

Consistent Nutrient Removal Demonstrated at Municipal Wastewater Plant in Alabama

Nutrients in municipal wastewater (ammonia and phosphorus) have become a global issue. Excess nutrients in effluent coming from wastewater plants leads to environmental damage including toxic conditions for aquatic life, algae blooms, and dissolved oxygen depletion.

A large municipal water and wastewater utility serving Alabama treats water that finds its way into the adjacent Gulf of Mexico, where excessive amounts of nutrients have depleted the dissolved oxygen leading to algae blooms.

The Microvi MNE™ technology for total nutrient removal combines BOD/COD removal, nitrification (ammonia removal), denitrification (nitrate removal), and phosphorus removal.

Microvi technologies provide a biological solution that can remove nutrients while recovering phosphorus as a valuable bioproduct. This project successfully demonstrated the key benefits of the Microvi solution for total wastewater treatment.

Project Details

Site Owner: Utility in Alabama, U.S.A.

Issue: Removal of Nitrogen and Phosphorus

Solution: Denitrovi[™], Aerovi[™], Provi[™] Technologies

Key Results:

- Ammonia reduced to less than 0.2 mg-N/L
- Nitrate reduced to <2 mg-
- Orthophosphate reduced to <0.1 mg-P/L
- Short system start up (<10 days)