35073

Facility Description

The original Prudes Creek Water Reclamation Facility (WRF), completed in 1986, consisted of a 600,00GPD sewage treatment plant, 2-influent pump stations with chlorine disinfection, a trunk line sewer, and an outfall sewer. It was and is one of the smallest of the nine Water Reclamation Facilities in the Jefferson County Sewer System.

- Prudes WRF was upgraded in 1998, and 2006
- Today, Prudes Creek is a 0.9MGD extended aeration WRF
- It has a Peak flow capacity of 3.5MGD
- Three Oxidation ditches provides aeration
- Three Clarifiers followed by sand filtration, makes it a Tertiary Treatment WRF, with UV disinfection
- It's receiving stream is Five Mile Creek
- Regulated by ADEM as a small WRF
- The service area are portions of Graysville and Adamsville
- 85% of the developed area is residential and commercial

Capital Improvement Project In the 1998 Upgrade, additions included:

- A new Administration Building
- Above ground fuel storage tank
- UV Disinfection Unit installation
- Brush Rotor Covers
- Grit self-priming pump & piping
- Upgrades to both influent pump stations
- Gravity Thickener

Budget: (Actual or estimated)

Capital Improvement Project 2004 -2006 Max Foote Construction Co., Inc. Project No. 01516

- Aeration Basin #3, 2-rotors, 1-mixer
- 5000gal Above Ground Diesel Tank
- Clarifier #3

Budget: \$5,767,000.00

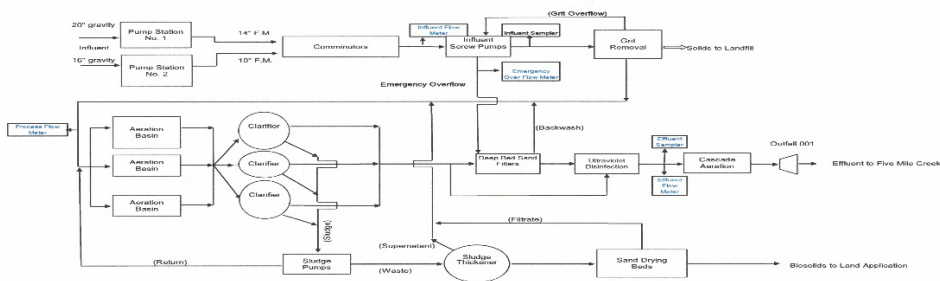
Director: David Denard | Deputy Director: Margaret Tanner | Plant Manager: David Humphries





JEFFERSON COUNTY ENVIRONMENTAL SERVICES DEPARTMENT
 PRUDES CREEK WASTEWATER TREATMENT PLANT AL0056120

FLOW SCHEMATIC



Process Flow Narrative:
 Flow enters the Prudes Creek WWTP from two pump stations within the facility. Pump Station No. 1 receives flow via a 20" gravity sewer and Pump Station No. 2 receives flow from a 16" gravity sewer. The influent flow is pumped to the headworks where it receives preliminary treatment through in-channel grinders. The flow is then lifted by the influent screw pumps. The flow travels through the grit tank and large solids are removed by the grit classifier. The flow is split between three aeration basins for biological treatment. The flow then receives final clarification through three final clarifiers. The flow receives advanced treatment through deep bed sand filters. The flow then receives disinfection from ultra-violet irradiation. The flow receives cascade post aeration prior to discharge to Five Mile Creek.

Valving has been built into the plant piping infrastructure that can allow routing of flow around biological treatment systems, and these flow trains are depicted on the above diagram. These valving options are not part of the operational plan for the plant.

WWTP Flow Data:
 0.9 MGD - Permitted Flow
 3.5 MGD - Peak Daily Design Flow