

Quanics

Engineering Water Solutions®

P.O. Box 1520
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1-877-QUANICS
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Advanced Treatment Case Studies



Buddy McGregor, Manager
Grand Bay Utilities
251-591-7050

SITE PROFILE		DATE
Grand Bay, Alabama Community		12-06-06
Treatment = AeroCell Open Cell Foam Media		ENGINEER
Sizing = 30,000 gpd		YOUR COMPANY
Site Challenges = High Strength Waste/Grease & High Water Table		
Solution!		
Six QUANICS Advanced treatment system ATS-16-AC modules with a 100/80/20 gravity recirculation device.		

In December of 2007, the Grand Bay Alabama Water Works Board, developed plans for an expansion of the Breitling Elementary School Waste Water Treatment Plant in Grand Bay, Alabama. In an area hit hard by Hurricanes Katrina and Rita, infrastructure improvements like this were needed to bring people back and get their lives back to normal. The original system consisted of nine textile wastewater treatment modules. The second phase consisted of additional capacity for 30,000 gallons per day and was brought about by the addition of a new subdivision on the system as well as commercial growth, that included a McDonald's, Subway, Waffle house and a truck stop with several other businesses at the nearby exit of I-10 for Grand Bay. In addition to treatment capacity being increased, three new dispersal fields consisting of 1350 Infiltrator chambers were added.

The contractor for the utility on the project, Hughes Plumbing & Utility Contractors Inc. of Mobile chose Quanics to provide the treatment capacity for the second phase. The system consisted of a single 35,000-gallon fiberglass dosing tank. Three duplex STEP systems dosed the effluent to six ATS-16-AC, Aerocell treatment modules. The open cell foam media has proven to be a reliable, long-lasting product that will treat wastewater to acceptable levels before discharge to the leaching chamber fields. The Aerocell system was chosen for its competitive initial cost, ease of installation, as well as ease of maintenance for the long term.

After installation of the tank, the six Aerocell modules were placed on the surface of the ground next to the existing treatment modules from Phase I. The new installation blended seamlessly with the Phase I installation and the project went online the next month. Grand Bay Utilities maintains the new system. **Buddy McGregor, Utility Manager, indicated they have been pleased with its performance, as well as its ease of service over the Phase I textile treatment system.**



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Design Specifications

Grand Bay Community
Grand Bay, Alabama

Installation Date - June 2008

Facility/Development Served

30,000 gallons of effluent per day. Four restaurants, a subdivision, a truck stop and a school.

Tanks

- Primary septic tanks - various sizes installed at each individual location
- ATS dosing tank - One 35,000 gallon with three Quanics STEP systems installed
- ATS tanks - Six ATS-16-AC AeroCell modules

Treatment System

Six 5000 gallon AeroCell® fixed film media filter
2400 ft³ of open cell foam media
Loading rate: 12.5 gpd/ft³, .015-.016 lbs/ft³/day
organic loading rate
Recirculation: 80%

Dispersal

Three chambered dispersal fields

Required Effluent Quality

Secondary

Operation and Maintenance

Monthly maintenance performed

