

SFWMD Program and Project Update

Working Group/ Science Coordination Group Meeting
December 4, 2019

Megan Jacoby, Principal Federal Policy Analyst
Ecosystem Restoration & Capital Projects

SOUTH FLORIDA ECOSYSTEM RESTORATION PROJECTS

C-44 Reservoir & STA

S-404 Spillway



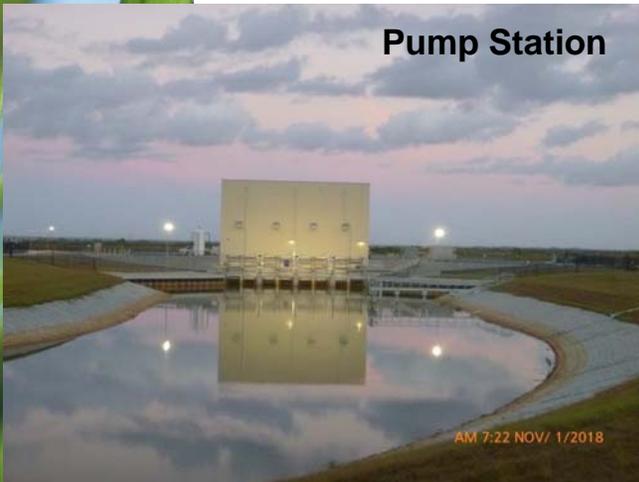
➤ SFWMD Projects:

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

➤ USACE Project:

- Reservoir – construction completion expected 2021

Pump Station



STA

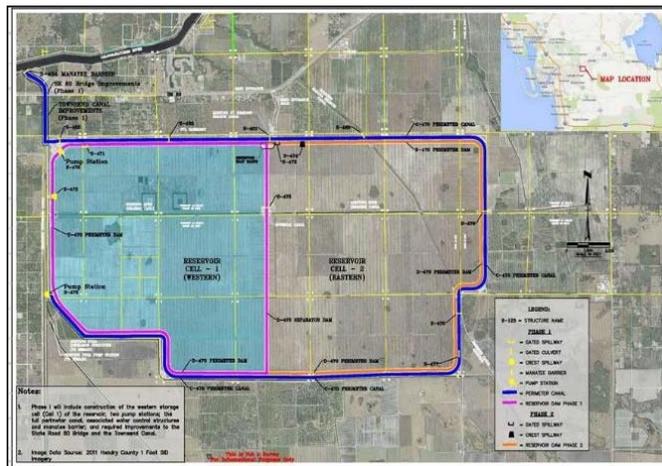


STA



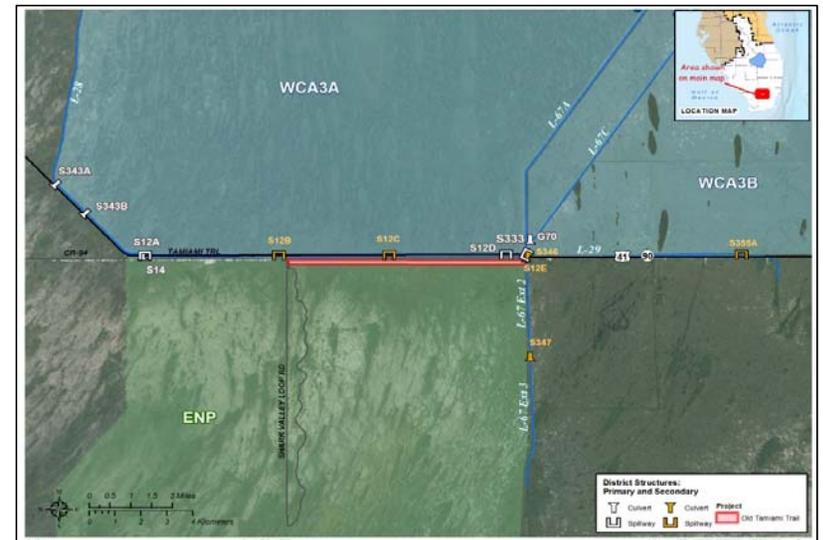
C-43 Reservoir

- 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 (1500 cfs) Pump Station completion - Spring 2022
 - Package 4: Civil works completion – 2023



CEPP - Old Tamiami Trail Removal Project

- Removal of approximately 6 miles of Old Tamiami Trail between Everglades National Park “Shark Valley Visitor Center” and the L-67 Extension Canal
- Currently under design by SFWMD
- Construction anticipated to begin early 2020
- Schedule for removal will take up to 22 months to complete



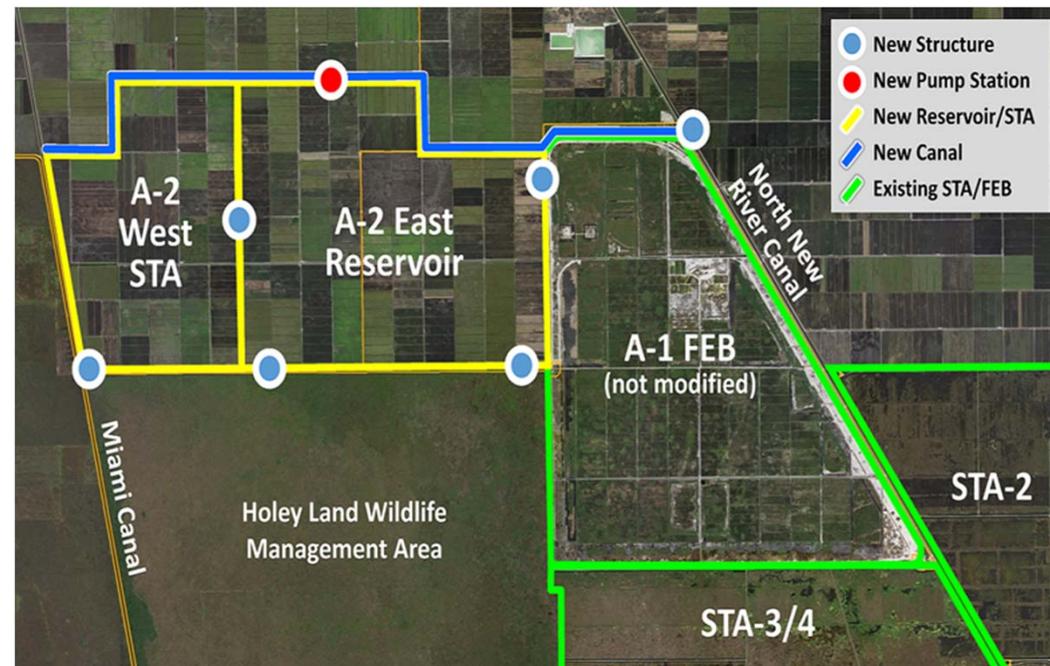
CEPP – S-333N

- 1,150 gated spillway
 - Provides additional capacity to existing S-333 spillway
- Currently under construction. Expected completion June 2020
- Operations to be evaluated and defined during development of the Combined Operating Plan (COP)



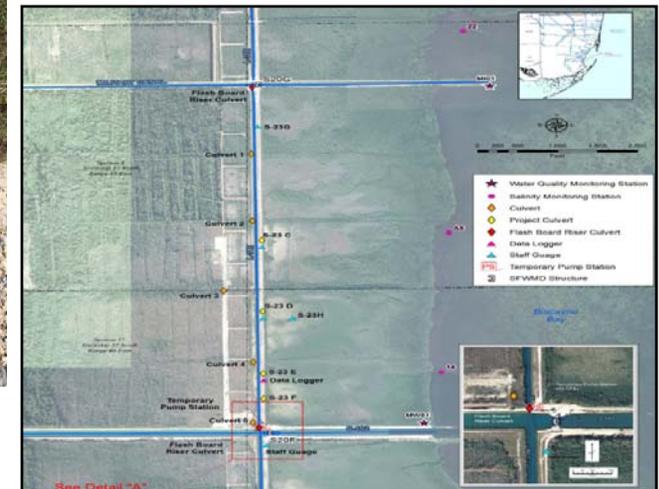
EAA STA

- Expedited site investigations of Miami and North New River Canal Conveyance began in December of 2018
 - Survey & Geotechnical investigations
 - Hydrology & Hydraulics Modeling
 - Construction expected early 2020
- Expedited design of the A-2 STA
 - Geotechnical Data Report for Inflow/Outflow Canal Draft Survey Drawings and Report currently under review
 - Inflow/Outflow Canal design under review and expected to be complete January 2020
 - STA Preliminary Design on track for March 2020
 - Construction expected January 2021



Biscayne Bay Coastal Wetlands

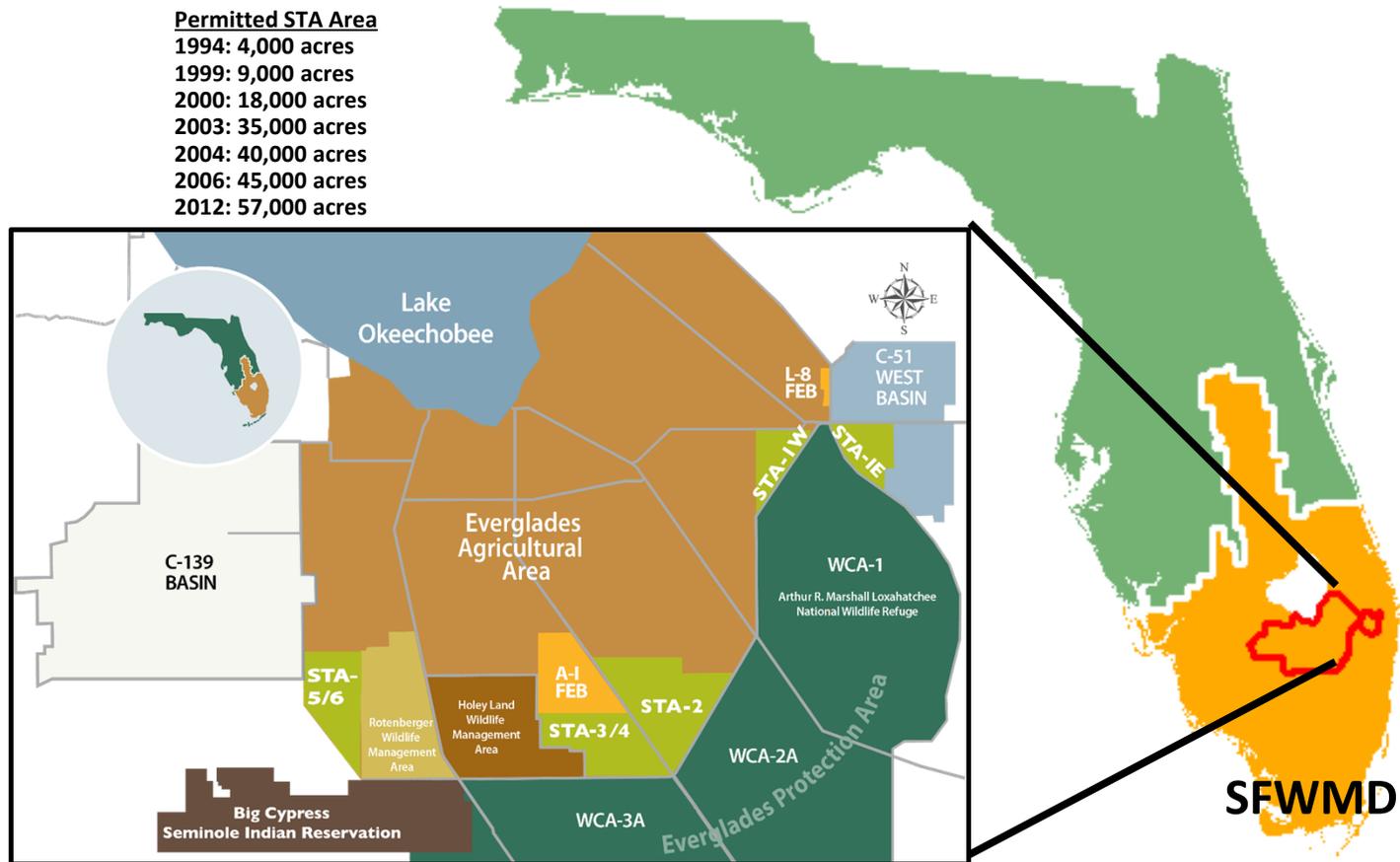
- Deering Estate – complete
- L-31E:
 - L-31E culverts – complete
 - Design of S-709 underway
- Cutler Wetlands reinitiated design update October 2018
- Phase 2 Project Management Plan under development



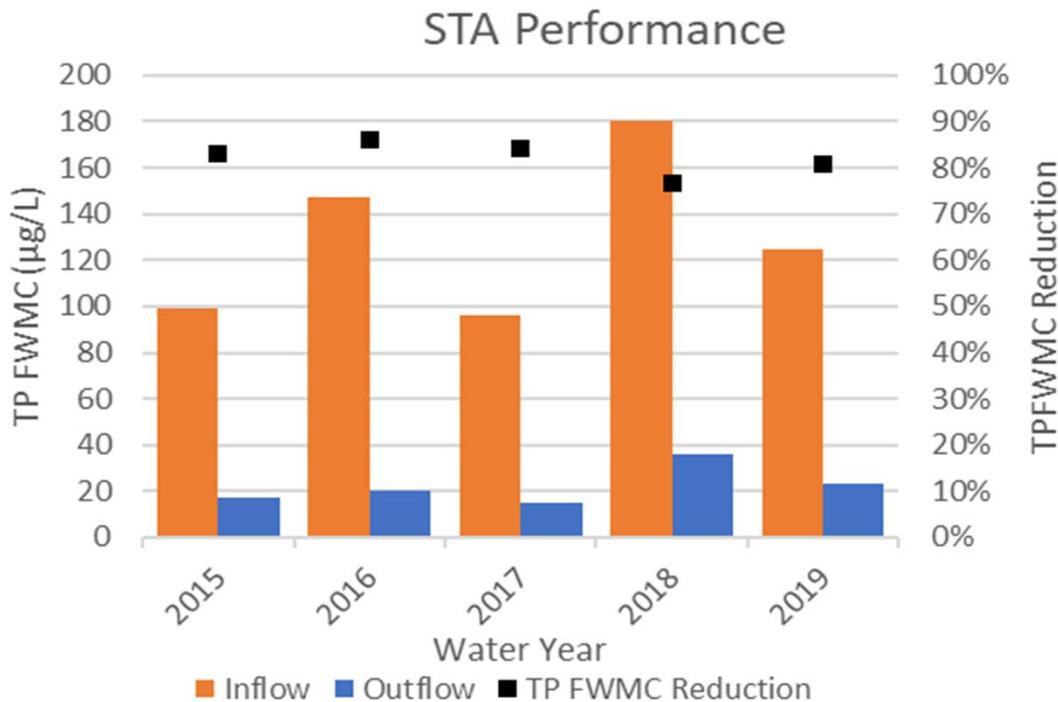
STATE PROGRAMS

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

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)

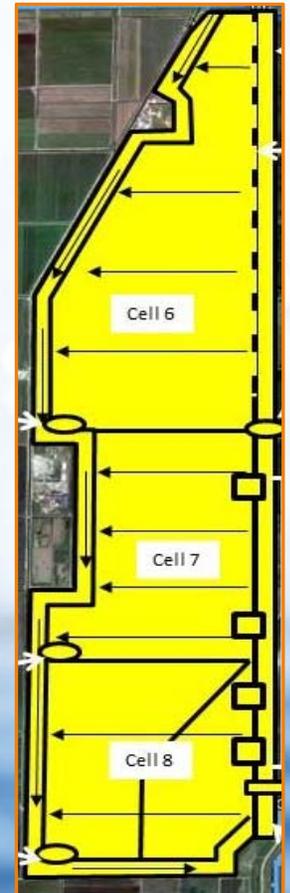
- Designed to expand flow capacity of connection between STA-1E east and west distribution cells
- Completed April 2017



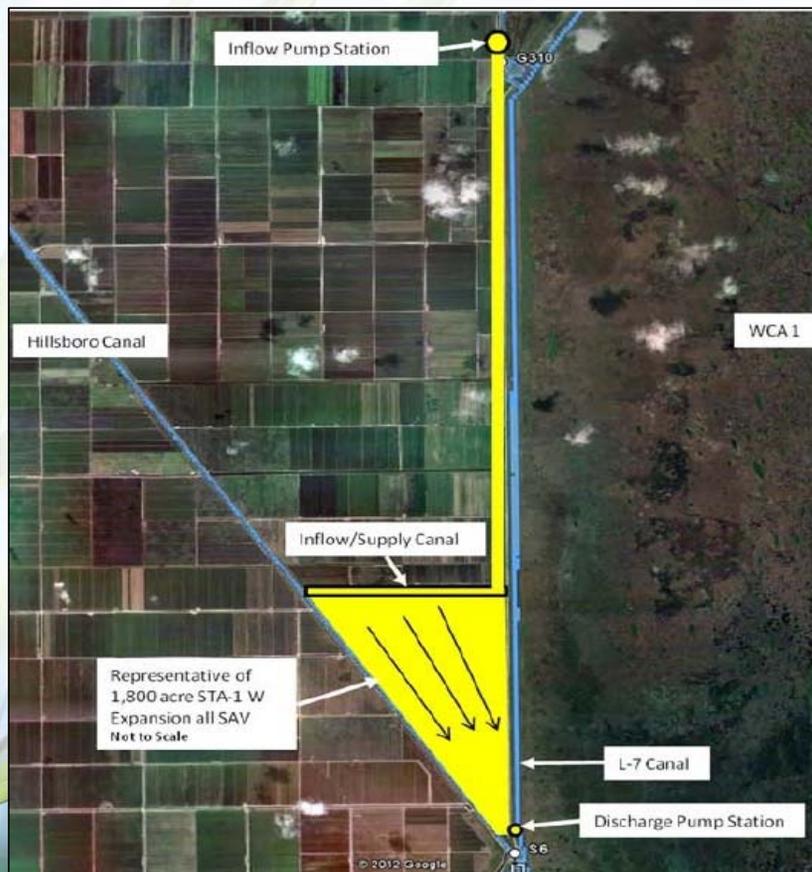
G-716 Looking North

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
- 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



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WY2019

Inflow Volume
380,918 acre-feet

Inflow P Conc.
106 ppb

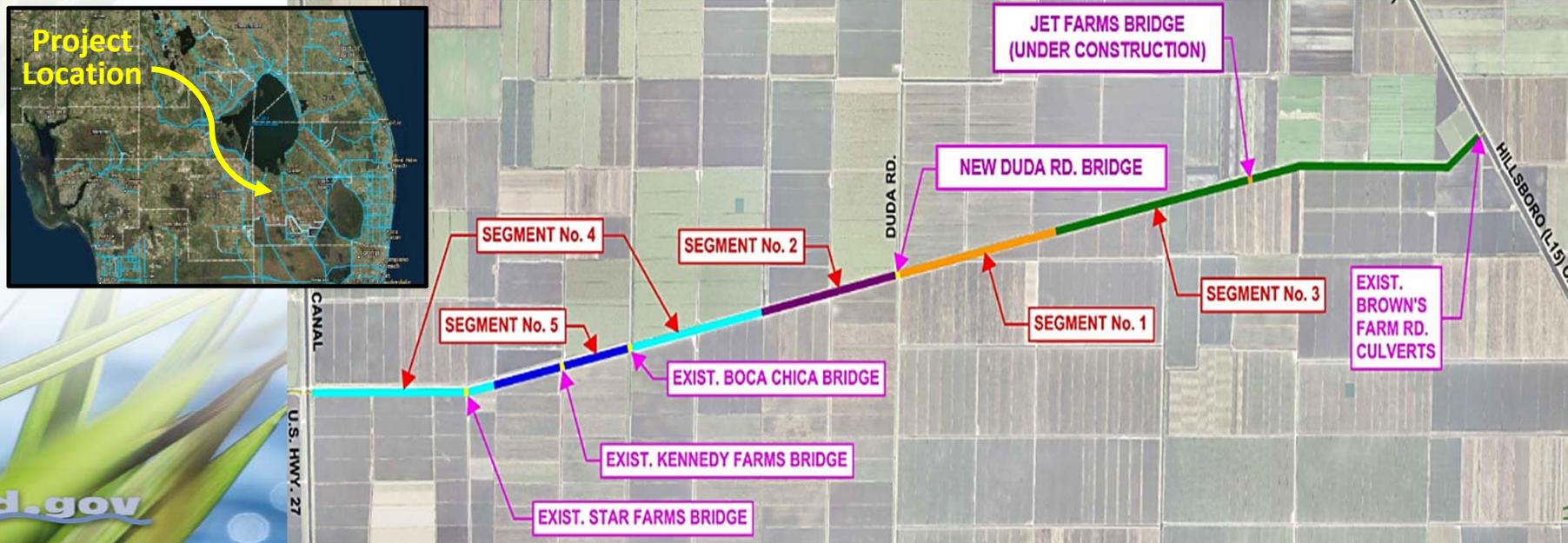
Outflow P Conc.
14 ppb

P Load Reduction
90%



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 near completion
- Segment 4 is in construction



G-341 Related Conveyance Improvements – Excavation of Segment 3



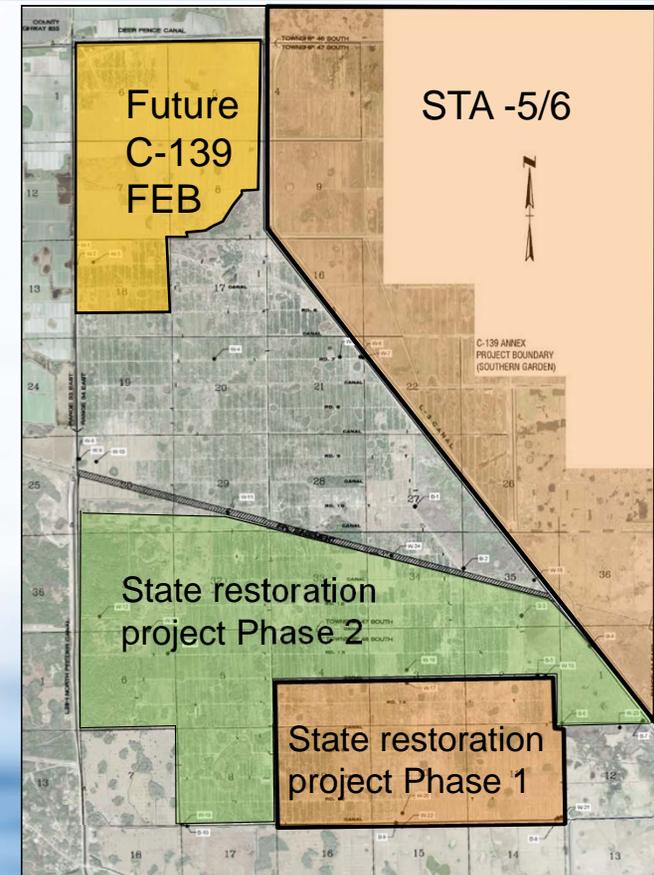
Western Flowpath

- C-139 FEB
 - Design activities began in October 2018
- STA 5/6 Earthwork Improvements
 - Construction in progress

STA-5/6 Cell 3A



STA-5/6 Cell 2A



DISCUSSION