

SFWMD Program and Project Update

South Florida Ecosystem Restoration Task Force Meeting

April 26, 2019

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**SOUTH FLORIDA ECOSYSTEM
RESTORATION PROJECTS**

C-44 Reservoir & STA

S-404 Spillway



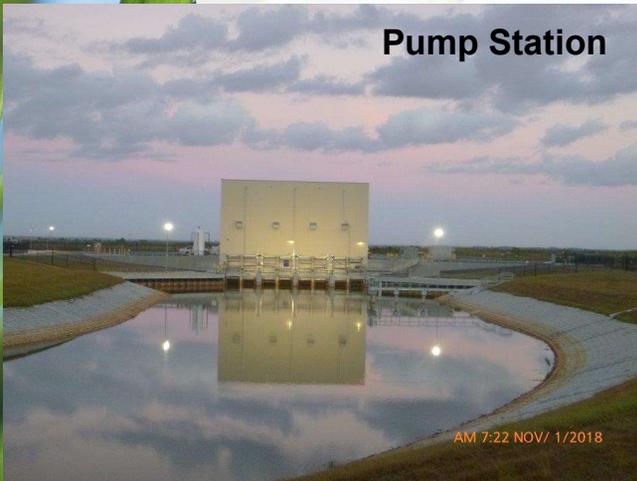
➤ SFWMD Projects:

- S-404 Spillway - complete
- Pump Station – complete
- STA – construction completion expected 2019

➤ USACE Project:

- Reservoir – construction completion expected 2021

Pump Station

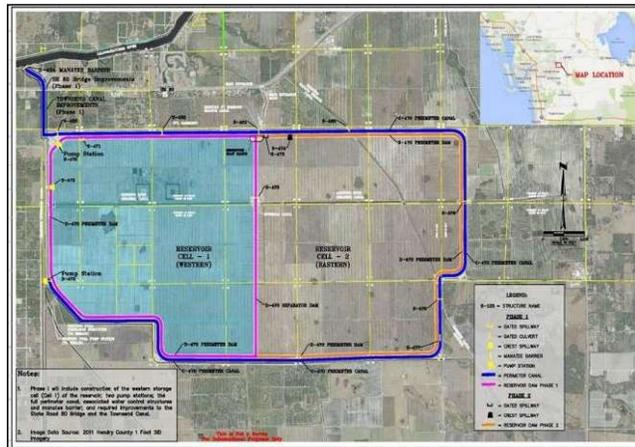


STA



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



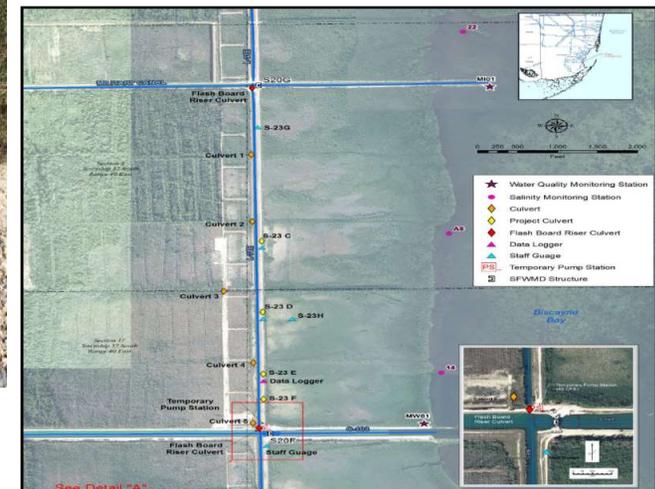
EAA Reservoir

- 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

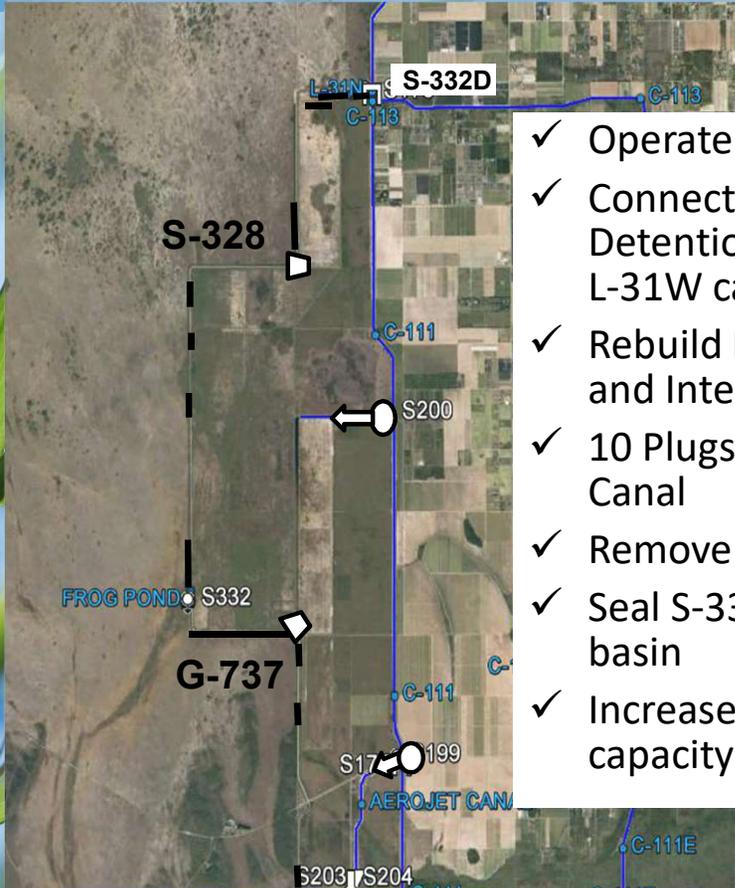


Biscayne Bay Coastal Wetlands

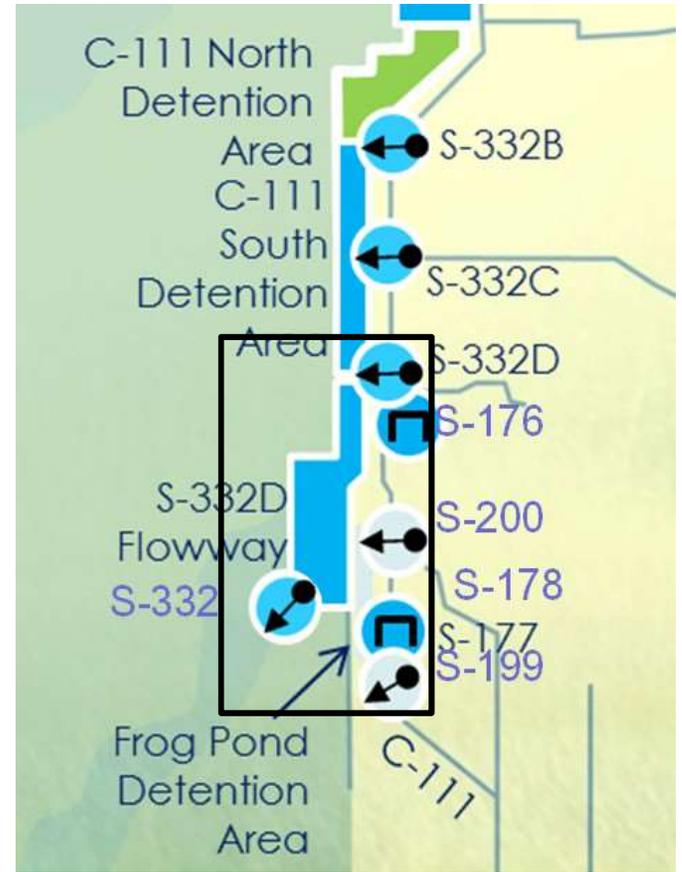
- Deering Estate – complete
- L-31E:
 - Interim pump – Operational since August 2017
 - L-31E culverts – complete
 - Design of S-709 underway
- Cutler Wetlands reinitiated design update October 2018
- Phase 2 Project Management Plan under development



Project Features to Move Water South to Florida Bay



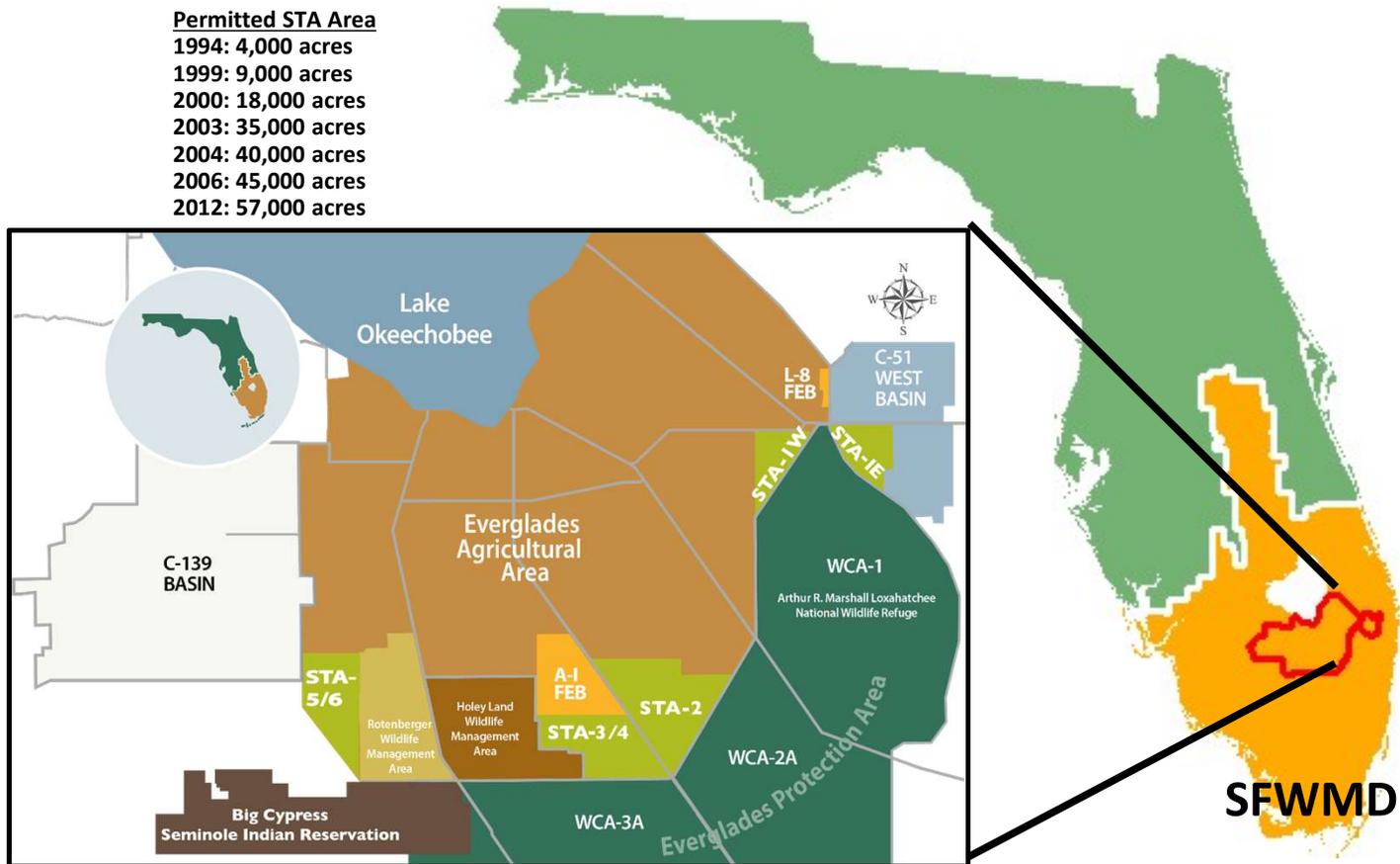
- ✓ Operate S-328
- ✓ Connect Frog Pond Detention Area to L-31W canal (G-737)
- ✓ Rebuild L-31W levee and Integral Weir
- ✓ 10 Plugs in L-31W Canal
- ✓ Remove S-327 weir
- ✓ Seal S-332D discharge basin
- ✓ Increase pump capacity



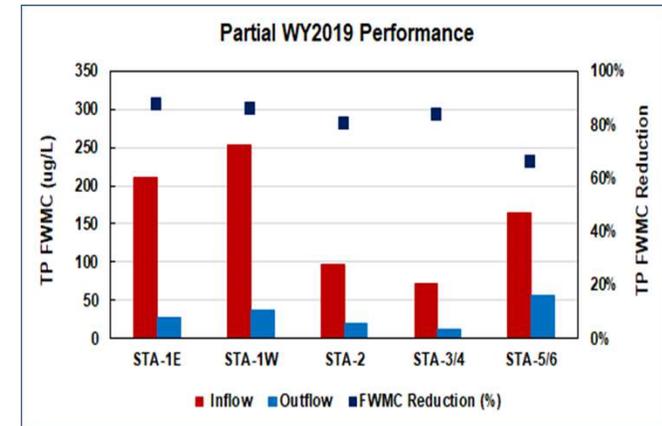
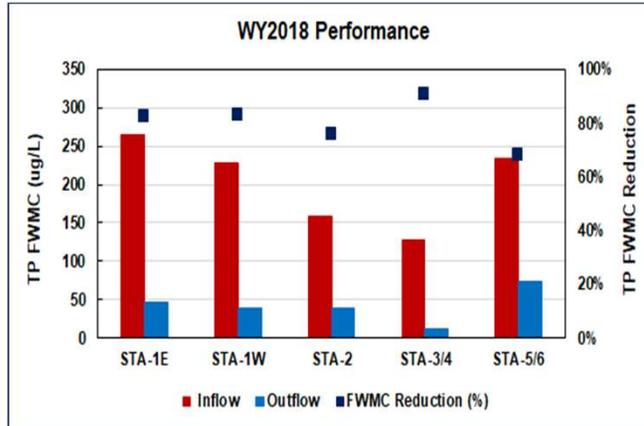
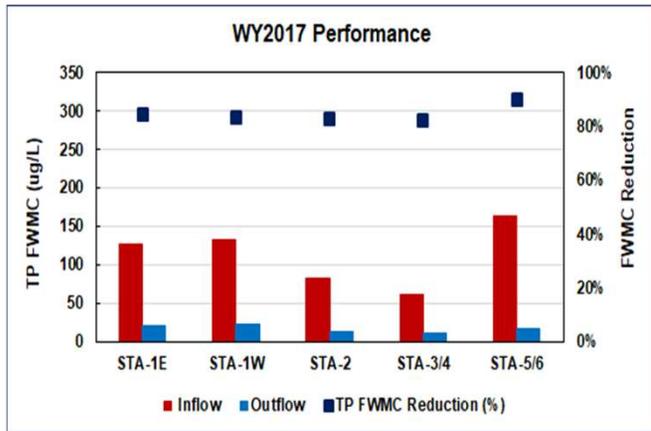
STATE PROGRAMS

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

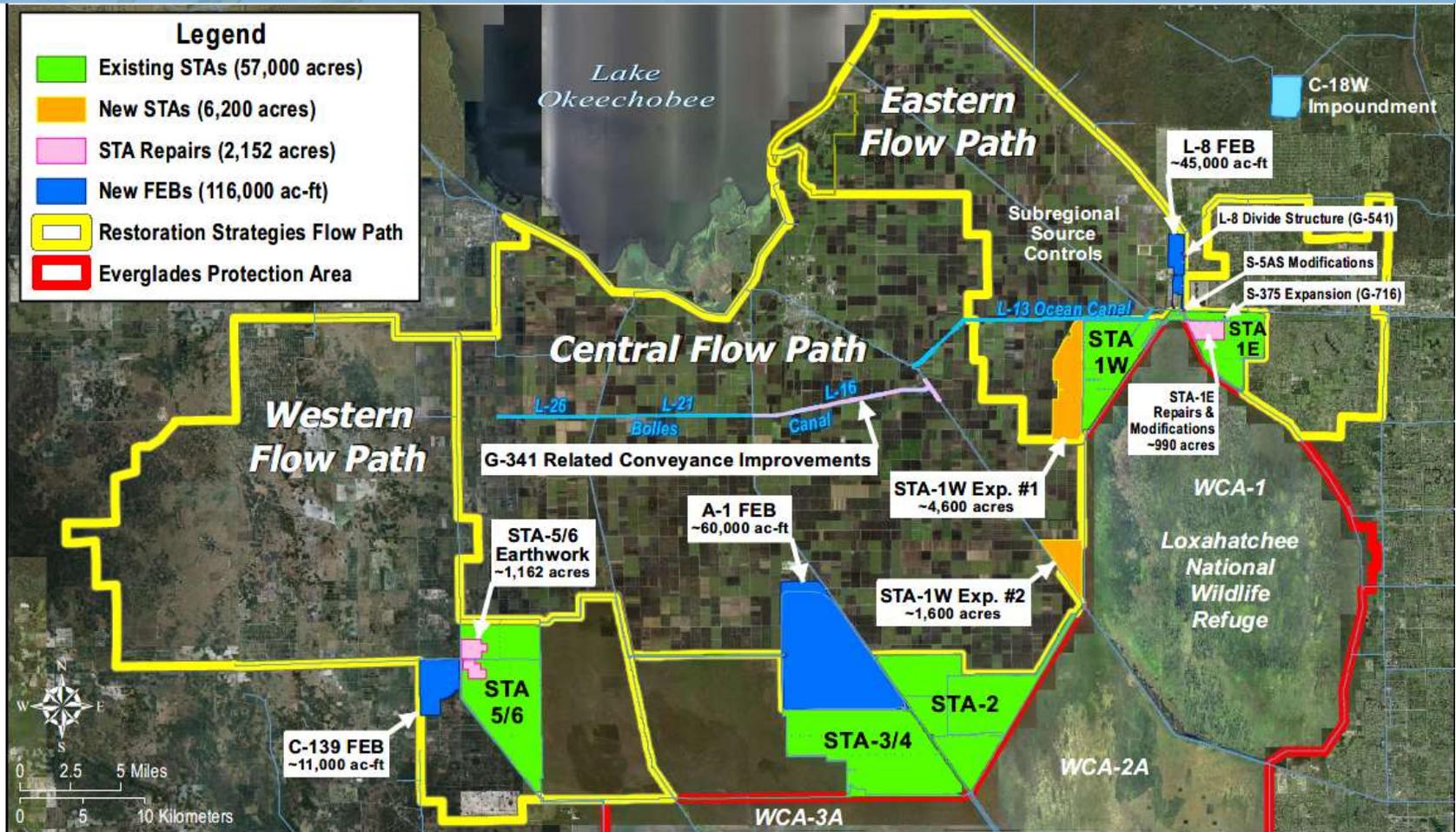


All STAs Performance Comparison by Water Year (WY)



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

Restoration Strategies: Key Projects



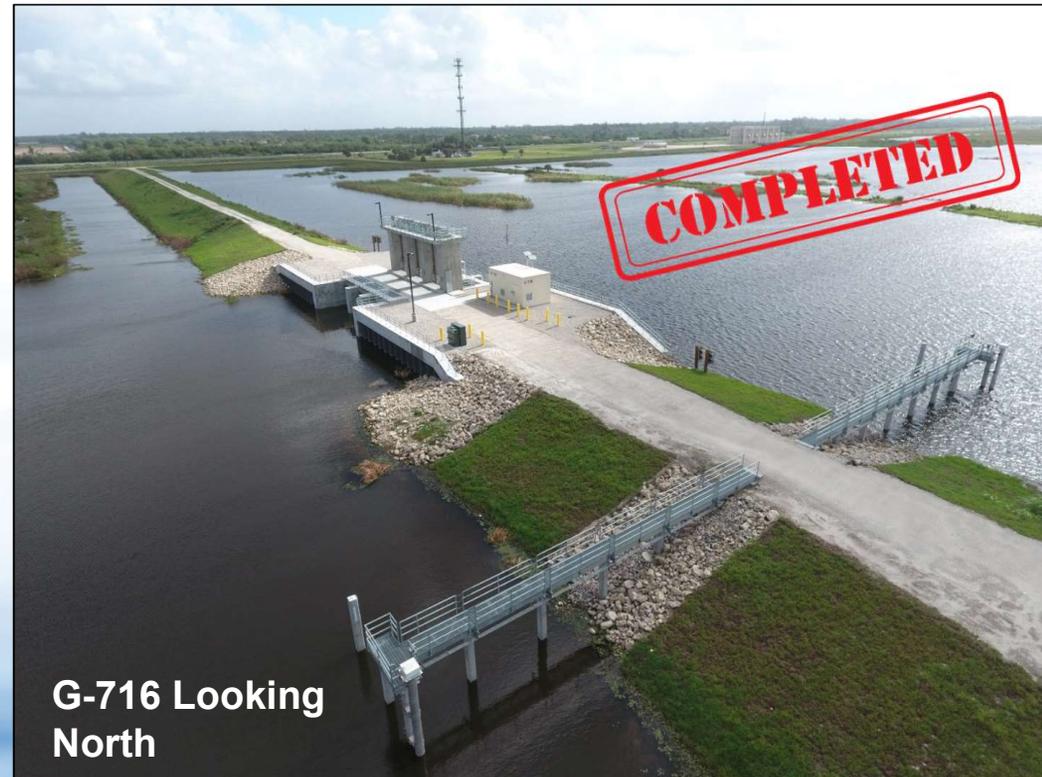
L-8 Flow Equalization Basin (FEB) (Eastern Flowpath)

- 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)

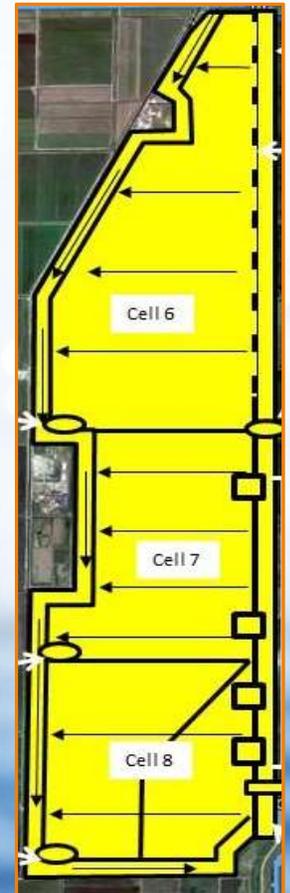
- Designed to expand flow capacity of connection between STA-1E east and west distribution cells
- Completed April 2017



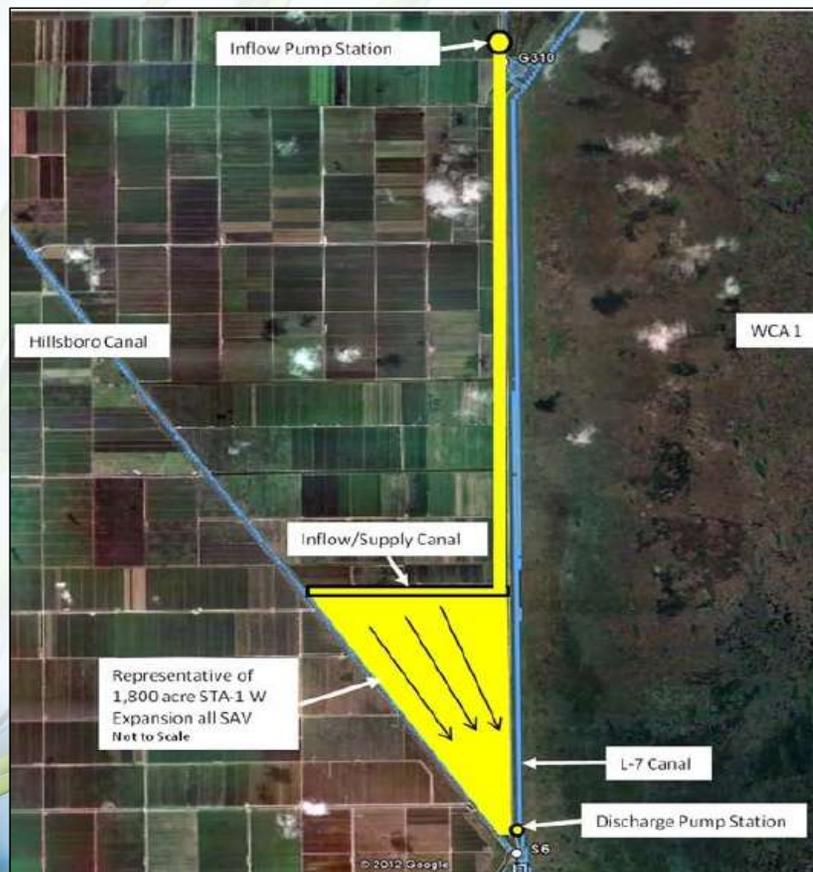
G-716 Looking North

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
- 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

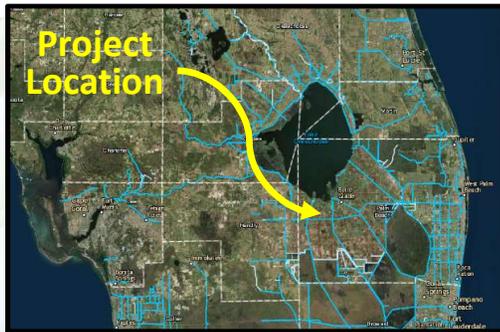
Outflow P Conc.
13 ppb

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 97% complete
- Segment 4 design in progress



G-341 Related Conveyance Improvements – Excavation of Segment 3



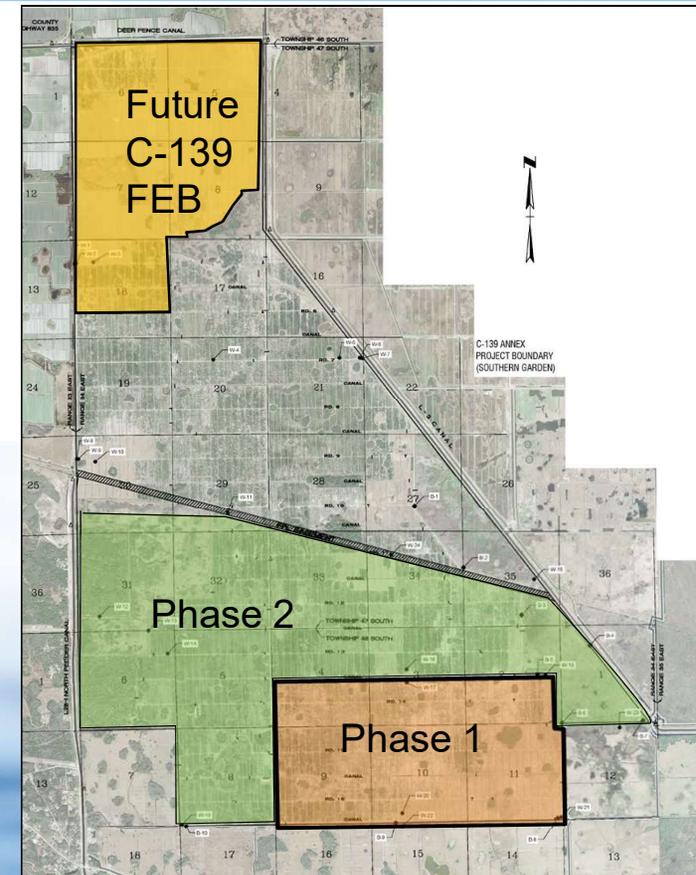
Western Flowpath

- 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



South Florida Environmental Report

- 21st year of publication
- Prepared by SFWMD in cooperation with FDEP to unify 70+ mandated reports
 - Florida Statutes
 - Everglades Forever Act
 - Comprehensive Everglades Restoration Plan Regulation Act
 - Northern Everglades and Estuarine Protection Program
- Robust peer and public review process
- <https://www.sfwmd.gov/science-data/scientific-publications-sfer>



South Florida Environmental Report

- **Volume I** - provides findings derived from regional monitoring and research projects and highlights key financial information during the 2018 reporting period
- **Volume II** - provides an annual update on the planning and project status for eight annual reports required of all water management districts
- **Volume III** - expands on Volume I by further streamlining unified reporting and fulfilling various federal and state permit-related reporting requirements
- **SFER Consolidated Project Database** - provides comprehensive and up-to-date project descriptions.

<http://my.sfwmd.gov/portal/page/portal/xweb%20about%20us/sfer%20application>

DISCUSSION