

the journey to restore  
America's  
Everglades



# the Restoration

## of America's Everglades & the South Florida Ecosystem



# South Florida Ecosystem Restoration

## Current Program

Modified Water Deliveries to ENP

(Funded Thru DOI)



Kissimmee River Restoration

Critical Projects Program

Continuing Authorities Program (1135, 206)

Central & Southern Florida Project

Upper St Johns

Manatee

C-51 / STA-1E

C-111

CERP

# Modified Water Deliveries to Everglades National Park



## Completed:

- S-355A&B
- Tigertail Camp
- Removal of 4 miles of L-67 Ext
- Interim S-356

## Ongoing:

- Acquisition in 8.5 SMA
- 414 tracts acquired out of 835 needed
- Demolition of acquired structures
- ENP assistance in Acquisition

## Upcoming:

- Construction of 8.5 SMA Levee, Canal and Pump Station

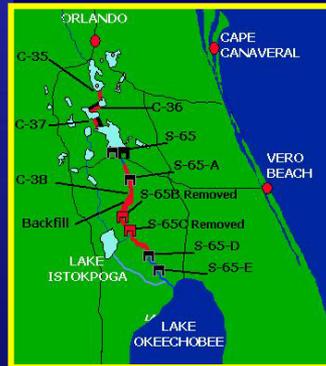
# South Florida Ecosystem Restoration continued

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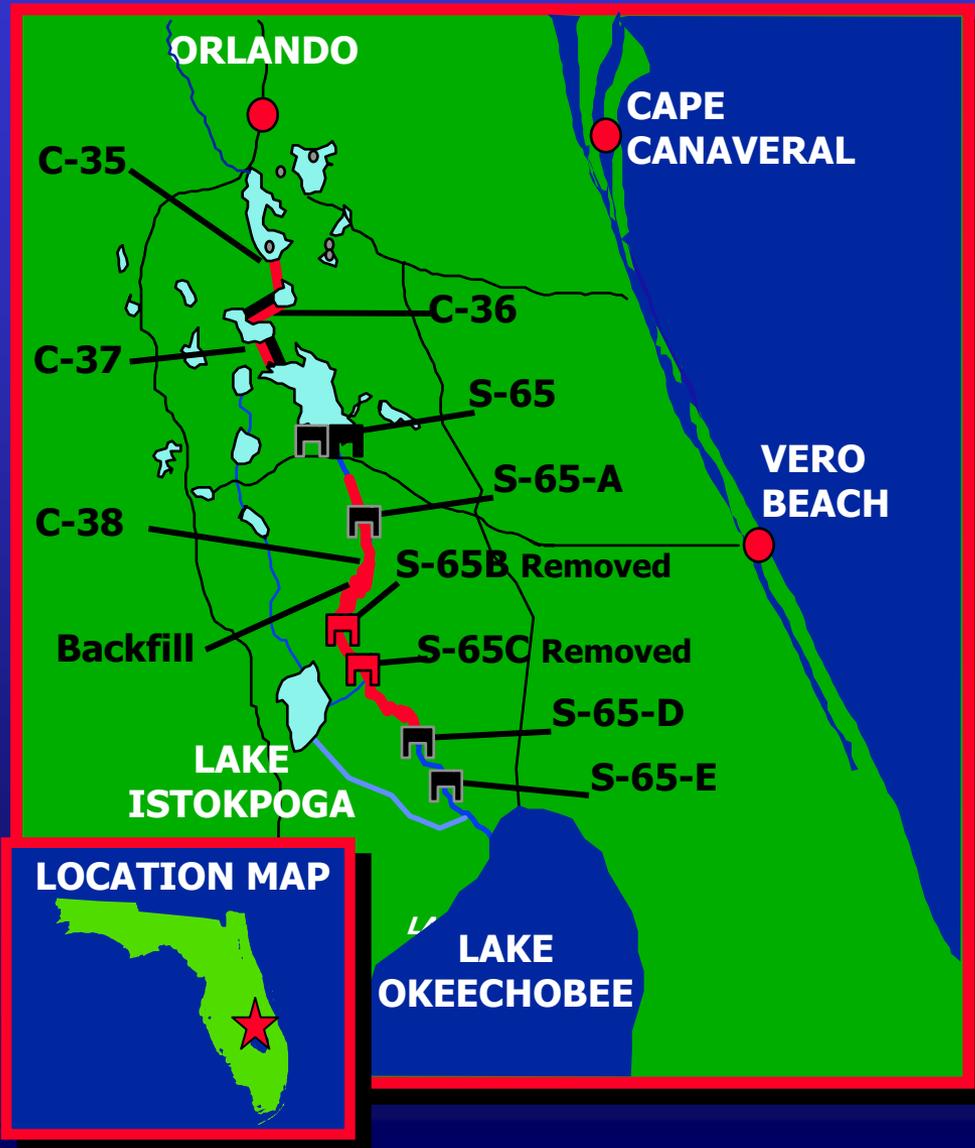
Manatee

C-51 / STA-1E

C-111

CERP

# Kissimmee River Restoration



- **Authorization:** WRDA 92
- **Purpose:** Environmental Restoration
- **Features:** 22 Miles of Canal Backfilling, Levees, Control Structure Expansion, Canal Enlargement, and Structure Removal, Land Acquisition
- **Project Cost:** \$572.4M
- **Cost Share:** 50/50
- **Local Sponsor:** South Florida Water Management District
- **Status:** Construction Underway, 1st backfill contract for 7 miles complete, Flood management work underway. Next backfill in Sept 2005

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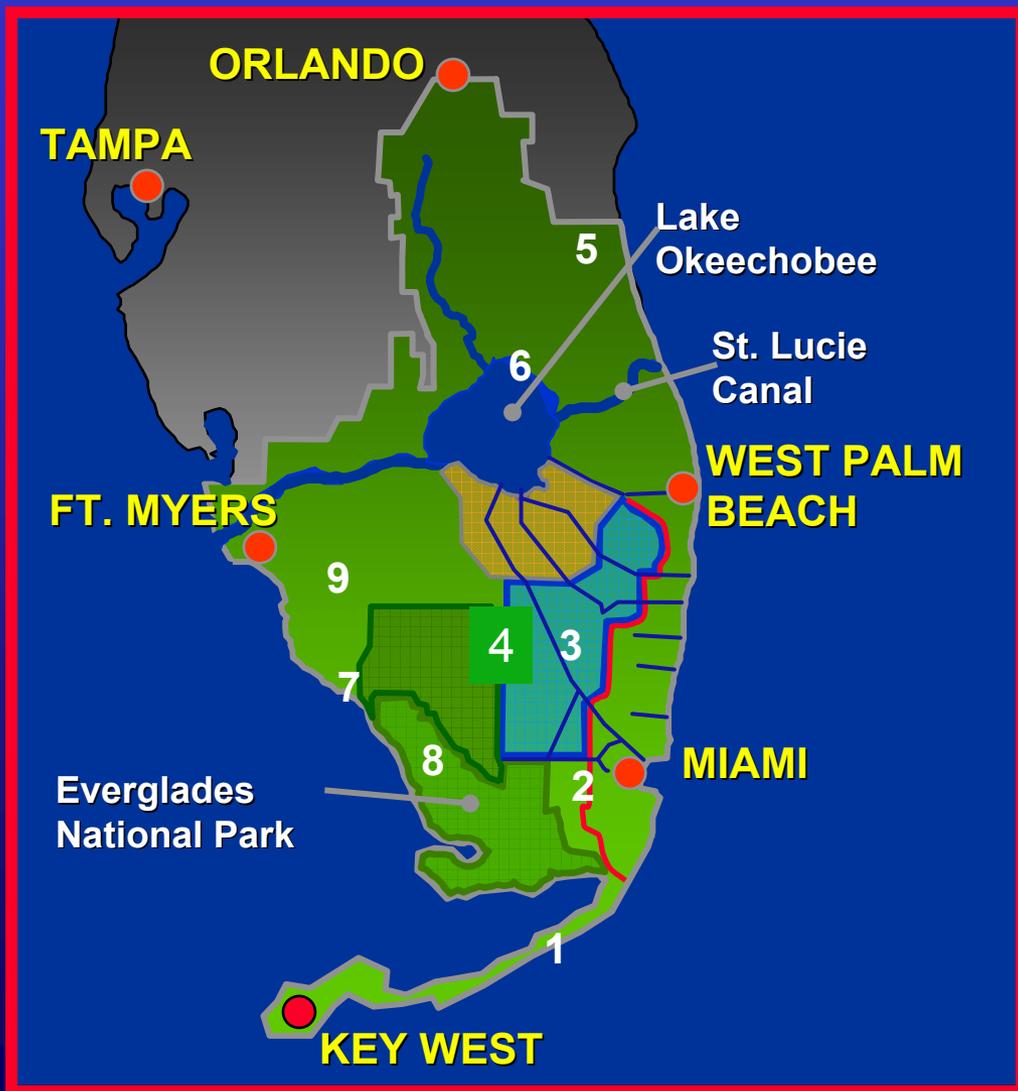
C-51/STA-1E

C-111

CERP

# Critical Ecosystem Restoration Projects

Special Program authorized by Congress in 1996  
at total cost of \$150 million

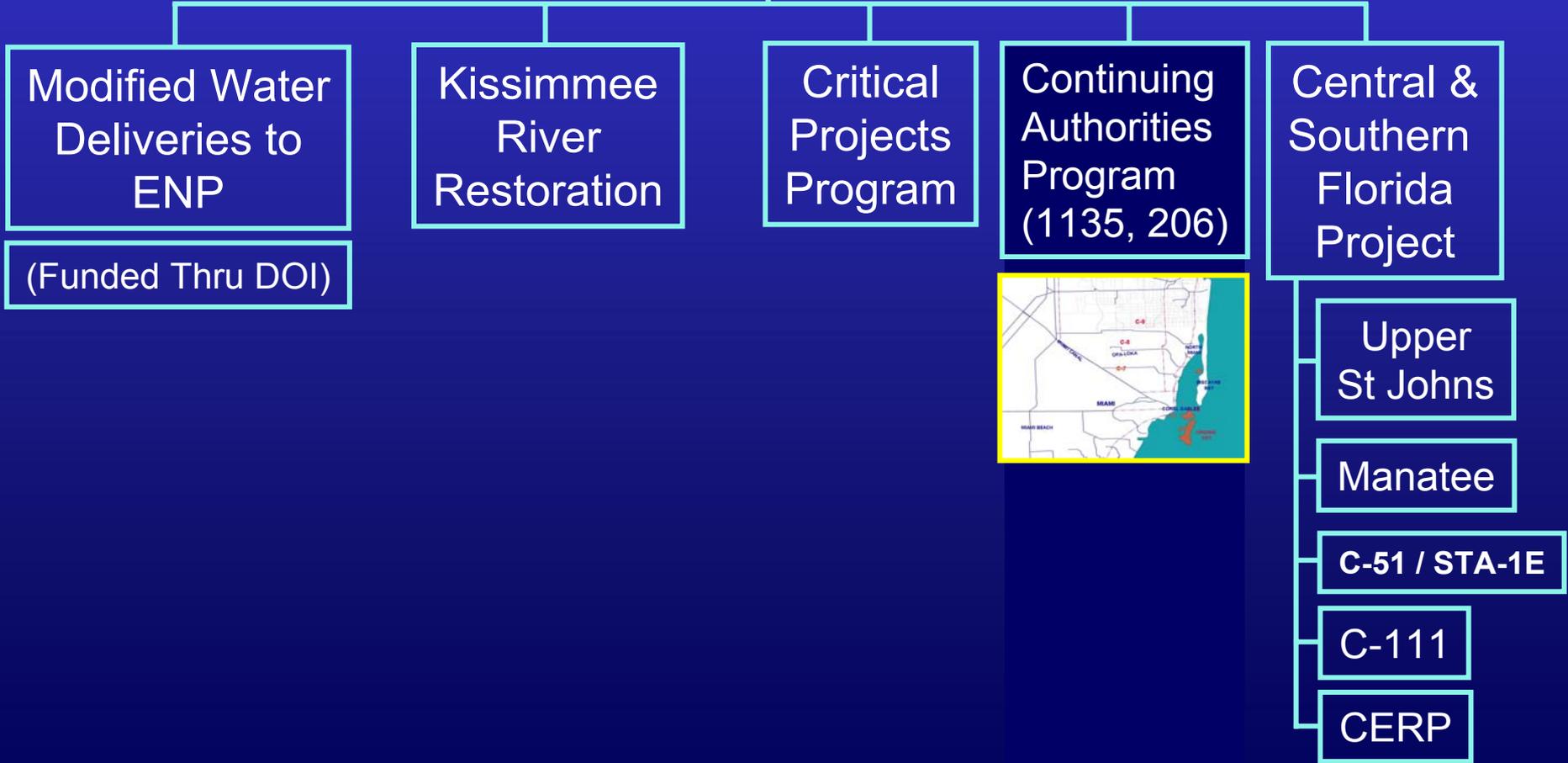


1. Keys Carrying Capacity
2. C-4 East Coast Canals
3. Western C-11
4. Seminole-Big Cypress
5. Ten Mile Creek
6. Lake Okeechobee
7. Southern CREW
8. Tamiami Trail Culverts
9. Lake Trafford Restoration

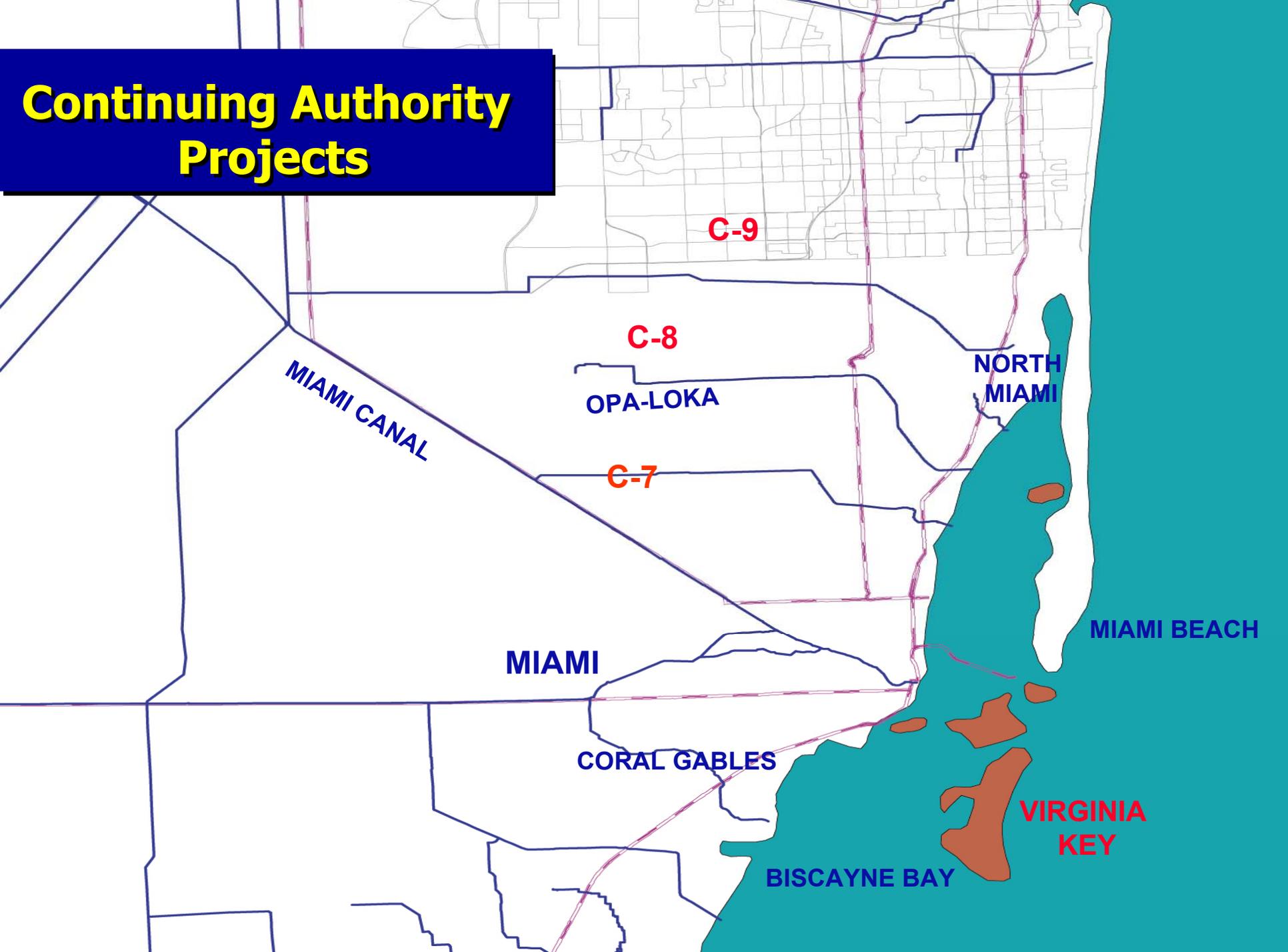


# South Florida Ecosystem Restoration continued

## Current Program



# Continuing Authority Projects





# South Florida Ecosystem Restoration continued

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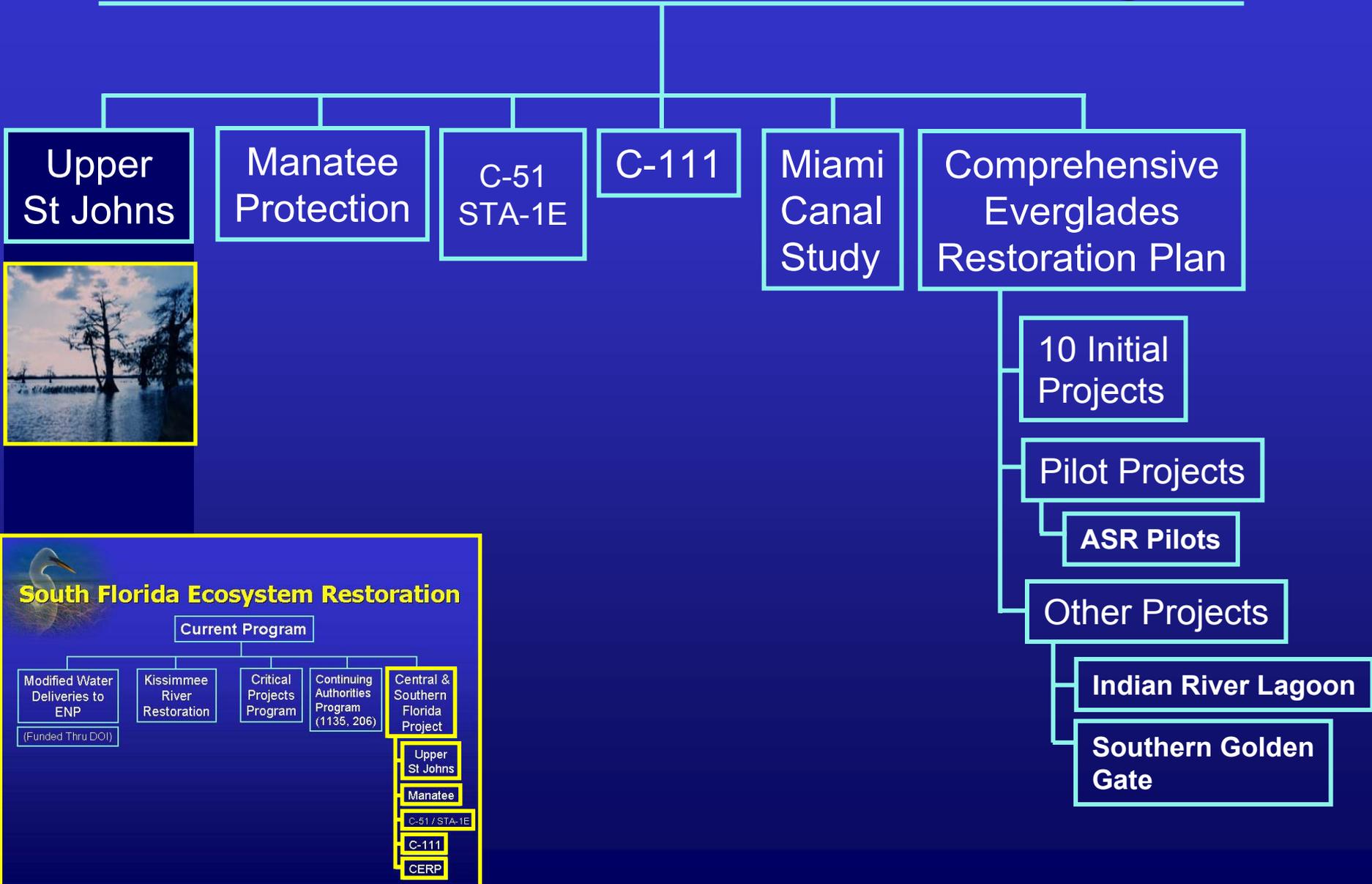
Manatee

C-51 / STA-1E

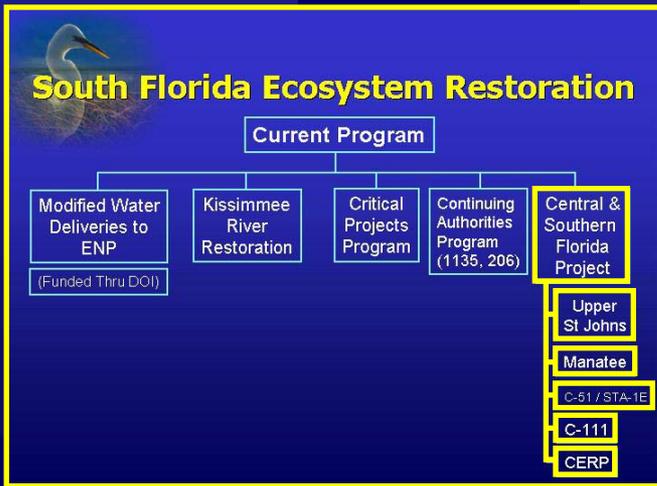
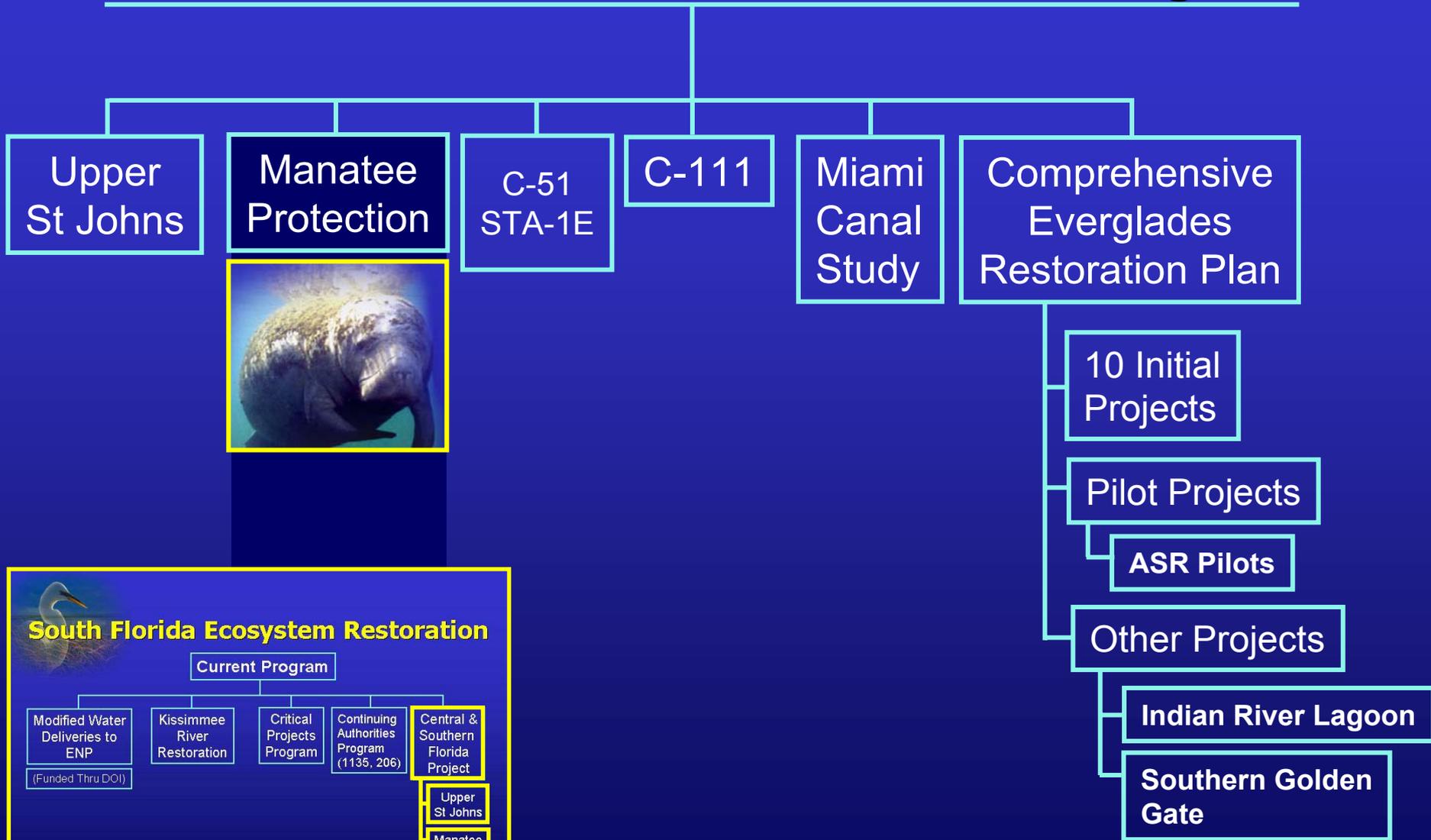
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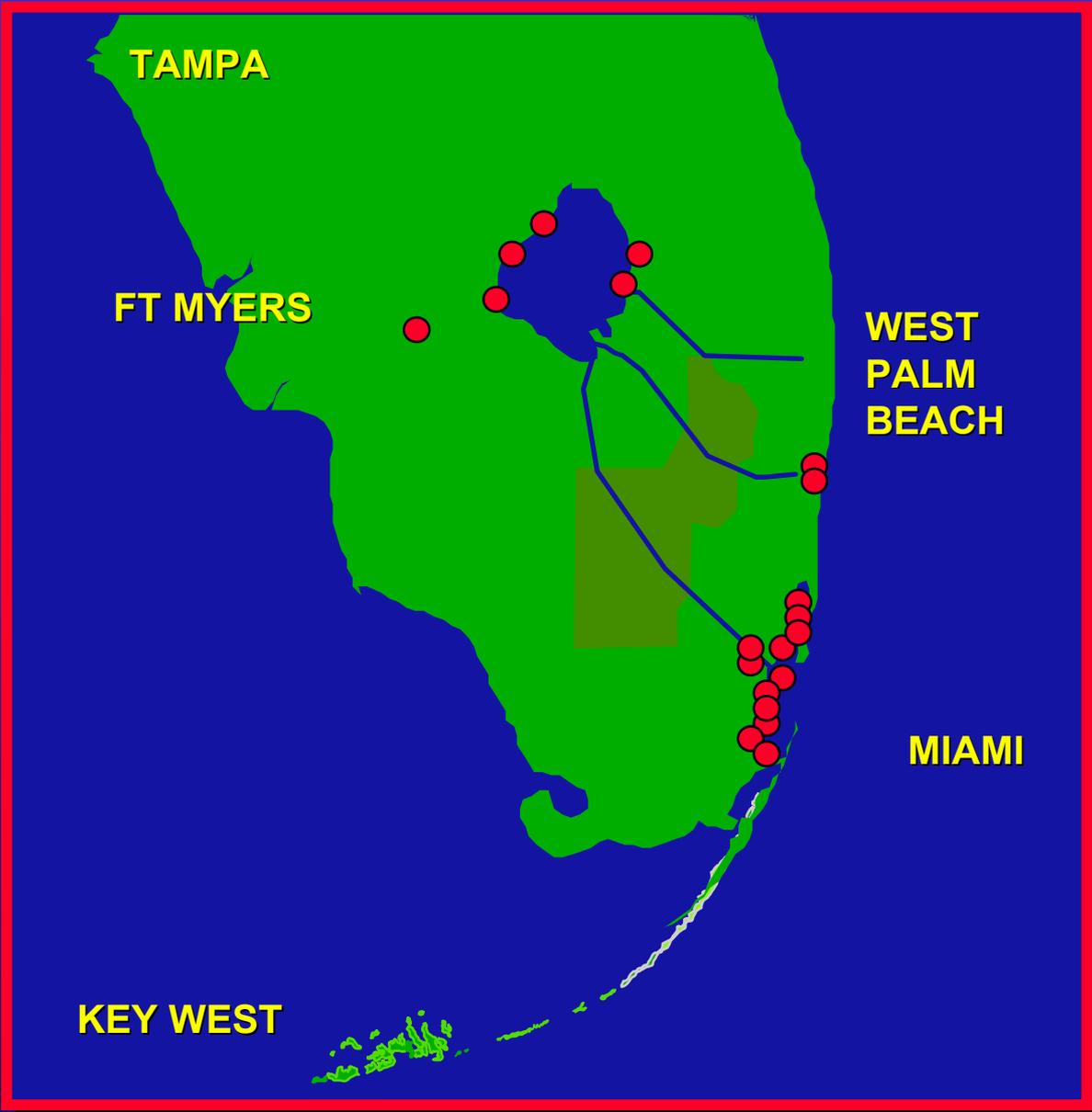
CERP

# Central & Southern Florida Project



# Central & Southern Florida Project





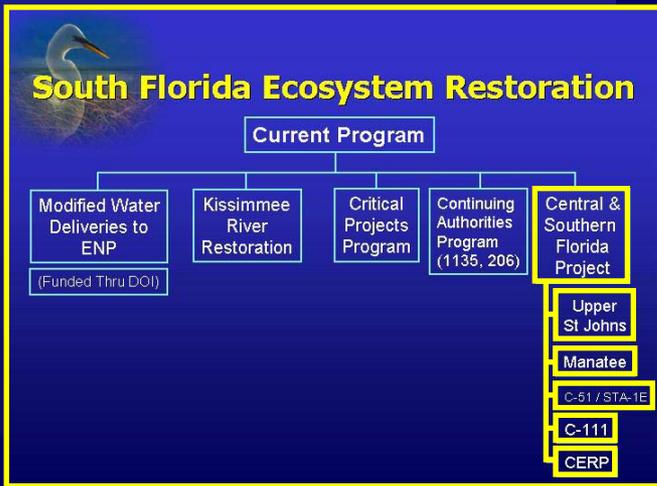
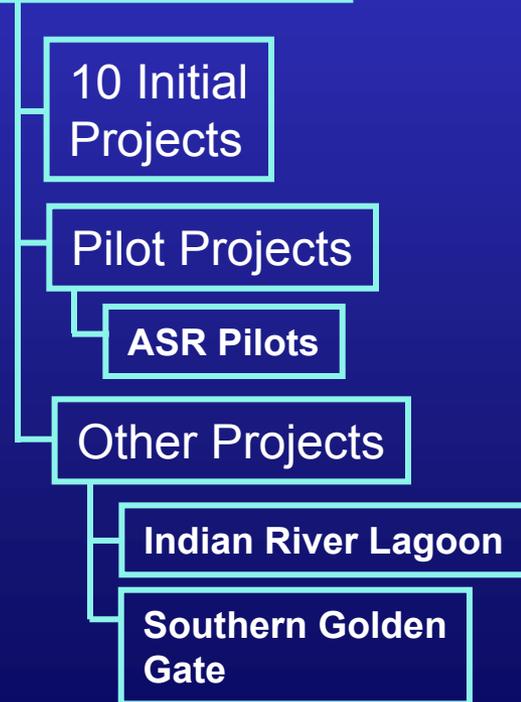
**CENTRAL AND SOUTHERN  
FLORIDA PROJECT**

**Manatee  
Pass  
Gates**



Phase 1 nearly complete  
Phase 2 to start in early  
2005

# Central & Southern Florida Project



# CENTRAL AND SOUTHERN FLORIDA PROJECT

## West Palm Beach Canal (C-51) / STA 1E



### PROJECT COSTS

<b>Total</b>	<b>\$259,100,000</b>
<b>Federal</b>	<b>\$232,900,000</b>
<b>Non-Fed</b>	<b>\$ 26,200,000</b>

**COST SHARING: 91/9**

**SPONSOR: SFWMD**

**PURPOSE:** Flood Control, Water Quality, Water Supply

**STATUS:** Construction substantially complete, damage due to hurricanes to be repaired. PSTA field test under design with construction summer 2005

# PSTA Field Test

## STA-1E

### Conceptual Plan to Achieve 10 ppb Phosphorus



Emergent Growth



Submerged Aquatic Vegetation (SAV)

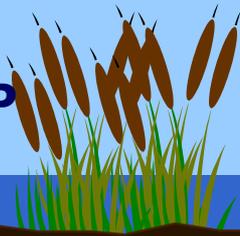
1 yr of sedimentation

2 cm

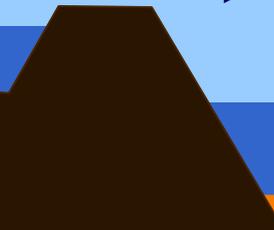


Periphyton (PSTA)

100 ppb P



25-50 ppb P

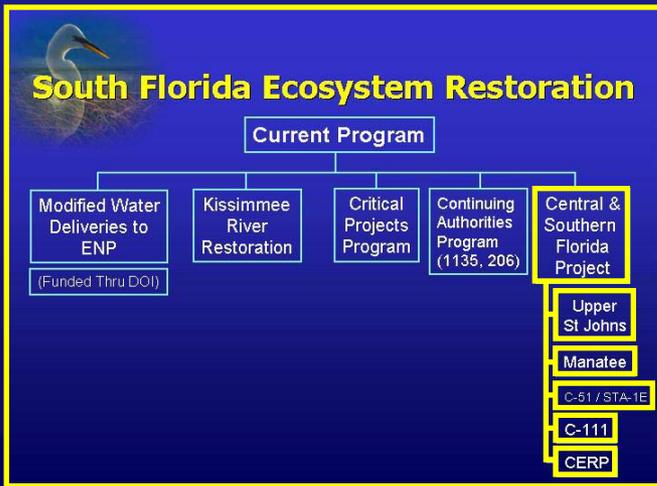
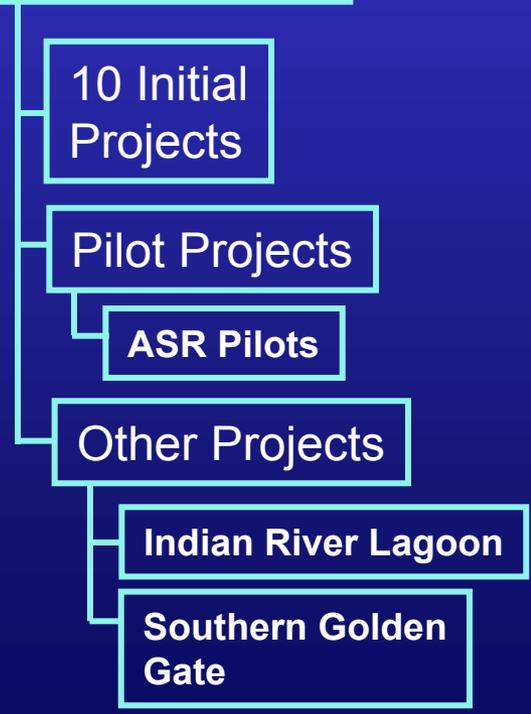


10 ppb P



low phosphorus substrate

# Central & Southern Florida Project



# CENTRAL AND SOUTHERN FLORIDA PROJECT SOUTH DADE COUNTY (C-111)



## LOCATION MAP



## PROJECT COSTS

<b>Total</b>	<b>\$274,670,000</b>
<b>Federal</b>	<b>\$137,335,000</b>
<b>Non-Fed</b>	<b>\$137,335,000</b>

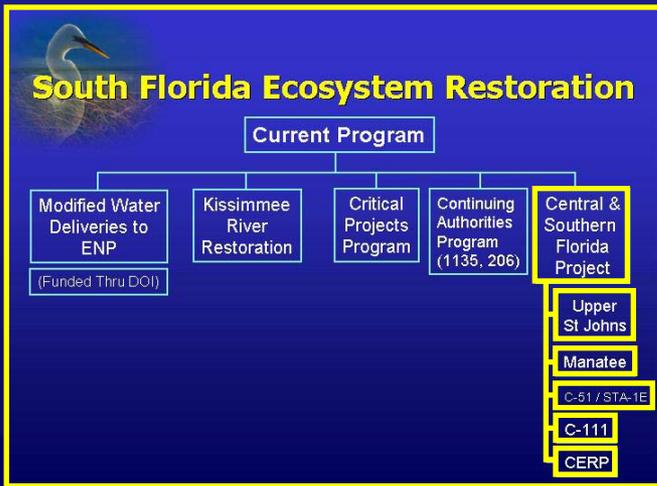
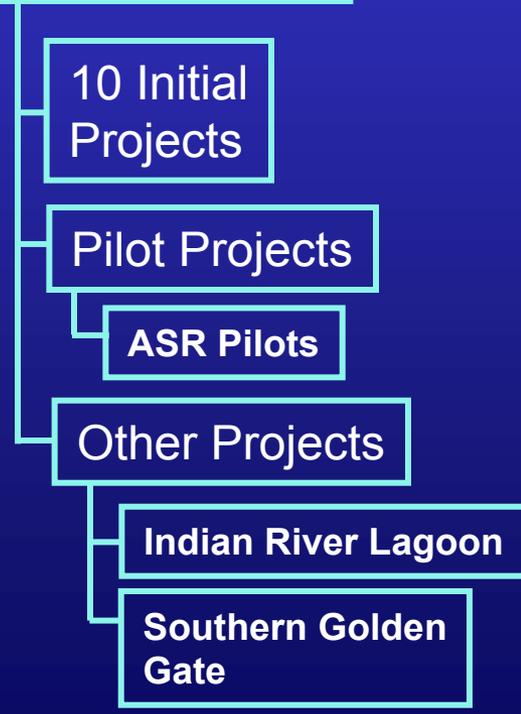
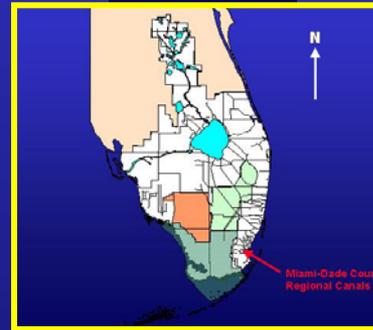
**COST SHARING: 50/50**

**SPONSOR: SFWMD**

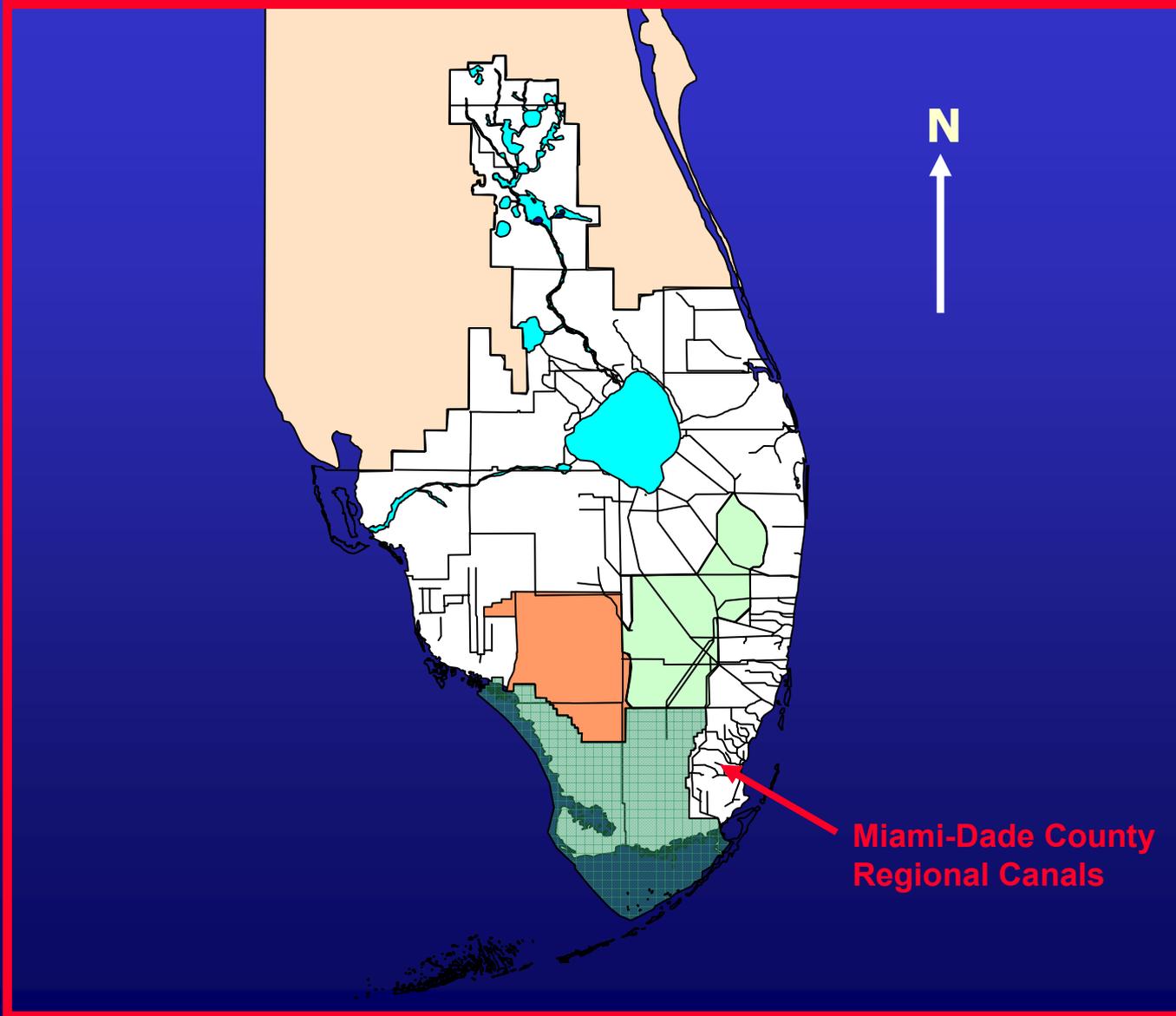
**PURPOSE:** Environmental Restoration, Flood Control, and Water Supply

**STATUS:** Further design and construction awaiting Congressional action on Land Swap

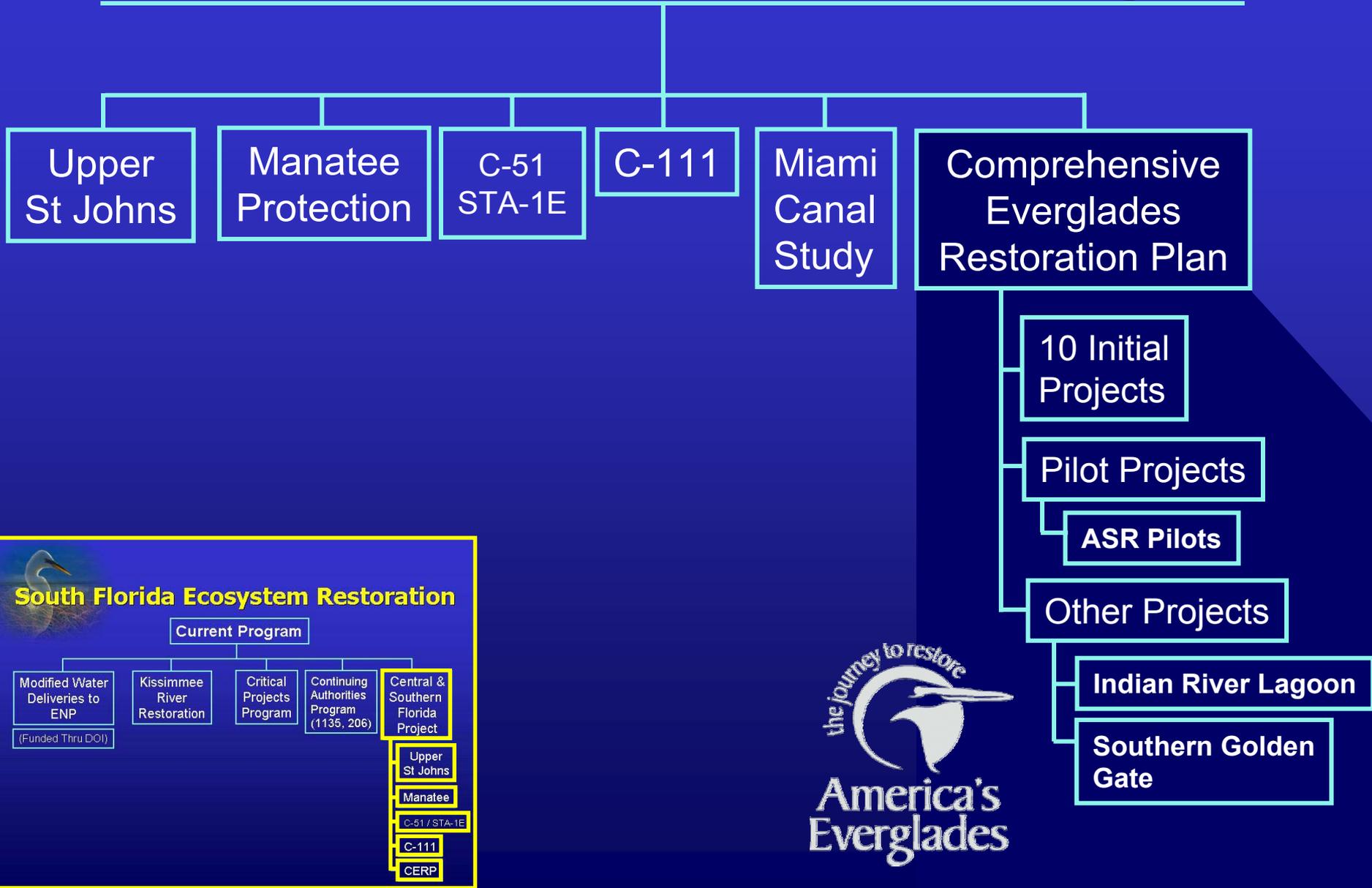
# Central & Southern Florida Project



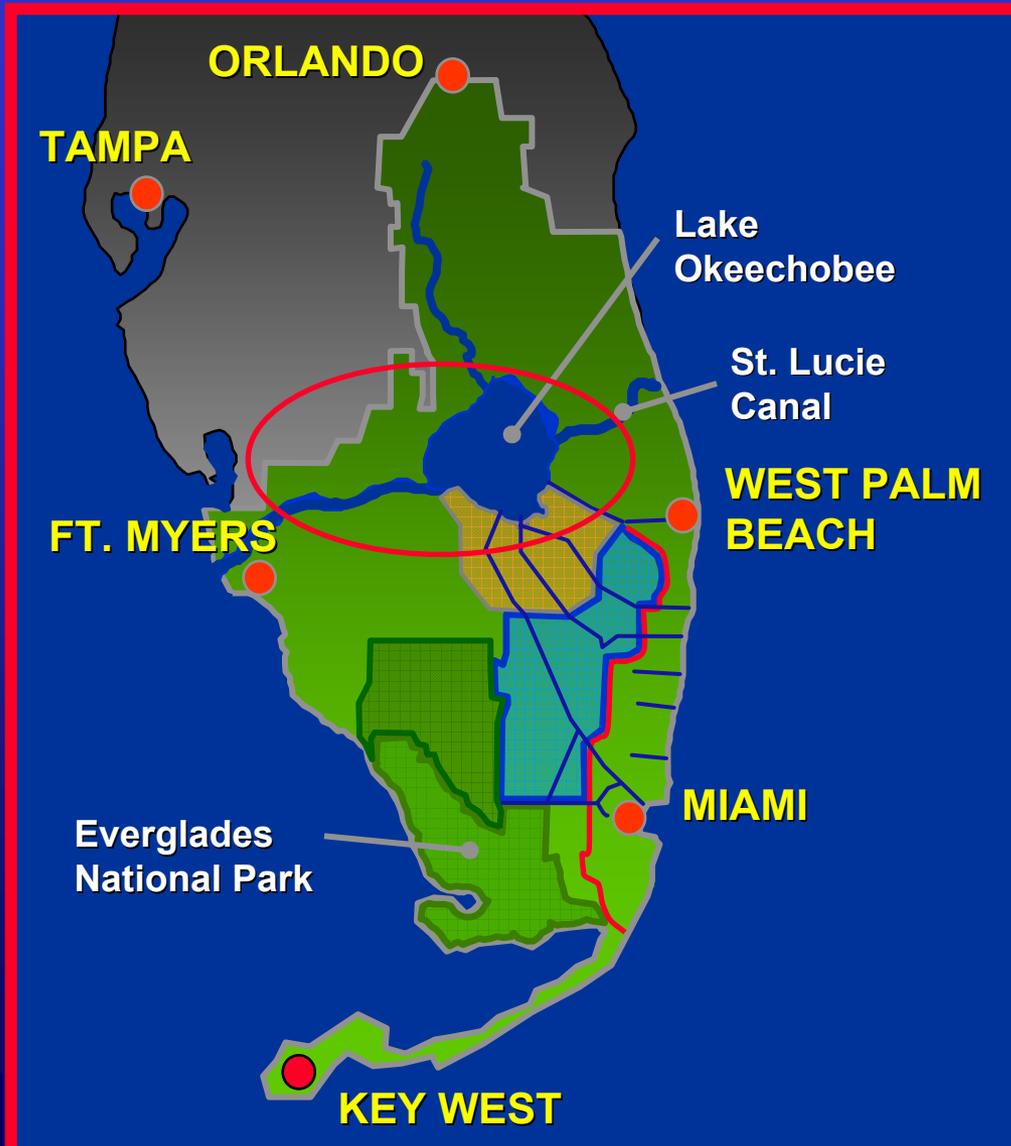
# CENTRAL AND SOUTHERN FLORIDA PROJECT MIAMI-DADE COUNTY REGIONAL CANALS Feasibility Study



# Central & Southern Florida Project



# Lake Okeechobee



## CERP

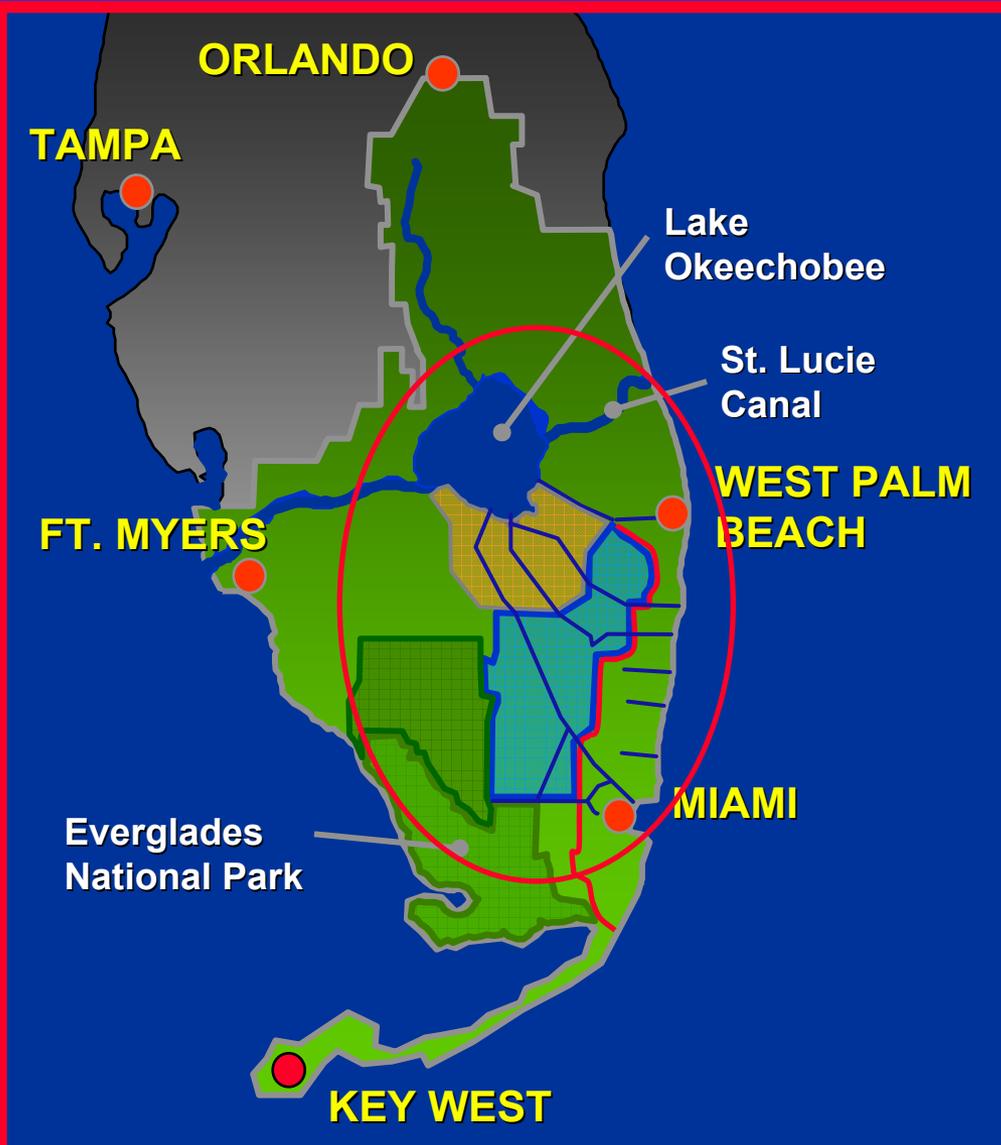
1. Lake Okeechobee Watershed - PIR underway, Alternatives being developed & analyzed

2. C-43 Basin Reservoir - PIR underway, adjusting schedule to match acceleration

## Other Projects

1. Lake Okeechobee Regulation – High water due to hurricanes, releasing to tide

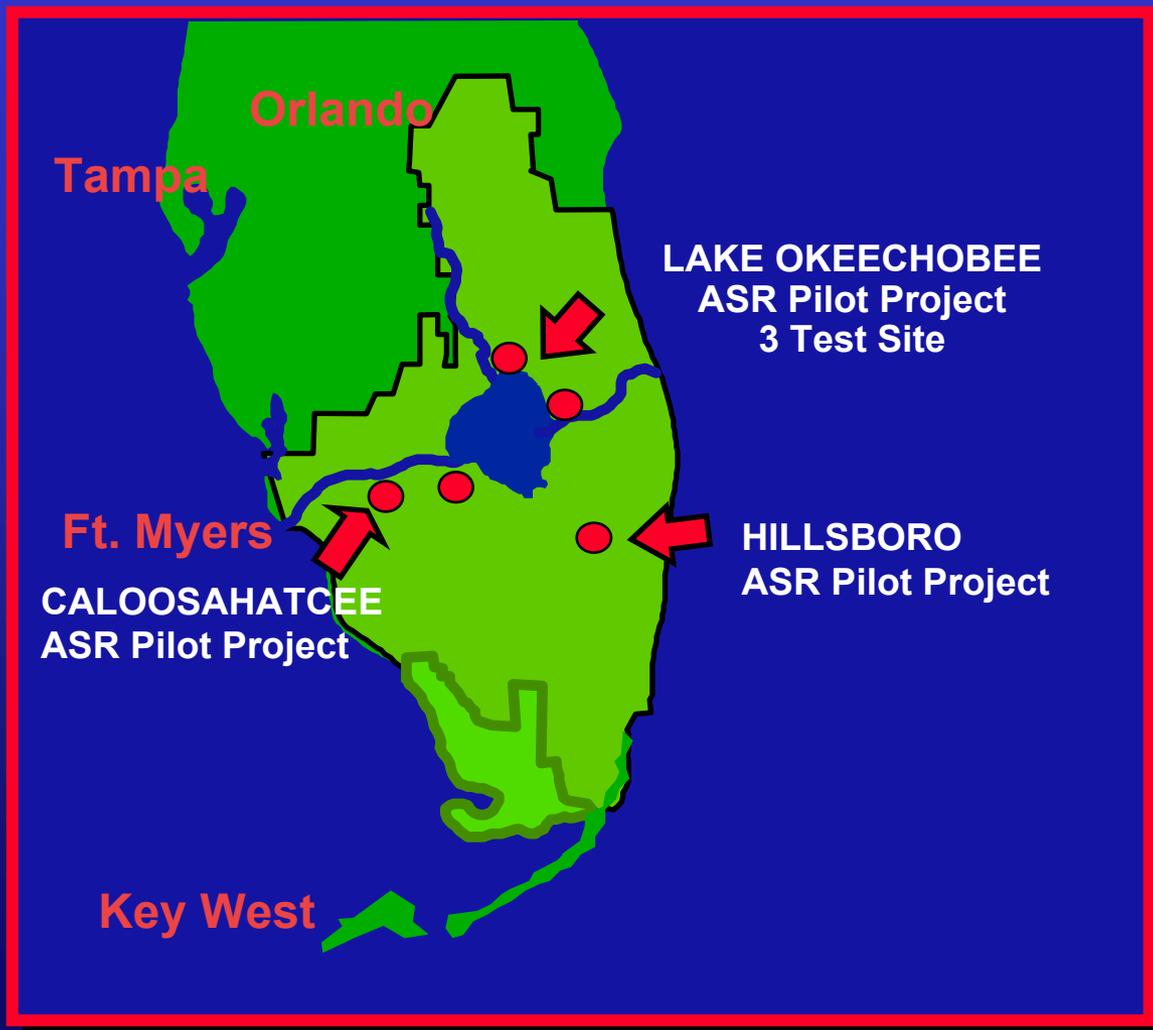
# Aquifer Storage & Recovery



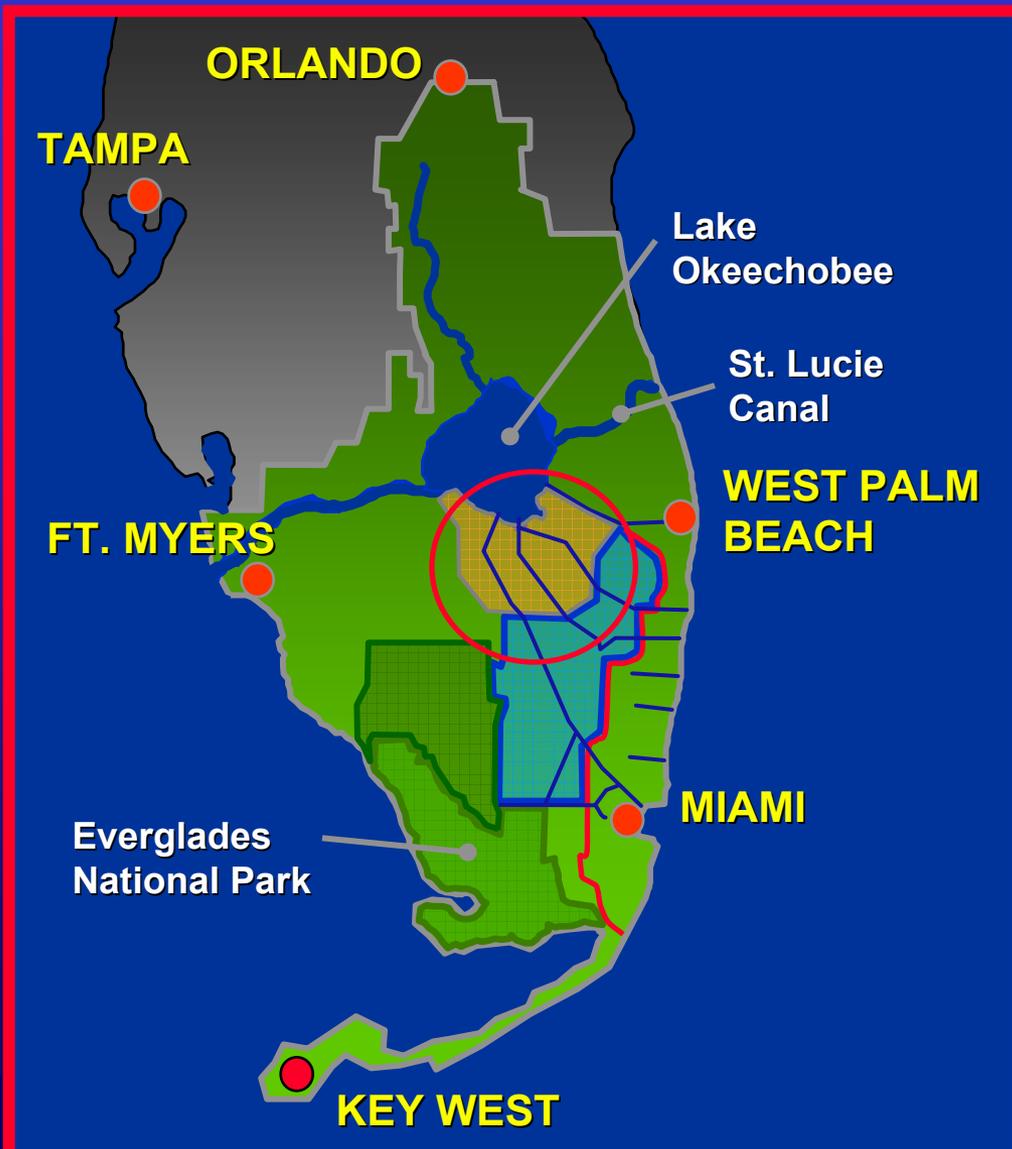
## CERP

1. Lake Okeechobee, Hillsboro, C-43 ASR Pilots - Design underway
  - Final Pilot Project Design Report awaiting approval in Washington.
  - New construction start proposed for FY 05.
2. Regional ASR Study - Study underway.

# Aquifer Storage & Recovery Pilots Proposed FY 05 New Construction Start



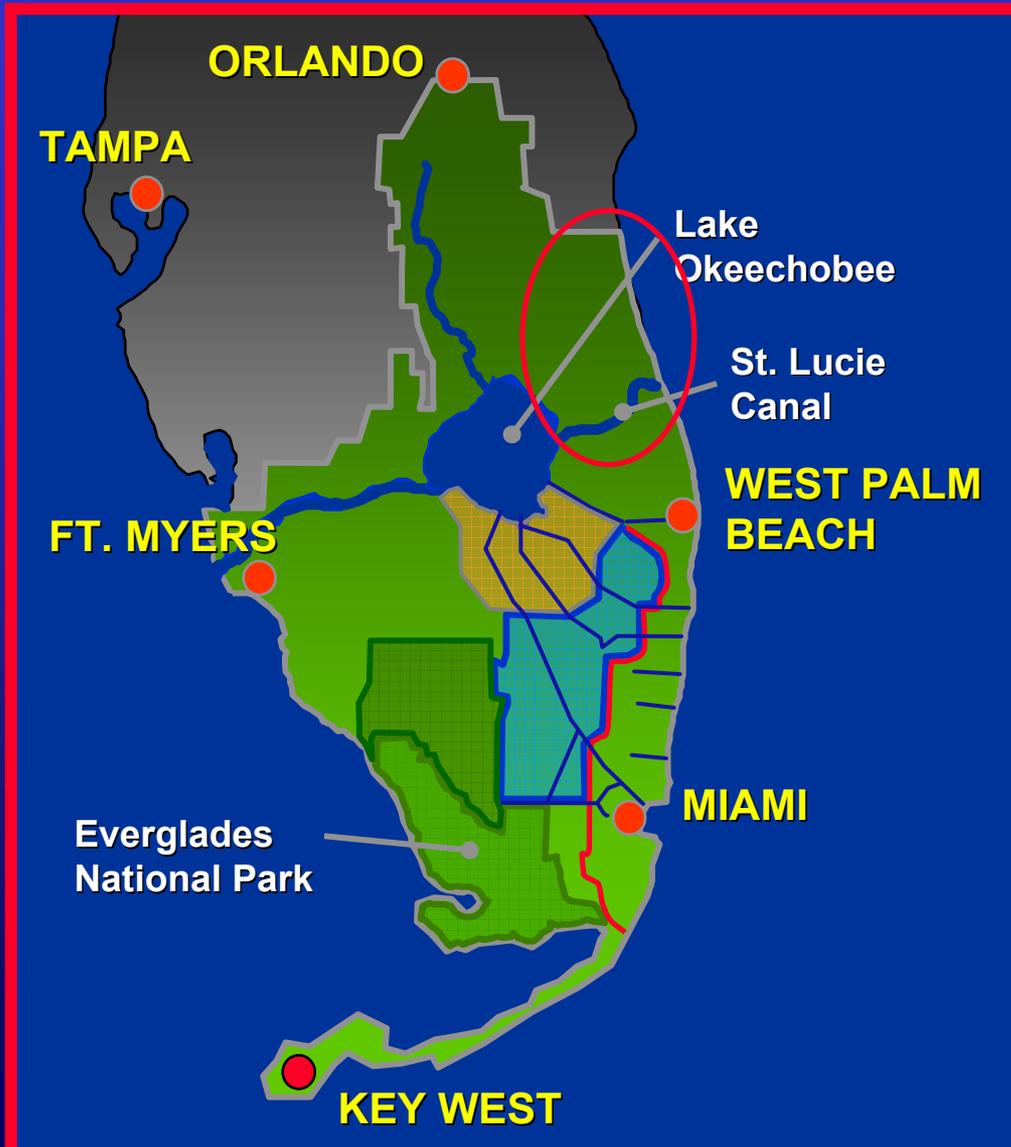
# Everglades Agricultural Area



## CERP

1. EAA Storage Reservoirs
  - PIR underway
  - Feasibility Scoping meeting held.
  - Schedule consistent with Acceleration

# Upper East Coast

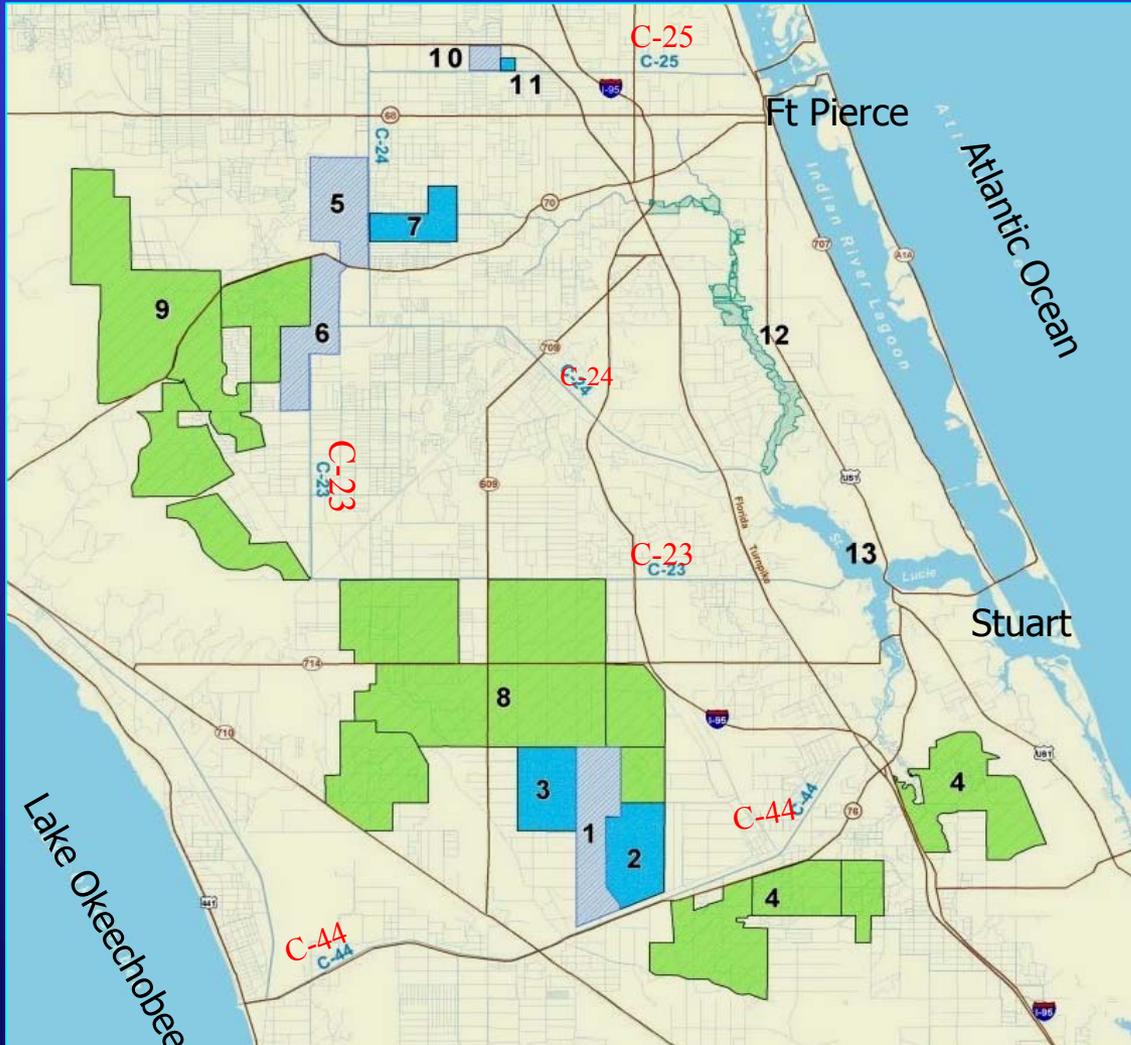


## CERP

### 1. Indian River Lagoon

- **Chief's Report Signed in August**, processing report to Congress
- Detailed design initiated for project
- Acceleration of C-44 Reservoir allows acceleration of overall IRL completion

# Indian River Lagoon – South Recommended Plan



## C-44 Basin Components

- 1 C-44 - Reservoir
- 2 C-44 - Stormwater Treatment Area(East)
- 3 C-44 - Stormwater Treatment Area(West)
- 4 Palmar Complex - Natural Storage and Water Quality Area

## C-23/24 Basin Components

- 5 C-23/C-24 - North Reservoir
- 6 C-23/C-24 - South Reservoir
- 7 C-23/C-24 - Stormwater Treatment Area
- 8 Allapattah - Complex Natural Storage and Water Quality Area
- 9 Cypress Creek/Trail Ridge Complex - Natural Storage and Water Quality Area

## C-25, Northfork and Southfork Basin Components

- 10 C-25 - Reservoir
- 11 C-25 - Stormwater Treatment Area
- 12 Northfork Natural Floodplain Restoration
- 13 Muck Remediation and Artificial Habitat

-  Natural Floodplain Restoration
-  Natural Storage and Water Quality Area
-  Reservoir
-  Stormwater Treatment Area

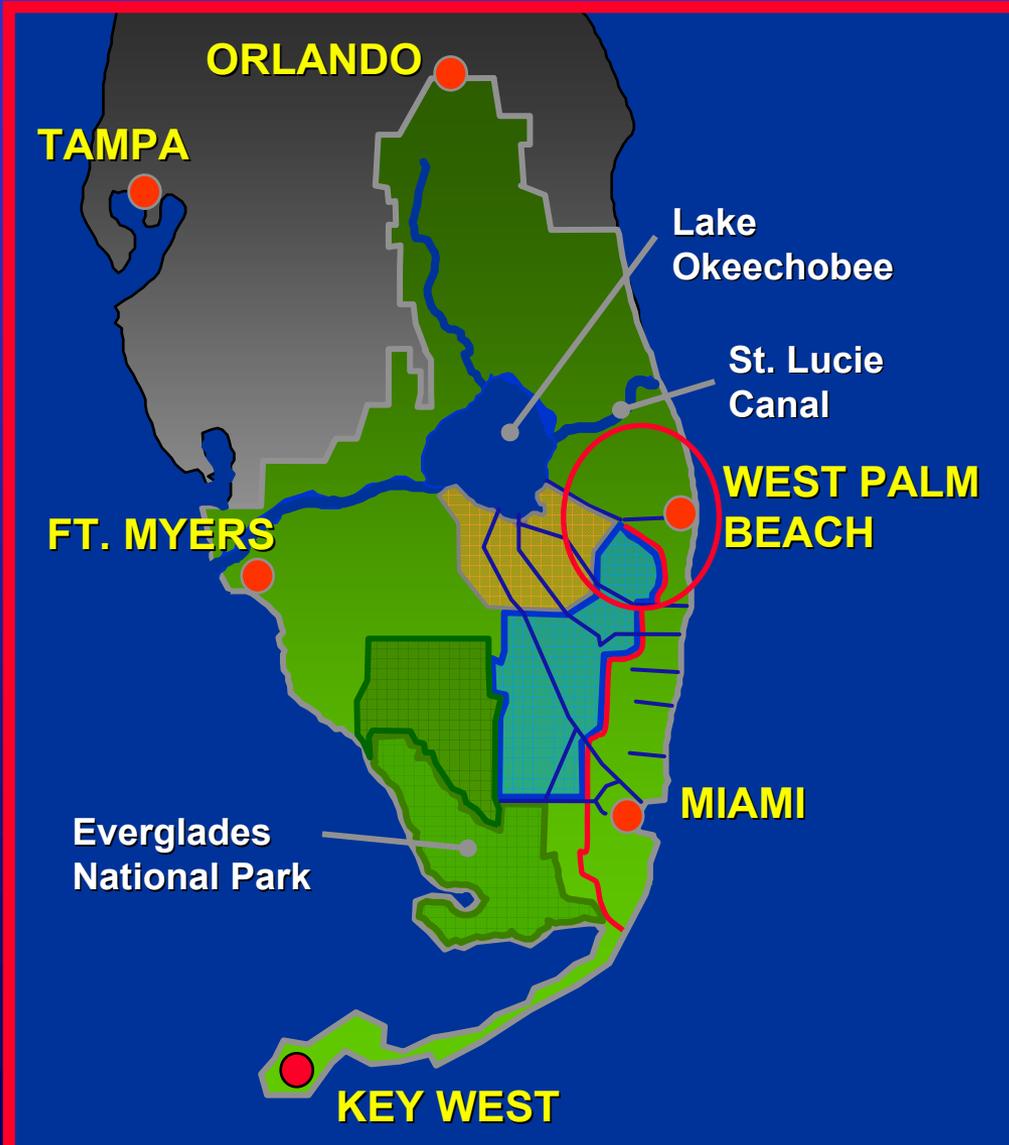


**CERP**

# Indian River Lagoon – South Features

- Project Features:
  - Reservoirs – 130,000 acre-feet (C-44, C-23/24 North and South, C-25)
  - STAs – 35,000 acre-feet (C-44, C-23/24 and C-25)
  - Natural storage areas – 92,000 acres (Allapattah, PalMar, Cypress Creek)
  - Flood Plain Restoration – 3,100 acres
  - Muck removal (7.9 million cy) and artificial habitat creation in St. Lucie Estuary
- Project Cost: \$1.2 Billion

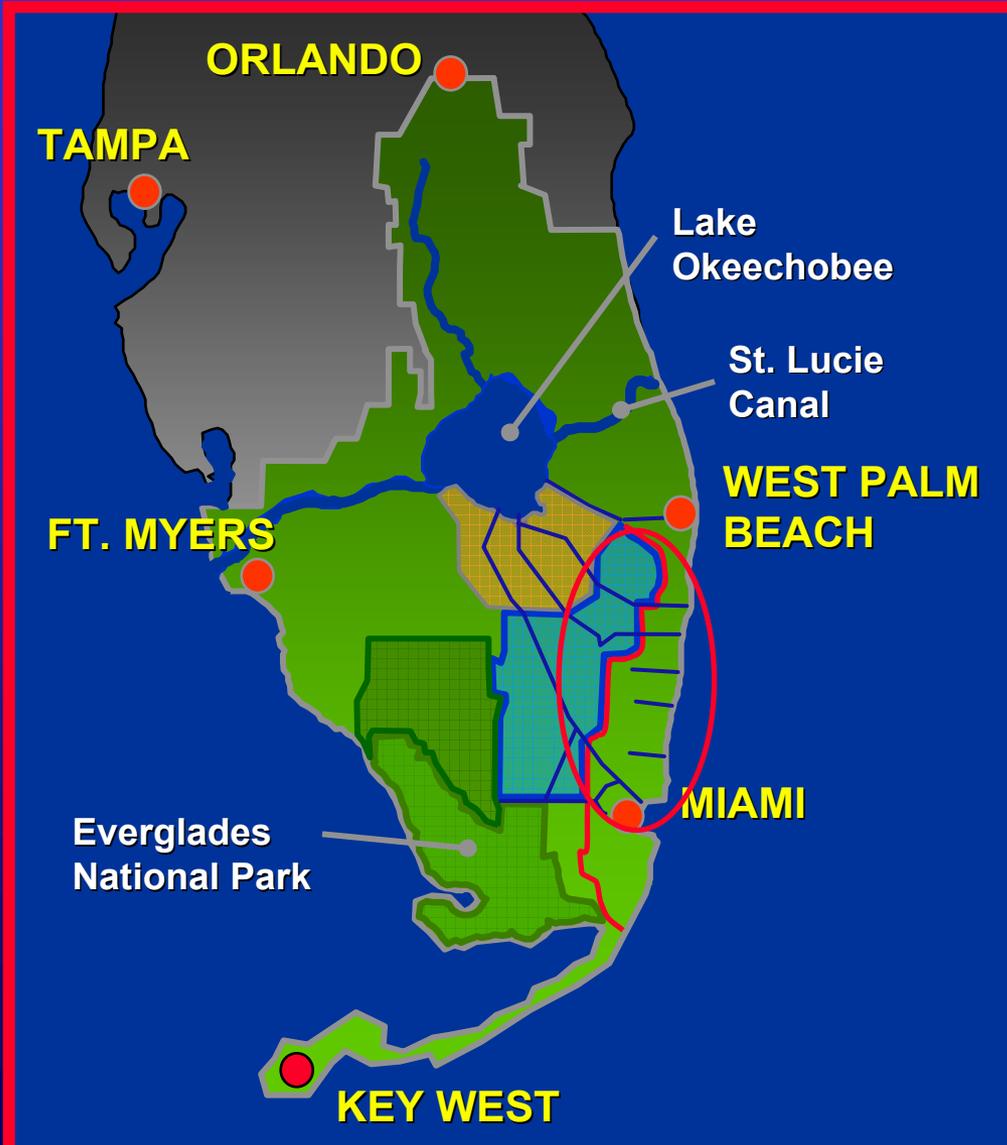
# Northern Palm Beach County



## CERP

1. North Palm Beach County  
- PIR Underway
2. Winsberg Farms  
- PIR underway
4. Recon for Additional Water (245k)  
- Recon Report completed. Awaiting completion of ICU.

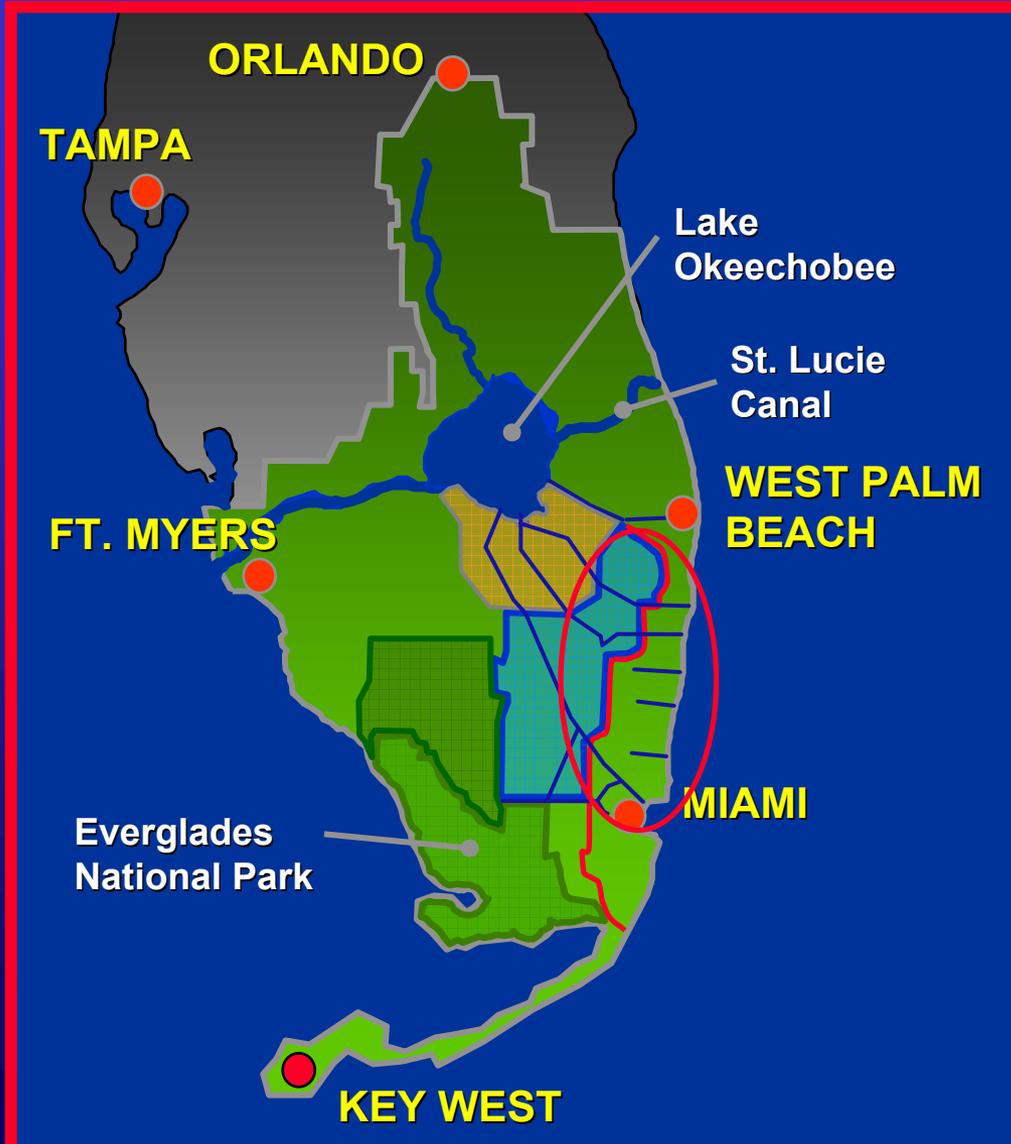
# Water Preserve Areas



## CERP

1. Acme Basin B
  - PIR underway consistent with accelerated plan
  - Future without project condition delineation underway.
2. Strazzulla
  - PIR underway
3. Hillsboro Site 1
  - PIR underway, consistent with Accelerated Plan
4. Broward County WPA – includes C-9, C-11, and WCA 3A/3B Seepage management
  - PIR underway consistent with accelerated plan
  - FSM held Sept 04

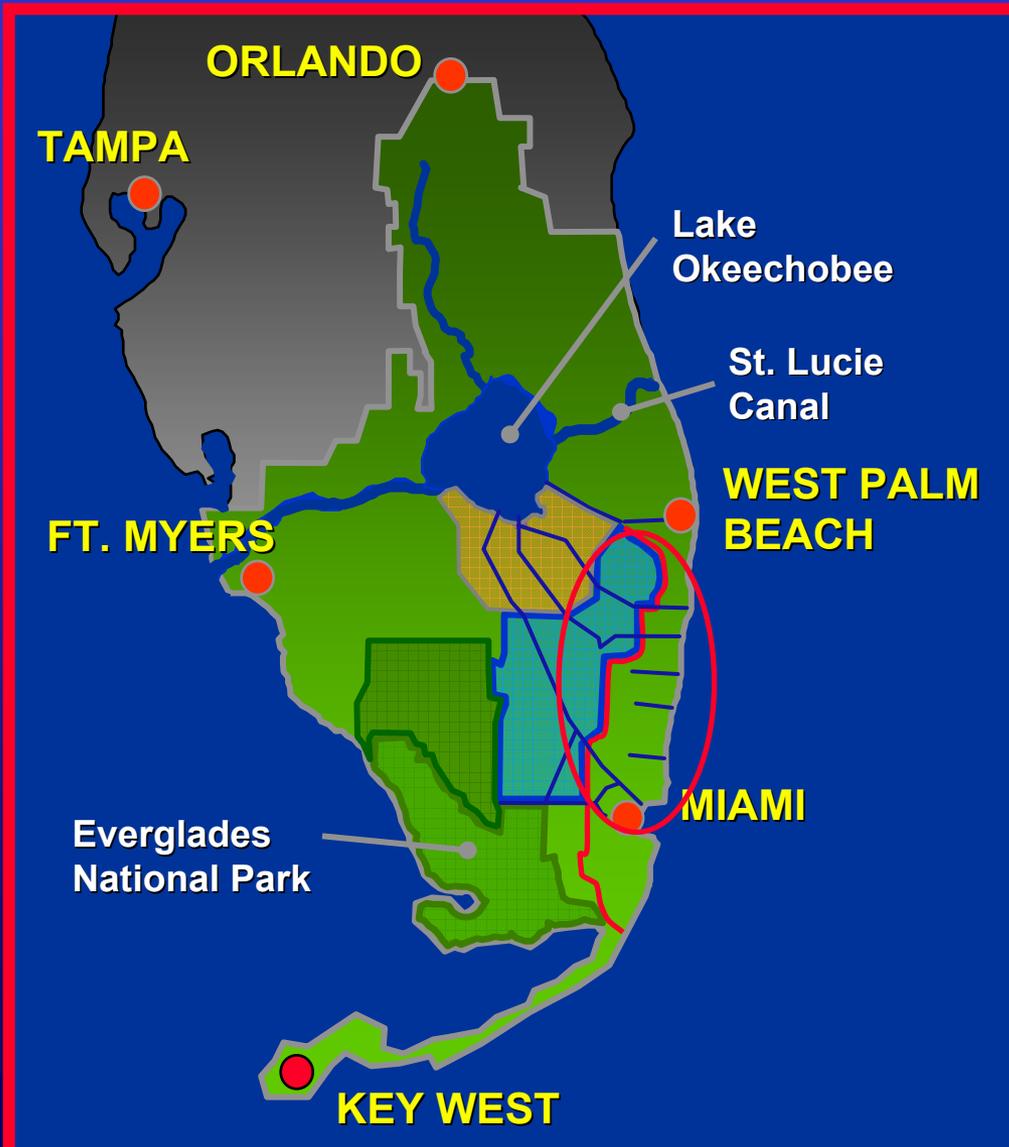
# Miami-Dade County



## CERP

1. Waste Water Reuse Pilot  
- MISP update proposes suspending this down.
2. Lakebelt Inground Pilot  
- MISP update proposes slowing this down.
3. Biscayne Bay Coastal Wetlands  
- PIR underway, adjusted to be consistent with accelerated plan  
- FSM in Nov 04
4. Bird Drive Recharge Basin  
- Draft PMP near completing, final in Nov 04.

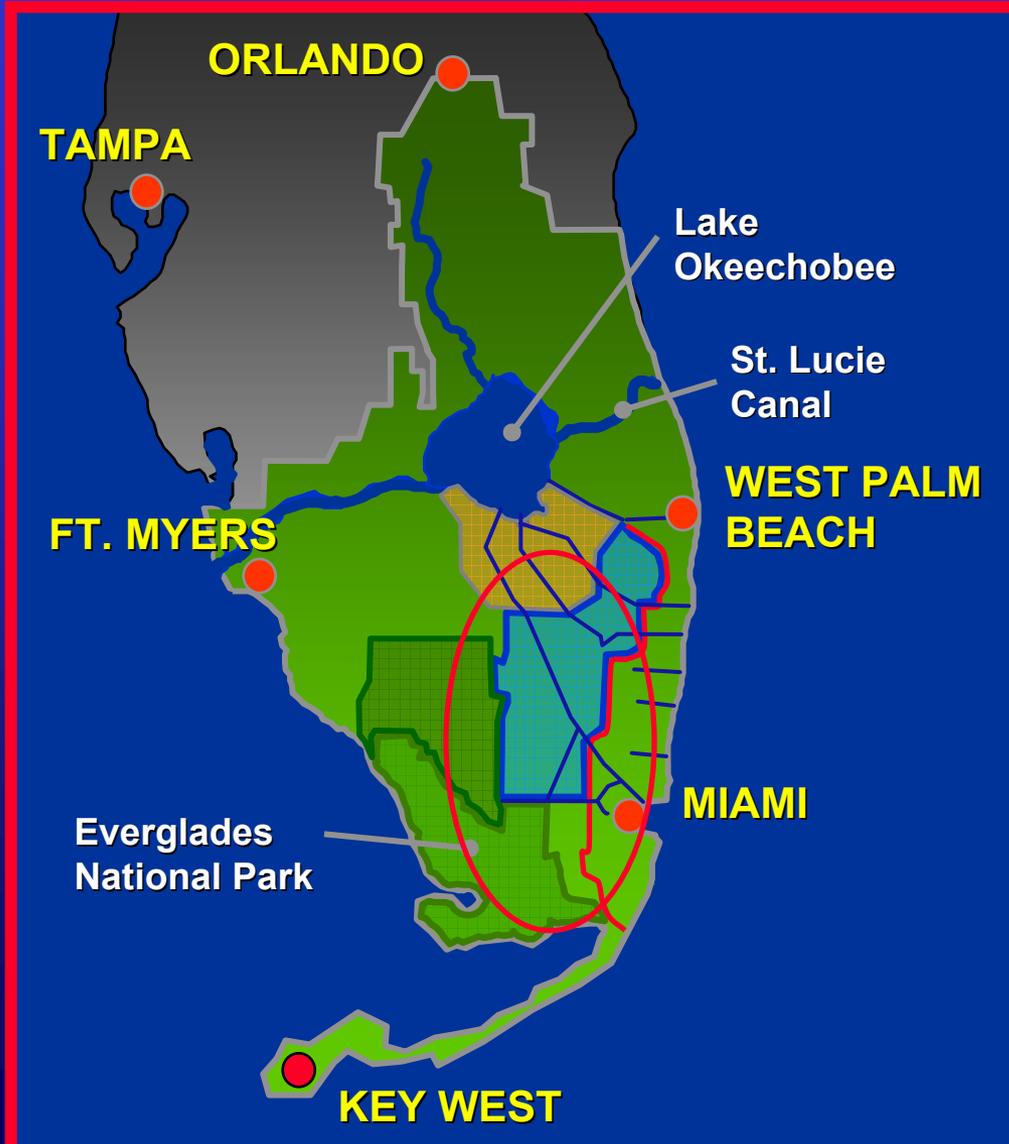
# Miami-Dade County (cont'd)



## Other Projects

1. Miami-Dade Canal Study  
- Recon completed, PMP  
being finalized

# Everglades



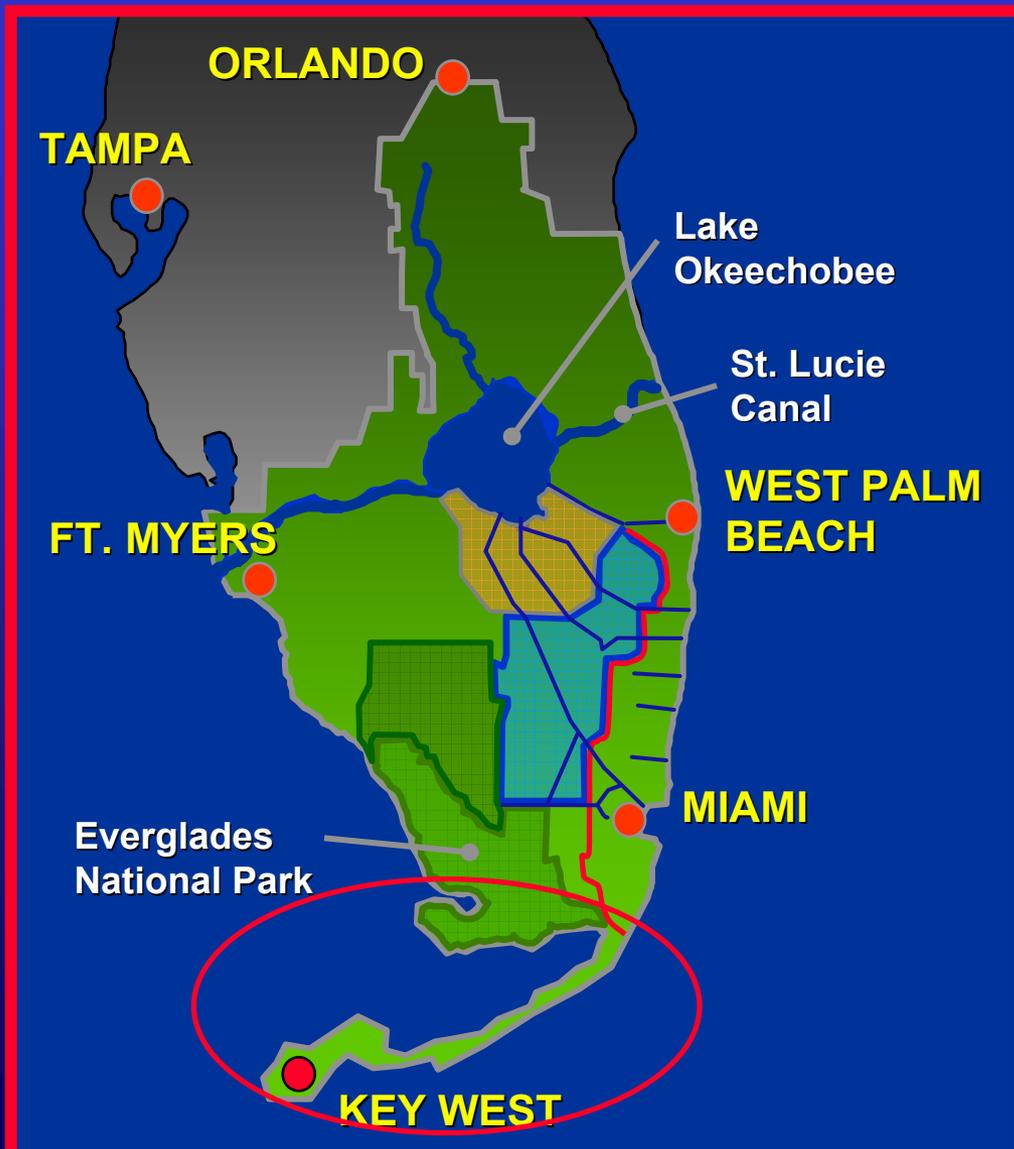
## CERP

1. WCA Decomp – Part 1
  - PIR underway,
  - Conceptual plan for application of adaptive assessment implementation
2. C-111 Spreader Canal
  - PIR underway, schedule adjusted to be consistent with accelerated plan
3. L-31 Seepage Pilot
  - Work on PPDR underway

## Other Projects

1. CSOP
  - Work underway in coordination with CSOP Advisory Team to develop plan by Dec 06

# Florida Bays, Florida Keys



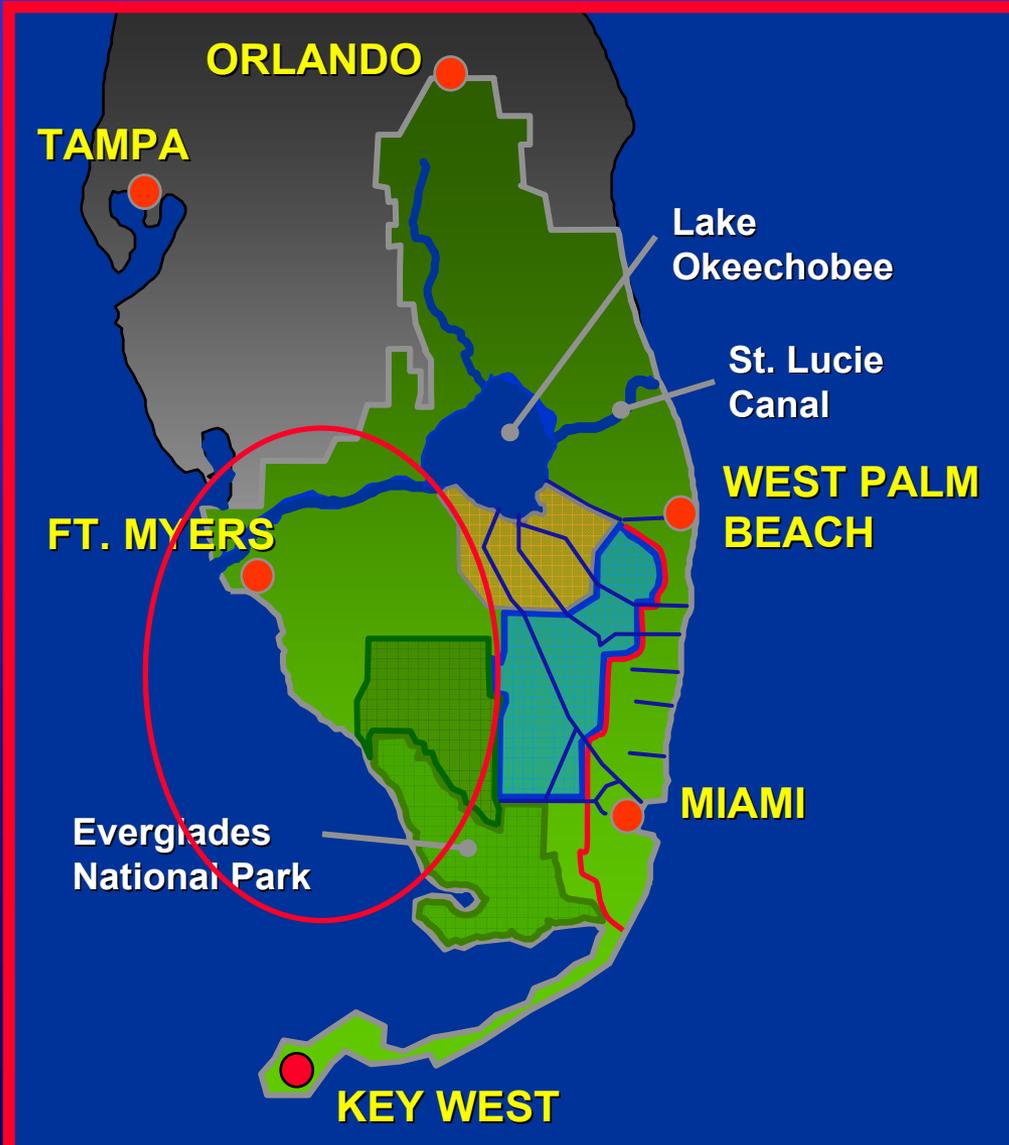
## CERP

1. Florida Keys Tidal Improvement (CERP)
  - PIR underway
  - MISP update recommends construction as “Pilot”
2. Florida Bay/Florida Keys Feasibility Study
  - Study underway, efforts focus on model development

## Other Projects

1. Florida Keys Water Improvement Initiative
  - Working on specific agreements to reimburse work being done in accordance with Master Plan and individual project schedules.
  - First reimbursements in 2005

# Lower West Coast



## CERP

1. Southwest Florida Feas Study underway

- Team working to define base and future conditions, planning scenario, and potential array of alternatives

2. Lakes Park

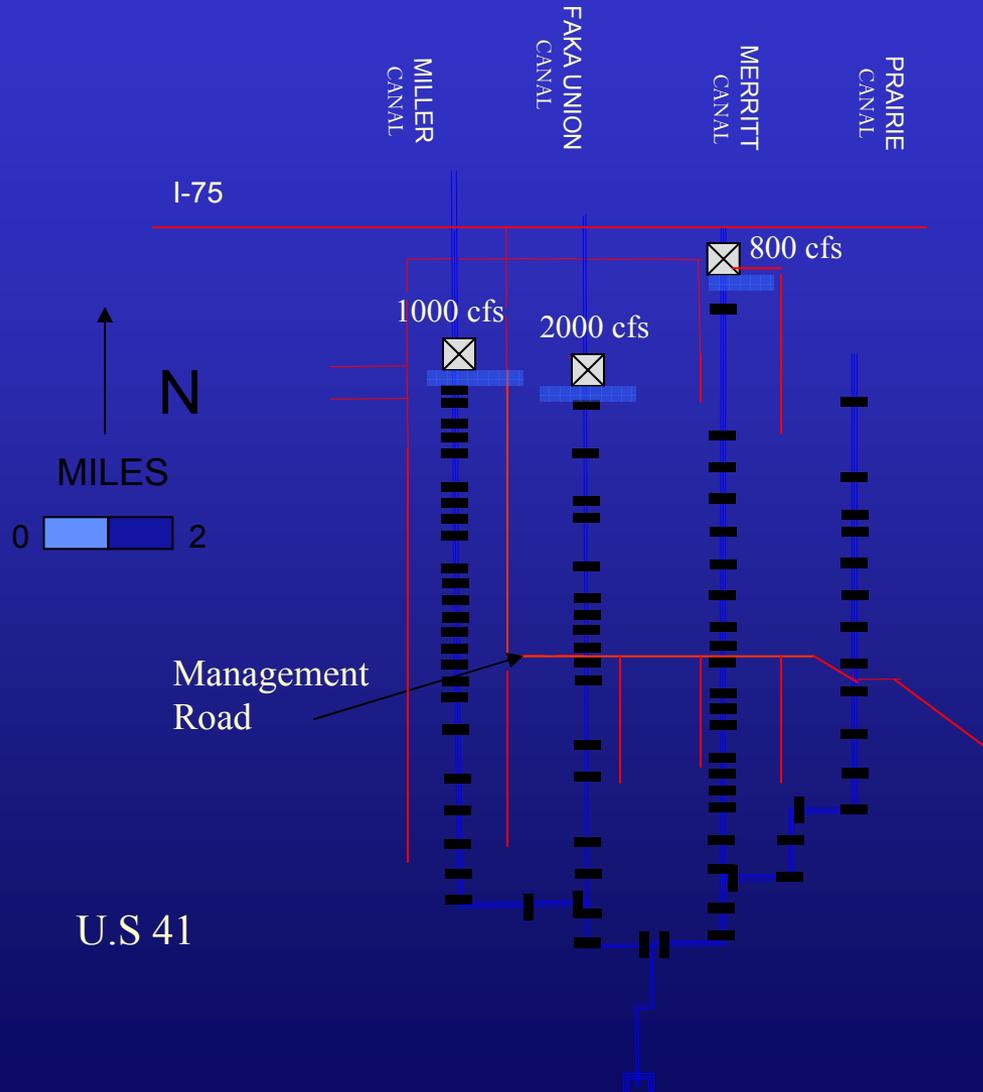
- PMP under preparation, complete in Dec 04

3. Henderson Creek/Belle Meade

- Design Agreement being completed. PMP to follow

4. Picayune Strand (Southern Golden Gate Estates)

# Picayune Strand Restoration Recommended Plan (Alt 3D)



## Elements

- 3 Spreaders
- 3 Pump Stations
- 83 Canal Plugs
- 227 miles of Road Removed

**Cost - \$349 million**

Most Roads Removed and Northern Spreader

# SGGE - Picayune Strand Restoration PIR Status

- Division Engineer's Report signed on 22 October
- (Special note of thanks to Jay Slack & FWS for assistance in making this happen)
- Final PIR to be published in Federal Register in mid November
- Expect Chief's report by 31 Dec 04
- Proposed for inclusion in WRDA 2004

**Questions?**

