

# Transitioning to a New Operating Regime in the Southern Everglades: Issues and Perspectives

South Florida Ecosystem Task Force Meeting  
May 20, 2015

# SOUTH DADE OPERATIONS

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South Florida Water Management District



# A Very Diverse Group

## Agencies, Regulators and Sovereign Entities (Tribes)



# A Very Diverse Group

## Non-Governmental Organizations



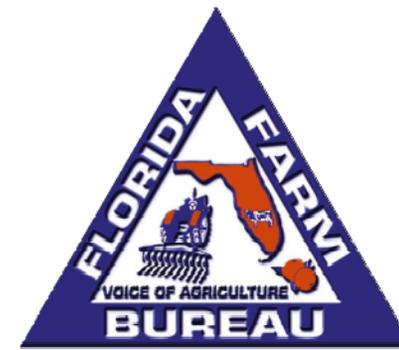
SUGAR INDUSTRY



RECREATION  
INTERESTS



AUDUBON



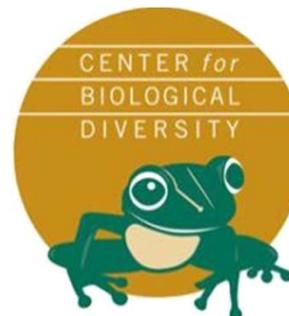
FLORIDA FARM BUREAU



AIRBOAT ASSOCIATION



EVERGLADES FOUNDATION



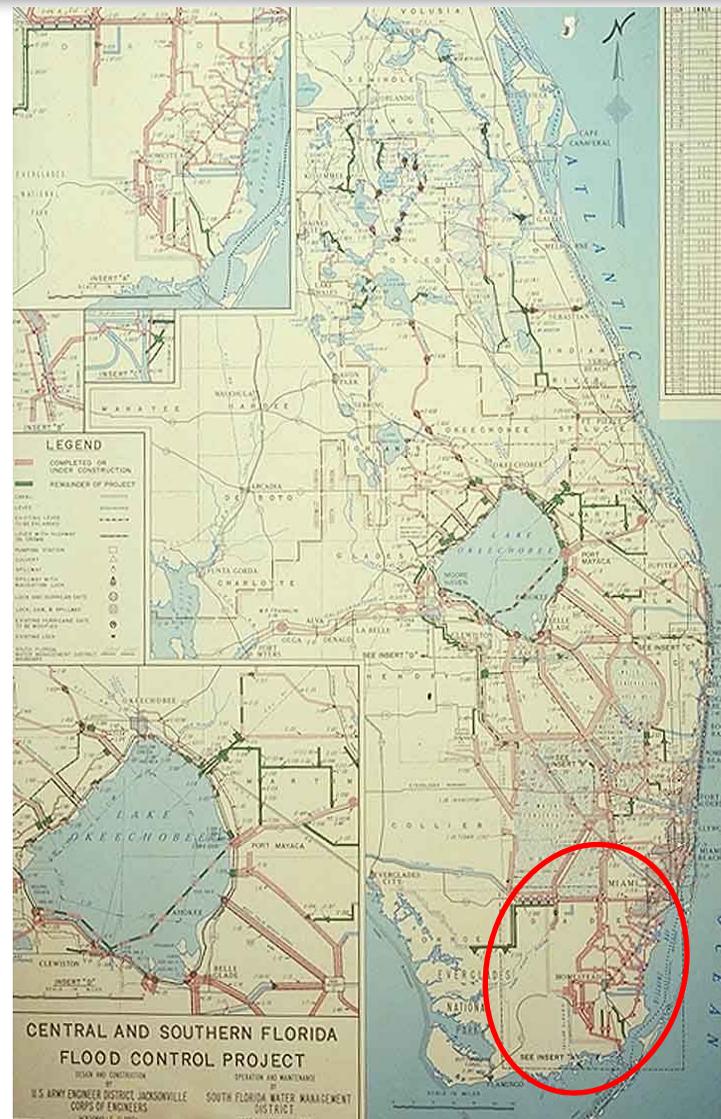
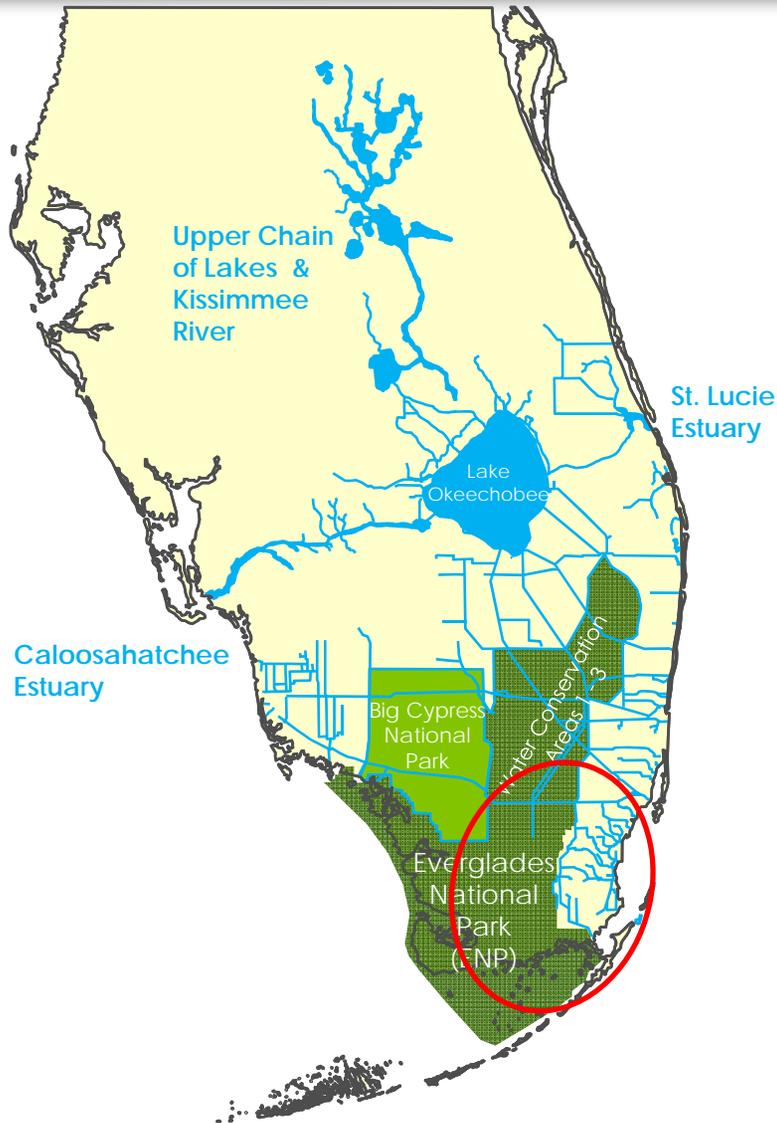
CENTER FOR BIOLOGICAL  
DIVERSITY



FLORIDA POWER  
& LIGHT



# System-wide Operations (C&SF Project)



# Project Location and Relevant Features C&SF, MWD Project and C-111 Projects



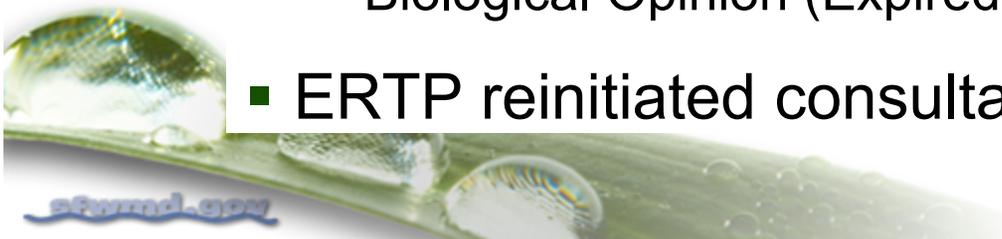
# Operations History

- Experimental Deliveries to Everglades National Park – 1984 -1999
- Modified Water Deliveries Project Authorized – 1989
- C-111 Canal/South Dade Project Authorized – 1994
- Comprehensive Everglades Restoration Plan – 1999
- Jeopardy Biological Opinion, Cape Sable Seaside Sparrow (CSSS) – 1999

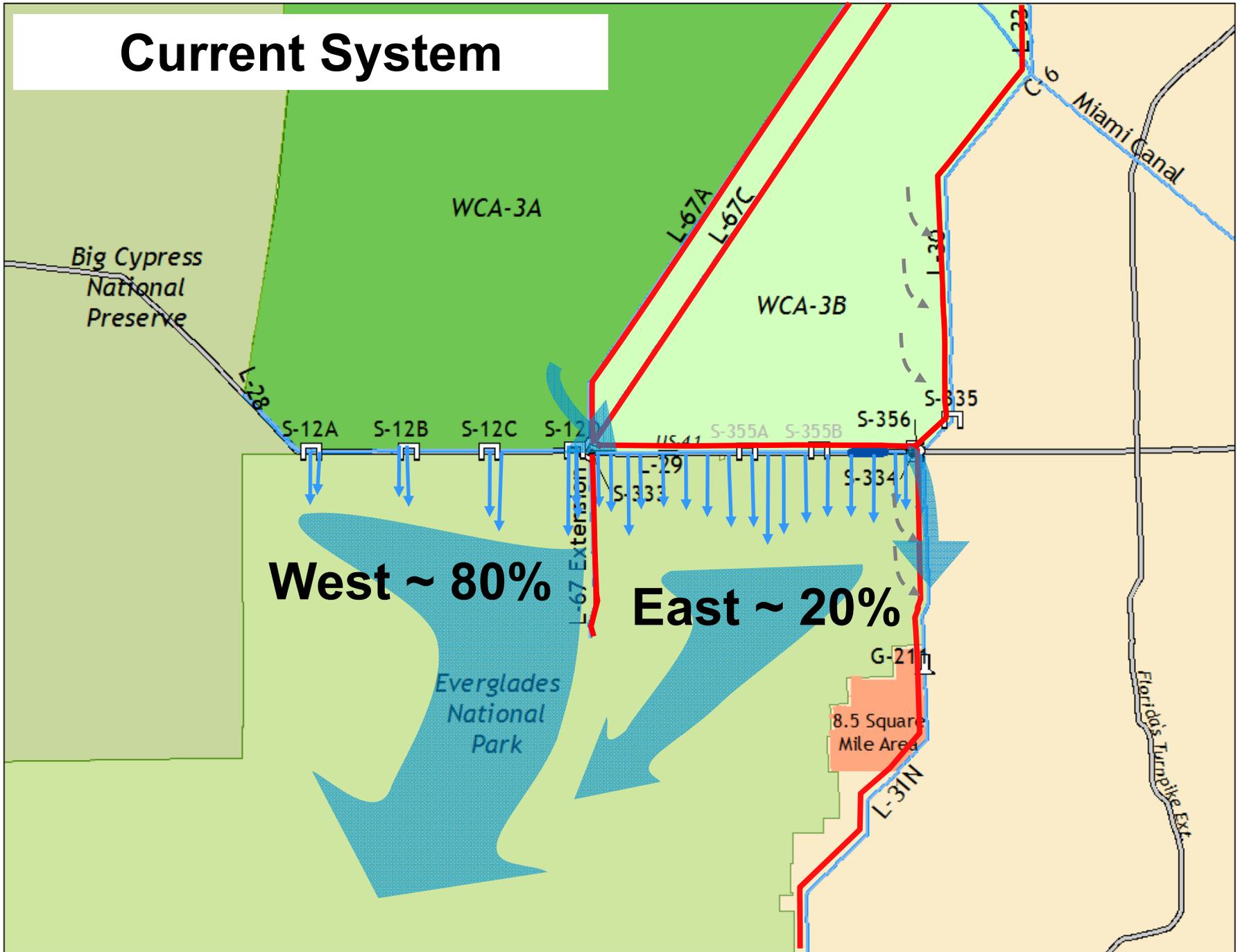


# Operations History

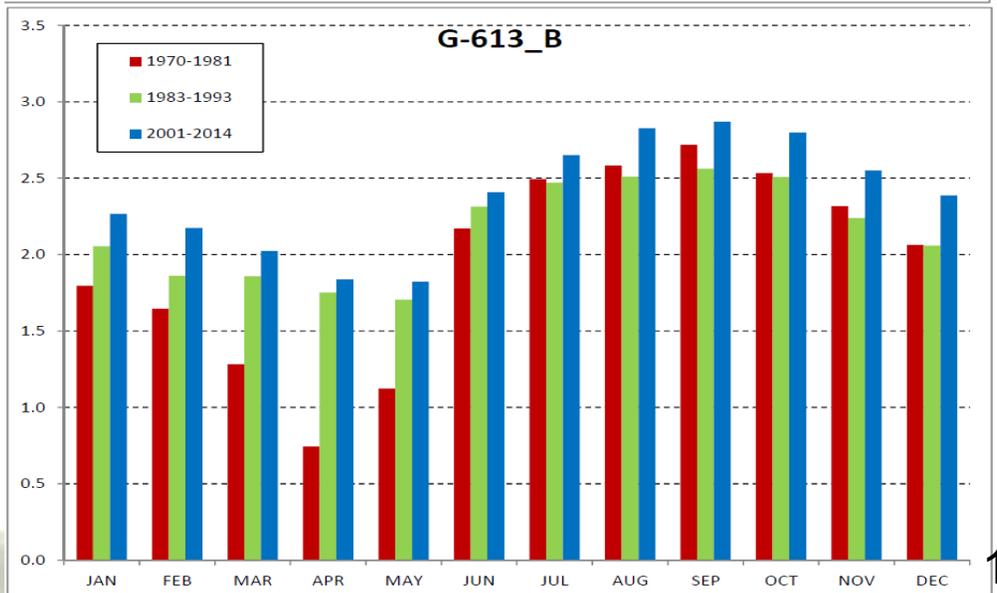
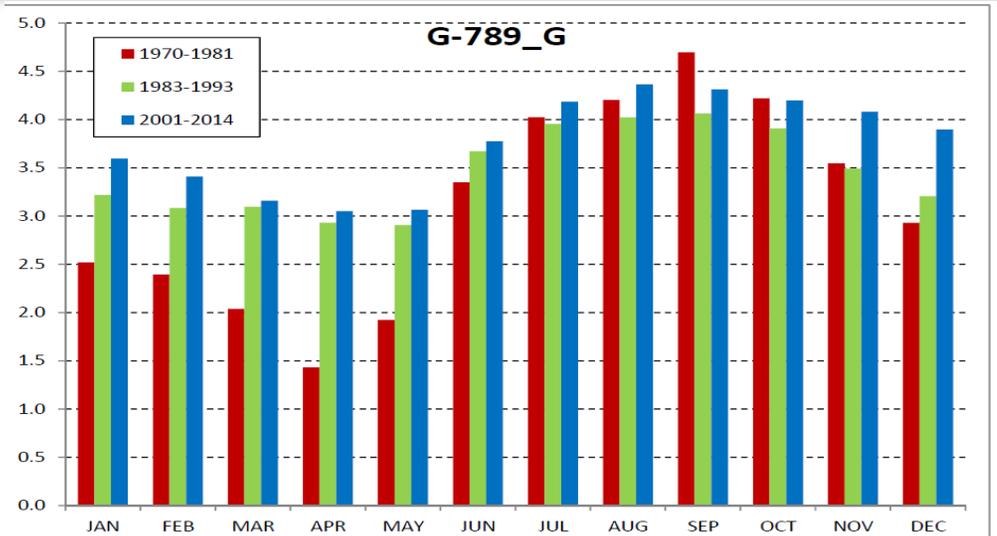
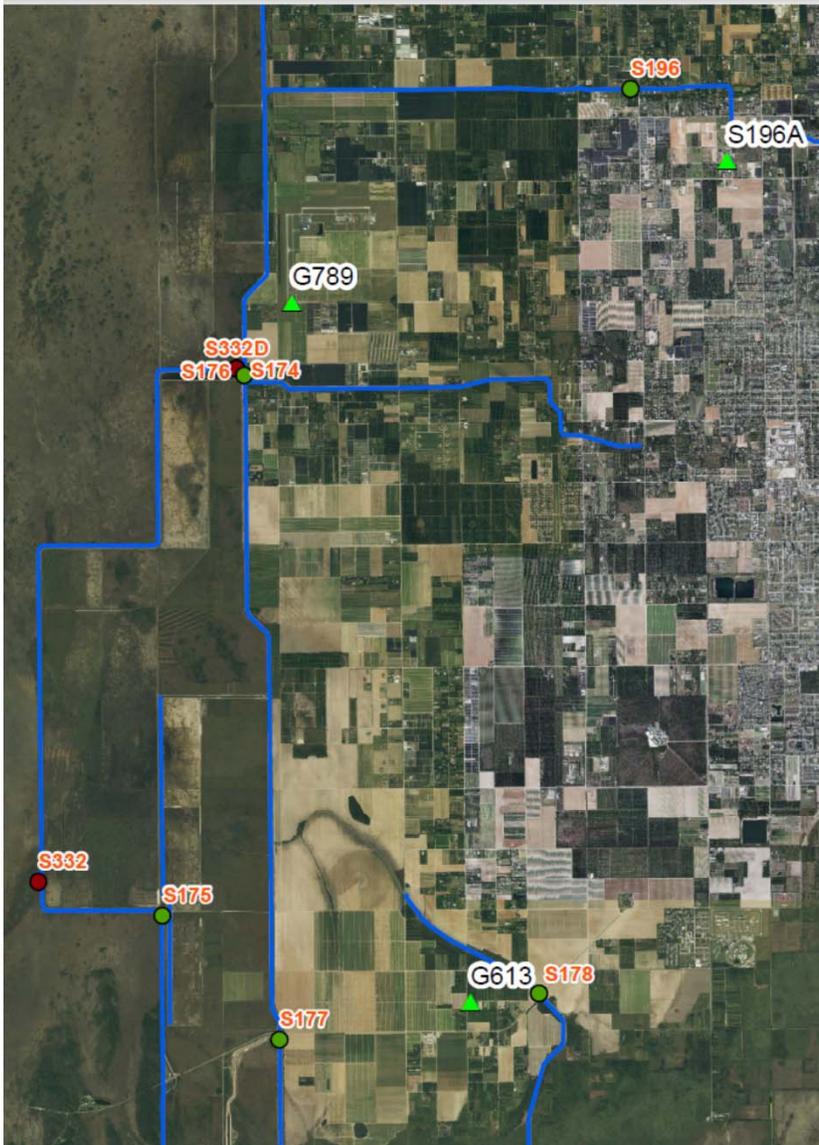
- Interim Structural and Operational Plan (ISOP) – 2000
  - Constructed C-111SD Pumps S332B & D; Detention Basin
  - Further modifications required due to effects on CSSS habitat, water quality
- Interim Operational Plan (IOP) – 2002
  - Draft Environmental Impact Statement (EIS), Feb 2001
  - Final EIS, July 2002; Supplemental EIS, 2006
  - Construction of C-111SD Pump S332C; additional detention basin, MWD Pump S-356
  - Biological Opinion (Expired Nov. 2010)
- ERTP reinitiated consultation - 2010



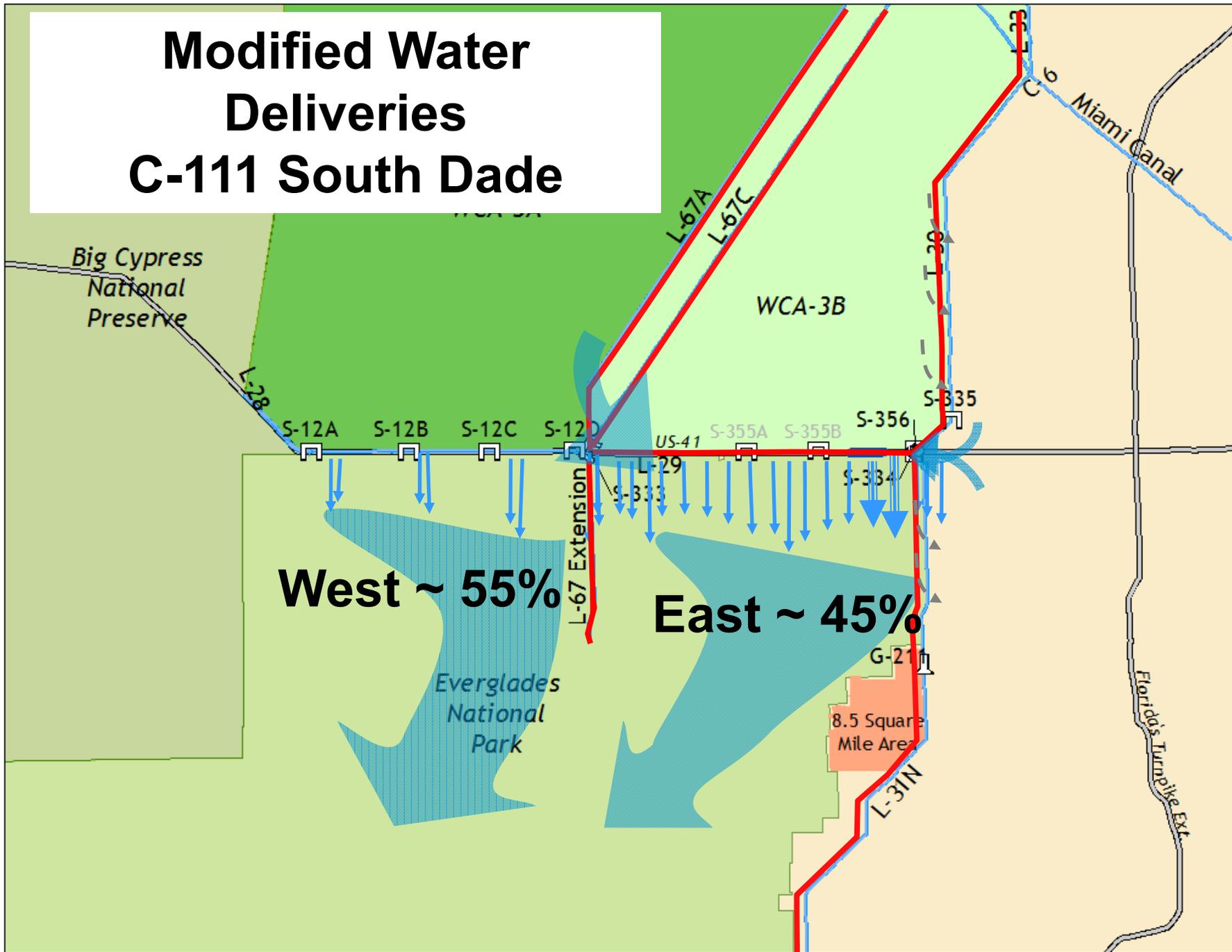
# Current System



# Monthly Average Groundwater Levels



# Modified Water Deliveries C-111 South Dade



## Increment 1 Field Test

- Improve hydrological conditions in Northeast Shark River Slough (NESRS) through the relaxation of the G-3273 stage criteria
- Use the S-356 pump station to return seepage to NESRS and manage seepage from NESRS to the L-31N Canal (resulting from the relaxation of the G-3273)

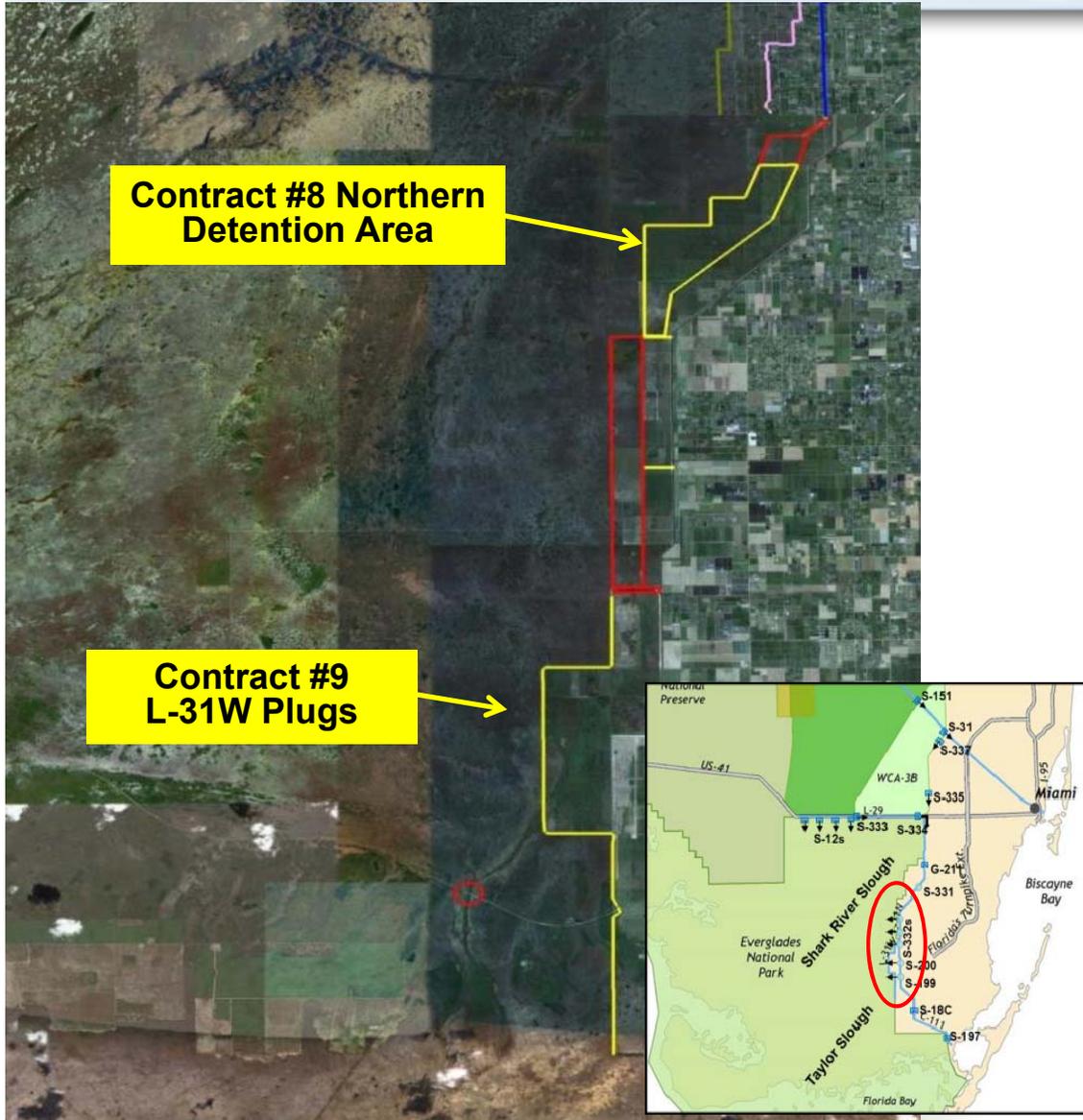


## Increment 1 Field Test Schedule / Status

- Test Authorization Received 13 Mar 15
- Finalize EA 27 Apr 15
- Sign FONSI 19 May 15
- Pump Test Begins 01 Jun 15
- Implement Increment 1 13 Jul 15  
(If water levels allow)

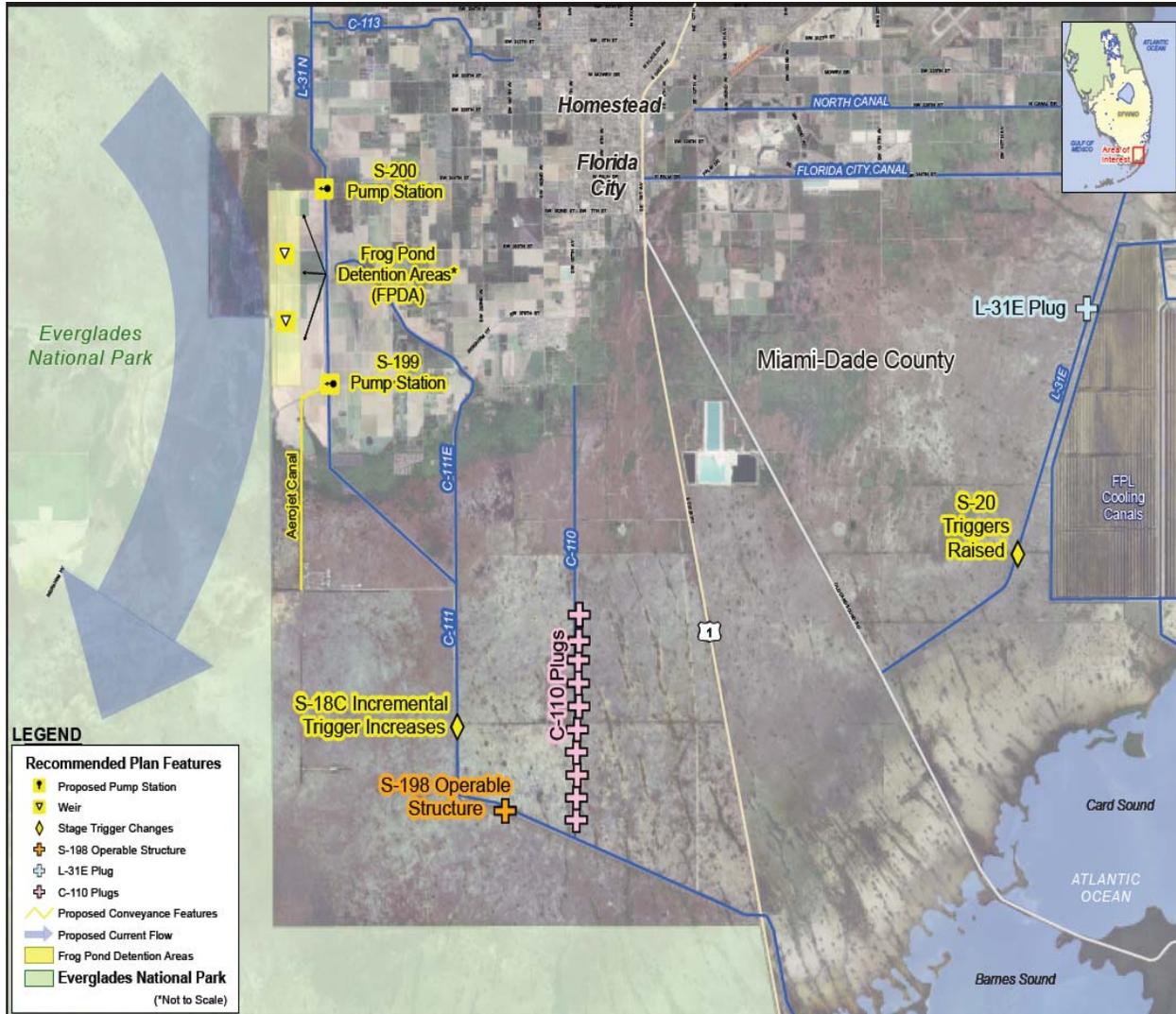


# C-111 South Dade Project



- Contract 8 Award - 30 Jul 2015
- Contract 9 Award – Sept 2016
- Agricultural interests have concerns with performance of the C-111 South Dade Project
- Environmental interests have concerns with operation of S-197

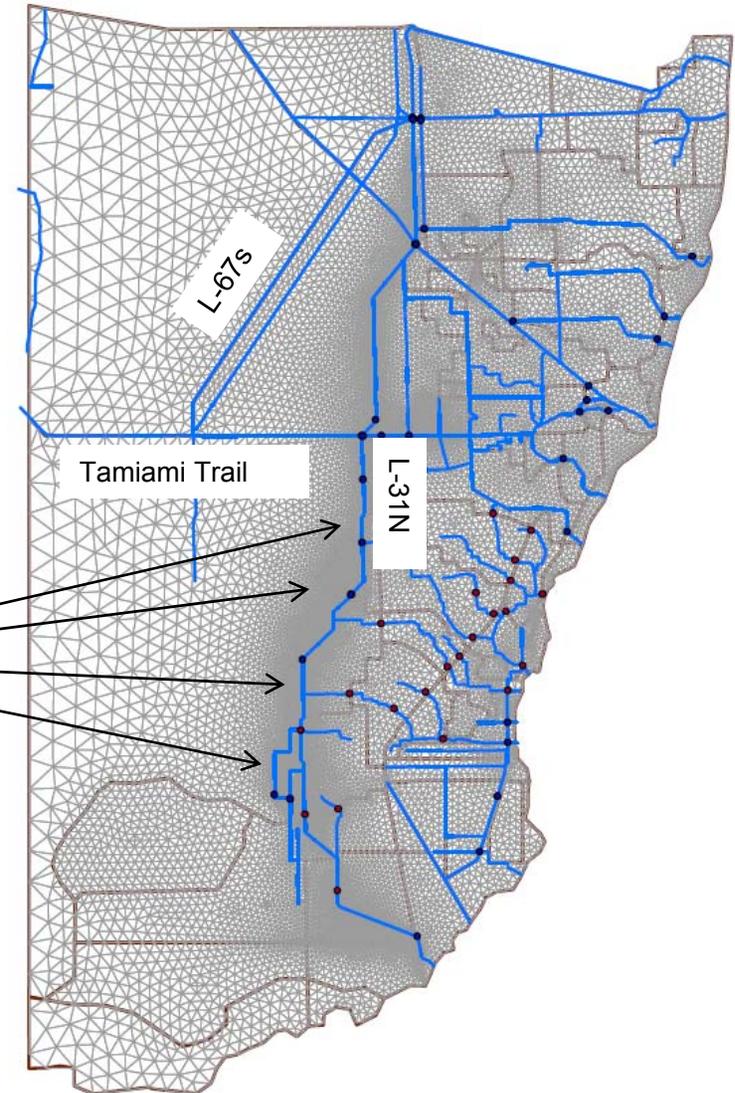
# C-111 Spreader Canal Project



- Frog Pond Detention Area
- Aerojet Canal Extension
- Canal Modifications:
  - L-31E
  - C-110

# Tools for Operational Planning

- Expansion of groundwater monitoring network
- LiDar data and analysis
- Model development
  - High resolution model grid in areas of interest



# Old Tamiami Trail – Flow Enhancements/ Modifications



WCA 3A

WCA 3B

Old Tamiami Trail

Old Tamiami Trail

Area under  
consideration for flow  
enhancement /  
modifications

L-67  
Extension

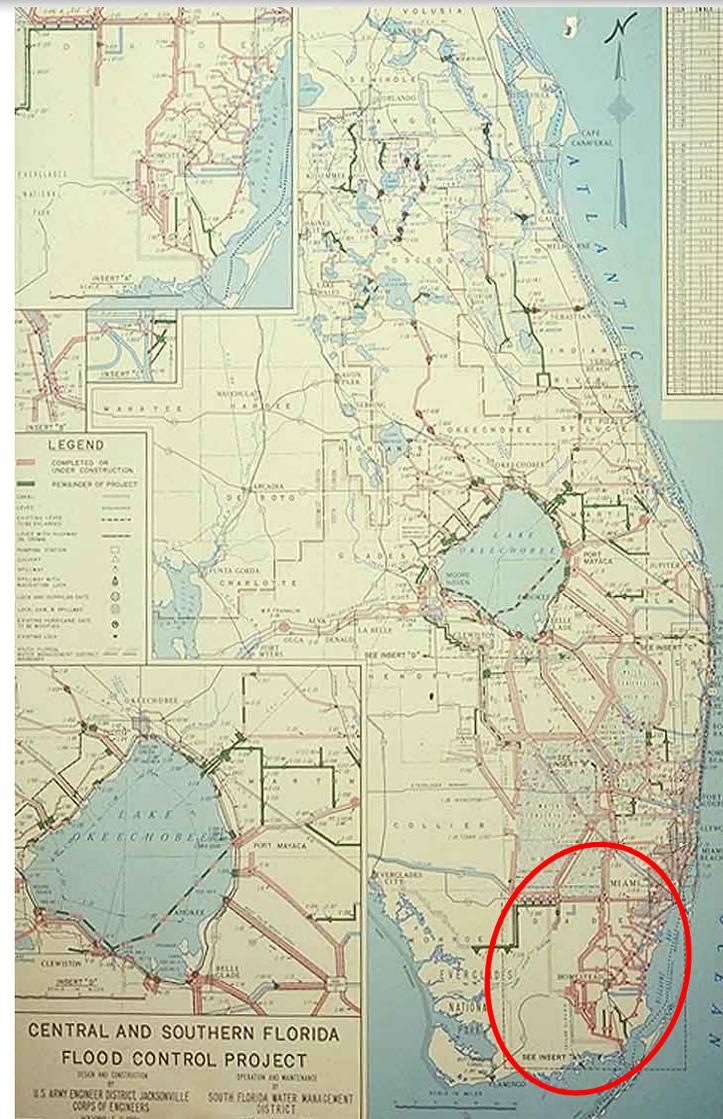
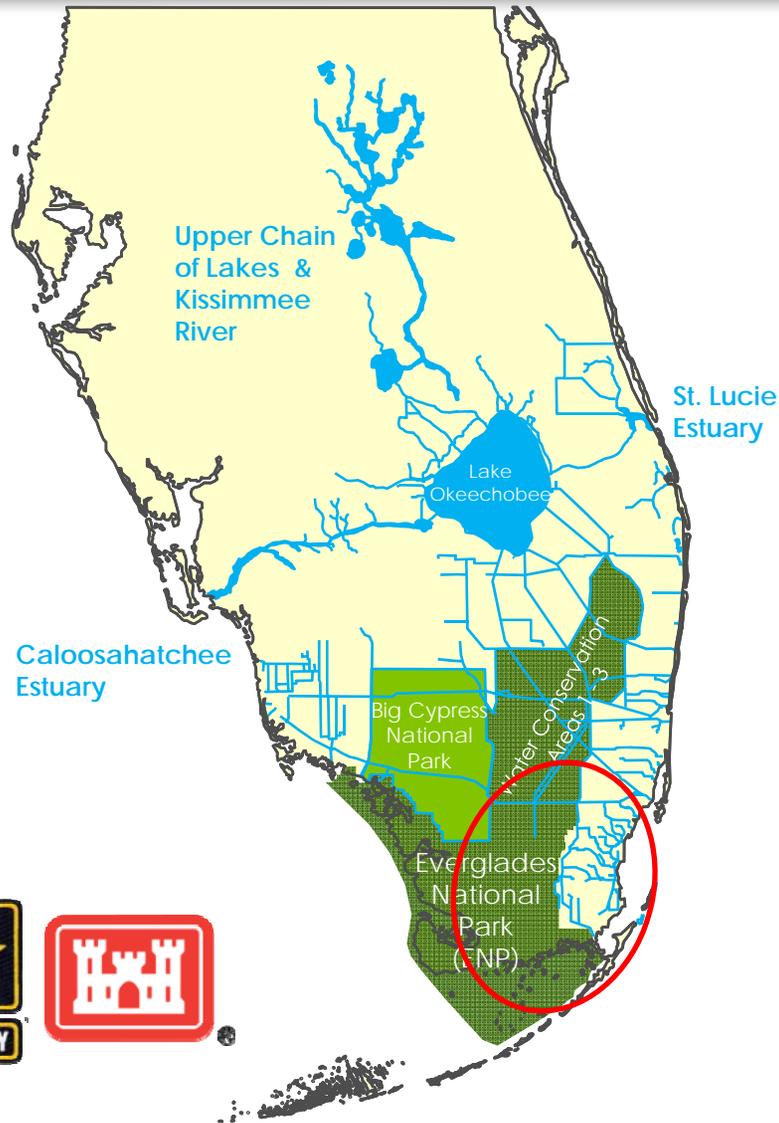
# EVERGLADES TRANSITION PLAN (ERTP)

## *Water Management Operations In the Southern Everglades*

Eric Bush, Chief  
Planning and Policy Division  
U.S. Army Corps of Engineers, Jacksonville District



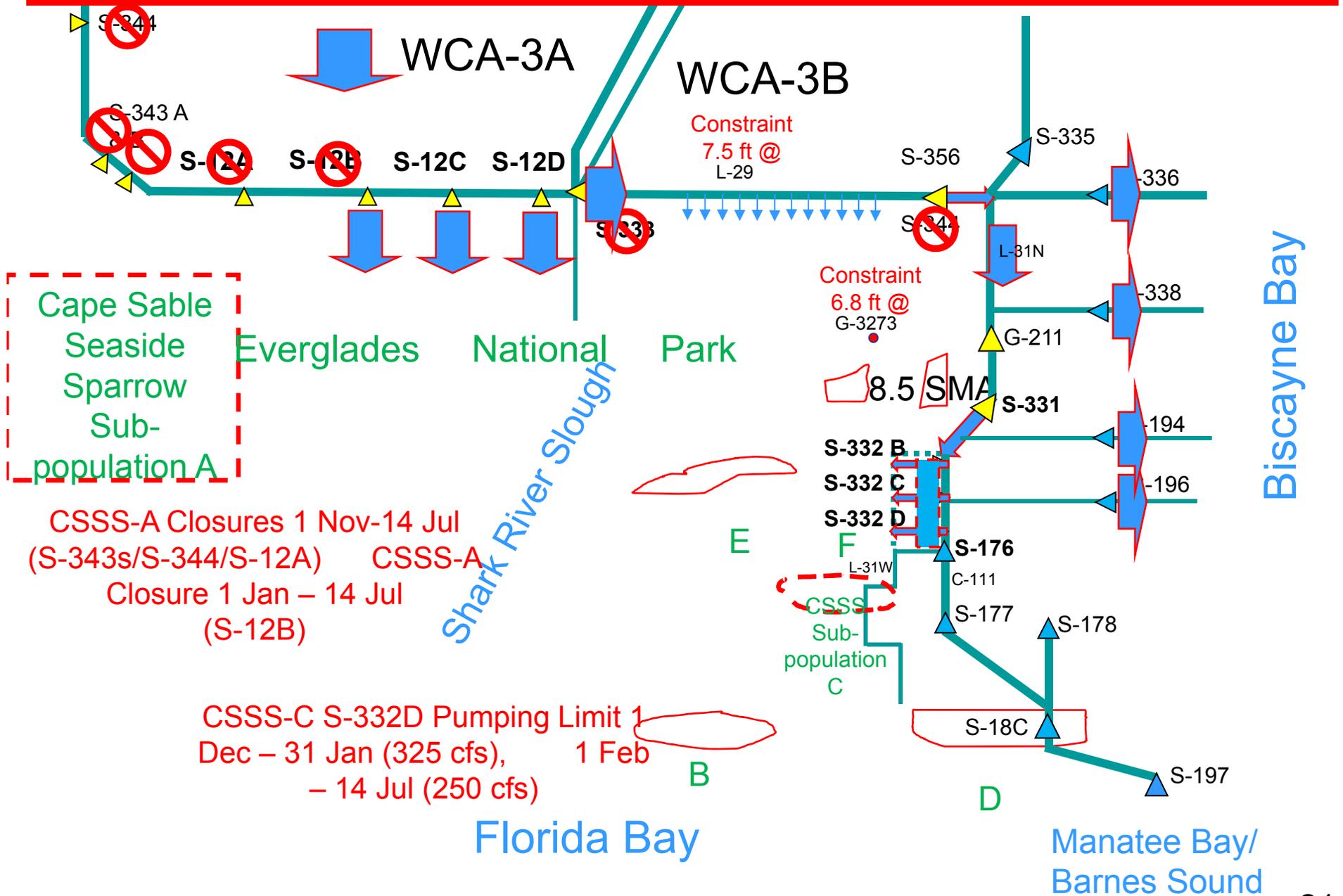
# System-wide Operations (C&SF Project)



# ERTP Location Map



# Current Operations (ERTP)

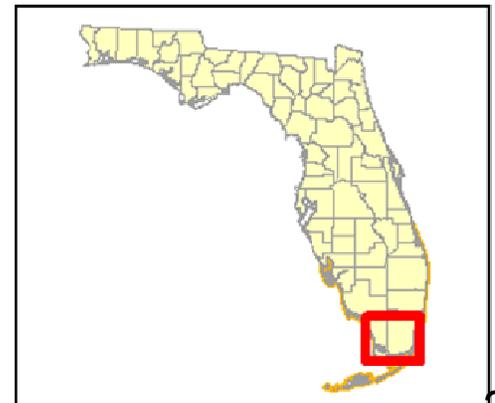
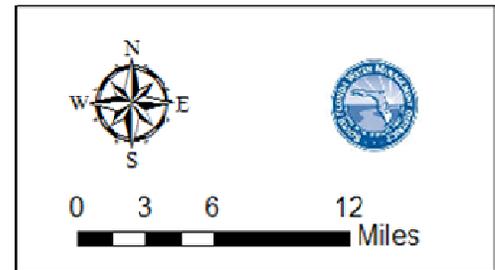
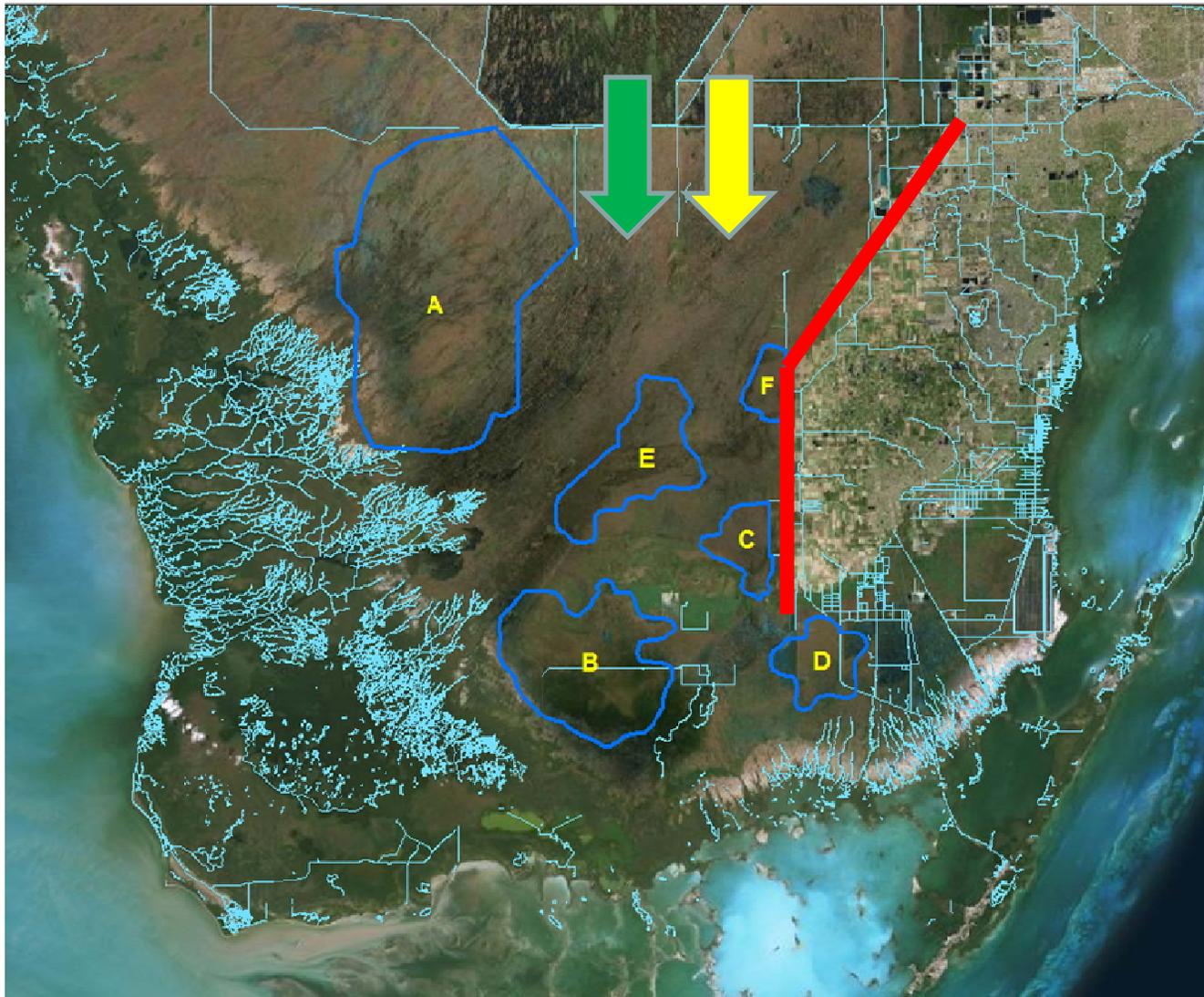


# ERTP Background

- Everglades Restoration Transition Plan (ERTP)
  - Multi-Species approach
  - Addressed WCA-3A levee concerns
  - Biological Opinion, Nov 2010
  - Final EIS, Dec 2011
  - Record of Decision, Oct 2012
  - State of FL; Inconsistent w/ Coastal Zone Management Act (CZMA) – Feb 2013
    - Water quality concerns (Appendix A compliance)
    - Did not request mediation
  - Biological Opinion expires Jan 2016



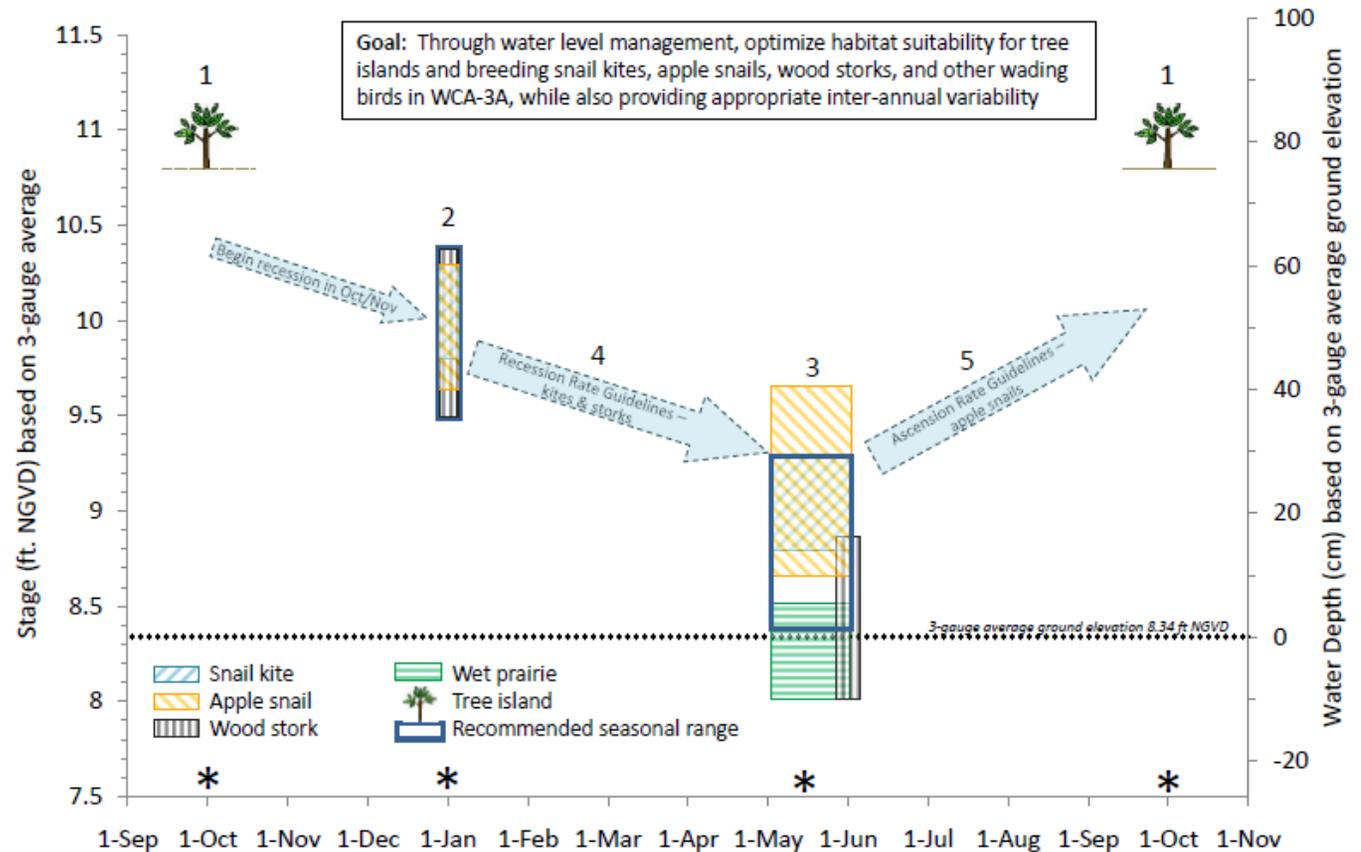
# Cape Sable Seaside Sparrow Habitats (ENP)



# ERTP Performance Target: WCA-3A

## USFWS Multi-Species Transition Strategy for WCA-3A

Draft July 1, 2010



1-Sep 1-Oct 1-Nov 1-Dec 1-Jan 1-Feb 1-Mar 1-Apr 1-May 1-Jun 1-Jul 1-Aug 1-Sep 1-Oct 1-Nov

\* Interagency Meeting – Management decisions (targets) to be determined by an interagency team. The team should meet regularly throughout the year (minimum October, January, and May). The intent is to manage for inter-annual variation with seasonal targets based on an interagency assessment of species' needs (evaluated w/monitoring data), forecasted climatic conditions, and past years' hydrology.



## ERTP Performance Target: CSSS/ ENP

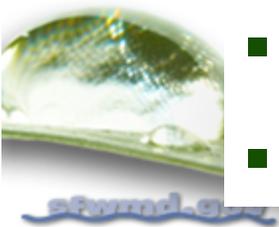


- Nesting Season: Provide at least 60 days of water levels below ground level (6.0 ft) in nesting area starting 15 March
- Dry Season Recession: Use flexibilities to reach 7.0 ft in habitat by 31 December
- Marl Prairie Hydroperiod Target 90-120 days inundated



## Where Are We Now?

- CSSS Population Re-initiation Trigger, 2014
  - Sub-population B declined > 700 birds since 2007
- Corp Re-initiated Endangered Species Act (ESA) Consultation Nov 2014
  - Technical team convened
  - Not formulating new operations alternatives
- Interagency information meeting, June 17<sup>th</sup>
- Biological Assessment, August 18<sup>th</sup>
- Draft Biological Opinion, Nov 16<sup>th</sup>
- Final Biological Opinion, Dec 31<sup>st</sup>
- *ESA Lawsuit Filed April 30<sup>th</sup>*



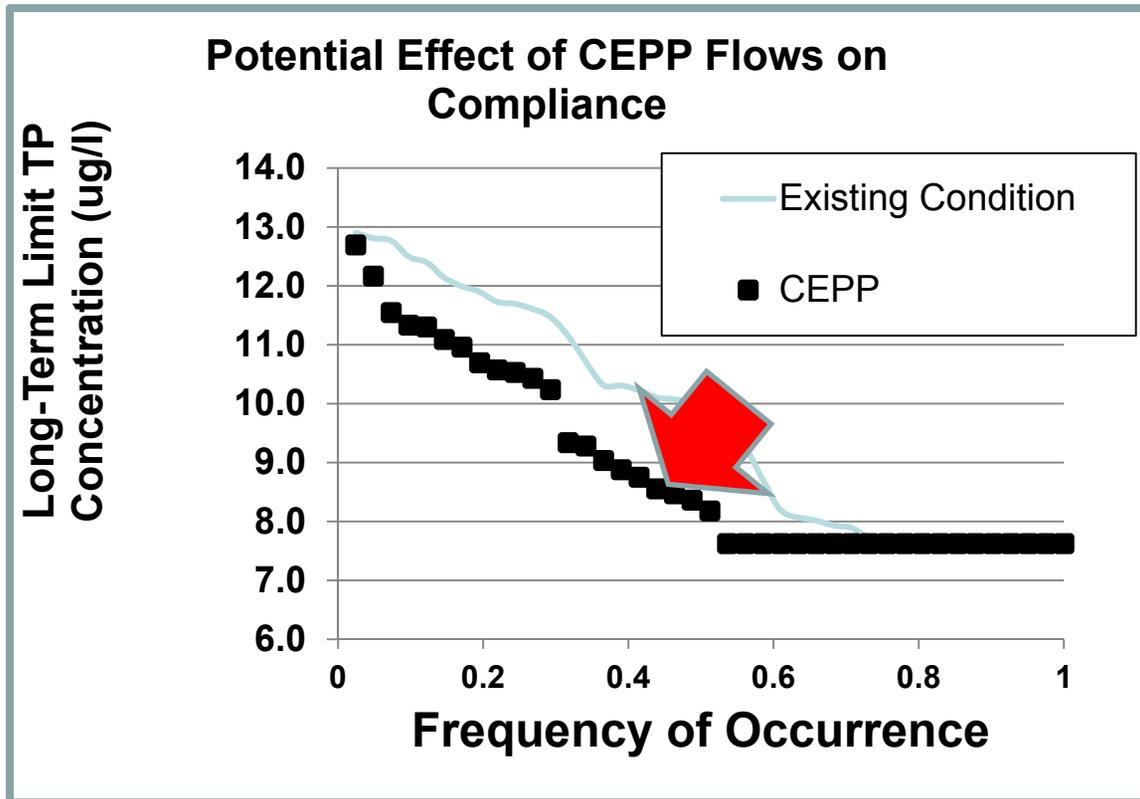
## Related Activities/ Concerns

- Florida Fish & Wildlife Conservation Commission
  - High water levels in WCA-3A
- Miccosukee and Seminole Tribes
  - Effects on tribal lands, water quality, cultural resources
- State of FL/ SFWMD
  - Effects of flows to ENP on water quality
- Florida Department of Agriculture
  - Effects on adjacent agricultural lands
- DOI/ ENP/ USACE
  - Completion of MWD & C-111 South Dade projects
    - Contract 8 – July 2015
  - Tamiami Trail Next Steps Bridge (FDOT)
  - Integrated Operations Plan



# Water Quality Compliance

- Increased flow lowers Appendix A compliance limit



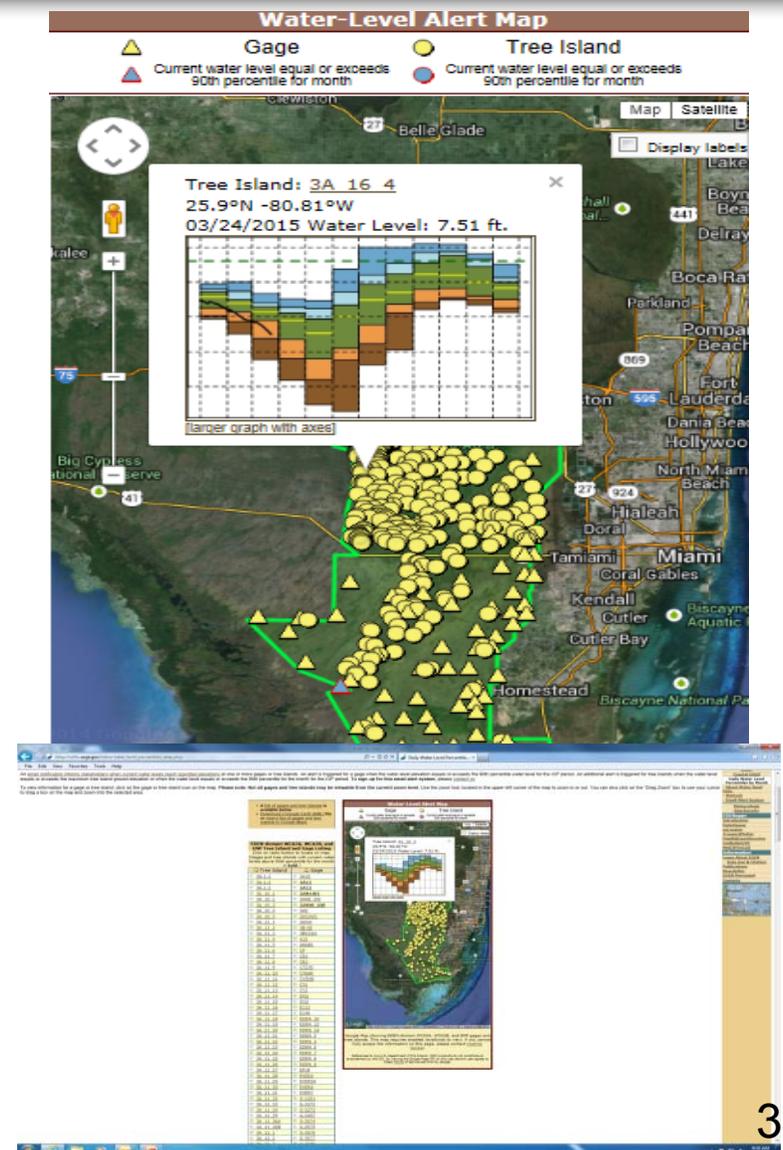
# Effects on Agricultural Lands

- Groundwater levels



# Cultural Resources Concerns

- National Historic Preservation Act Programmatic Agreement (PA)\*
- Tied to Section 106 Compliance
  - Investigates effects of high & fluctuating water levels and potential impacts to cultural resources
  - Uses active USGS Everglades Depth Estimation Network (EDEN) monitoring
- ERTP PA monitoring to be used for G-3273 test
- Data from the PA investigation is key to ERTP Section 106 compliance and future projects (e.g., MWD Completion, ENP (Tamiami Trail Next Steps), CEPP, etc



\*USACE, SHPO, ENP and ACHP; Tribes & SFWMD are concurring parties)

# Discussion