

Lake Apopka North Shore Restoration Area

Location: Lake County, Florida
Client: St Johns River WMD (SJRWMD)
Contact: Mr. Cliff Gandy, Project Manger
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Value: \$4,600,000

Description: In October 2006, TEI was awarded an annual contract with SJRWMD for their Annual Civil Works Program. During March 2007 thru August 2008, TEI was issued several work orders to implement portions of a major wetland restoration project in Lake County, Florida. In December 2009 TEI was awarded it second Annual Civil Works Contract.

The purpose of the Ocklawaha River Basin restoration program is to restore freshwater habitat, protect and improve water quality, and ultimately re-connect the restored wetlands to Ocklawaha River Basin. The projects are located on the site of former farm fields that had been converted from a sawgrass marsh, known as Emerald Marsh; as well as on what was once a world-class bass fishery known as Lake Apopka. By balancing short-term and long-term goals, a dynamic ecosystem is being returned to the area.



The Lake Apopka project consisted of improvements to the levee system and canals to allow for movement of water between the fields and canals to allow for the saturation of soils in order to remediate the pesticides located in the North Shore area. The work for this project was completed in Phases. Over 30 structures with flexible risers 60” piping and retaining walls have been installed as well as the creation of over 8.5 miles of levee systems built upon mucky soils and stabilized to allow for vehicle traffic and the ability to carry at least a 120 ton load.

A conceptual plan was completed for the remediation of pesticides in soils within the Lake Apopka North Shore Restoration Area (NSRA). This conceptual plan included remediation through shallow flooding of the soils within the fields. Data has shown that the pesticides break down at a faster rate in soils that are saturated. It has been estimated that the infrastructure and operation costs associated with maintaining this saturated condition can be much lower than the cost of soil remediation through mechanical means alone such as soil capping. To achieve this shallow saturated condition, infrastructure improvements were required within the NSRA Zellwood area to prepare the hydraulic conditions to allow equal flooding of a common area, and to maintain water levels at desirable levels.

