

SFWMD Program and Project Update

Working Group/ Science Coordination Group Meeting
February 25, 2020

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Ecosystem Restoration & Capital Projects

**SOUTH FLORIDA ECOSYSTEM
RESTORATION PROJECTS**

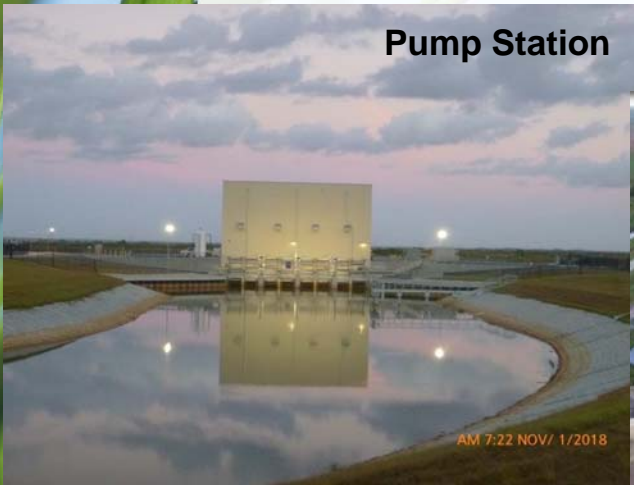
C-44 Reservoir & STA

S-404 Spillway



- SFWMD Projects:
 - S-404 Spillway - complete
 - Pump Station – complete
 - STA – construction schedule
 - Cells 1-3 complete
 - Cells 4-6 in 2020
- USACE Project:
 - Reservoir – construction ongoing

Pump Station



STA

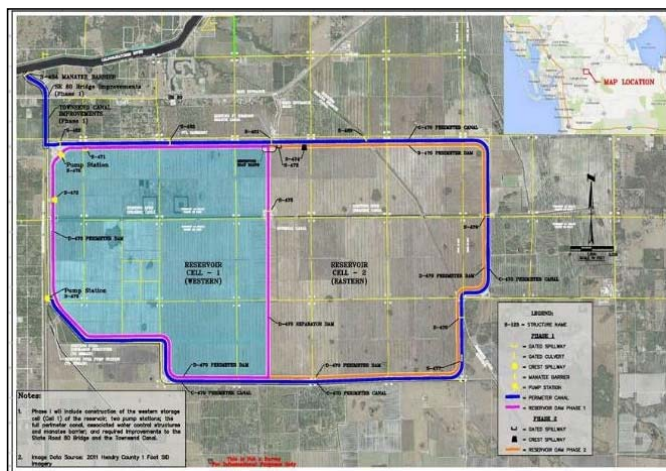


Reservoir



C-43 Reservoir

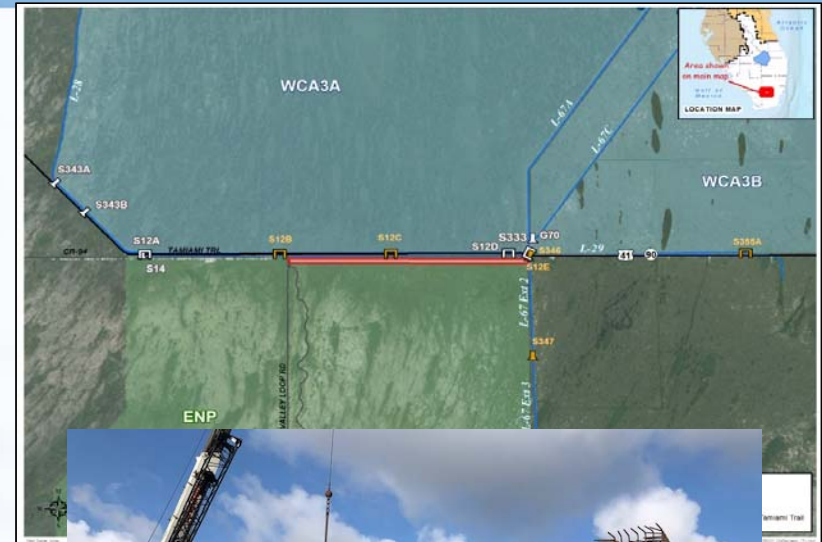
- State began construction in 2015
 - Package 1: Preload and Demolition – Complete
 - Package 2: Construction of S-476 (195 cfs) Pump Station completion – April 2019
 - Package 3: S-470 (1500 cfs) Pump Station completion - Spring 2022
 - Package 4: Civil works completion – 2023



Central Everglades Planning Project

- Old Tamiami Trail Removal
 - Under construction
 - Expected completion January 2022
 - Powerline removal expected May 2020

- S-333N
 - Under construction
 - Expected completion June 2020



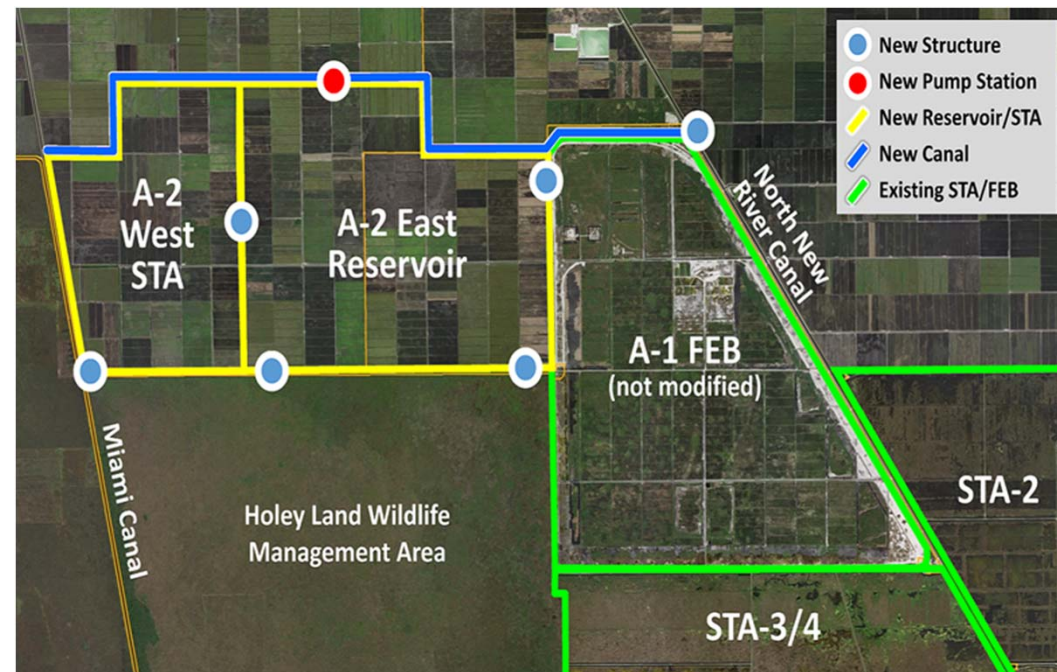
CEPP - Everglades Agricultural Area STA

➤ Canal Conveyance Improvements

- Expedited site investigations of Miami and North New River Canal Conveyance
- Inflow/ Outflow Canal contract out for bid
- Construction expected to begin in May/June 2020
 - Awaiting completion of Follow-up Report and permits

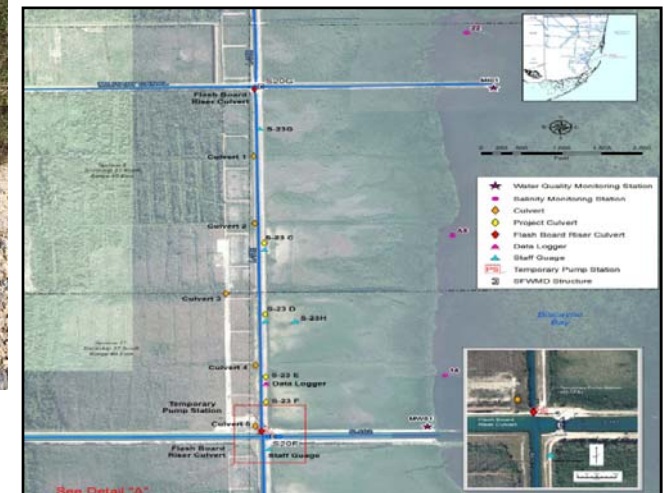
➤ Stormwater Treatment Area

- Expedited design of the A-2 STA
- STA Preliminary Design on track for March 2020
- Construction expected January 2021



Biscayne Bay Coastal Wetlands

- Deering Estate – complete
- L-31E:
 - L-31E culverts – complete
 - Design of S-709 – complete
 - Design of remaining features - underway
- Cutler Wetlands design update – underway
 - Survey, geotech and modeling
- Biscayne Bay and Southeastern Everglades (BBSEER) Project Management Plan under development

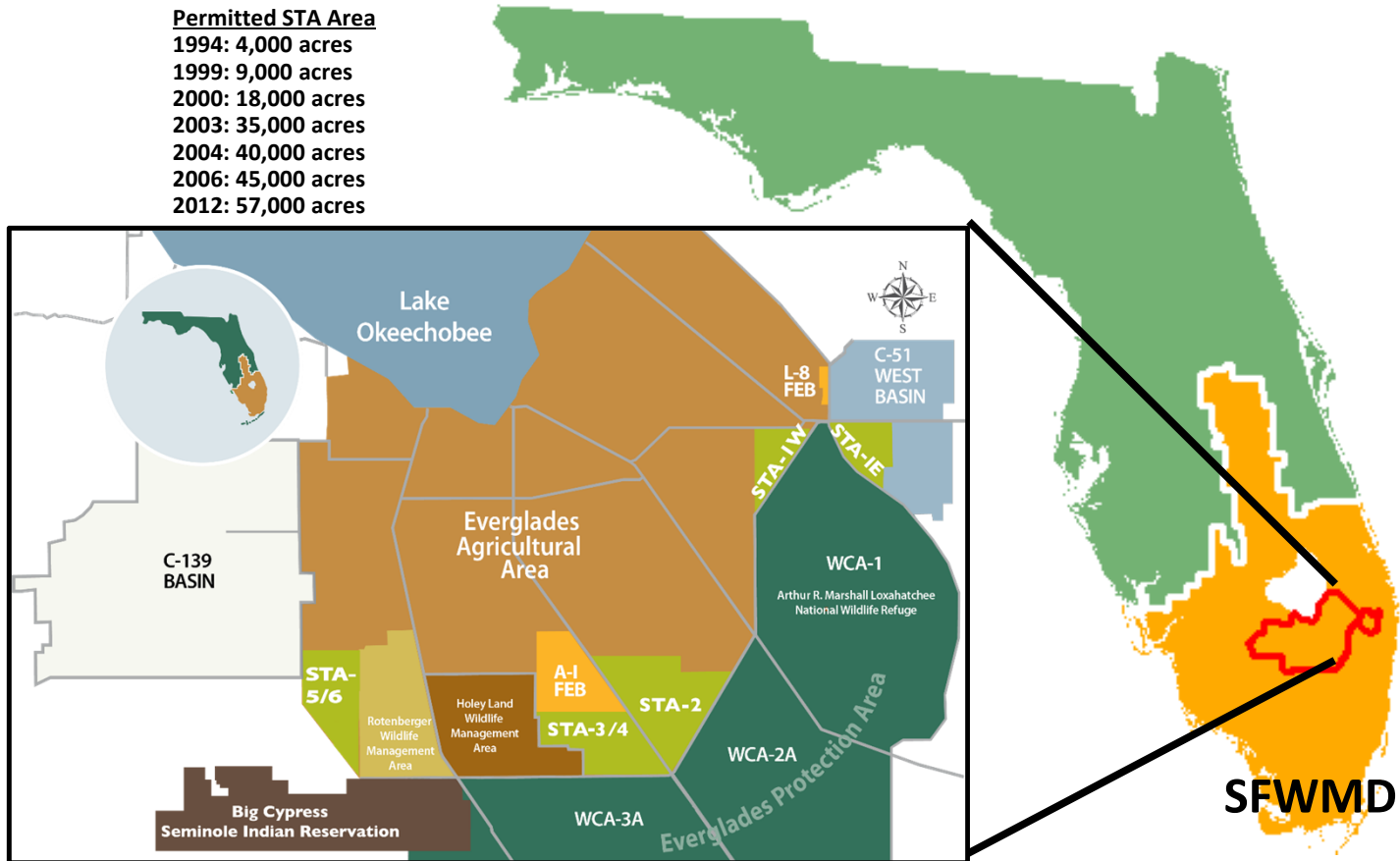


STATE PROGRAMS

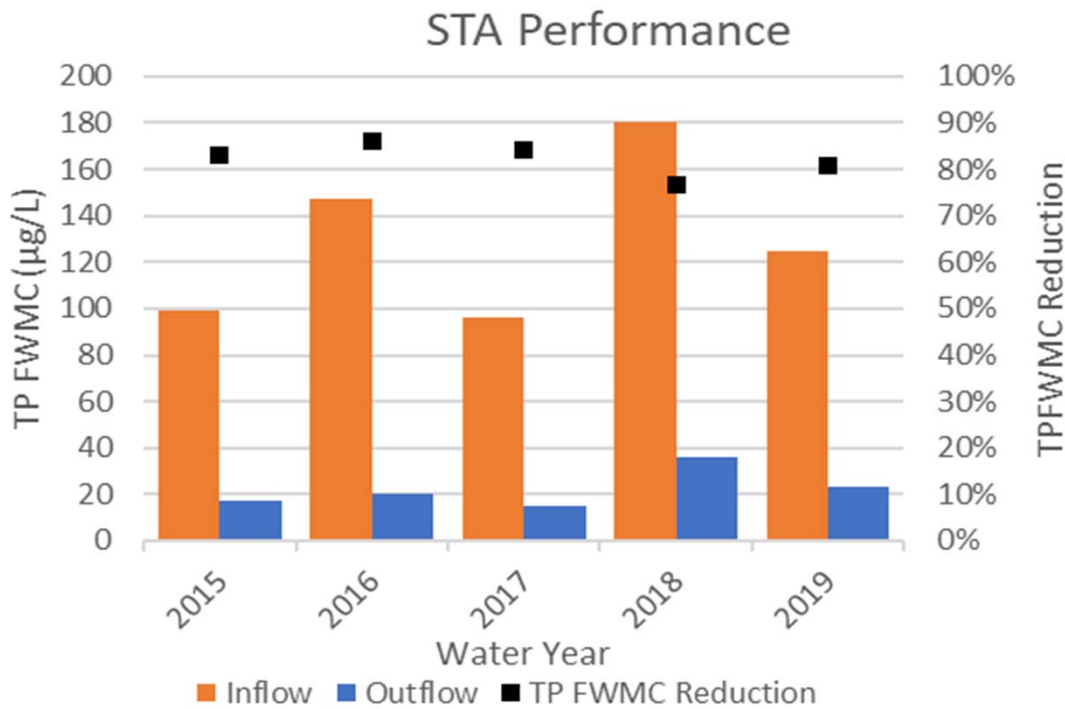
Stormwater Treatment Areas (STAs)

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



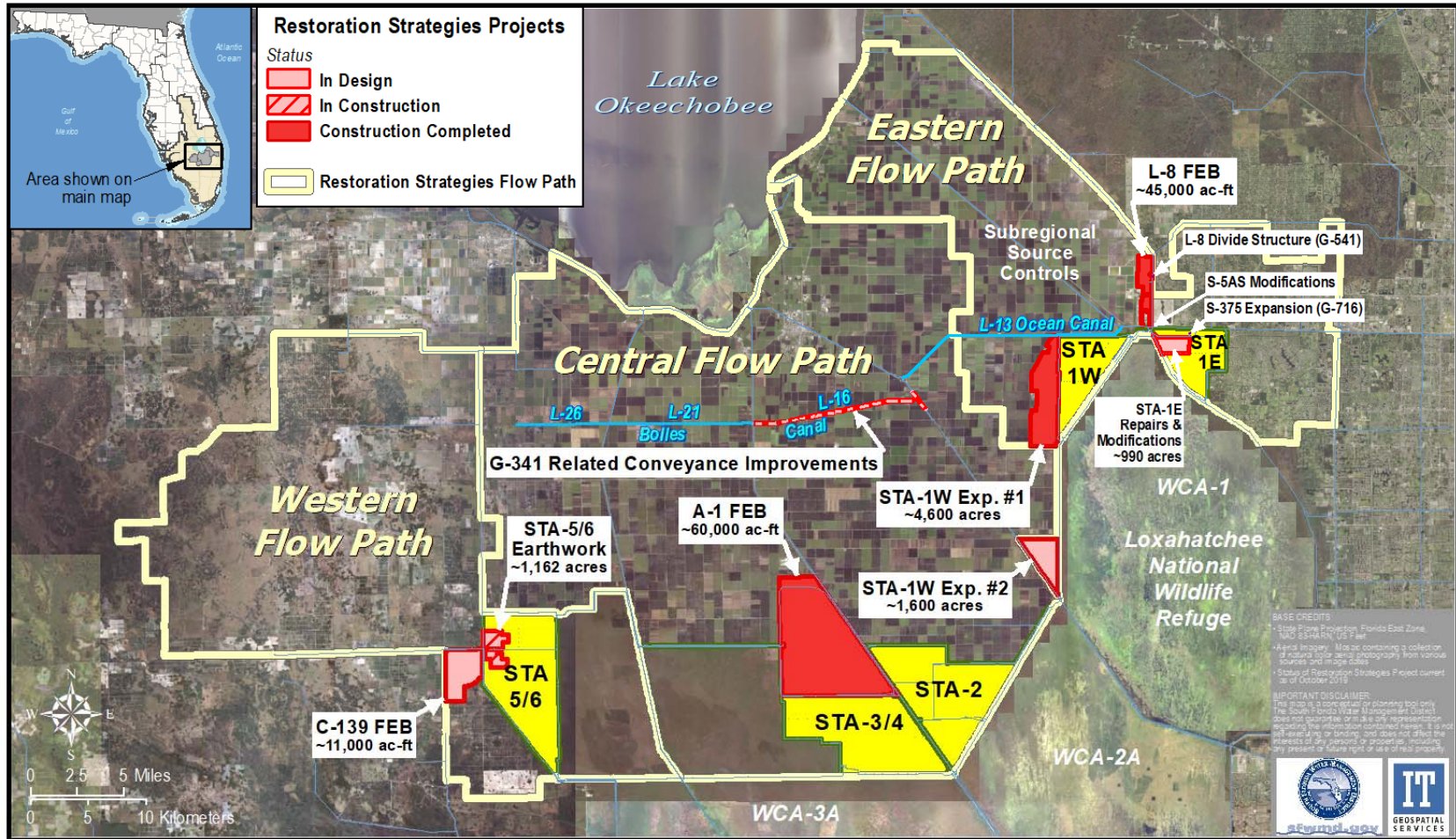
All STAs Performance Comparison by Water Year (WY)



	WY2015	WY2016	WY2017	WY2018	WY2019
Total Inflow (K acre-feet)	1,364	1,329	1,090	1,616	1,438
Lake Releases (K acre-feet)	586	291	249	160	470

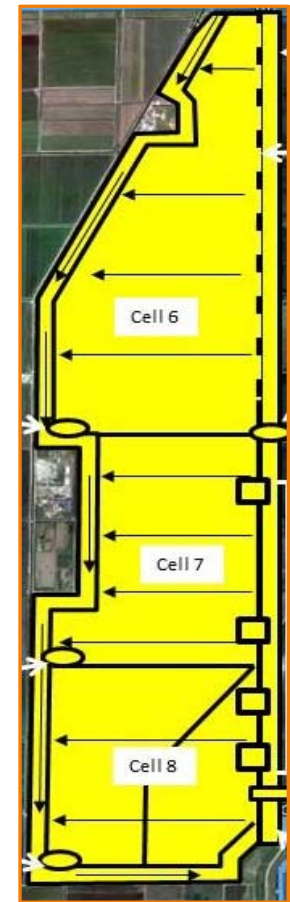
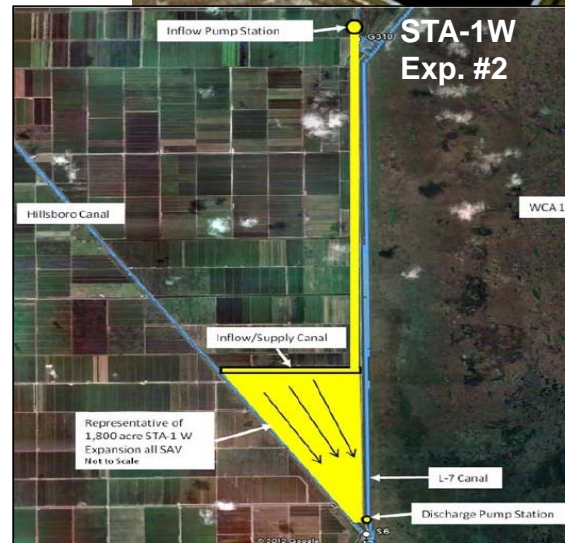
- Phosphorus reduction throughout all STAs is ~80%
- Quantity and timing of water delivery can impact STA performance

Restoration Strategies: Key Projects



RS - Eastern Flowpath

- 2 projects complete
 - L-8 FEB
 - S-375 Expansion
- 4 projects underway
 - STA-1E Repair and Modification – flooding and optimization period complete by November 2022
 - STA-1W Expansion #1 – construction complete by December 2020
 - STA-1W Expansion #2 – design complete by July 2020
 - G-341 Related Conveyance Improvements – Sections 1 & 2 complete, Sections 3 & 4 under construction

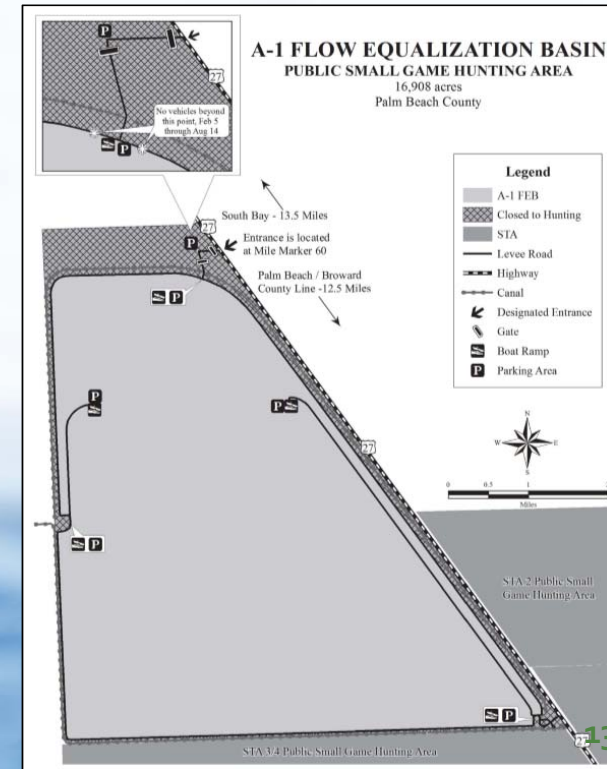


STA-1W Exp. #1

RS - Central Flowpath

➤ A-1 FEB

- Operational Testing and Monitoring Period – complete July 2018



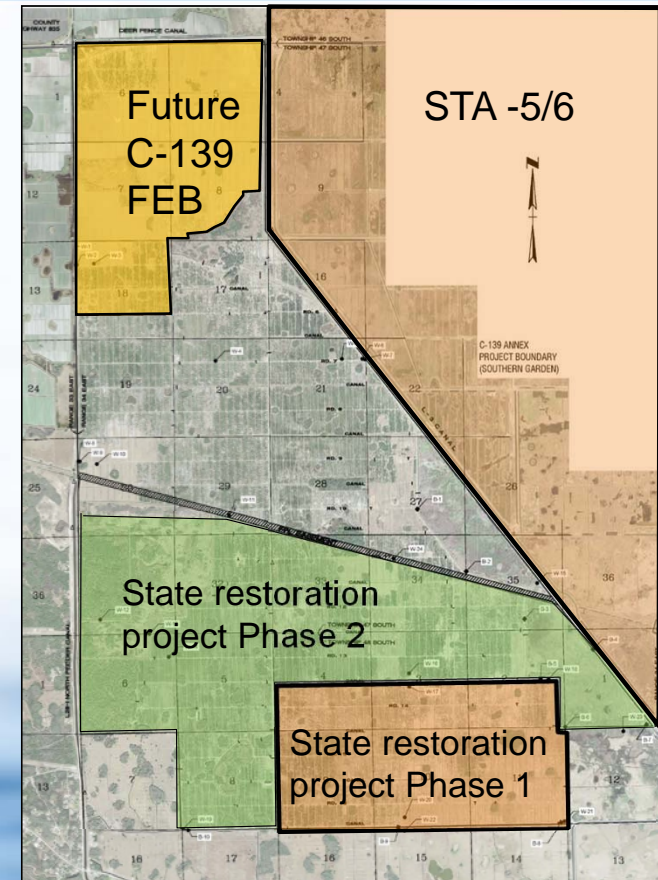
RS - Western Flowpath

- 1 project complete
 - STA 5/6 Improvements – complete February 2020
- 1 project underway
 - C-139 FEB – design expected October 2020

STA-5/6 Cell 3A



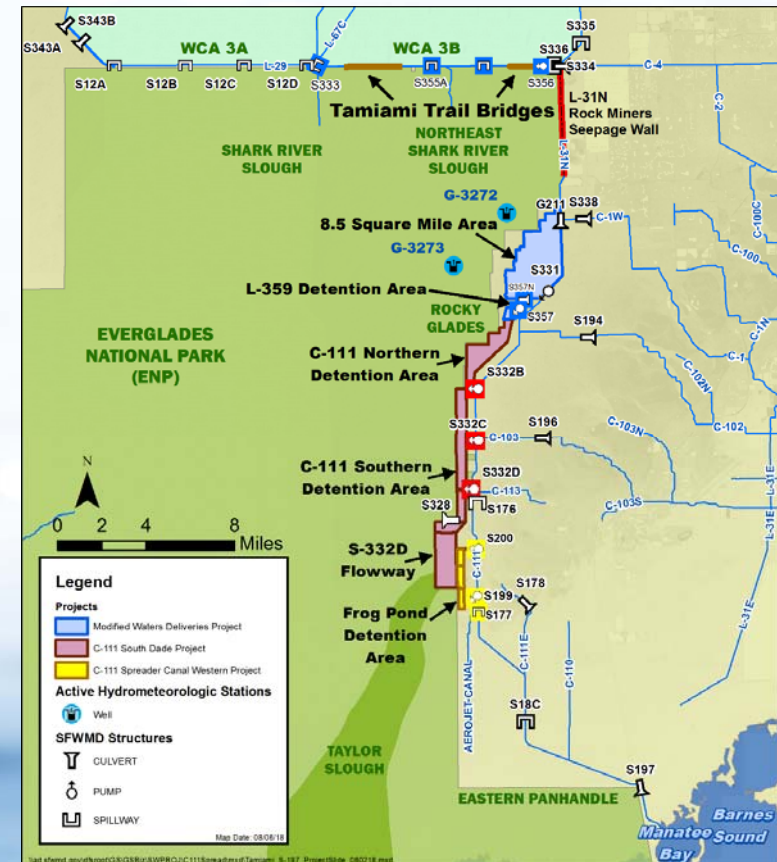
STA-5/6 Cell 2A



FLOOD CONTROL AND RESILIENCY

South Dade Curtain Wall Project

- Flood control feature with restoration benefits
 - Curtain wall or seepage barrier extending south from existing feature
 - Previously evaluated as part of multiple studies
 - Data acquisition to reduce uncertainty plus public planning process funded to start in current year



Recent History of Evaluation

- CEPP recommended a curtain wall to manage seepage from increased stages in ENP
 - Meant to augment existing rock miners wall
 - Acknowledged need for additional analysis to address uncertainties
- SFWMD South Dade Initiative recommended curtain wall as a long-term solution
 - Identified as a means of securing the environmental benefits of restoration projects while simultaneously improving conditions in developed areas
 - Smaller wall segment focused on area south of S-331
- Curtain wall was proposed as a flood control feature
 - Stand alone, flood control component of a comprehensive flood control strategy that includes operations and addresses seasonal flooding
 - Larger scope project that extends from the existing wall segment south to S-177