



Reviving  
*THE river OF grass*

## Maps and Land Information

***Matt Morrison, Director, Project Coordination  
Division***

[sfwmd.gov/riverofgrass](http://sfwmd.gov/riverofgrass)

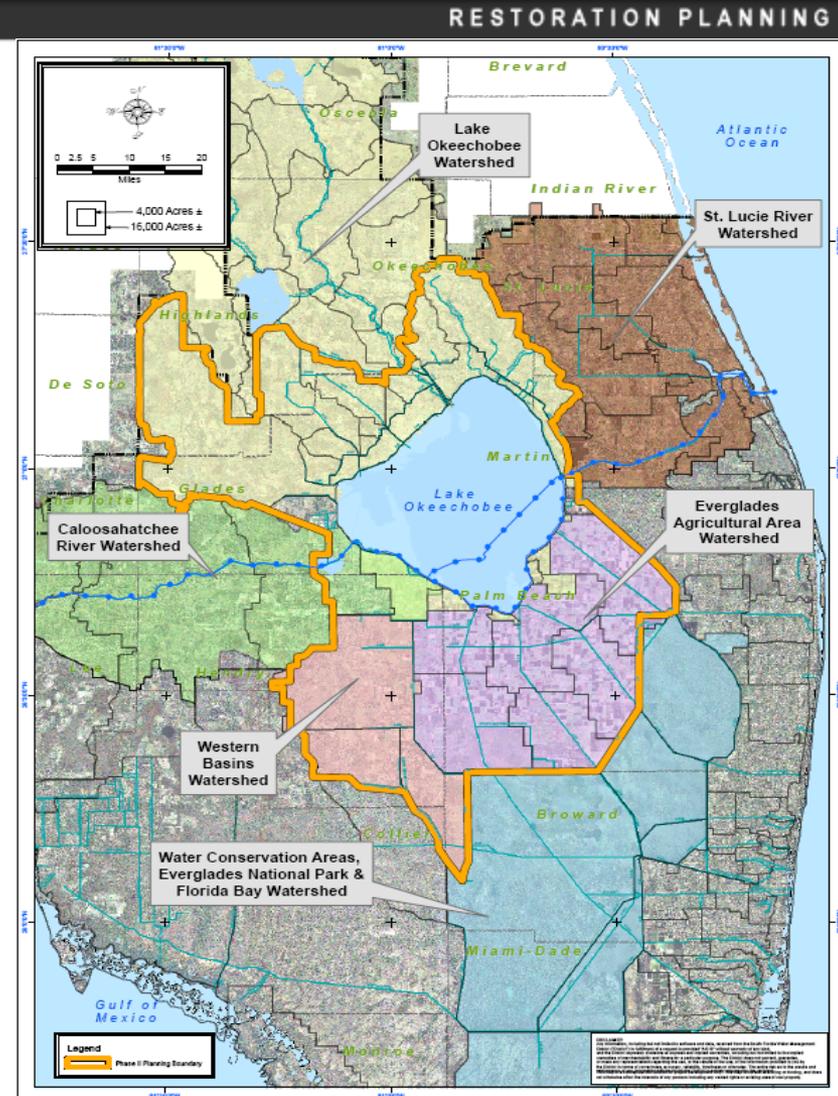
# Maps and Land Information

RESTORATION PLANNING

- Graphical Compilation of Land Related Information
  - Includes information on project planning limits, parcel ownership, land use, infrastructure and other planning level land related items
  - Provides assistance to project teams in formulating proposed project footprints and configurations
  - Guide project planning by distinguishing potential cost related impacts based on project location
  - Promotes identification of any missing land related information that needs to be considered in project planning

# Phase II Planning Boundary

- General area that will be considered for potential project features
- Up to 900k ac-ft storage north of LO (non-site specific)
- Storage, treatment and conveyance features south of LO (site specific)



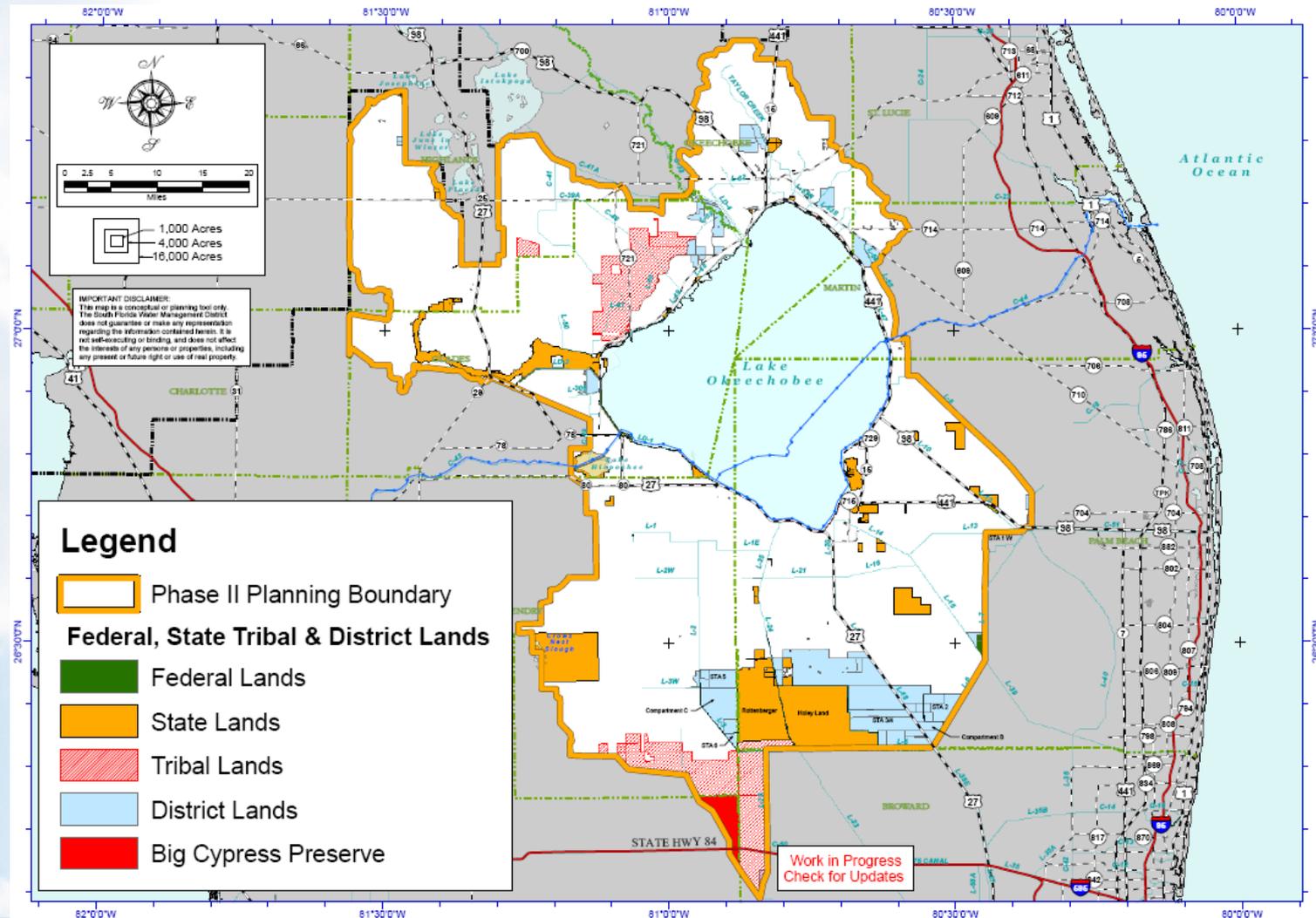
# Land Information and Relevance

RESTORATION PLANNING

- Parcel Ownership
  - Provides a general range of potential land availability
    - High Potential Availability - State and Federal Lands, United States Sugar Corporation Lands
    - Uncertain Availability - Private Lands, Utility Owned Lands, Urban Service Areas Outside of Municipal Boundaries
    - No Availability - Tribal Lands, Lands within Municipal Boundaries, Existing Projects, Projects Under Construction

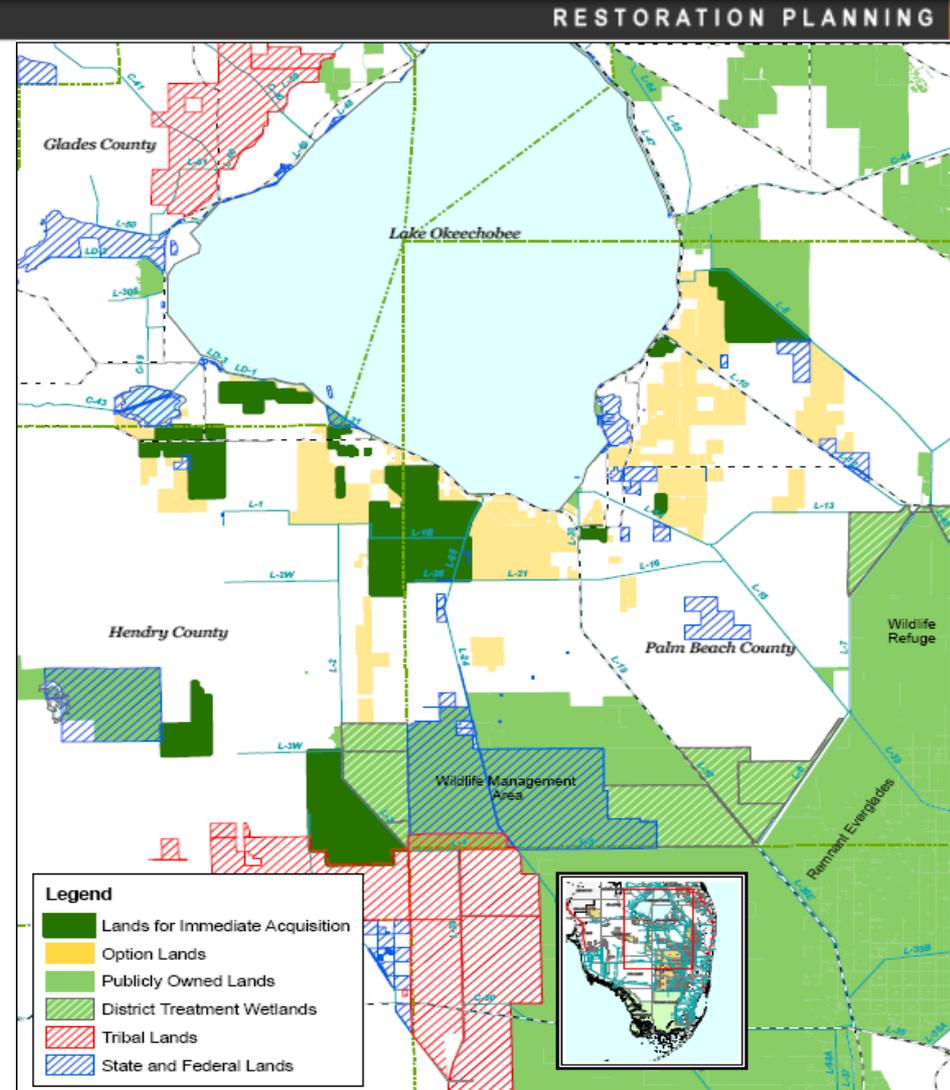
# Parcel Ownership

RESTORATION PLANNING



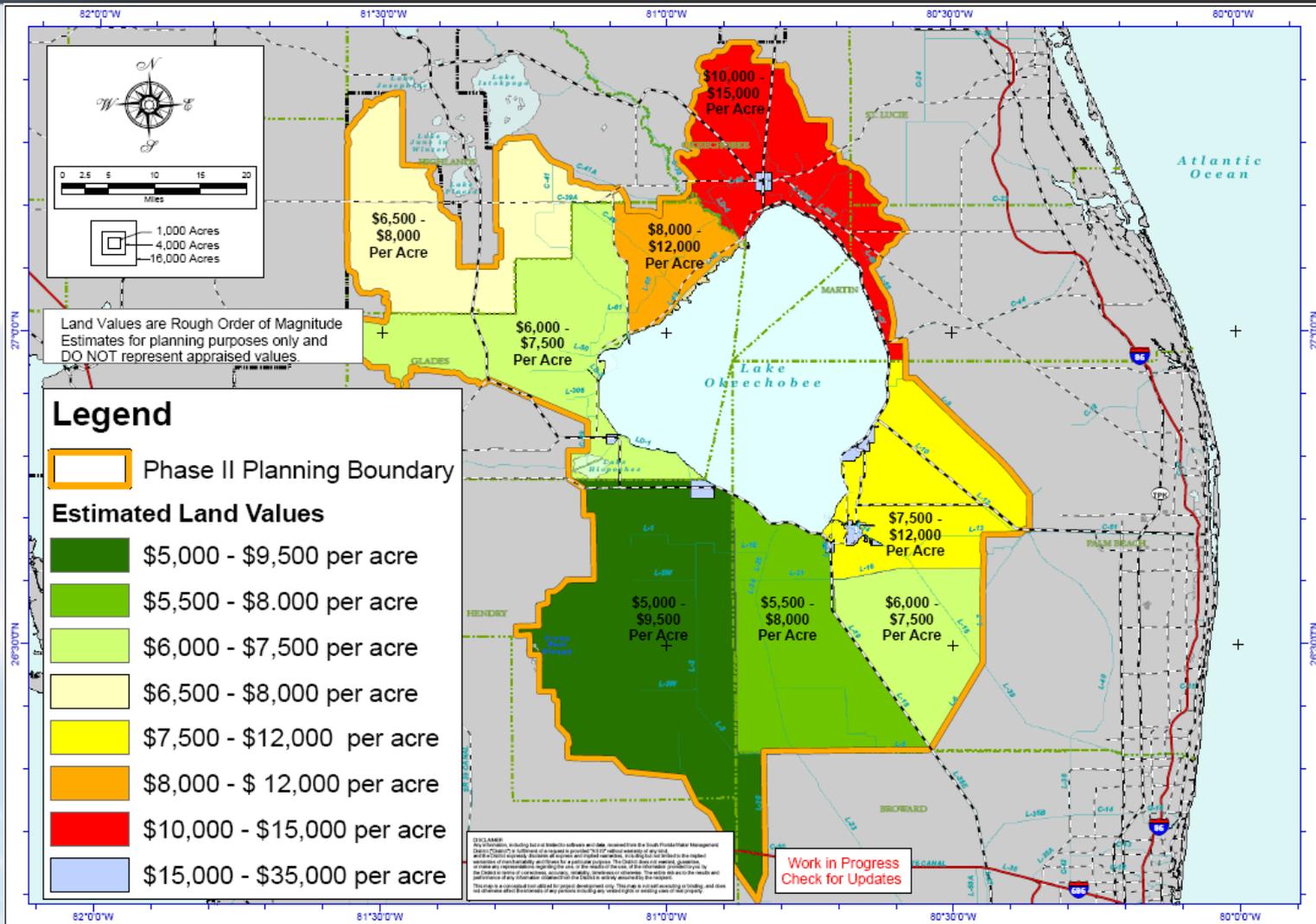
# Acquisition Lands

- Initial purchase of approximately 73,000 acres
  - 33,000 acres of citrus
  - 40,000 acres of sugarcane
- 107,000 acres of option lands



# Estimated Land Values

RESTORATION PLANNING



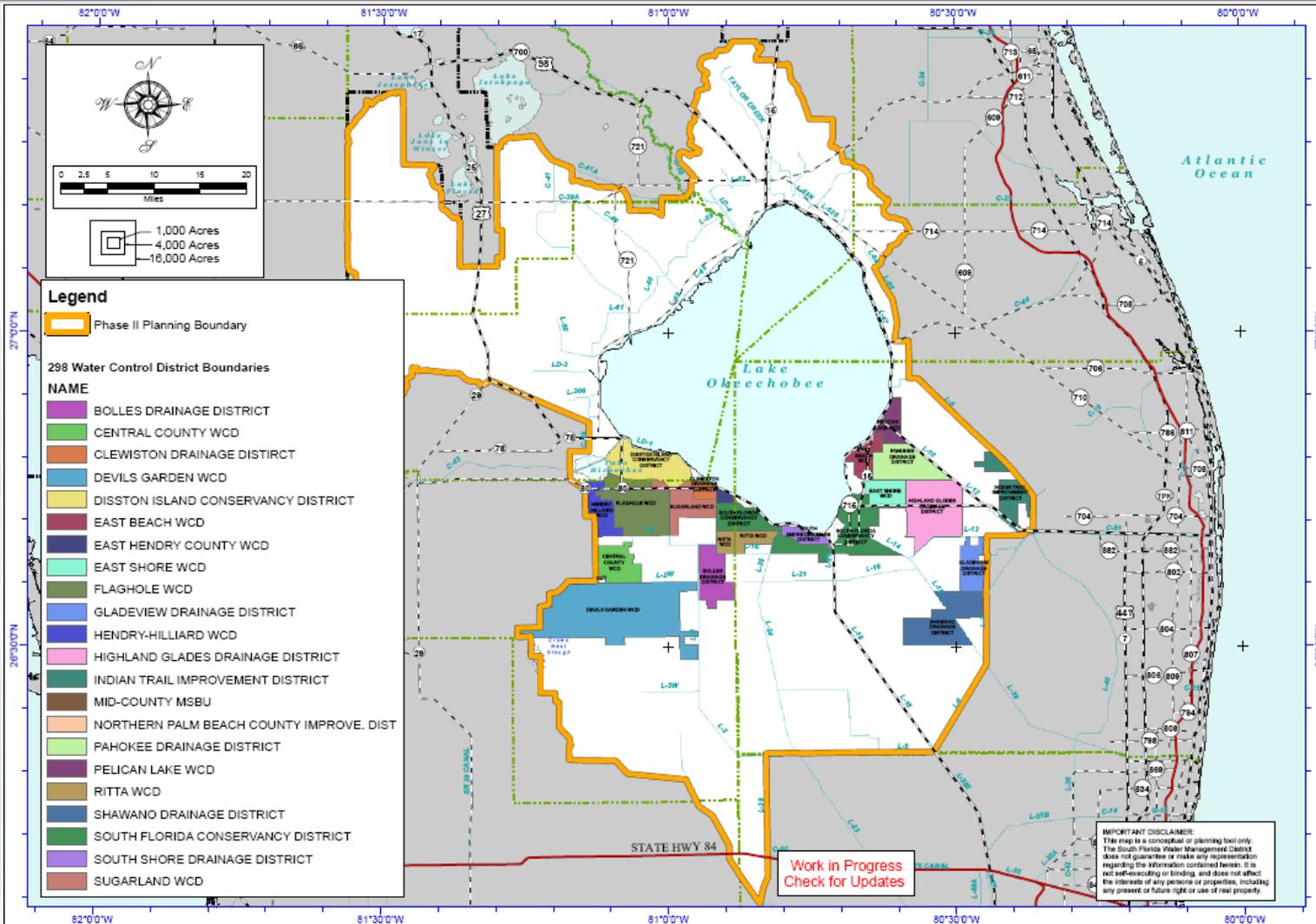
# Land Information and Relevance

RESTORATION PLANNING

- 298 Water Control Districts and Other Special Districts
  - Ensure that all remaining lands within a District receive the same level of service with the proposed project configuration
  - Provide necessary offsets for maintaining irrigation, flood control, access and any other services the District provides to land owners

# 298 Water Control Districts and Other Special Districts

RESTORATION PLANNING



# Land Information and Relevance

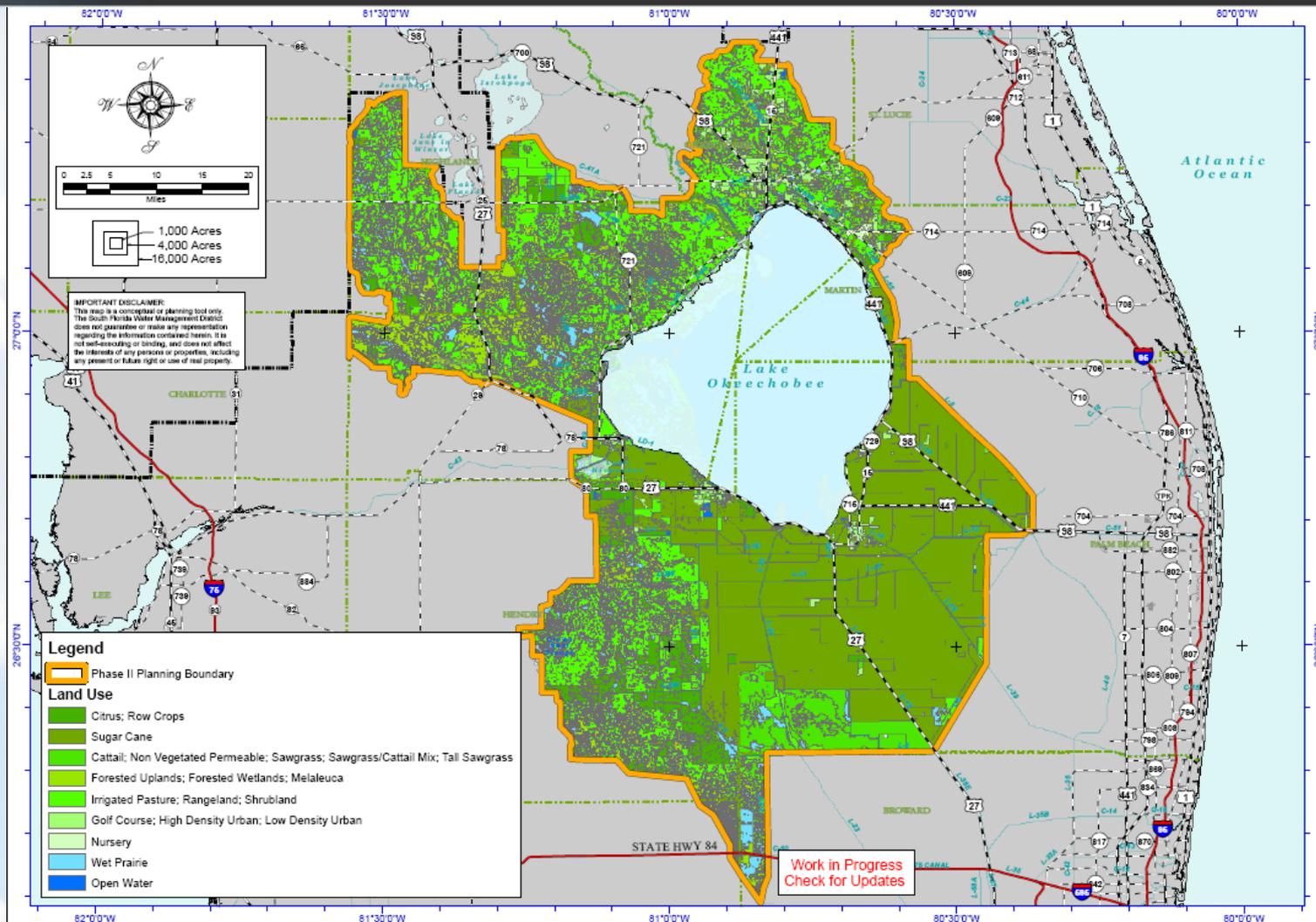
RESTORATION PLANNING

## ■ Land Use

- Evaluate the potential economic impact of changing land use
  - agricultural parcels based on agriculture type and location
- Assess possible environmental remediation requirements
  - current land use vs. restoration lands
- Minimize impacts to existing wetlands
  - ensure water supply or drainage of existing wetlands is not compromised by proposed configuration

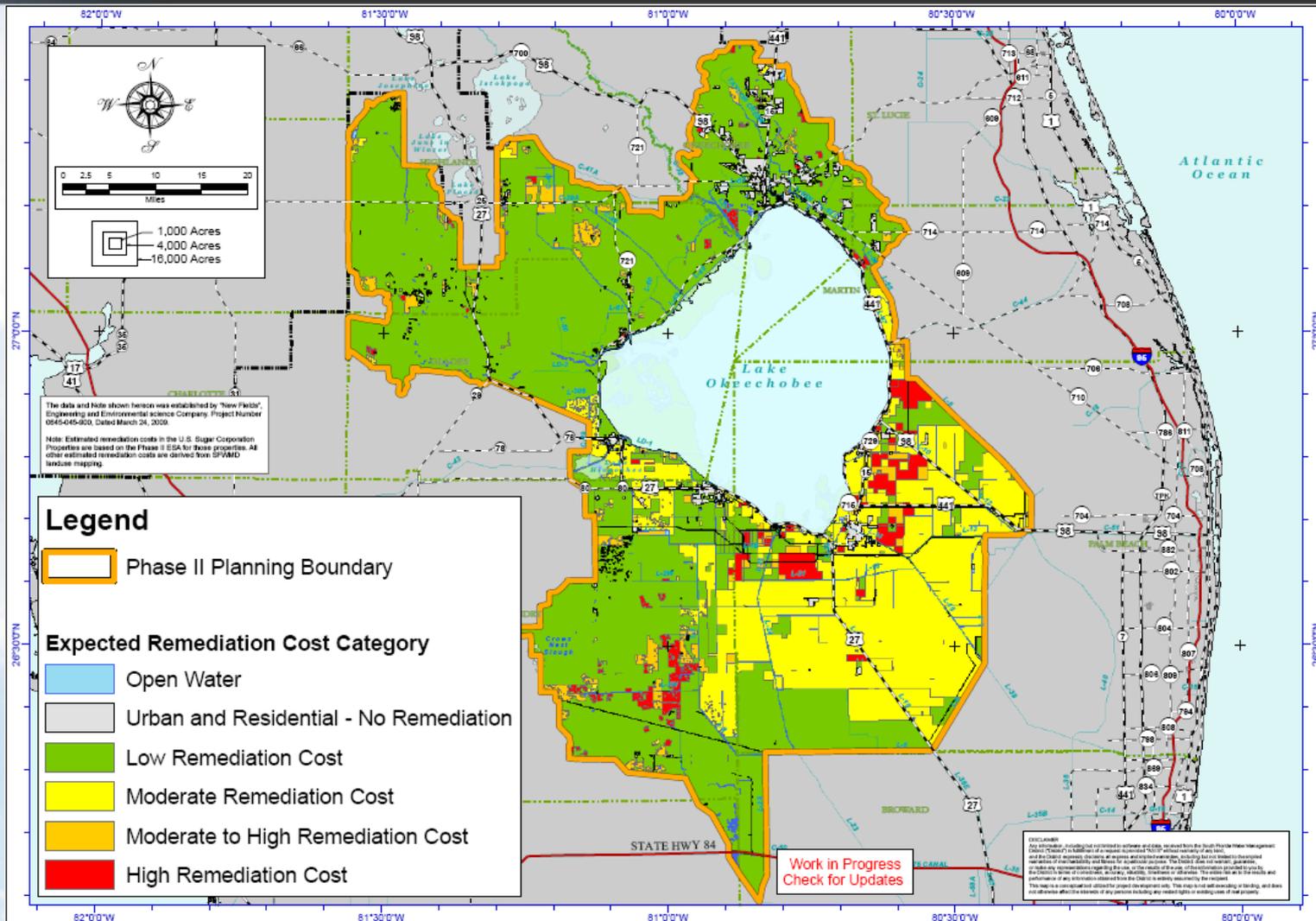
# Florida Land Use and Cover Classification System (FLUCCS)

RESTORATION PLANNING



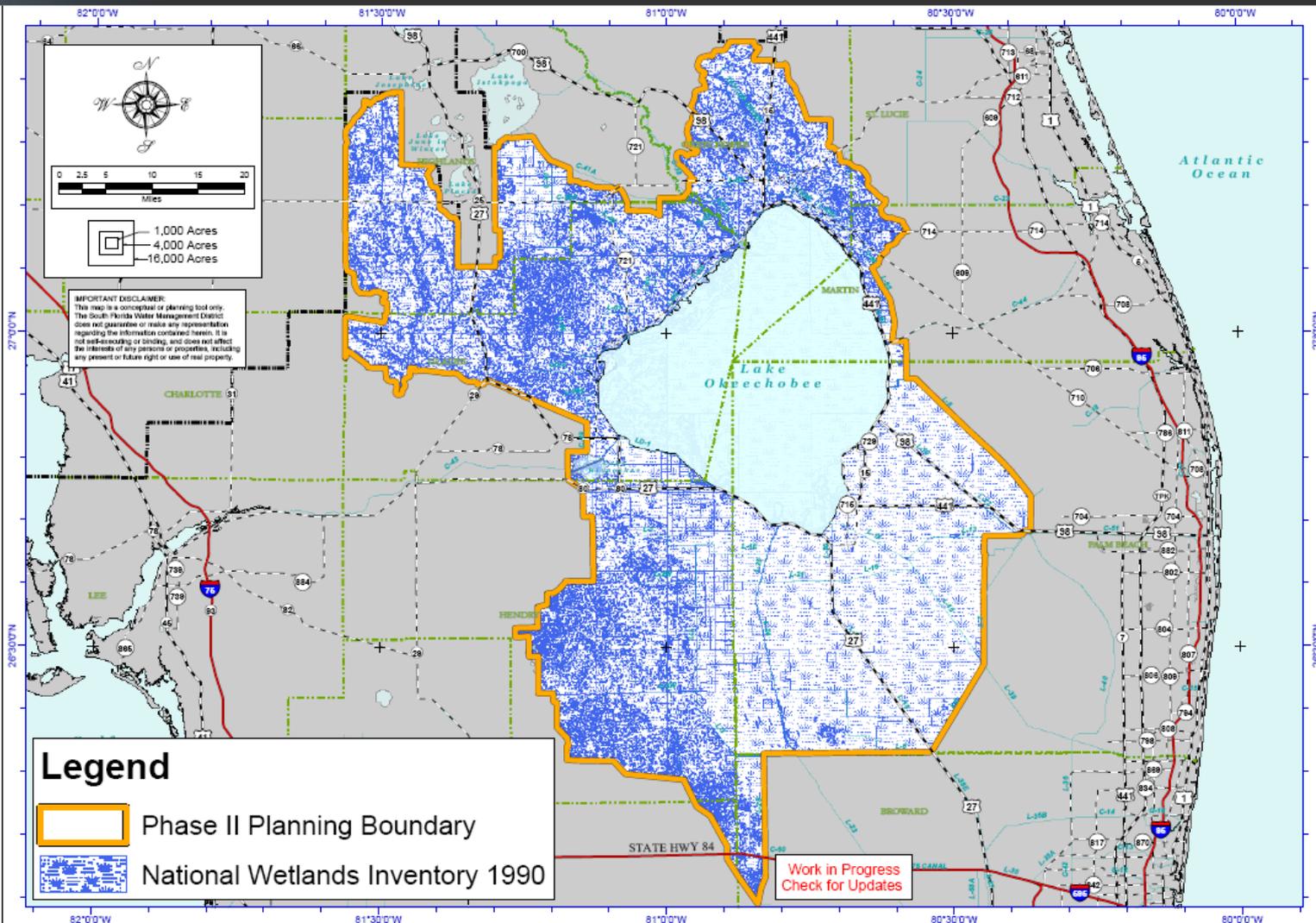
# Environmental Assessment

RESTORATION PLANNING



# National Wetlands Inventory

RESTORATION PLANNING



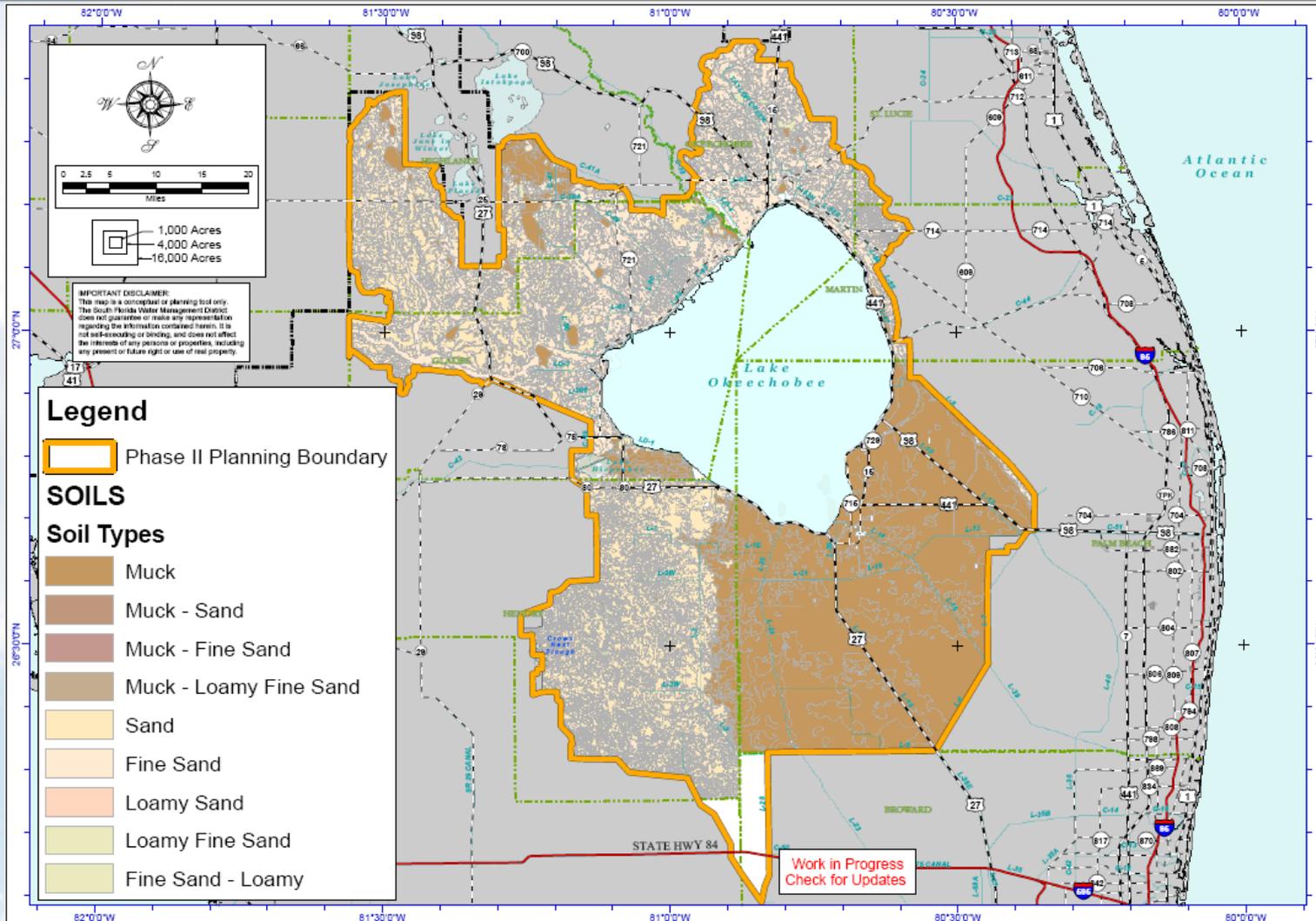
# Land Information and Relevance

RESTORATION PLANNING

- Soil Characteristics
  - Soil type and depth can have a significant impact on the ability and cost to construct certain project features
    - Muck soils may need to be removed underneath embankment footprints for structural stability
  - Soil type and depth can have a significant impact on crop yield and ability to sustain long term agricultural production

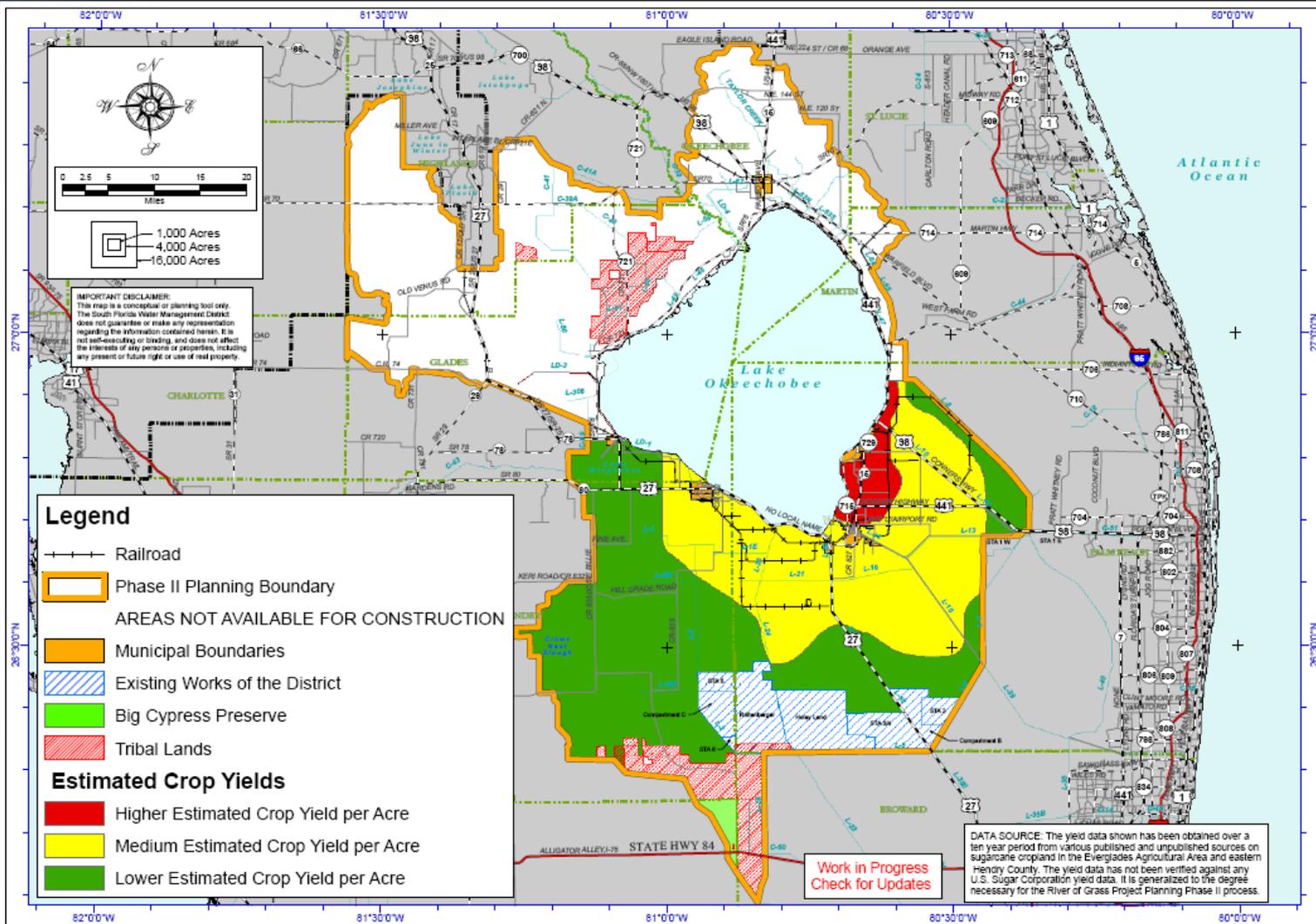
# US Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey

RESTORATION PLANNING



# Estimated Crop Yields

RESTORATION PLANNING



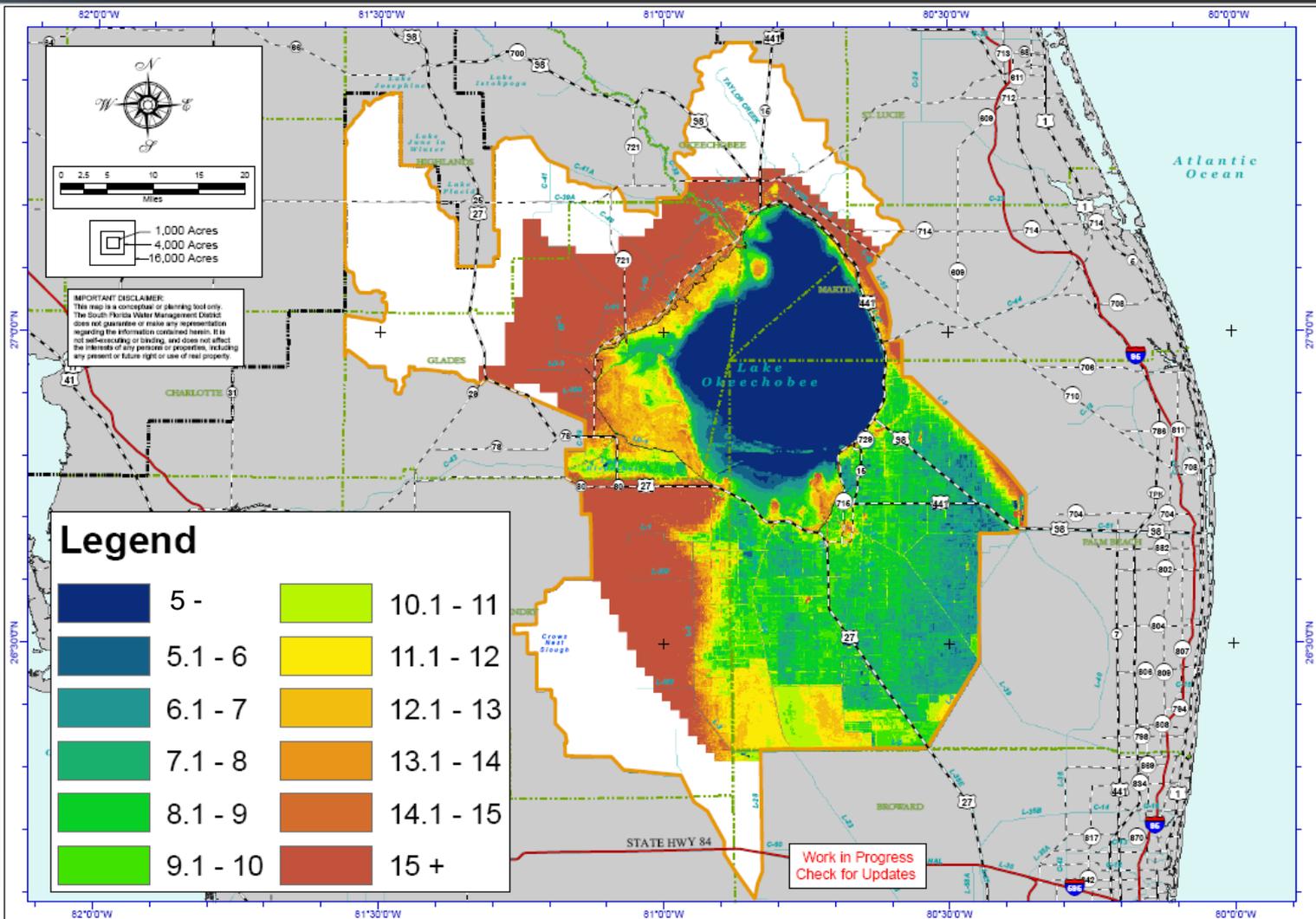
# Land Information and Relevance

RESTORATION PLANNING

- Topography
  - Land contours have a significant influence on ability for water to gravity flow over long distances
  - Topographic differences within a project footprint affect available storage
  - Depending on the type of feature selected, topography differences are evaluated to determine amount and cost of dirt to be removed

# Topography

RESTORATION PLANNING



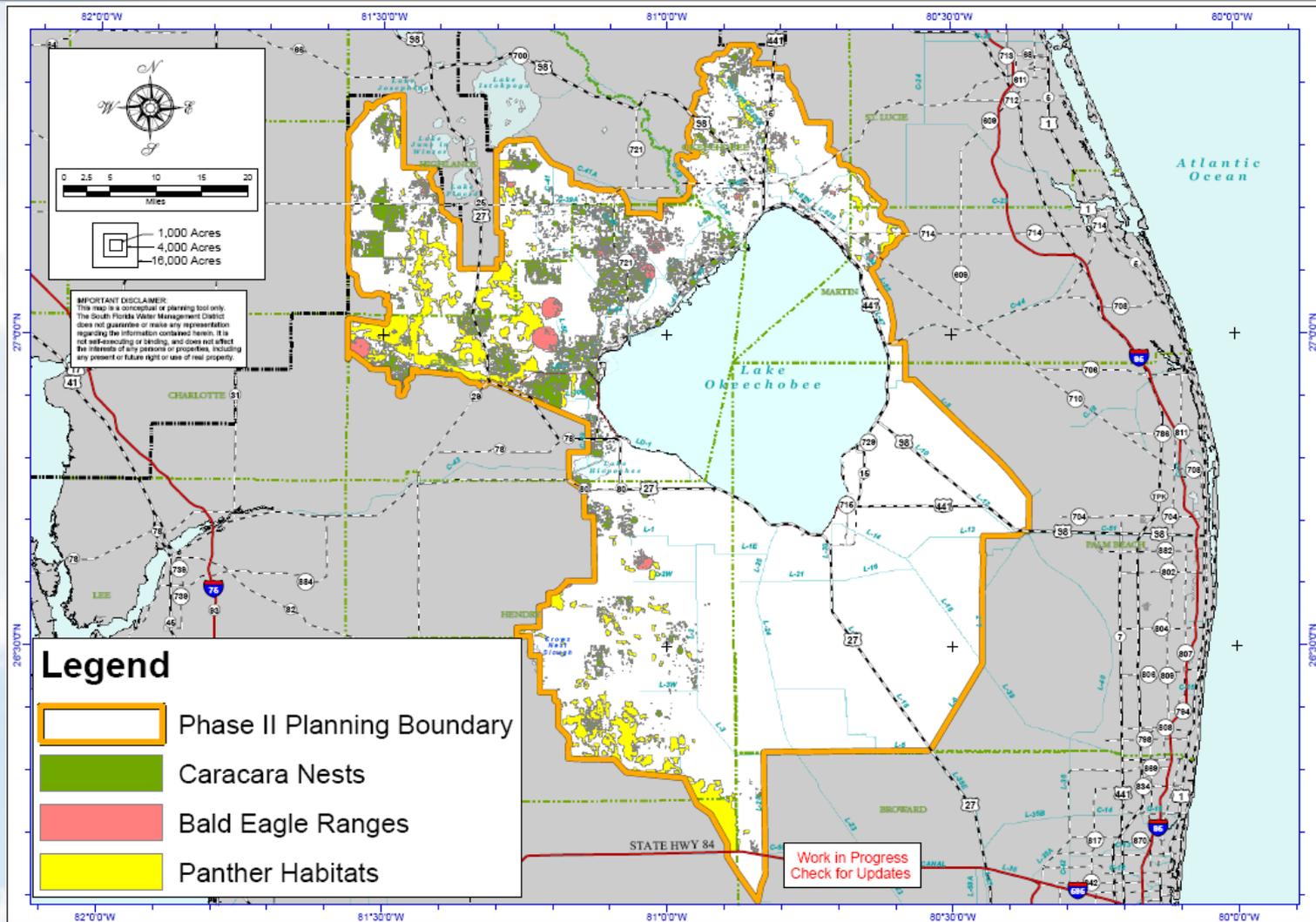
# Land Information and Relevance

RESTORATION PLANNING

- Threatened and Endangered Species Habitat
  - Consideration of proposed project location and construction relative to Threatened and Endangered Species
    - Panthers, Rookeries, Caracara, Bald Eagles
  - Potential impacts to the design and location of a proposed configuration depending on Permit Requirements
    - Certain time of year construction requirements resulting in higher capital costs

# Panther Habitat, Caracara Nests and Bald Eagle Ranges

RESTORATION PLANNING



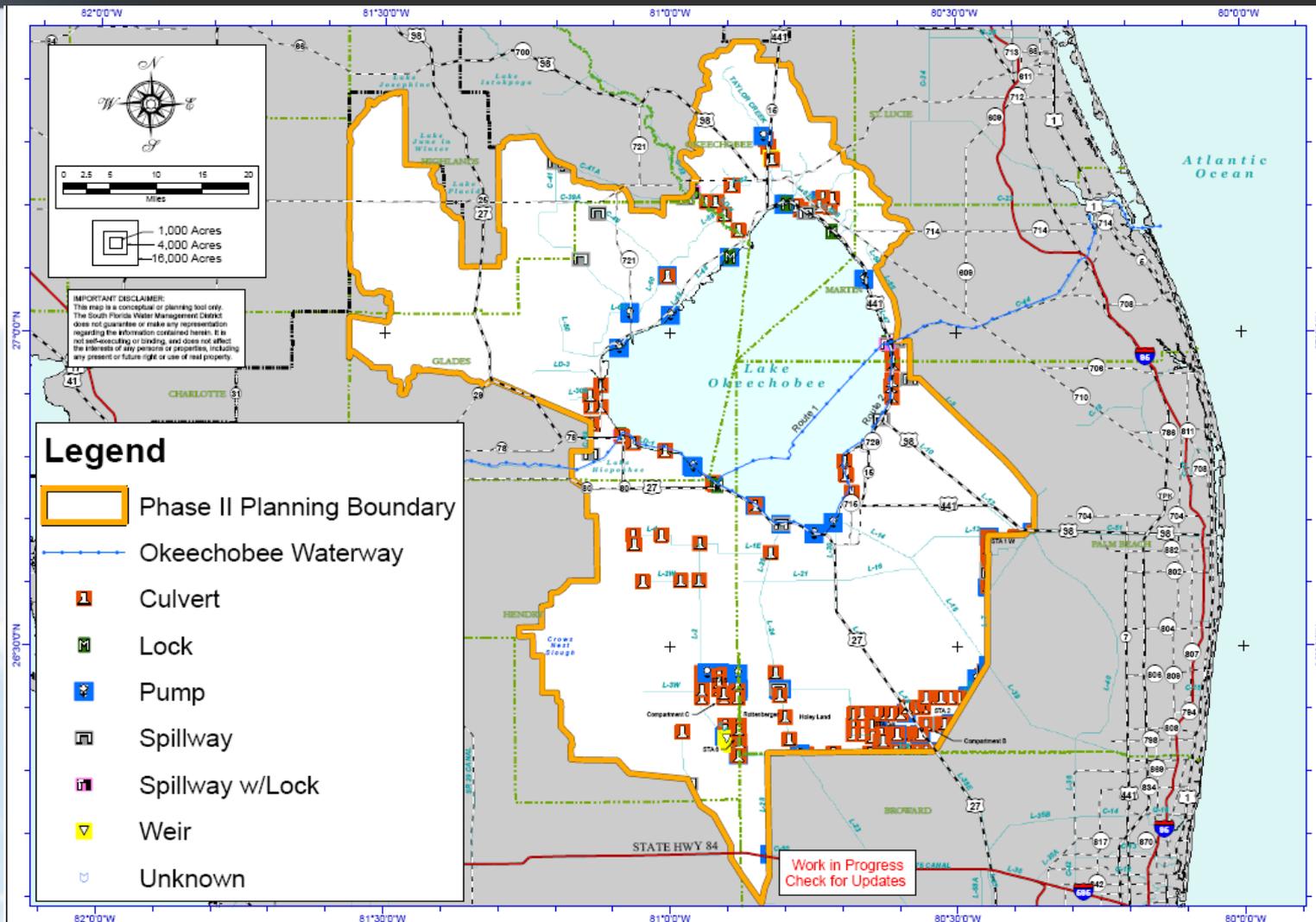
# Land Information and Relevance

RESTORATION PLANNING

- Canals and Water Control Structures
  - Potentially reduce project costs by locating near existing canals, pump stations, gates, and other water control structures
  - Existing facilities provide a means to control and convey water to and from a new proposed project feature
  - If an existing canal or water control structure needs to be modified, there is a good possibility that the modification can take place within the existing right-of-way and require little or no additional land acquisition

# South Florida Water Management District Water Control Structures

RESTORATION PLANNING



# Land Information and Relevance

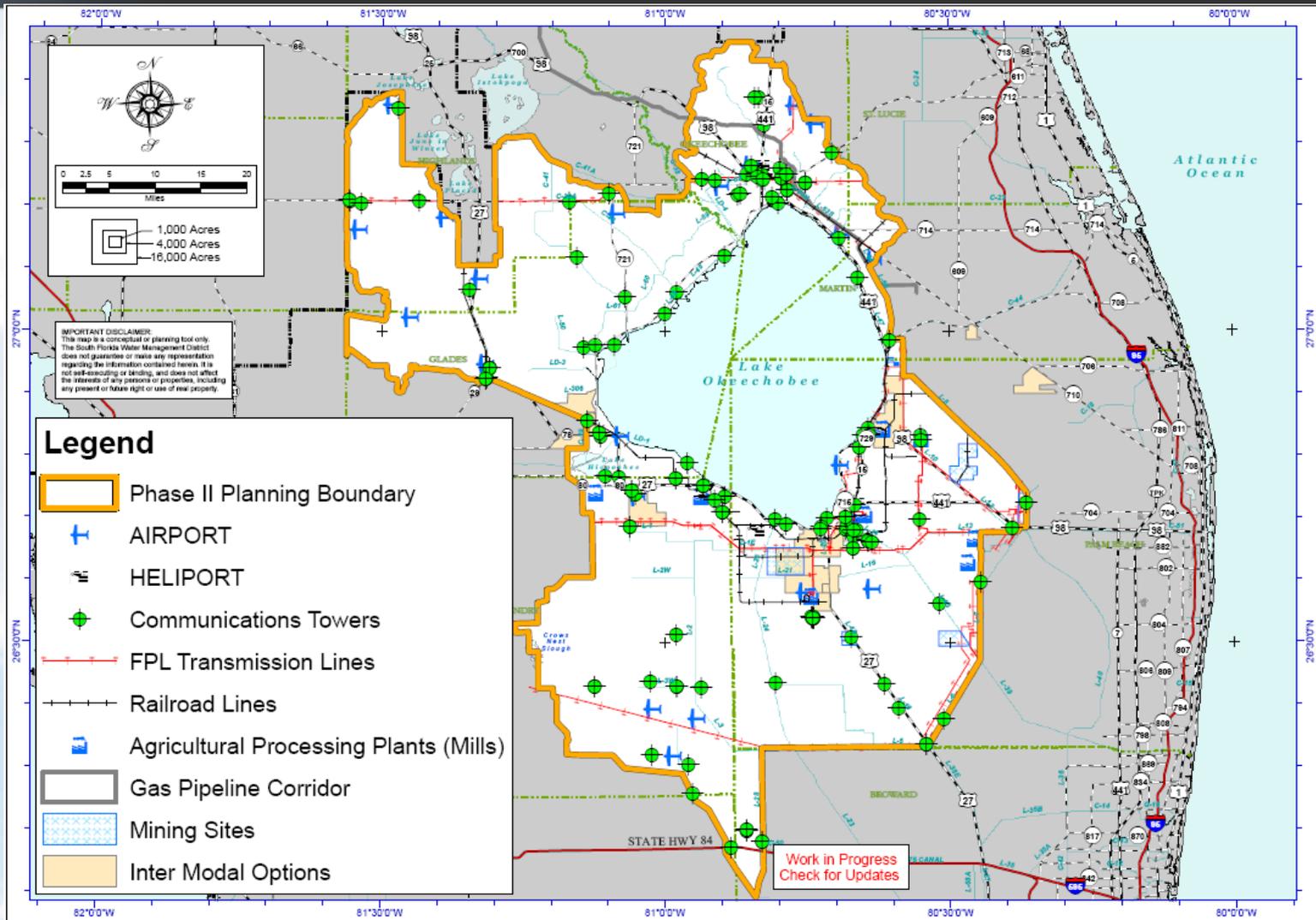
RESTORATION PLANNING

## ■ Existing Infrastructure

- Considerations for the additional costs to remove, widen, and/or relocate - Roads, Bridges, Railroads, Power Lines, Natural Gas Lines, Communication Towers, Airports, Agriculture Processing Plants
- Widening of canals typically require new and longer bridges
- Relocation of Roads and Railroads can be costly
- High Voltage Transmission Lines can only be relocated during a short time frame every year (weather dependent)
- Federal Aviation Agency (FAA) recommends not constructing a wildlife attractant within 5,000 or 10,000 feet of an airport depending on the type of aircraft using the airport
- Relocating an agricultural processing plant is unlikely and cost prohibitive

# Infrastructure

RESTORATION PLANNING



# Reviving

THE *river* OF GRASS

Questions?



[sfwmd.gov/riverofgrass](http://sfwmd.gov/riverofgrass)