

# Upper East Coast Water Supply Plan Update Workshop

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***Beth Kacvinsky, PMP, Project Manager  
Everglades Restoration and Capital Projects***



## Presentation Outline

- Comprehensive Everglades Restoration Plan (CERP)
- Indian River Lagoon - South (IRL-S)
- North Palm Beach County - Part 1
- Ten Mile Creek



# Comprehensive Everglades Restoration Plan

*Rescuing an Endangered Ecosystem:  
The Plan to Restore America's Everglades*

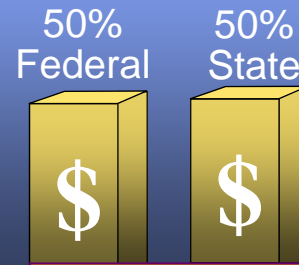


The Central and Southern Florida Project  
Comprehensive Review Study (The Restudy)

July 1999

- On July 1, 1999, the Secretary of the Army and the State of Florida presented the Plan to Congress
- Approved by Congress as the Framework for Everglades Restoration in the Water Resources Development Act of 2000 (WRDA-2000)

## Project Cost Sharing



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



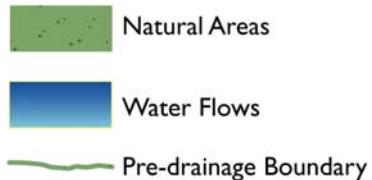


# Comprehensive Everglades Restoration Plan

- Restore and improve quality, quantity, timing and flow of water
- Provide sustainable water supply to meet environmental, agricultural and urban needs



# CERP - The Goal





# Comprehensive Everglades Restoration Plan

- Includes 68 components to be implemented over 35 years
- Features include:
  - Aquifer Storage & Recovery
  - Surface Water Storage Reservoirs
  - Stormwater Treatment Areas
  - Seepage Management
  - Removing Barriers to Sheetflow
  - Operational Changes
  - Reuse Wastewater



## Restoration Progress SFWMD Expedited Projects



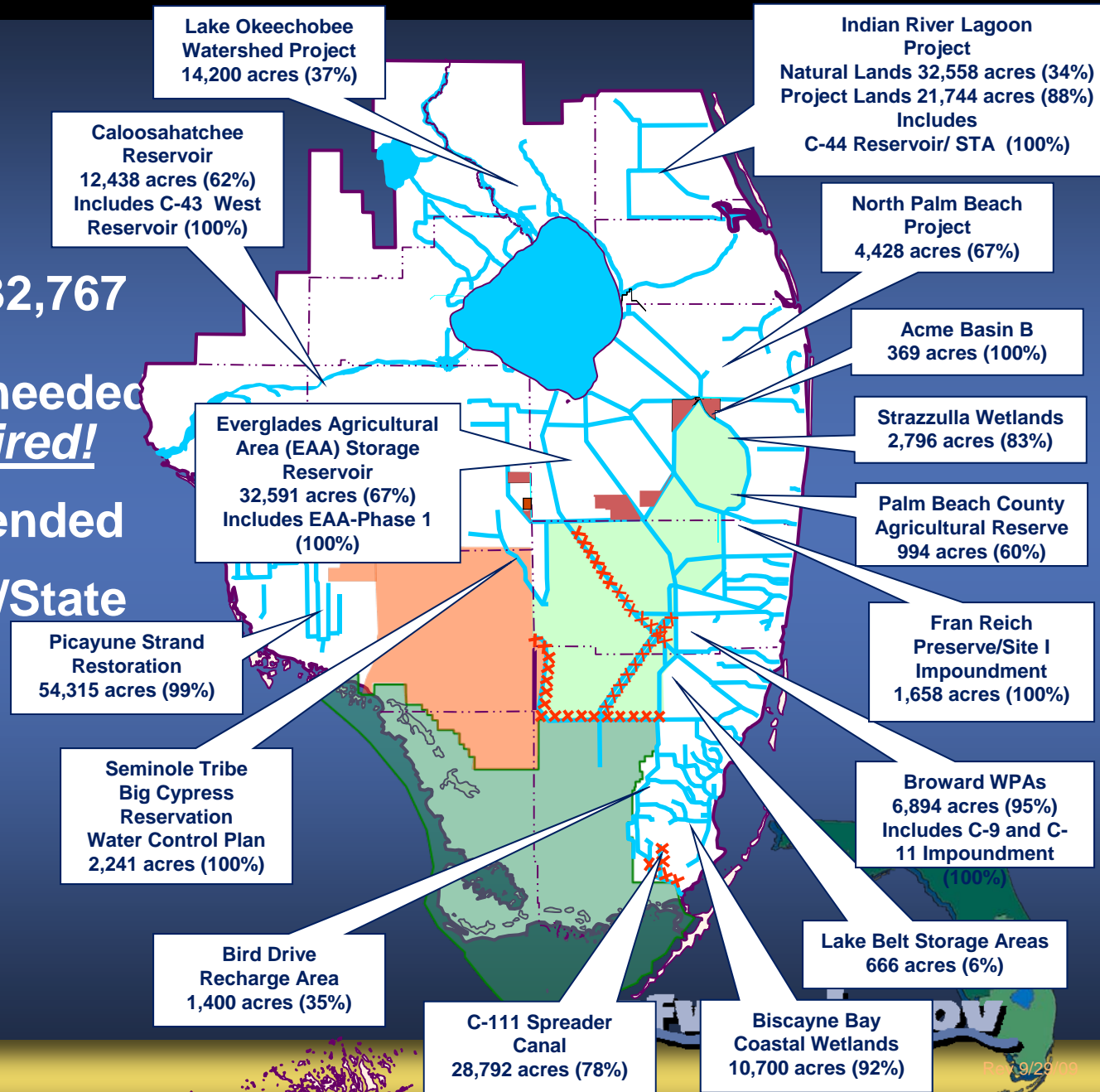
- Indian River Lagoon - C-44 Reservoir/STA
- North Palm Beach County Project – L-8 Reservoir
- Picayune Strand
- Acme Basin B
- Lakeside Ranch
- C-111 Spreader Canal Western Project
- Biscayne Bay Coastal Wetlands
- C-43 West Reservoir

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



# CERP Land Acquisition Progress

- Approximately 232,767 acres or 60% of estimated lands needed for CERP... acquired!
- \$1.63 Billion expended
- \$1.26B – SFWMD/State
- \$247M - Federal
- \$116M - Local
- \$ 8M – Tribal (Seminoles)





## **WRDA Proposed Authorizations**

- **C-43 West (Caloosahatchee River) Basin Storage Reservoir**
- **C-111 Spreader Canal Western Project**
- **Biscayne Bay Coastal Wetlands**
- **Broward County Water Preserve Areas**
  - **C-9 Impoundment**
  - **C-11 Impoundment**
  - **WCA 3A/3B Seepage Management**



## **IRL-S Project Objectives**

- **Improve habitat quality in estuarine ecosystems**
- **Improve functional quality of wetlands ecosystems**
- **Improve water quality**
- **Maintain existing level of flood control**
- **Maintain or improve water supply for urban and agricultural use**
- **Maintain a healthy ecosystem that supports recreational and commercial interests**



## Project Milestones

- Project Implementation Report (PIR) complete - August 2004
- Project authorized – WRDA 2007
- Water reservations rule (for structural components) – Adopted Feb. 11, 2010
- Project partnership agreement – June 2010





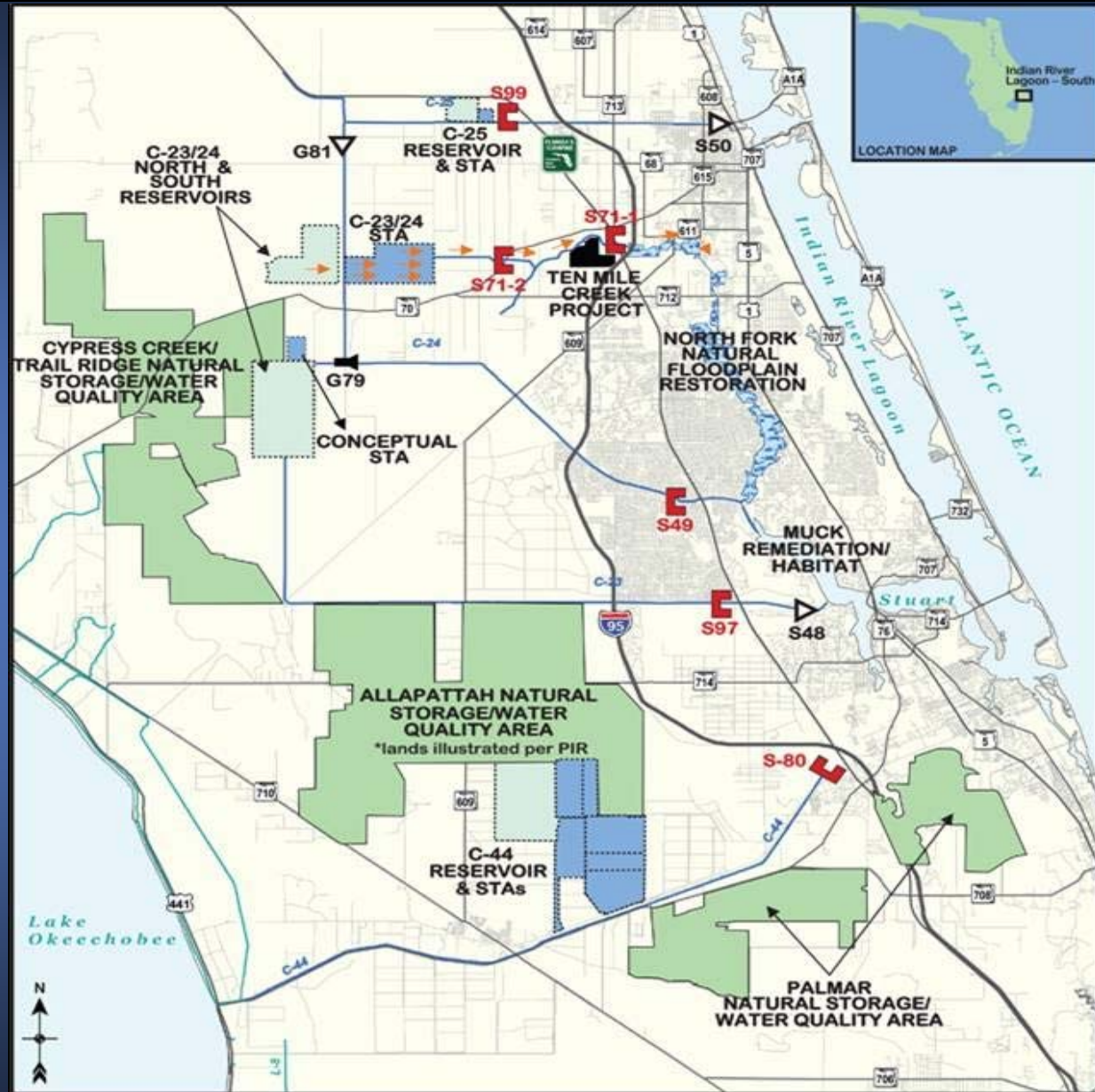
# IRL-S Authorized Plan Features

- **Water storage, treatment and diversion**
  - 4 surface reservoirs - 130,000 Ac-Ft
  - 4 STA's - 35,000 Ac-Ft
  - 3 natural storage areas - 30,000 Ac-Ft
  - C-23 & C-24 diversions to estuary and C-44
- **Habitat restoration**
  - 3 natural storage areas - 92,130 Ac
  - Floodplain restoration - 3,089 Ac
  - Estuarine habitat restoration
  - 7.9 million cubic yards (MCY) of muck removal
- **Project authorized by Water Resources Development Act (WRDA) 2007**
  - Initial authorized cost - \$1,357,000,000  
Fiscal Year (FY) 2007 price levels
- **Funding contingent upon appropriation**





# IRL-S Revised Footprint





# Land Acquisition Status

Component	Acreage	Acquired Status
C-44 Reservoir and STAs	12,037	100%
C-23/24 Reservoirs	8,713	83%
C-23/24 STA	2,490	100%
C-25 Reservoir and STA	904	0%
Allapattah	42,348	51%
Palmar	16,796	29%
Cypress Creek/Trail Ridge	32,639	13%
North Fork St. Lucie Floodplain	3,089	15%

Total Acquisition Cost to date: \$440,216,178



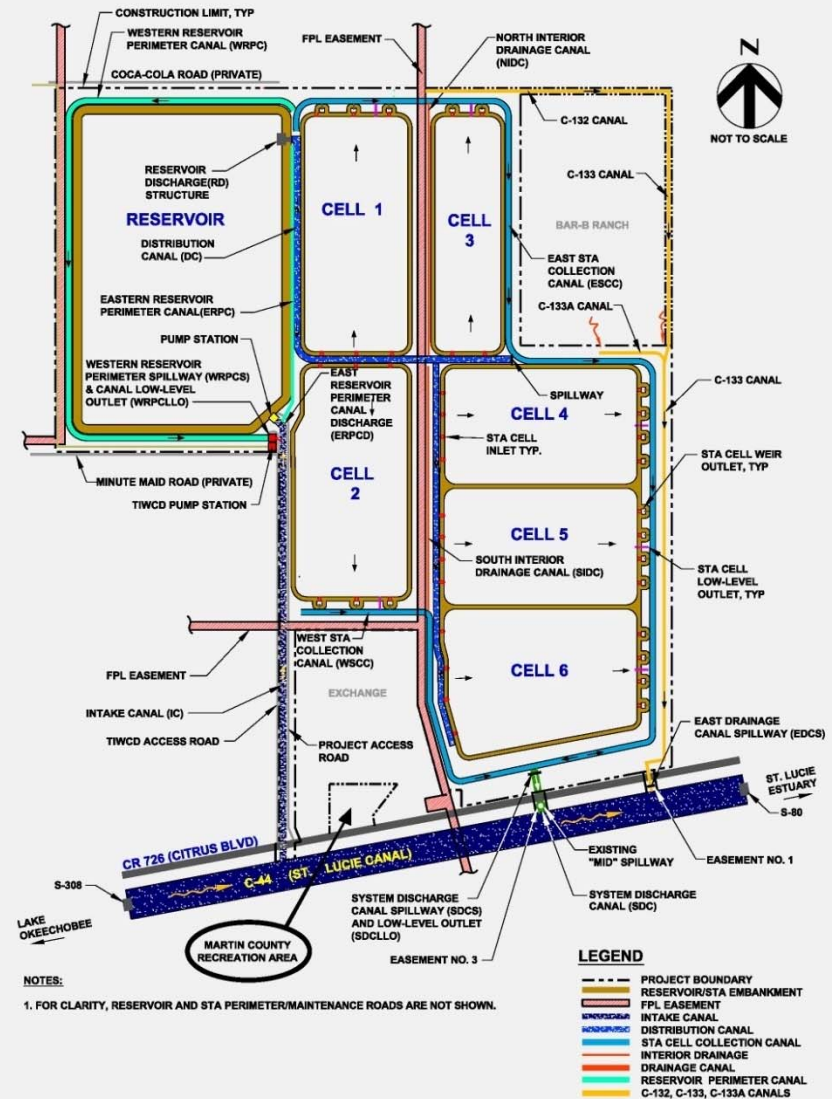
## C-44 Reservoir/STA

- 3,400-acre reservoir with water depth of 15 feet for 50,600 acre-feet of storage
- 6,300 acres of STA with emergent vegetation
- 1,100 cubic feet per second (cfs) capacity pump station located four miles north of C-44 Canal



# C-44

## Reservoir / STA Proposed Configuration





S O U T H   F L O R I D A   W A T E R   M A N A G E M E N T   D I S T R I C T			
Start (NTP)	Finish	Lead Agency D - SFWMD U - USACE	Project Name
CONSTRUCTION CONTRACTS			
11-Mar-10	26-Mar-10	D	MWI Inspection Report of Existing TIWCD Pumps
11-Mar-10	31-May-14	D	FPL Agreement
6-May-10	1-Sep-10	D	C-44 - TIWCD Temporary Configuration
29-May-10	30-Sep-10	D	Remediation of Residual Agrochemical Impacted Soils for Contract 1 (if required)
3-Jun-10	31-Dec-10	D	C-44 – C-132 and Northern C-133 Canals
3-Jun-10	31-Jan-11	D	C-44 – Communication Tower
21-Jan-11	19-Feb-13	U	C-44 Contract No. 1 - Intake Canal, C-133 Canal, Access Road
10-Jul-12	13-Aug-15	U	C-44 Contract No. 2 - Reservoir
20-Feb-13	31-Aug-13	D	C-44 – Permanent TIWCD Pump Station
4-Feb-15	30-Aug-17	U	C-44 Contract No. 3 - STAs

# C-44 Reservoir





## **Future Site of Intake Canal for C-44 Project – (Currently TIWCD Irrigation Pump Station)**

**Water would be conveyed from the C-44 Canal north to the Project Pump Station. TIWCD Pump Station would be removed and canal widened and deepened**





## A Future Discharge Site from the Project to the C-44 Canal



## C-23/C-24 Reservoirs and STA

- Will capture water from C-23 and C-24 basins
- ~ 90,000 acre-feet storage
- Provides for water quality treatment and diversion to North Fork St. Lucie River
- Design on hold (agencies to concentrate on C-44 construction)



# Natural Water Storage and Treatment Areas

- ~30,000 acre-feet of storage through restoration of on-site wetlands
- Construction work to include:
  - Ditch filling/plugging
  - Installation of water control structure
  - Construction of berms
  - Activities associated with prescribed burns
  - Treatment/removal of exotic/invasive plants and animals





# North Palm Beach County - Part 1

## Existing Conditions

Dry Season: high demand for water from Lake

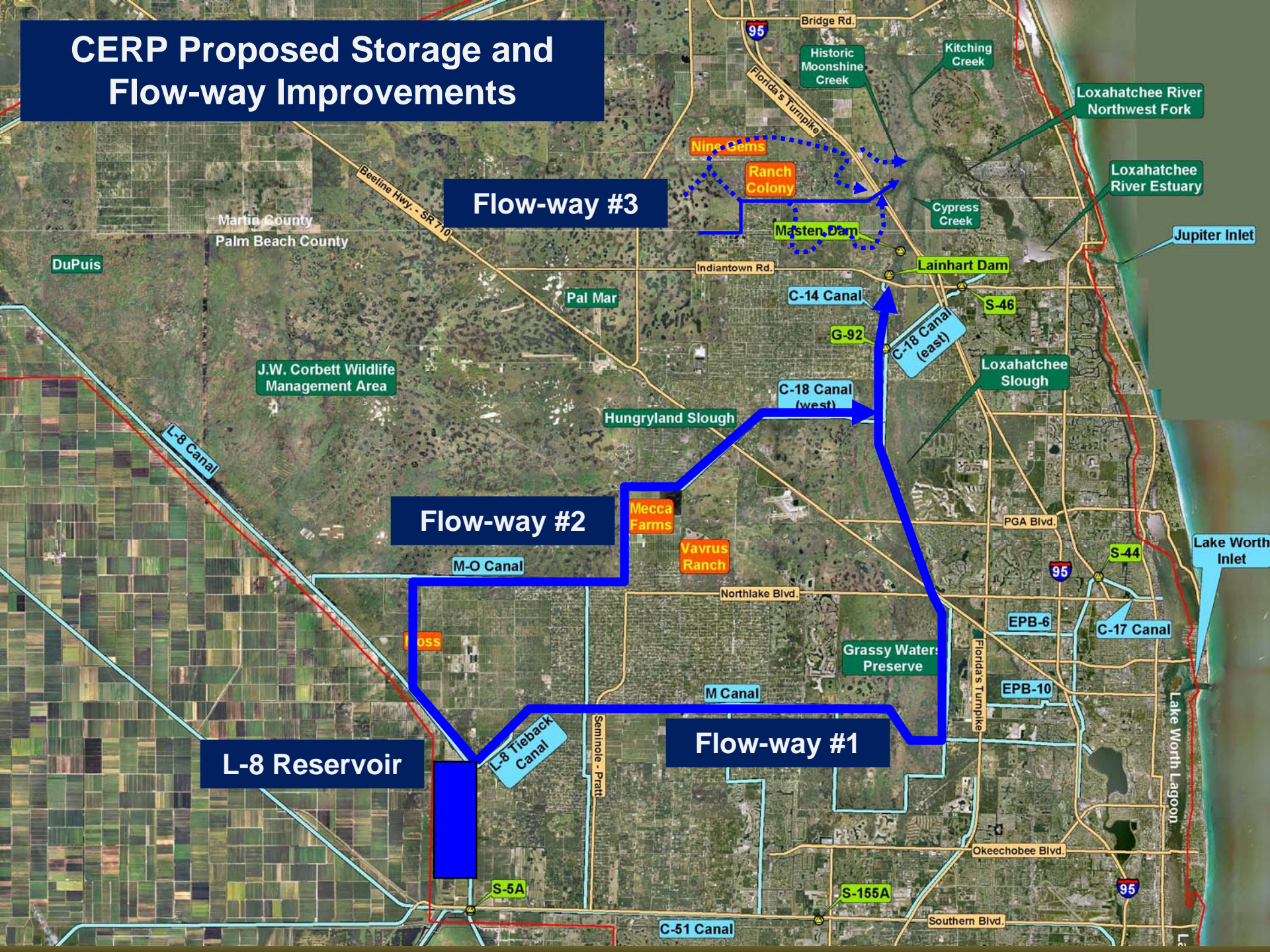
Limited Connections and Storage to capture and move water to meet needs

Wet Season: high discharge to tide





# CERP Proposed Storage and Flow-way Improvements





# L-8 Reservoir





# G-160 Loxahatchee Slough Structure







**G-161 Northlake Boulevard Structure**



# Ten Mile Creek

- Interior collector ditch flaws allow excessive seepage
  - Public health and safety are #1 priority
  - Ten Mile Creek Reservoir now drained; water level below reservoir floor
  - Water can enter only via pumps and direct rainfall
  - Corps reached per-project cost cap (\$25M) approved by Congress for Critical Project Program in FY08
  - Corps could not exceed statutory cap
- Nov 9 – President signed FY10 budget that contains legislative language providing additional authority to raise critical project program cap
- Includes funds to complete Post Authorization Change (PAC) Report and some maintenance activities at TMC
  - Site will remain inactive and secure until repair plan approved and work completed.



Questions?

