

# SFWMD Program and Project Update

South Florida Ecosystem Restoration Task Force Meeting

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# SOUTH FLORIDA ECOSYSTEM RESTORATION PROJECTS

# C-44 Reservoir & STA

S-404 Spillway



➤ SFWMD Projects:

- S-404 Spillway - complete
- Pump Station – complete
- STA – construction completion expected
  - 2019 for Cells 1-3
  - 2020 for Cells 4-6

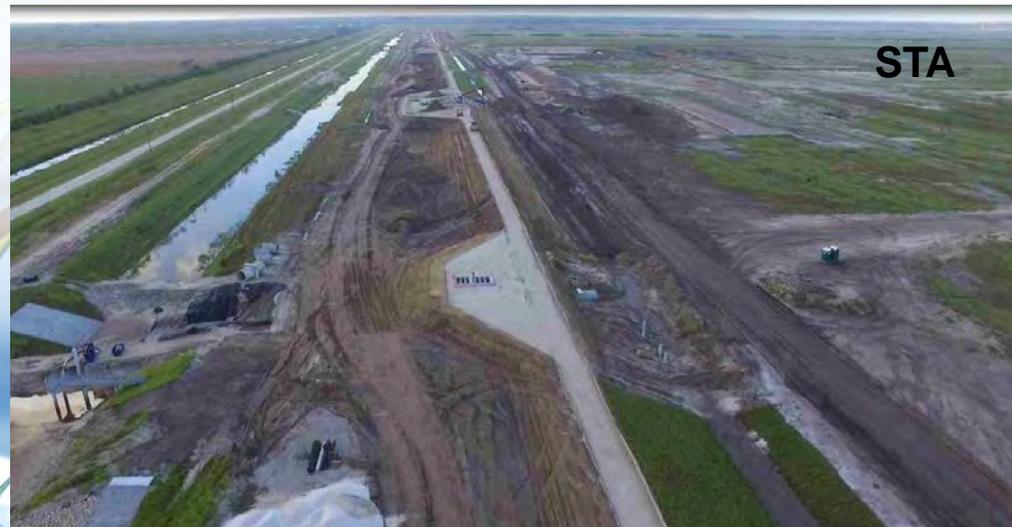
➤ USACE Project:

- Reservoir – construction completion expected 2021

Pump Station



STA

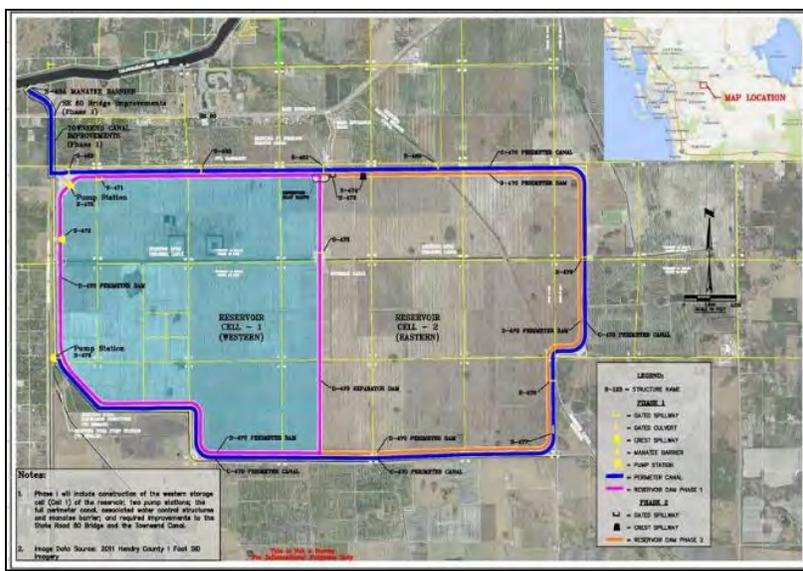


STA



# C-43 Reservoir

- State began construction in 2015
  - Package 1: Preload and Demolition – Complete
  - Package 2: Construction of S-476 (195 cfs) Pump Station completion – April 2019
  - Package 3: S-470 Pump Station completion - Spring 2022
  - Package 4: Civil works completion – 2023



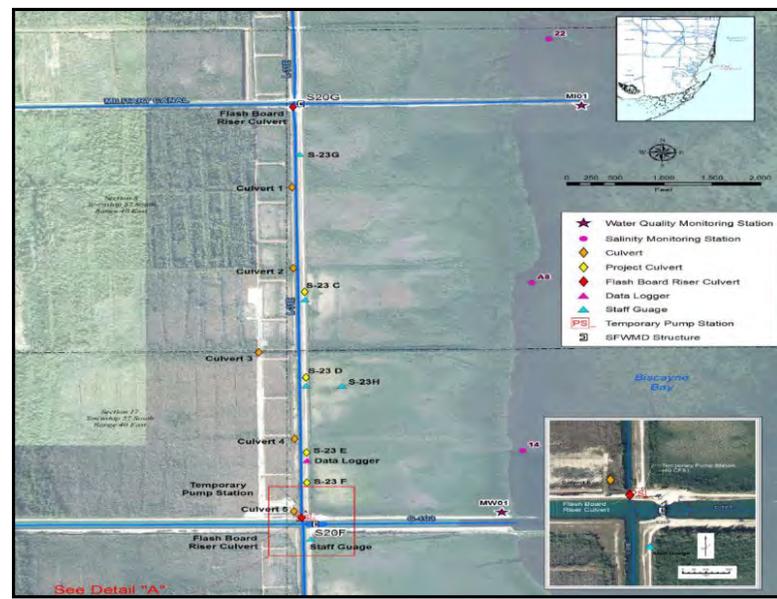
# EAA Reservoir

- Scraping of ~240 acres – completed
- Geotechnical borings – completed
- Permeability tests on the reservoir site - completed
- Phase II Environmental Site Assessment on A-2 Expansion Area - completed
- Initiated survey and Geotech for conveyance improvements on the Miami and North New River Canals

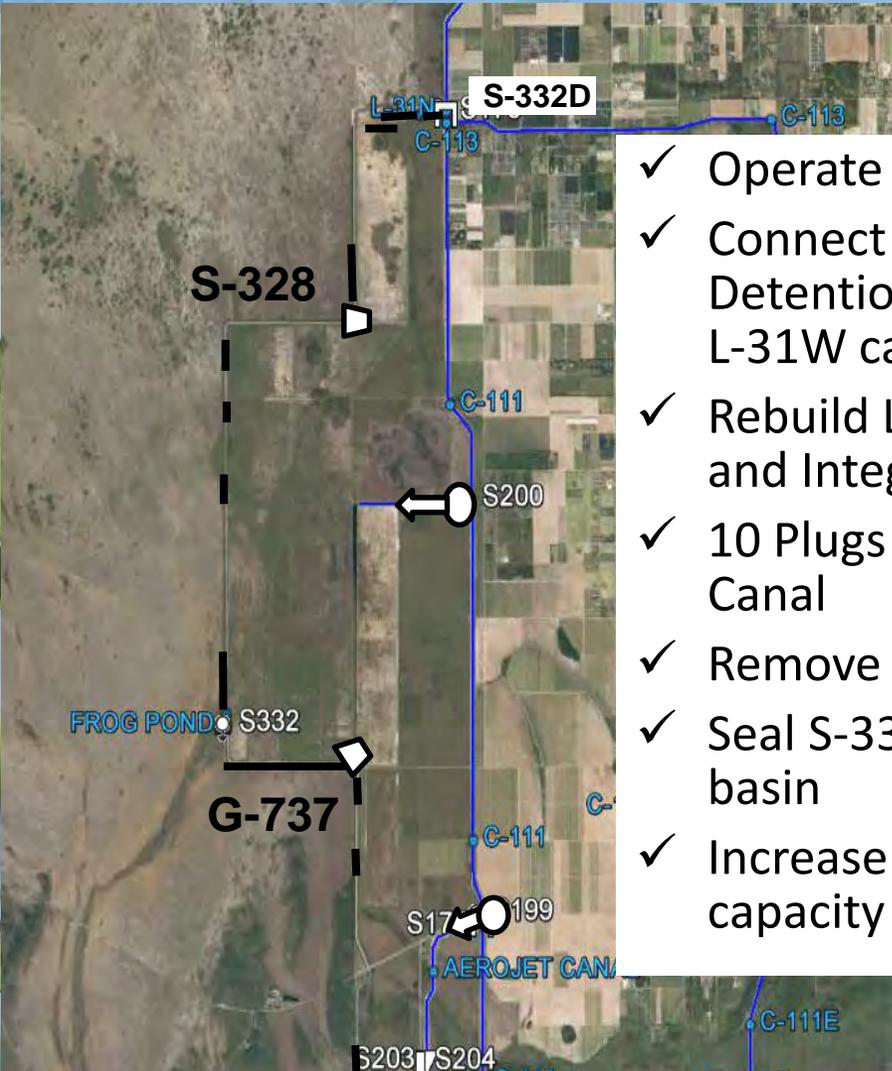


# Biscayne Bay Coastal Wetlands

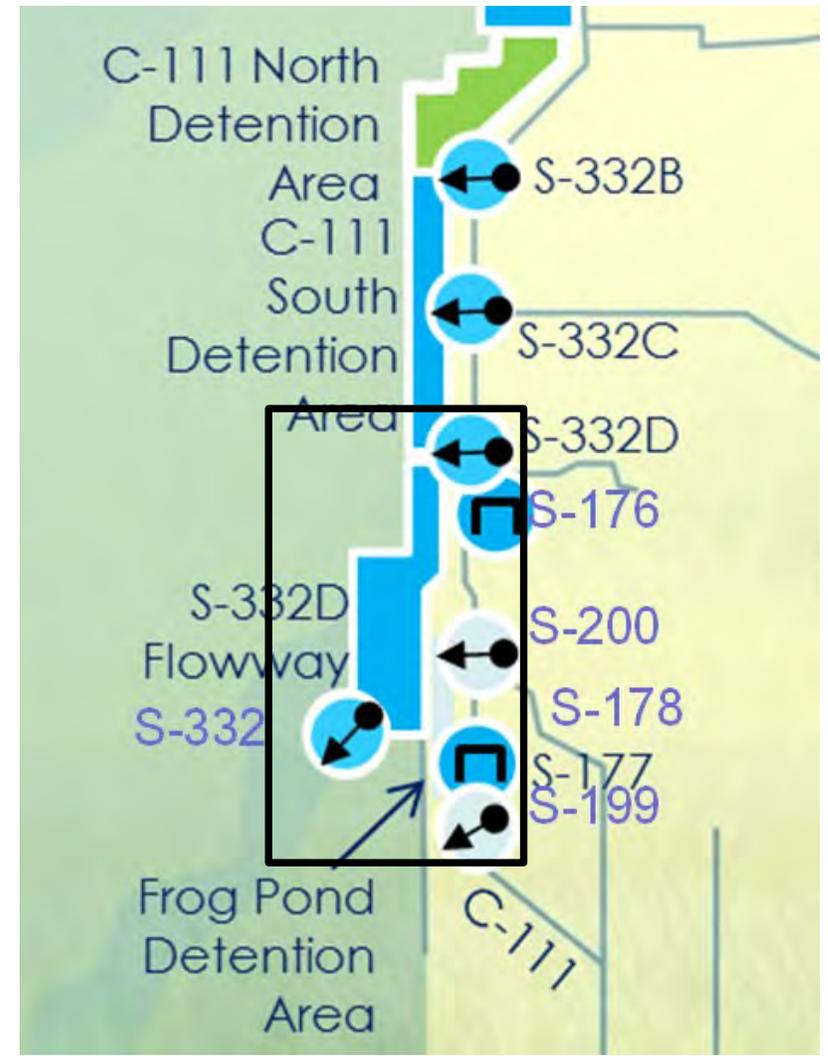
- Deering Estate – complete
- L-31E:
  - L-31E culverts – complete
  - Design of S-709 underway
- Cutler Wetlands reinitiated design update October 2018
- Phase 2 Project Management Plan under development



# Project Features to Move Water South to Florida Bay



- ✓ Operate S-328
- ✓ Connect Frog Pond Detention Area to L-31W canal (G-737)
- ✓ Rebuild L-31W levee and Integral Weir
- ✓ 10 Plugs in L-31W Canal
- ✓ Remove S-327 weir
- ✓ Seal S-332D discharge basin
- ✓ Increase pump capacity

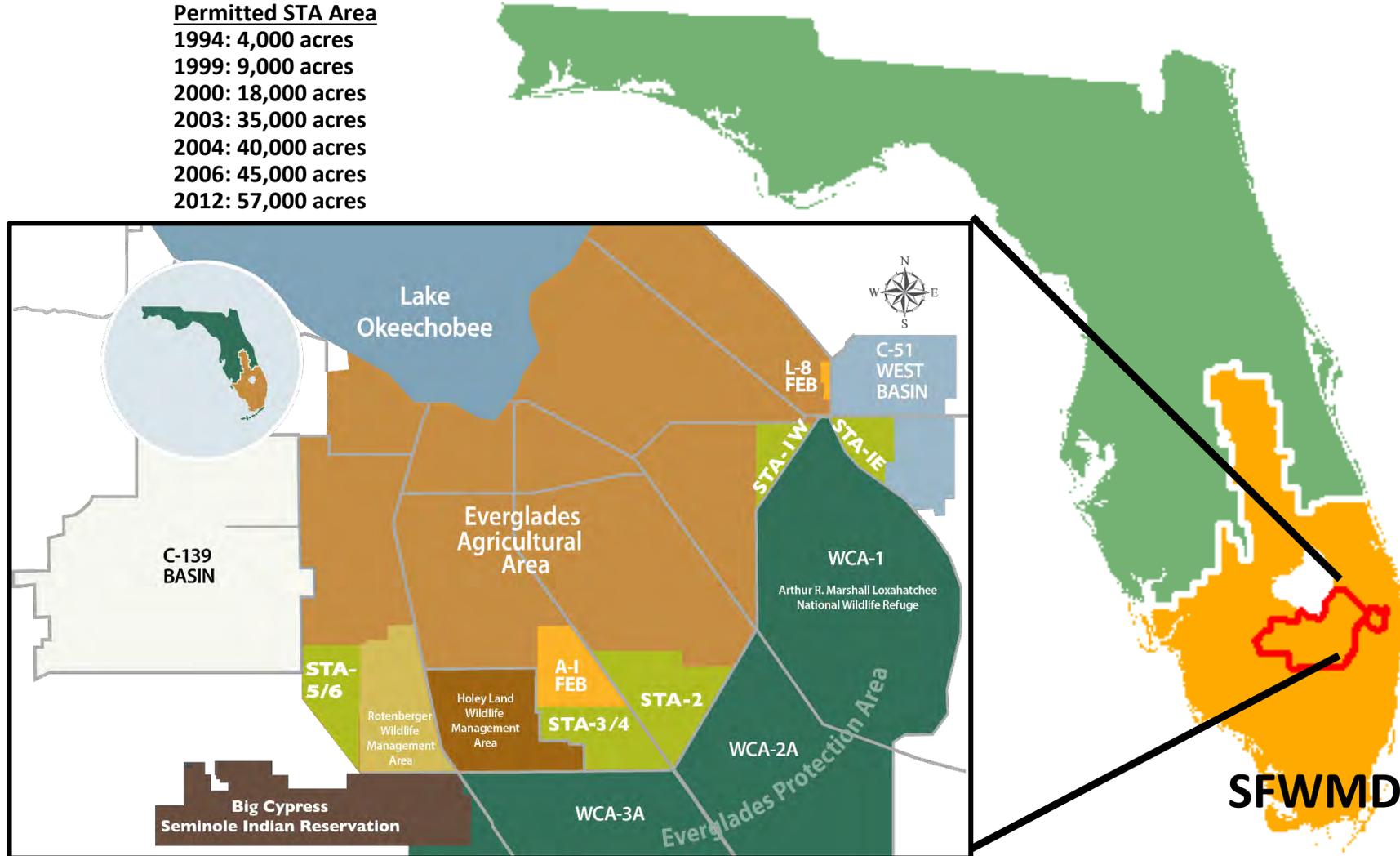


# STATE PROGRAMS

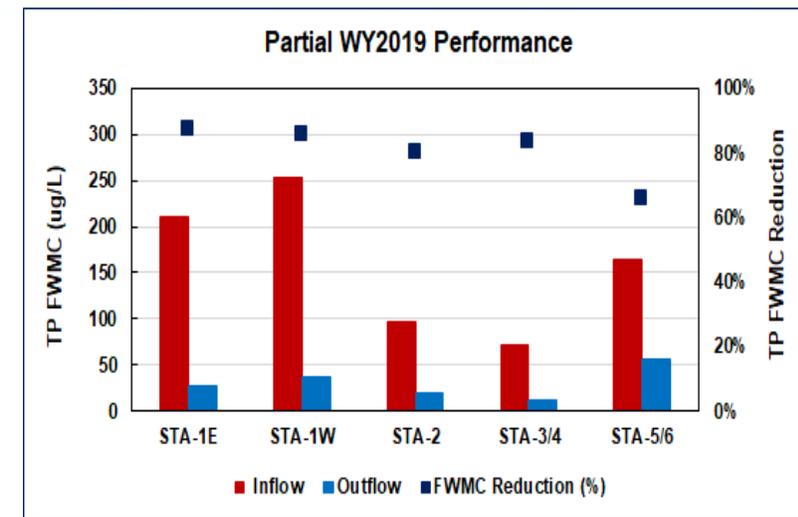
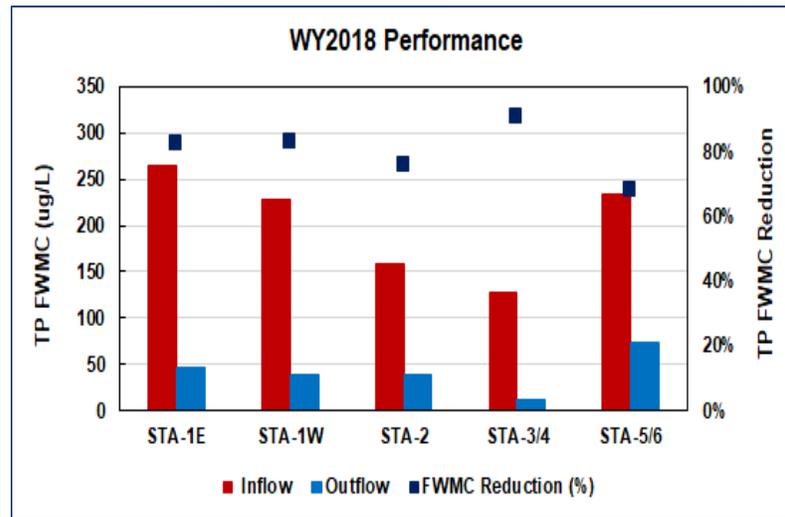
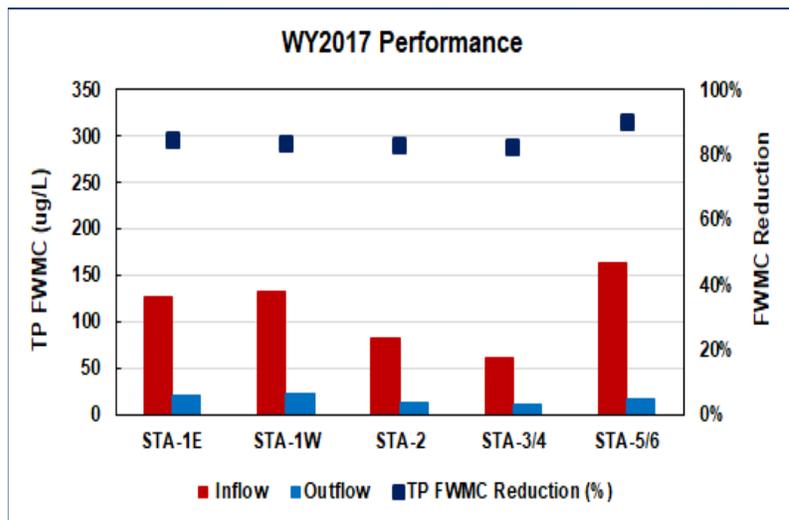
# Stormwater Treatment Areas (STAs)

**Permitted STA Area**

- 1994: 4,000 acres
- 1999: 9,000 acres
- 2000: 18,000 acres
- 2003: 35,000 acres
- 2004: 40,000 acres
- 2006: 45,000 acres
- 2012: 57,000 acres

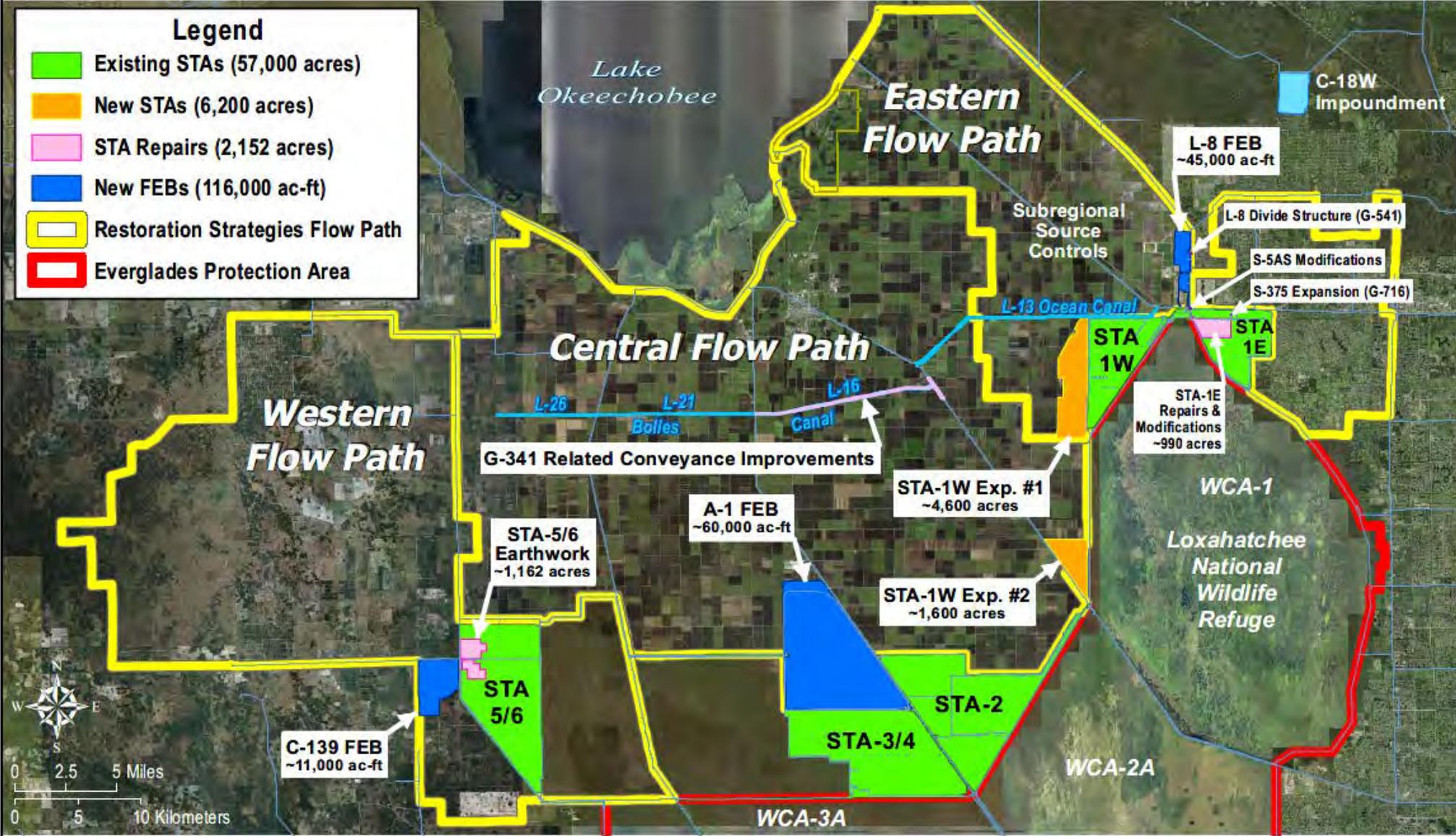


# All STAs Performance Comparison by Water Year (WY)



	WY2017	WY2018	Partial WY2019 (05/01/2018 – 03/10/2018)
<b>Total inflow (k acre-feet)</b>	<b>1,100</b>	<b>1,600</b>	<b>1,500</b>
<b>Lake releases (k acre-feet)</b>	<b>249</b>	<b>160</b>	<b>426</b>
<b>TP FWMC outflow (µg/L)</b>	<b>15</b>	<b>36</b>	<b>23</b>
<b>Reduction in TP FWMC</b>	<b>~80%</b>		

# Restoration Strategies: Key Projects



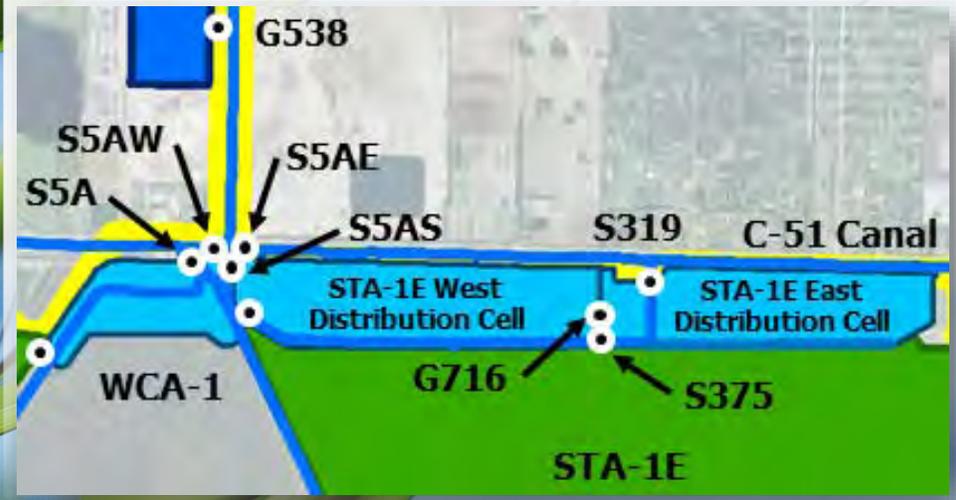
## L-8 Flow Equalization Basin (FEB) (Eastern Flowpath)

- Designed to improve performance of STA-1E and STA-1W
- Unique geology allows for underground storage reservoir
- 800 acres by 58 feet deep = ~ 45,000 acre-feet of storage
- Completed June 2017



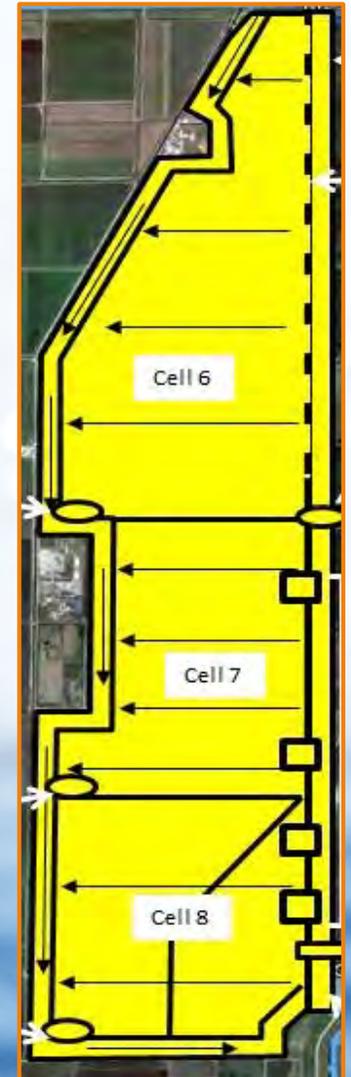
# S-375 Expansion (G-716) (Eastern Flowpath)

- Designed to expand flow capacity of connection between STA-1E east and west distribution cells
- Completed April 2017

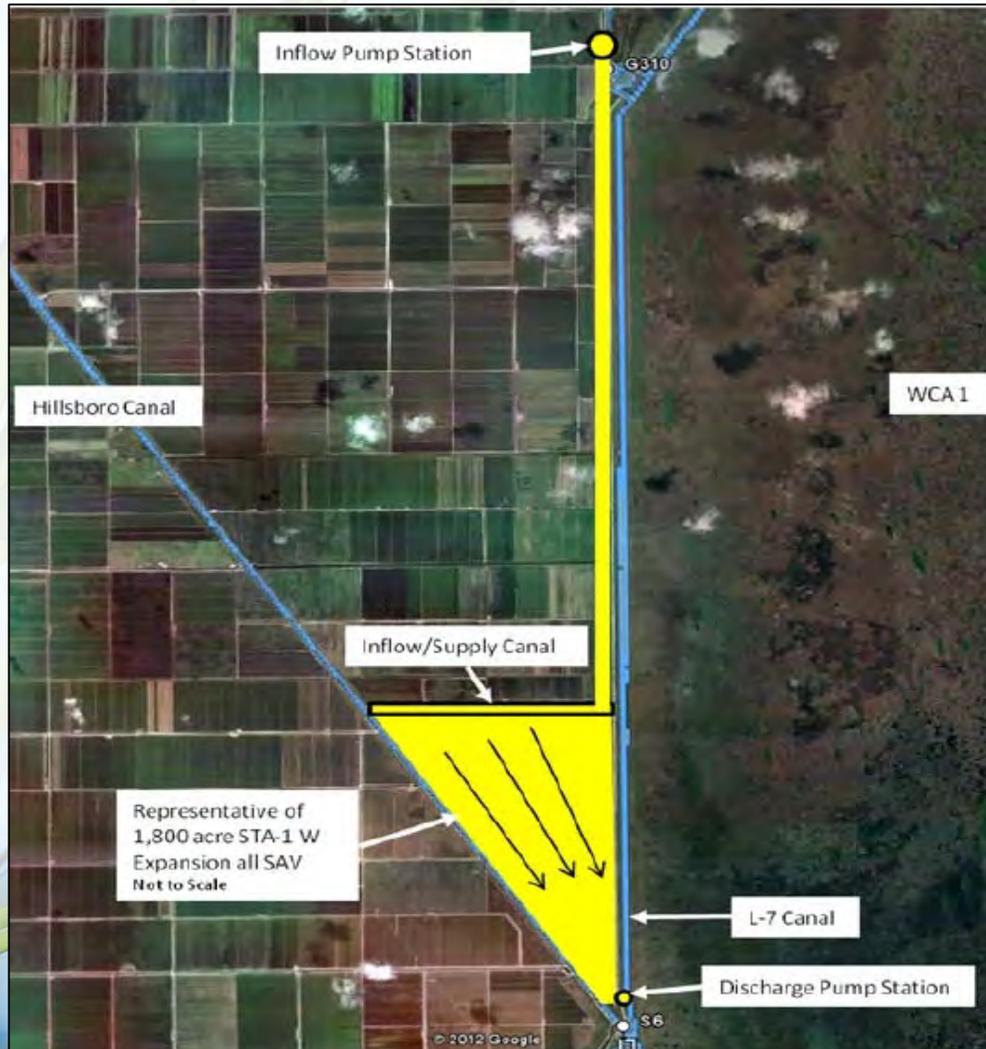


## STA-1W Expansion #1 (Eastern Flowpath)

- Designed to assist STA-1W and STA-1E
- 4,300 acres of additional stormwater treatment area
- Initiated construction in 2016
- Initial flooding and optimization began January 2019



## STA-1W Expansion #2 (Eastern Flowpath)



- Designed to assist STA-1W and STA-1E
- 1,600 acres of additional treatment area
- Land exchange with Federal government to acquire 1,327 acres completed January 2018
- Total SFWMD-owned land for project is ~2,127 acres
- Design began October 2018
- Currently in final design stage

## A-1 Flow Equalization Basin (FEB) (Central Flowpath)

- Designed to improve performance of STA-2 and STA-3/4
- 15,000 acres by 4 feet deep = ~ 60,000 acre-feet of storage
- Completed July 2015
- Operational Testing and Monitoring Phase complete July 2018

*April 2018 – April 2019*

**Inflow Volume**  
**397,351 acre-feet**

**Inflow P Conc.**  
**107ppb**

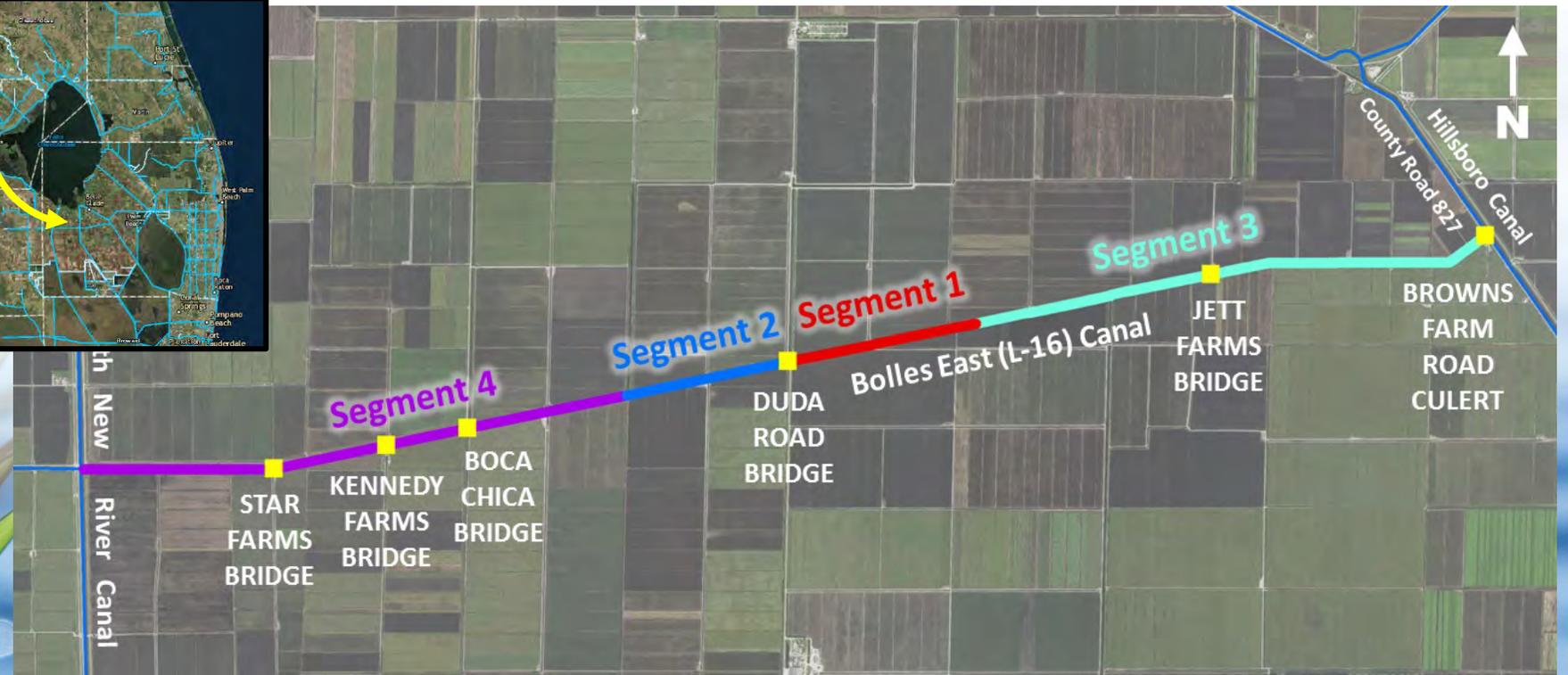
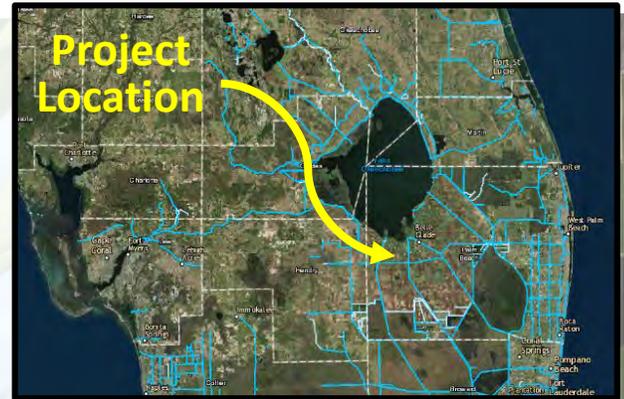
**Outflow P Conc.**  
**13 ppb**

**P Load Reduction**  
**91.5%**



# G-341 Related Conveyance Improvements (Central Flowpath)

- Bolles East (L-16) Canal Segments 1 and 2 (~2.2 miles) and Duda Road Bridge construction complete
- Segment 3 (~3.2 miles) is ongoing
- Segment 4 design in progress



# G-341 Related Conveyance Improvements – Excavation of Segment 3



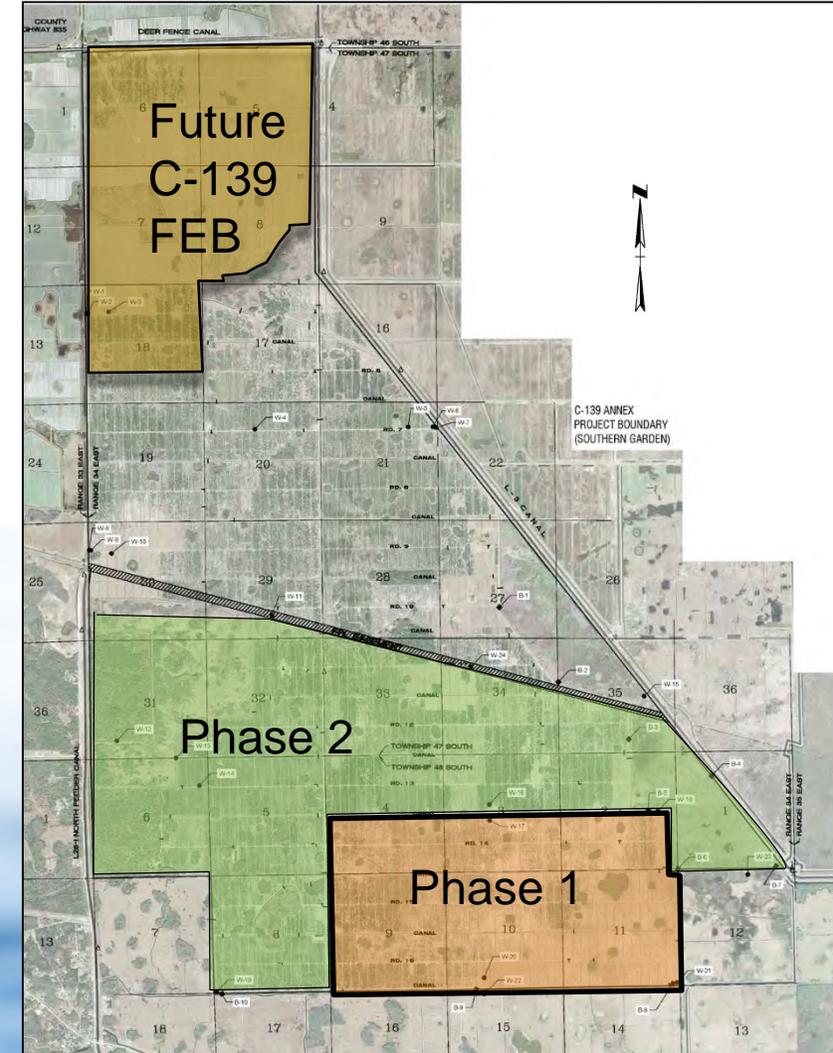
# Western Flowpath

- C-139 FEB
  - Design activities began in October 2018
- STA 5/6 Earthwork Improvements
  - Construction in progress
- C-139 Annex Restoration (not part of Restoration Strategies)

STA-5/6 Cell 3A



STA-5/6 Cell 2A



# DISCUSSION