

splash!

quick facts on...

Lake Trafford Restoration

JANUARY 2011

The South Florida Water Management District is a regional, governmental agency that oversees the water resources in the southern half of the state. It is the oldest and largest of the state's five water management districts.

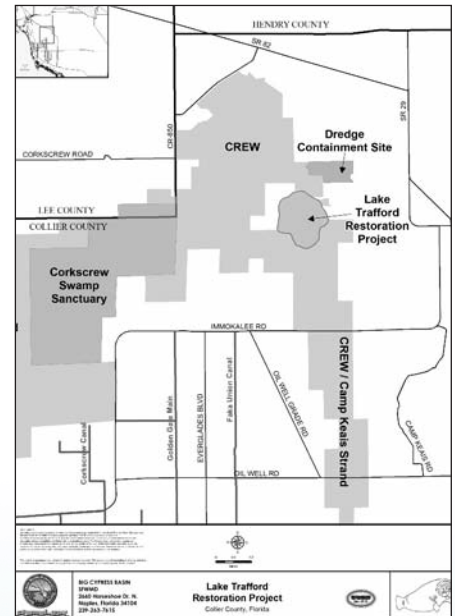
Our Mission is to manage and protect water resources of the region by balancing and improving water quality, flood control, natural systems, and water supply.

Lake Trafford is a shallow, 1600-acre lake – Florida's largest lake south of Lake Okeechobee. It is the headwaters of several important ecosystems: Corkscrew Swamp-Imperial River, Cocohatchee River and Camp Keais Strand-Panther Refuge. Outdoor enthusiasts value Lake Trafford as a resource for recreational boating and fishing.

Background

Lake Trafford was once sandy bottomed. Over time, nutrient runoff from nearby agriculture and urban developments shifted the lake's native aquatic vegetation to dense mats of exotic hydrilla. Herbicides were used to control the hydrilla and dead plant material accumulated on the bottom of the lake, releasing additional nutrients. This triggered algae blooms, degrading prime spawning habitat for native fish. The blooms also reduced the lake's dissolved oxygen levels, resulting in periodic fish kills.

Congress approved this critical ecosystem restoration project in the Water Resources Development Act of 1996 to improve the health of the lake and restore its native plant and animal communities. The South Florida Water Management District and the U.S. Army



Corps of Engineers signed a Project Cooperation Agreement to cost-share the design and construction on the Lake Trafford Restoration Project in January 2000. The South Florida Water Management District completed this project in November 2010 with Big Cypress Basin ad valorem funds, supplemented by grants from the Florida Fish and Wildlife Conservation Commission and Collier County Tourist Development Council.



Objectives

- Remove approximately 6 feet of muck from the lake bottom and 2 feet from the littoral zone
- Deposit sediment in a spoil area approximately 1 mile north of the lake
- Restore native fisheries and the lake ecosystem to its condition prior to urban and agricultural development in the watershed
- Develop a Watershed Protection Plan to reduce future nutrient inputs

Project Phases

The dredging of Lake Trafford was completed in three phases:

PHASE I: Removed approximately 3.5 million cubic yards of muck from the central part of the lake in 2006

PHASE II: Removed approximately 800,000 cubic yards of muck from the littoral zone around the edges of the lake in 2007

PHASE III: Removed approximately 2 million cubic yards of muck to complete the project in November 2010

Future Plans

Restoration of Lake Trafford will not end with the completion of dredging. Other plans to maintain the health of the lake include:

- Re-establish native submerged aquatic vegetation, such as vallisneria, through littoral plantings
- Monitor the long-term health of the lake using water quality parameters (especially dissolved oxygen), environmental indicators and the recovery of native fish communities
- Promote additional studies to develop best management practices to control nutrient runoff and minimize growth of invasive aquatic vegetation

Project Partners

Lake Trafford Restoration is an unique example of local citizens, public agencies and private organizations working together to restore a precious natural resource. The project was conceived and initiated by the Immokalee Chamber of Commerce. A Lake Trafford Task Force was formed, jointly sponsored by the Big Cypress Basin of the South Florida Water Management District and Collier County, with support from the Florida Department of Environmental Protection, the Florida Fish and Wildlife Conservation Commission



and the U.S. Army Corps of Engineers. Environmental interest organizations, such as the Audubon Society and the Conservancy of Southwest Florida, also have supported the project. The Task Force and the Friends of Lake Trafford (a grassroots group) mobilized users of the lake and continue to be the proud supporters of this successful restoration project.

Project Cost:

PHASE I: \$10,258,793

PHASE II: \$2,338,826

PHASE III: \$7,462,000

Land Disposal Site: \$1,300,000

Total: \$21,359,619



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SERVICE CENTERS

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Broward
 954-713-3200

Florida Keys (Key Largo)
 305-853-3219

Lower West Coast
 239-338-2929 or 800-248-1201

Martin/St. Lucie
 772-223-2600 or 800-250-4100

Miami-Dade
 305-377-7274 or 800-250-4300

Okeechobee
 863-462-5260 or 800-250-4200

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