

Lake Griffin canal dredging and Eustis Muck Farm wetland restoration

Scope

Lake Griffin is a 9,300-acre lake at the headwaters of the Ocklawaha River in Lake County, Florida. AMEC provided evaluation, design, and construction support services of a project to remove sediments from more than 30 canals ringing the lake and to place those sediments in a confined section of a subsided muck farm in order to restore wetlands.

This project required AMEC's expertise in:

- Water resource engineering (disposal site impoundment water budget)
- Hydraulic system design (floating pipeline with booster pumps)
- Water quality treatment (alum and polymer feeds for turbidity control)
- Geotechnical engineering (slope stability, embankment design, settling and consolidation of mixed media slurry)
- Construction support services (bid specifications and plans, contractor screening and selection, engineering inspections, progress payment review, permit compliance review, landowner coordination)
- Wetland science

Unique components of the project included:

- Long transport distances (5 to 12 miles) from the canals to the disposal site
- Highly variable composition of the dredged sediments (unconsolidated sands, flocculent muck, consolidated muck and cohesive clay)
- A requirement for precise sediment deposition at a subsided muck farm to cap pesticide contamination hotspots while simultaneously maintaining several feet of water over the disposal site

The project was completed by the low bidder without change orders under AMEC's inspection and coordination program.



Client

- Lake County Water Authority

Ron Hart
Water Resources
Program Manager
107 North Lake Avenue
Tavares, Florida
USA 32778
352.343.3777 (p)
352.343.4259 (f)

Location

- Leesburg, Florida

Key Staff

- Walter Reigner, PE, CPESC
- John Kiefer, PhD, PE, PWS
- Carl Christmann, PE
- Terry Dykehouse, PE
- Jacqueline Levine
- Mark Jones

Project Cost

- Engineering: \$400,000
- Construction: \$7.2 million

Start Date

- 2003

Completion Date

- Design: 2004
- Construction: 2008