

WWTP Georgia, USA

A Case Study

Case Study: Municipal WWTP

Client: Georgia – USA

Start Up: 2009

Capacity: 1,900 m³/d



Overview

The extensive municipal WWTP was required to upgrade its effluent quality to include extensive Ammonia removal. The project was conducted by Aqwise's partner in North America, *Siemens Water Technologies Corp.*

Requirement

The city of Folkston, Georgia, needed to upgrade its lagoon system to meet new regulation regarding Ammonia removal. The extensive system consists of primary lagoons, followed by a constructed wetland, and discharging the effluent into the Okefenokee Swamp.

Challenge

The upgrade project was to be accomplished with minimal downtime and minimal expansion of the existing facilities.

Solution

An application of the AGAR® technology in an MBBR configuration was installed in order to achieve the required level of Ammonia. In this configuration, very little excess sludge is produced in the process, due to the low reproduction rate of the nitrifiers. As a result, no clarification is required following the MBBR, nor sludge

recirculation, removal or treatment. This simplifies the maintenance procedure, as well as reducing operating expenses in comparison to conventional methods.

Design

A 3-stage MBBR was constructed, utilizing the lagoon effluent as its influent. Influent characteristics are BOD of 50 mg/l, TSS of 30 mg/l, and TKN of 24 mg/l, and the required effluent quality was less than 5 mg/l of NH₄.

Results

The MBBR was commissioned at the beginning of 2009, and is consistently producing the required effluent, as detailed in the graph below:

