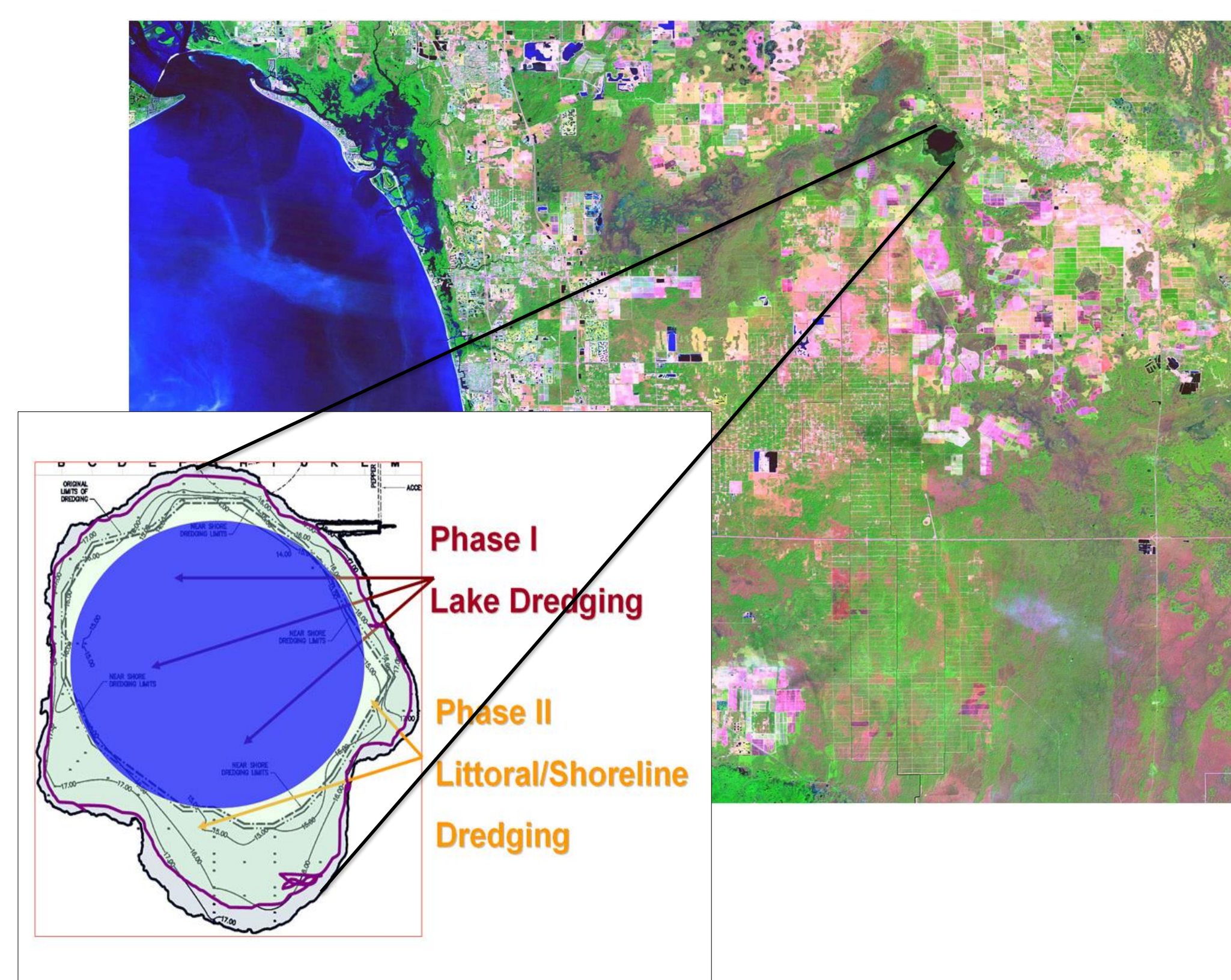


# Guiding Lake Trafford's Recovery: Lake Trafford Management Team and Management Action Plan

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## Abstract

Lake Trafford had been subjected to increasing anthropogenic nutrient loading over several decades. This resulted in a shift away from a clear, macrophyte-dominated system state to a turbid plankton-dominated one, resulting in algal blooms and fish kills. The Big Cypress Basin (BCB) implemented a restoration project that involved hydraulic dredging of the lake, resulting in the removal of over 6 million cubic yards of sediments. In an effort to coordinate the on-going restoration and post-dredging management activities, the BCB established the Lake Trafford Management Team (LTMT) including representatives from: Big Cypress Basin of the South Florida Water Management District; US Fish and Wildlife Service; Florida Fish and Wildlife Conservation Commission; Florida Department of Environmental Protection; Collier County Pollution Control; and Florida Gulf Coast University. The vision for Lake Trafford, as developed by the LTMT is:

*Return Lake Trafford to a popular and productive sportfishing, recreational, and tourist destination, and to a healthy lake ecosystem with diverse native plant and animal communities.*

The LTMT collaboratively developed the Lake Trafford Management Action Plan, which includes categories of management activities that impact: water quality; fish and wildlife; vegetation; the lake ecosystem; and management coordination. For each of these categories of activities the plan includes objectives, identified management actions for next year and projected for the next five years, and stated specific performance measures associated with these objectives and management activities. The plan also identifies challenges to the achievement of the vision, including: unpredictable weather events; exotic species management; agency coordination; private partnerships and stakeholder involvement; continued dedicated funding; and the need to expand management to a holistic watershed perspective. Completing the restoration of Lake Trafford requires active management to restore native vegetation, on-going efforts to control invasive exotics, and management of the sport fish populations. In addition, long-term monitoring of water quality, vegetation dynamics, and fish and wildlife populations is necessary to track the evolving health of the lake and to guide the development and implementation of future management activities as we facilitate the full recovery of Lake Trafford. The LTMT provides a model of coordination of multi-agency management efforts that can be applied to a variety of restoration projects in the region.



## Background

- Nutrient loading, invasive exotic infestation and herbicide application resulted in an unstable, algal dominated lake
- A collaborative multi-agency effort, coordinated by the Big Cypress Basin of the South Florida Water Management District resulted in hydraulic dredging of > 6 million cubic yards of muck (completed in 2010)
- Restocking of native fish, replanting of native macrophytes, and control of invasive exotics are on-going management efforts.



## The solution ....

- Establishment of a multi-agency "Lake Trafford Management Team"
- Regular meetings to report on upcoming management activities, share insight into the status of the lake ecosystem, and resolve any potential management conflicts
- Collaborative development of a Lake Trafford Management Action Plan with sections on:
  - Water Quality
  - Fish and Wildlife
  - Vegetation
  - Lake Ecosystem

## Lessons learned ...

- 'Moving the dirt' (or muck) is only the beginning of any restoration project. On-going management needs to be both coordinated and adaptive
  - Coordination takes resources – particularly time – but can ultimately be more cost-effective as agencies avoid redundant effort and synergy is facilitated
  - Initial efforts at coordination are hampered by traditional agency territoriality. Removing competition for funding within the coordination efforts seems to facilitate collaboration and ultimately trust.
  - Establishing a culture of trust and respect for multiple missions and values is not fast or easy, but is worth the effort!

## The problem ....

Coordination of ecosystem level restoration and management activities among multiple agencies

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