



CASE STUDY

PROJECT NAME

Section, AL Community Wastewater Treatment System

SYSTEM SPECIFICATIONS

45,000 GPD ECOPOD® Advanced Wastewater Treatment

DELTA TREATMENT

SYSTEMS PRODUCTS USED

ECOPOD® Advanced Wastewater Treatment

Drip Disposal System with effluent pump chamber, headworks, tubing, controls, valves, and fittings

INSTALLATION DATE

2018

ENGINEER

Ladd Environmental Consultants
Fort Payne, AL

INSTALLER

Dale Mask
Dale's Backhoe
Eclectic, AL

OWNER

Town of Section, AL

ECOPOD® from Delta Treatment Systems Solves Waste Treatment Challenges for Rural Alabama Town

OVERVIEW

The town of Section, Alabama is in the northeast corner of the state and has a population of 770. Local septic systems did not meet current requirements and the town needed a 45,000 gallon per day wastewater treatment system to process the domestic waste produced by both residential and commercial entities.

SYSTEM DESIGN

System designers recommended an ECOPOD® Advanced Wastewater Treatment Unit for the two-phase project. The ECOPOD disposes of wastewater quietly, efficiently and with no odor and has no inner tank filters, screens, or diffusers to service. It's total nitrogen removal capabilities and simple operation make it ideal for small cities and rural communities. For optimum system operation, the ECOPOD units were completed and shipped directly to the site ready for installation including all component equipment required.

The 45,000 GPD system treats domestic waste at a strength of 300 mg/L for both BOD and TSS and was designed to handle an average daily flow fluctuation of 50 to 100 percent. The ECOPOD units were installed in poured-in-place concrete tanks equipped with aluminum hatches. A 14,200-gallon flow equalization tank was installed prior to the ECOPOD treatment reactor tanks to store the wastewater and evenly dose it to the ECOPOD treatment system throughout a 24-hour period. The flow equalization tank includes duplex pumps to ensure flow surges don't reduce the efficiency of the treatment system. A 19,190-gallon primary tank precedes the flow equalization tank. The effluent also passes through a UV system for disinfection of fecal coliform to concentrations below permit levels. A drip disposal system, also supplied by Delta Treatment Systems, includes an effluent pump chamber, headworks, tubing, controls, and all necessary valves and fittings. A concrete building was erected on-site by the project contractor to house electrical controls and equipment.

RESULT

The ECOPOD system requires minimal operation and maintenance once installed, although Delta does recommend hiring a qualified wastewater maintenance provider for commercial systems to ensure system components are working on a periodic basis. Weekly checks involve a visual inspection of operating equipment such as blowers and pumps to ensure they are working correctly. Monthly visits involve more hands-on maintenance, such as cleaning filters and refilling chlorine tablets (if needed). Semi-annual maintenance would be based on manufacturers recommendations for equipment, such as belt tightening, UV bulb checks/replacements or mechanical equipment lubrication.



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