



SFWMD Program and Project Update

**Working Group/ Science Coordination
Group Meeting**

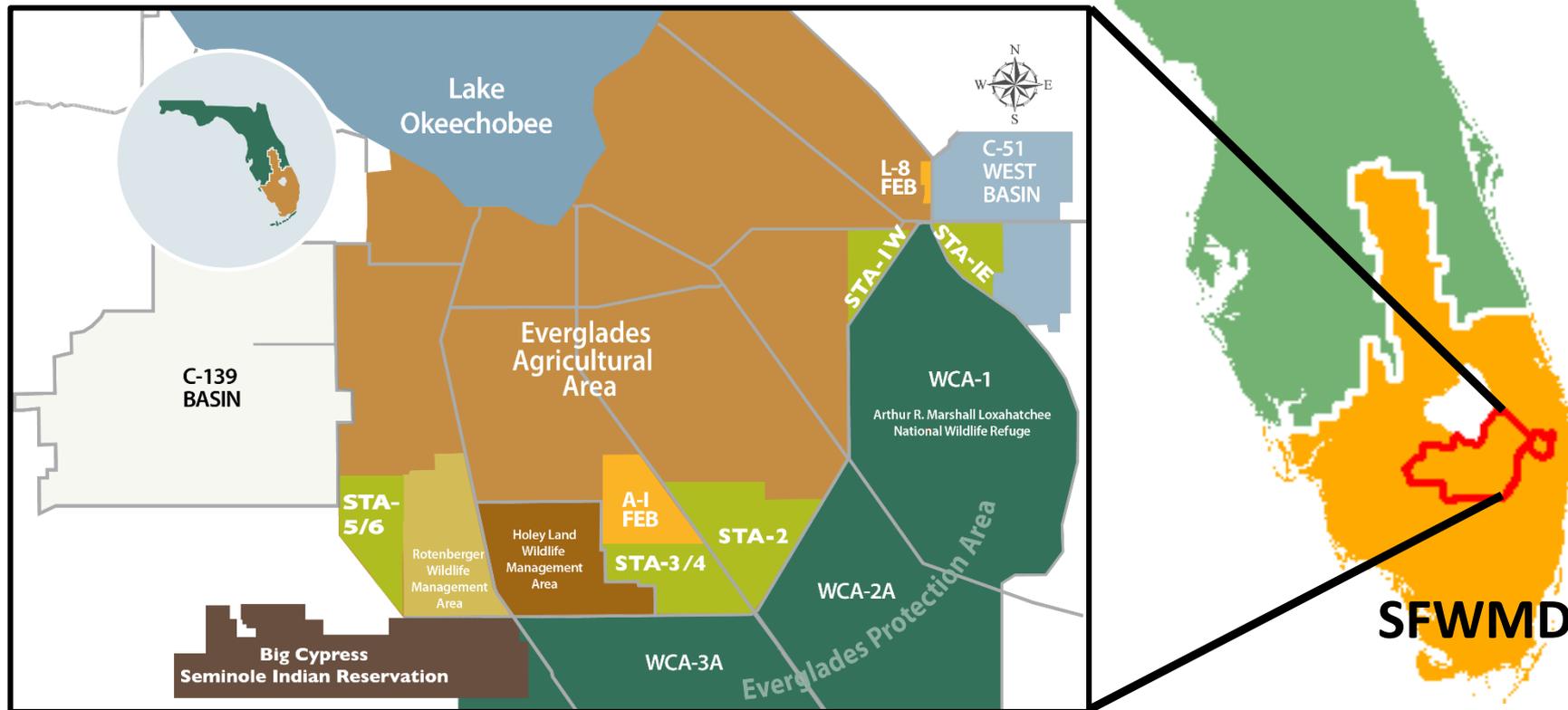
June 5, 2018

**Megan Jacoby, Principal Federal Policy Analyst
Everglades Policy & Coordination Division, SFWMD**

Stormwater Treatment Areas (STAs)

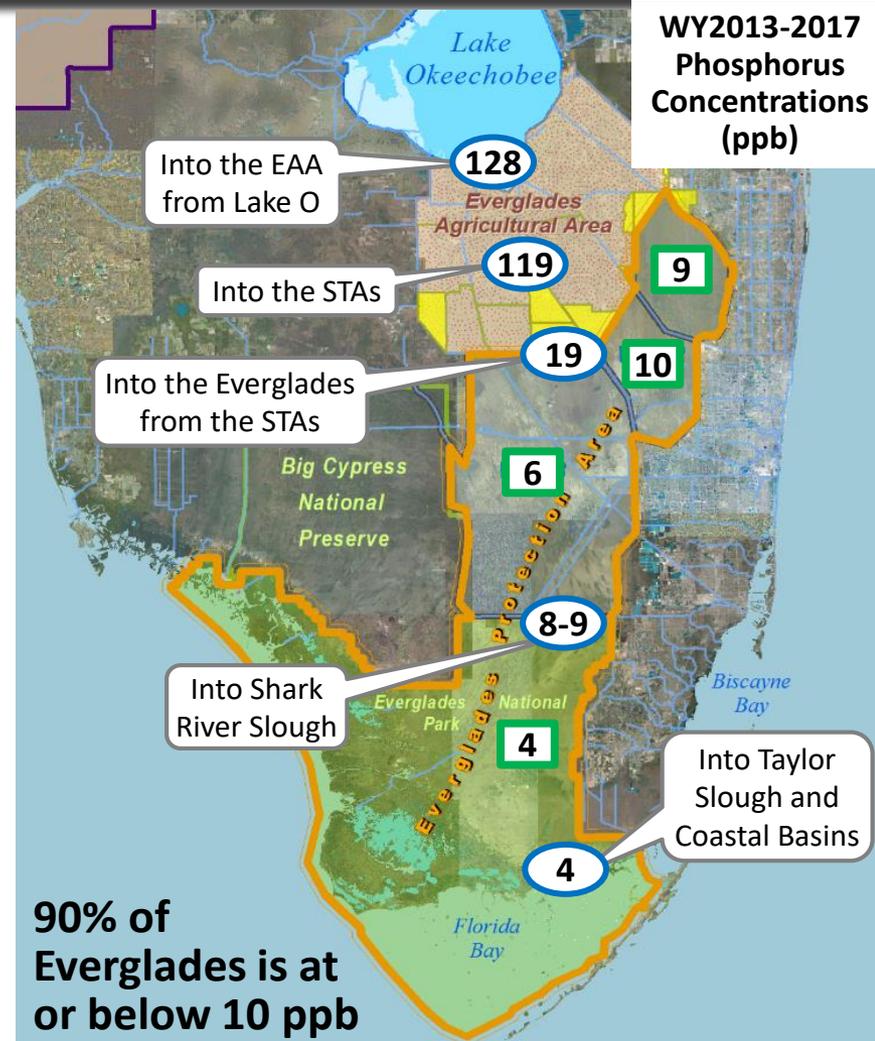
Permitted STA Area

- 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

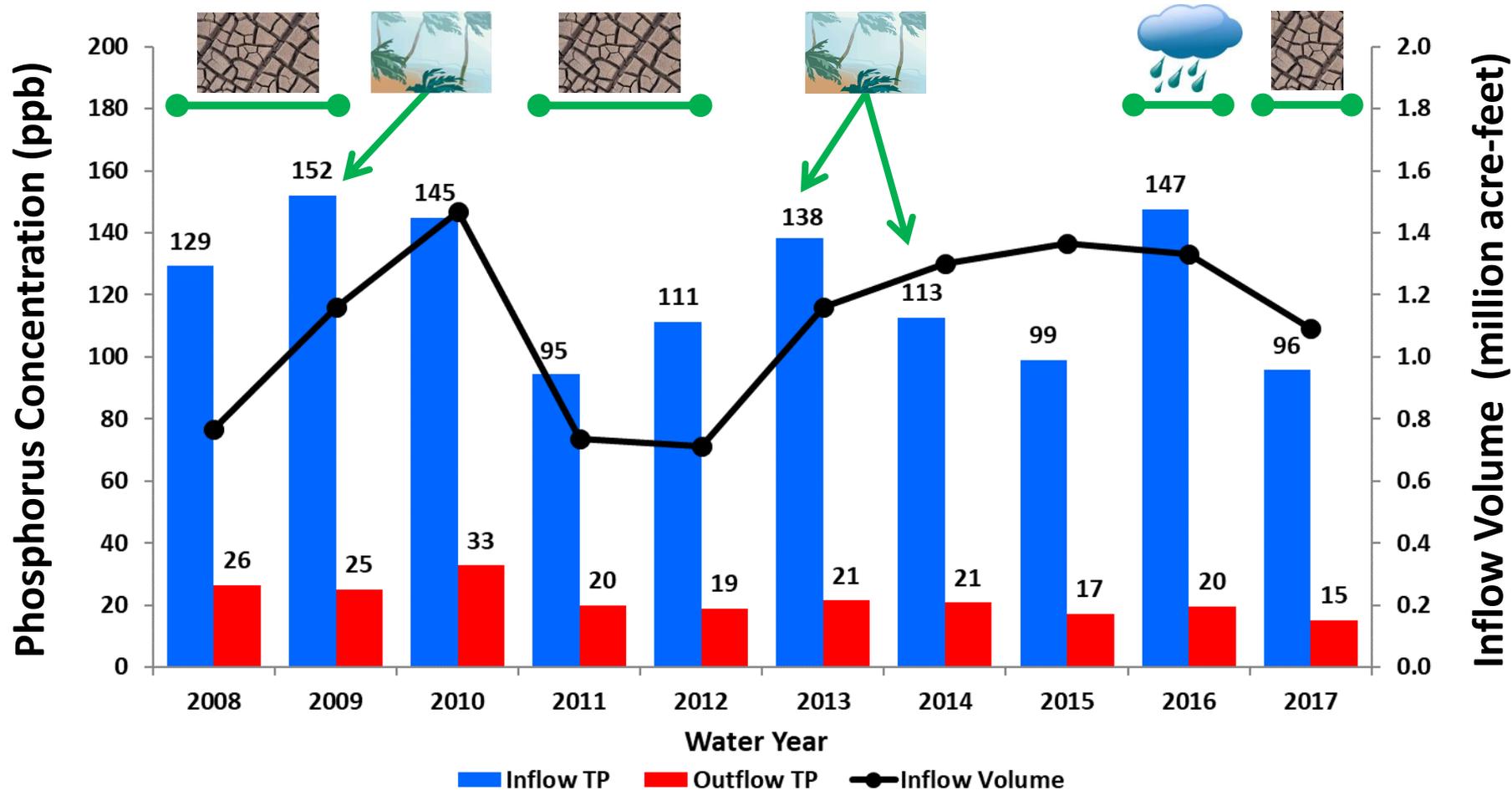


STA Performance Summary: 1994-2017

- **18.6 million acre-feet** (6.0 trillion gallons) of water treated
- **2,329 metric tons** (5.1 million pounds) of phosphorus removed
- Outflow phosphorus concentration for STA-3/4 (best performing STA) averaging **16 parts per billion (ppb)** since it began operations in 2004



STA Performance: 2008-2017



Restoration Strategies: Key Projects

2012

- 57,000 ac of STA

2012-2016

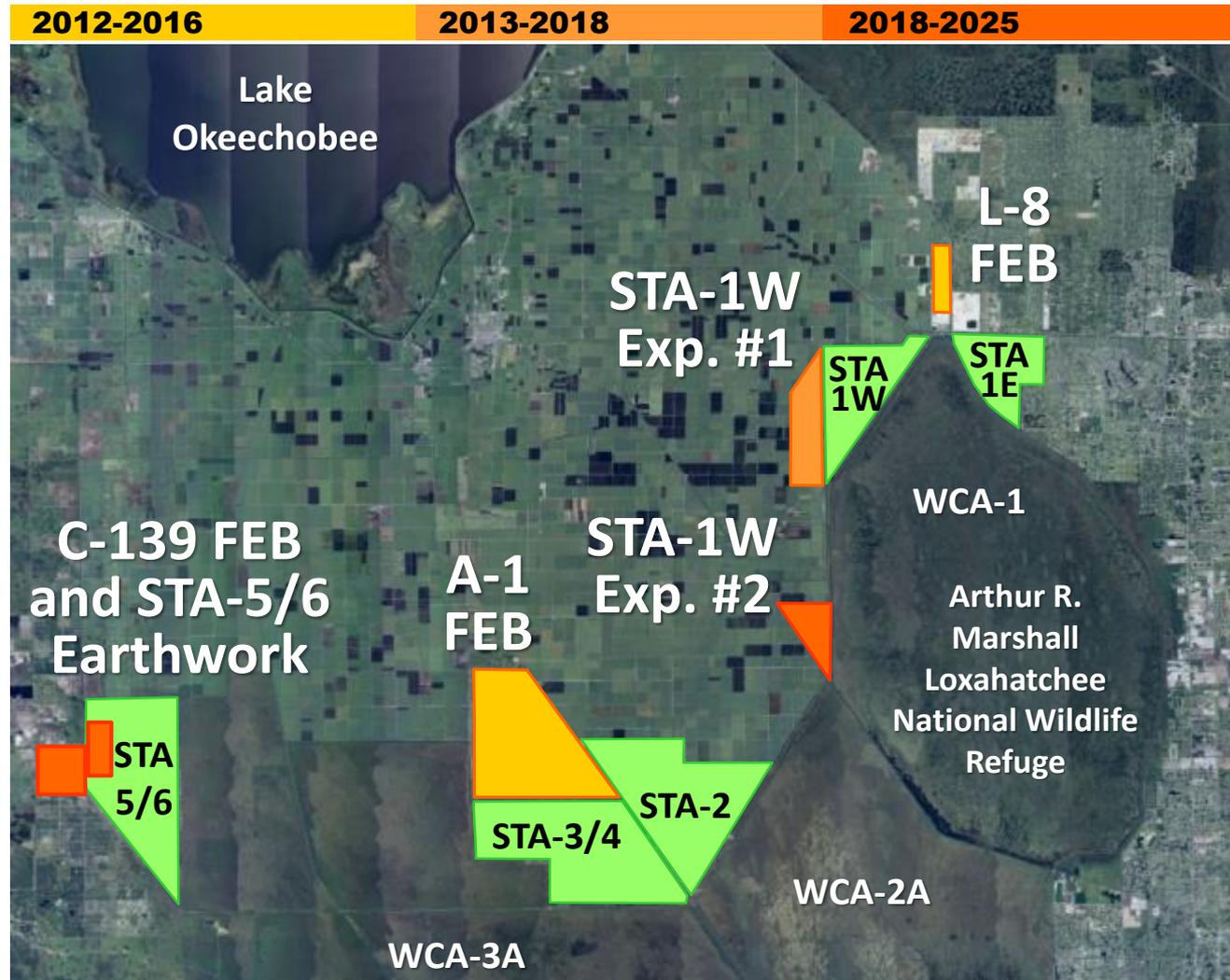
- L-8 FEB (45,000 ac-ft)
- A-1 FEB (60,000 ac-ft)

2013-2018

- STA (4,300 ac)

2018-2025

- STA (1,600 ac)
- C-139 FEB (11,000 ac-ft)
- STA Earthwork (800 ac)



A-1 Flow Equalization Basin

- 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

Aug. 2015 – Nov. 2017

Inflow Volume
838,000 acre-feet

Inflow P Conc.
97 ppb

Outflow P Conc.
19 ppb

P Load Reduction
80%



A-1 FEB

STA-2

Outflow Canal

Inflow Structure

Inflow Channel

Seepage Canal

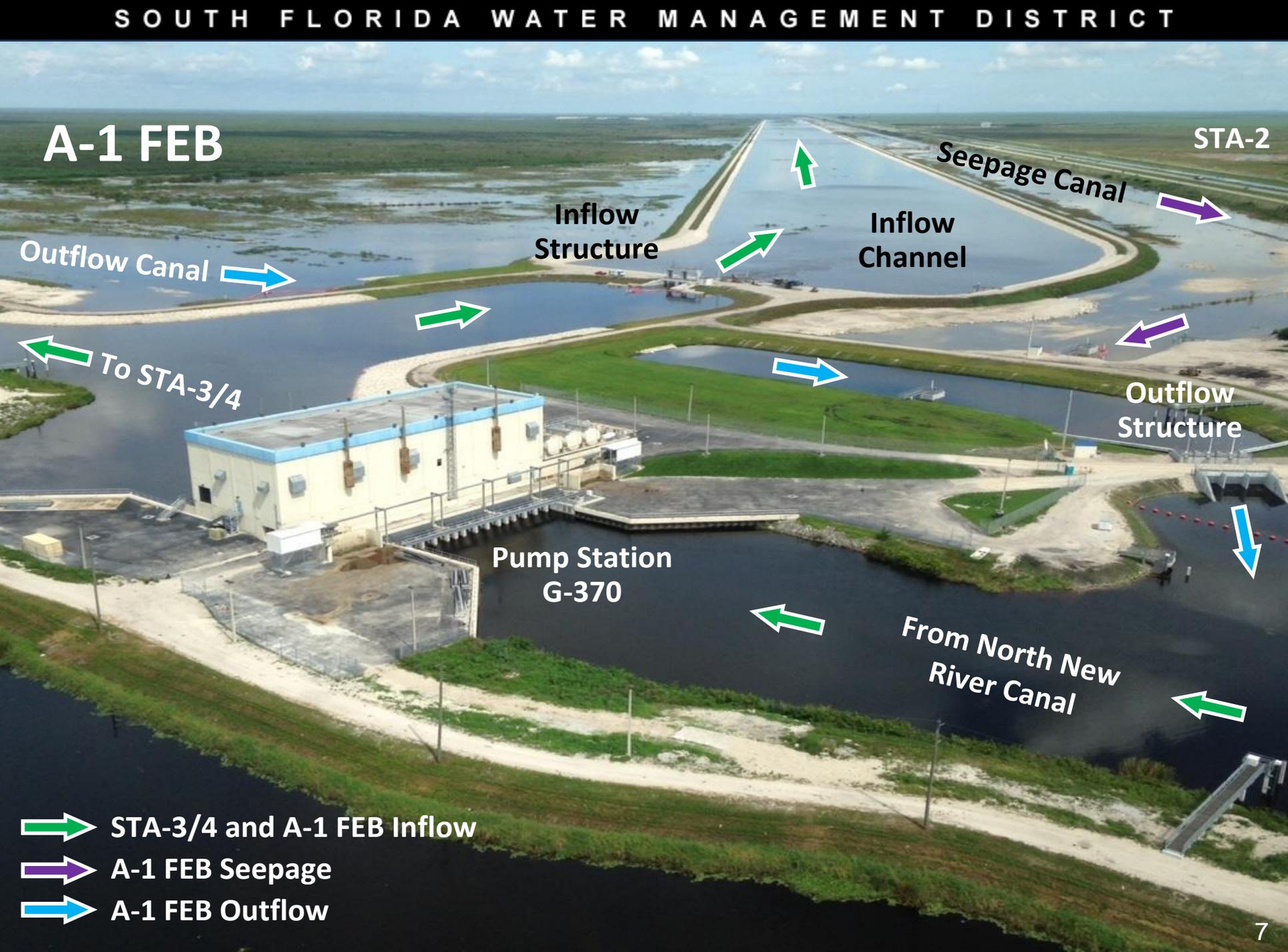
Outflow Structure

To STA-3/4

Pump Station G-370

From North New River Canal

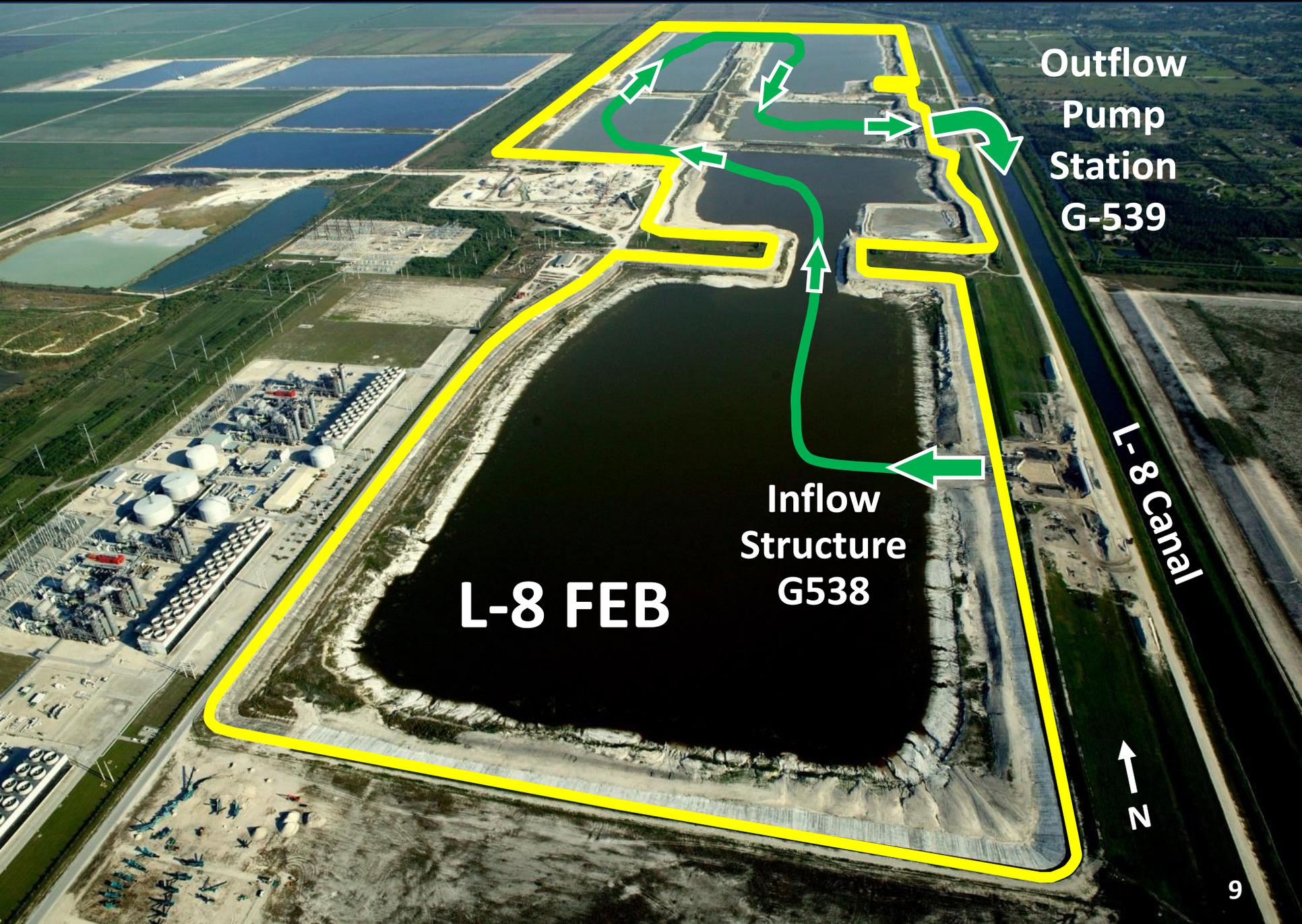
- STA-3/4 and A-1 FEB Inflow
- A-1 FEB Seepage
- A-1 FEB Outflow



L-8 Flow Equalization Basin (FEB)

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





Outflow
Pump
Station
G-539

Inflow
Structure
G538

L-8 FEB

L-8 Canal



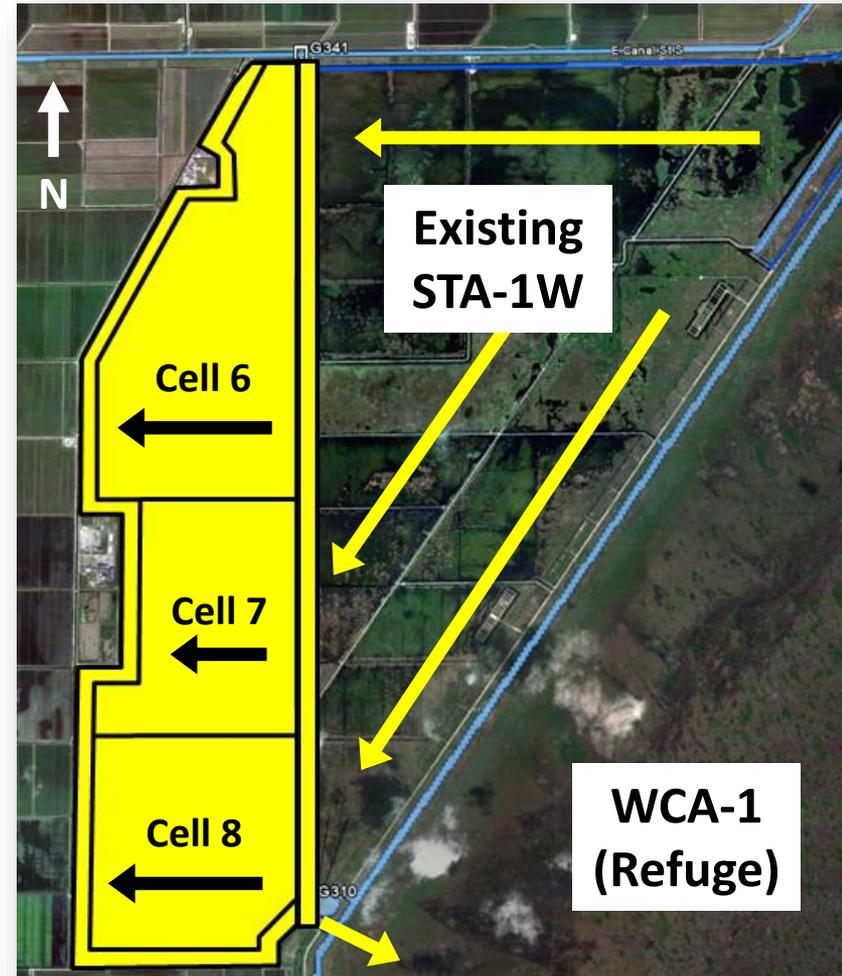
S-375 Expansion (G-716)

- Enables additional flow to be conveyed to L-8 FEB
- Completed April 2017



STA-1W Expansion #1

- Designed to assist STA-1W and STA-1E
- 4,300 acres of additional stormwater treatment area
- Completion expected December 2018
- Environmental remediation of ~2,000 acre required to minimize potential risk of ecological impacts



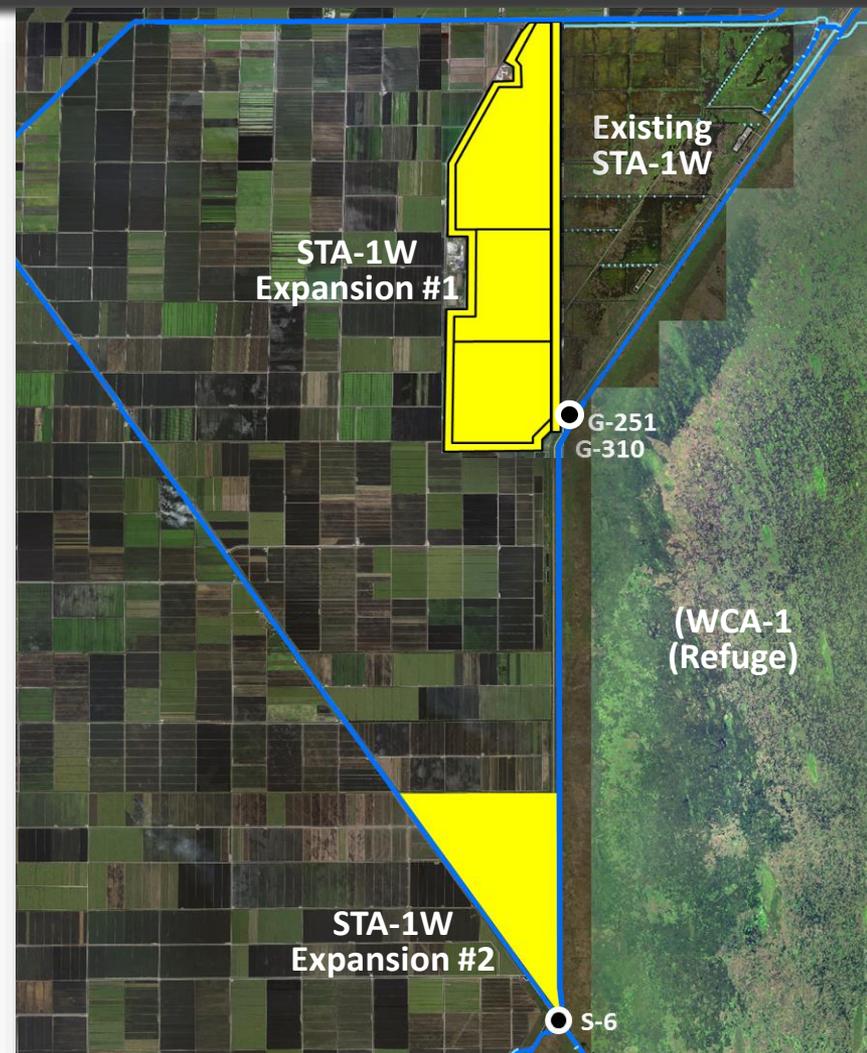
STA-1W Expansion #1 (cont'd)



**STA-1W Expansion #1
Perimeter Levee and
Discharge Canal Construction
March 2017**

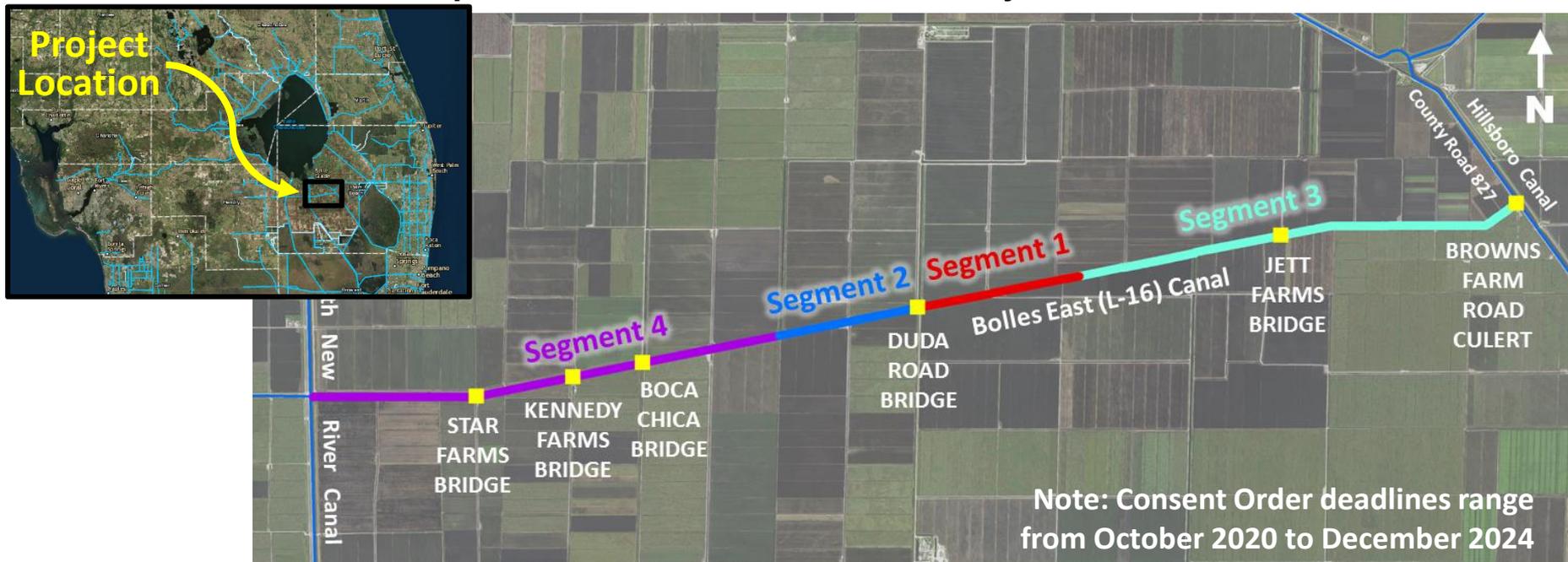
STA-1W Expansion #2

- 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 to start by October 2018



G-341 Related Conveyance Improvements

- Bolles East (L-16) Canal Segments 1 and 2 (~2.2 miles) and Duda Road Bridge construction complete
- Segment 3 (~3.2 miles) is 62% complete; completion expected February 2019; Segment 4 design ongoing; construction expected to start February 2019



G-341 Related Conveyance Improvements – Bolles East Canal (Before)



G-341 Related Conveyance Improvements – Bolles East Canal (After)



C-44 Reservoir/STA

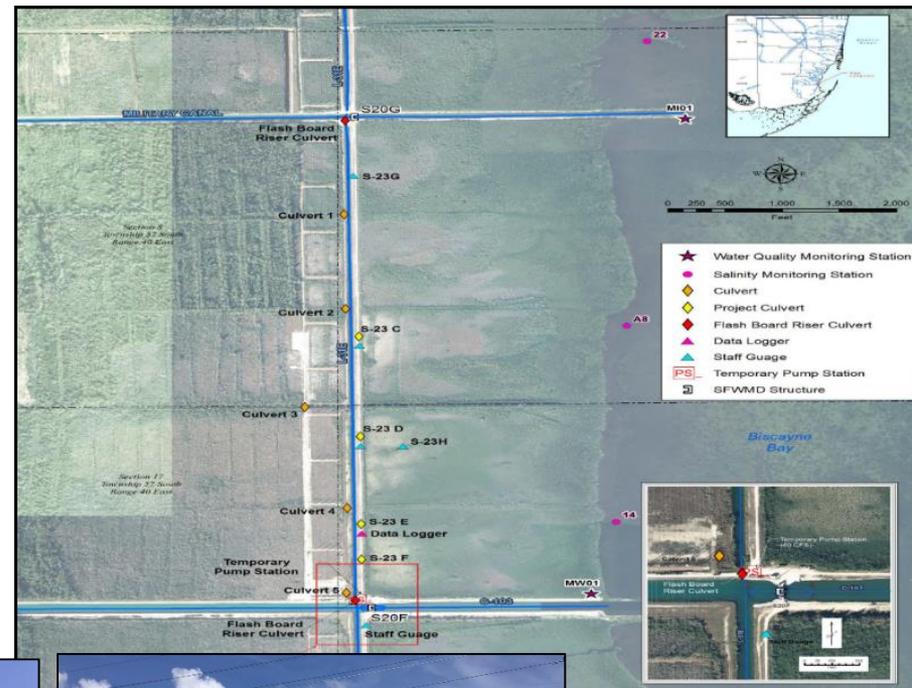


- S-404 Spillway Status:
 - Construction complete
- STA Status:
 - Construction Start: October 2014
 - Construction Finish: June 2018
- Pump Station Status:
 - Construction Start: Spring 2015
 - Construction Finish: Fall 2018



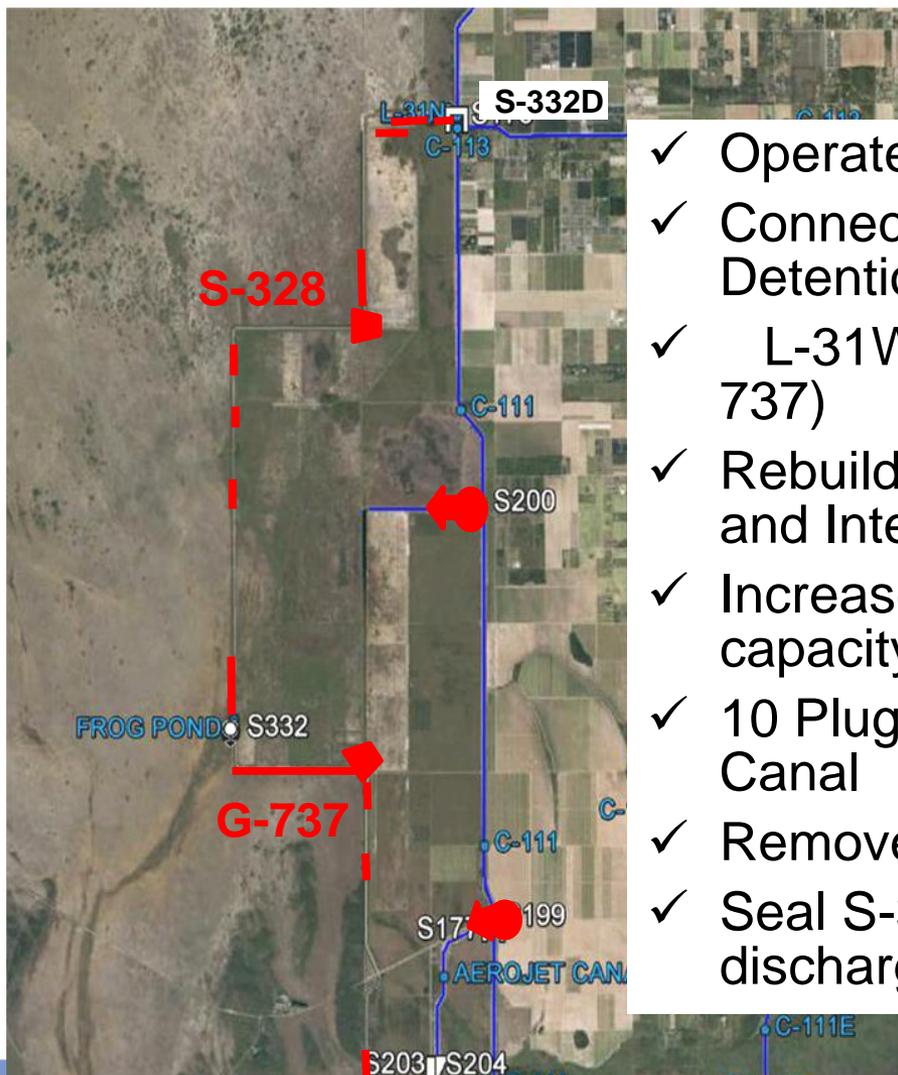
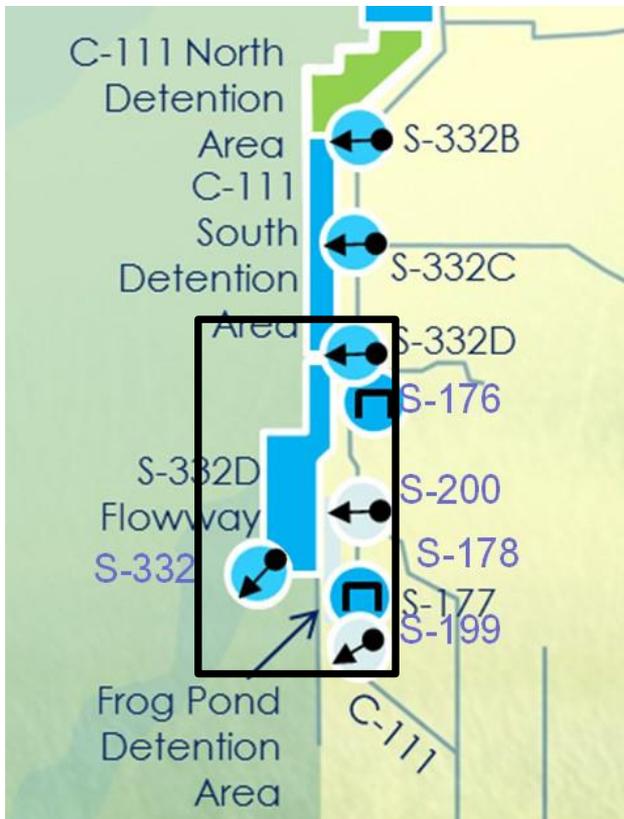
Biscayne Bay Coastal Wetlands Phase 1

- L-31E Tidal Restoration Components - complete
- Deering Estate – complete
- L-31E:
 - Interim Pump operations – August 2017
 - Remaining culverts - begin construction March 2018
 - 2nd interim pump under development
- Cutler Wetlands reinitiate design update October 2019



**Interim pump
installed at C-
103/L31E
Canals in
Homestead, FL**

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
- ✓ Increase pump capacity
- ✓ 10 Plugs in L-31W Canal
- ✓ Remove S-327 weir
- ✓ Seal S-332D discharge basin



Discussion