



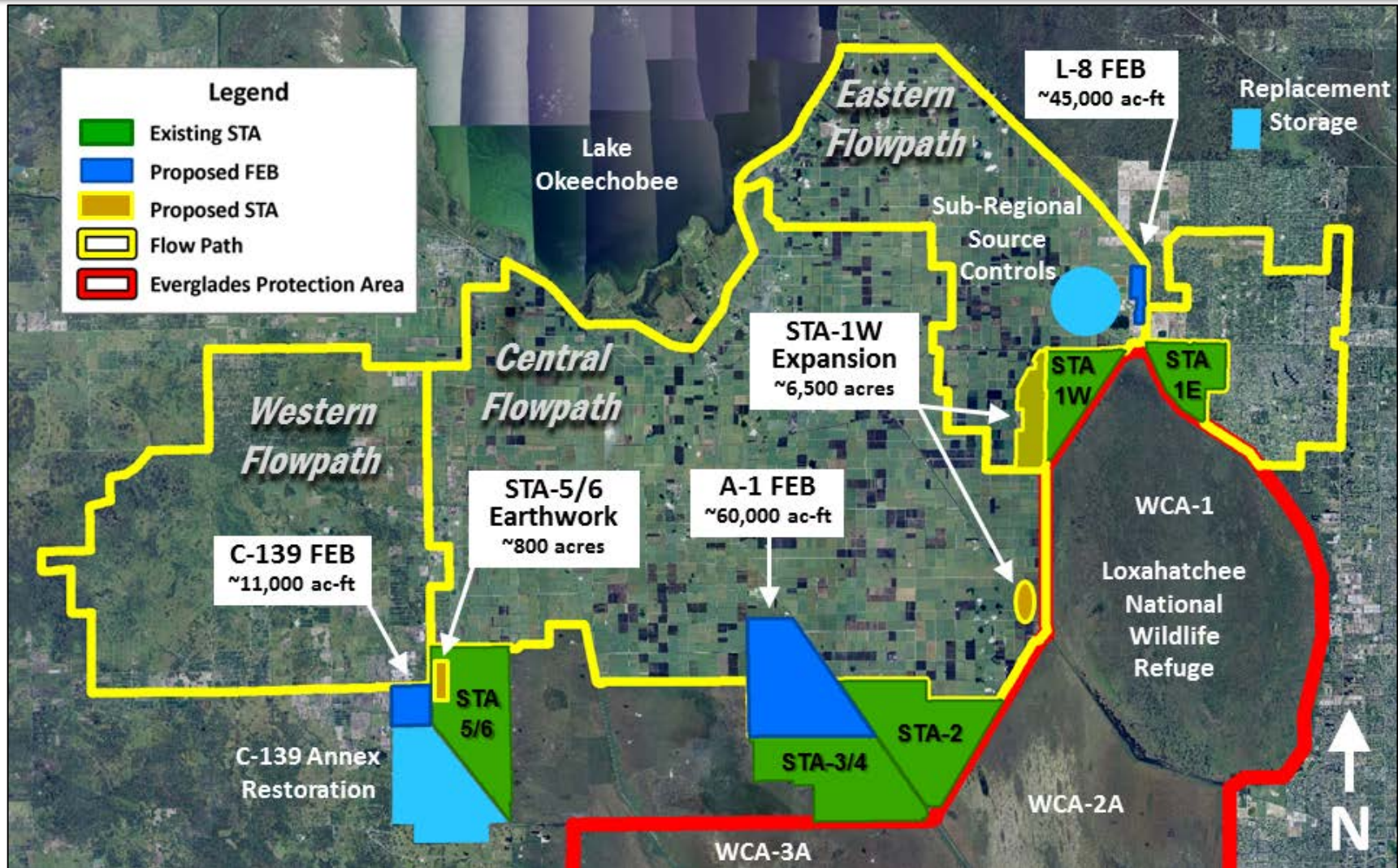
Restoration Strategies and CERP Project Updates

**Lower West Coast Water Supply Plan
Meeting**

March 23, 2017

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

Restoration Strategies Program



A-1 Flow Equalization Basin (FEB)



- Designed to improve performance of STA-2 and STA-3/4
- 15,000 acres by 4 ft deep \approx 60,000 acre-feet
- Status:
 - Operational Testing and Monitoring ongoing
 - 85% phosphorus (P) load reduction since August 2015
 - Outflow P concentration since August 2015 = 20 ppb

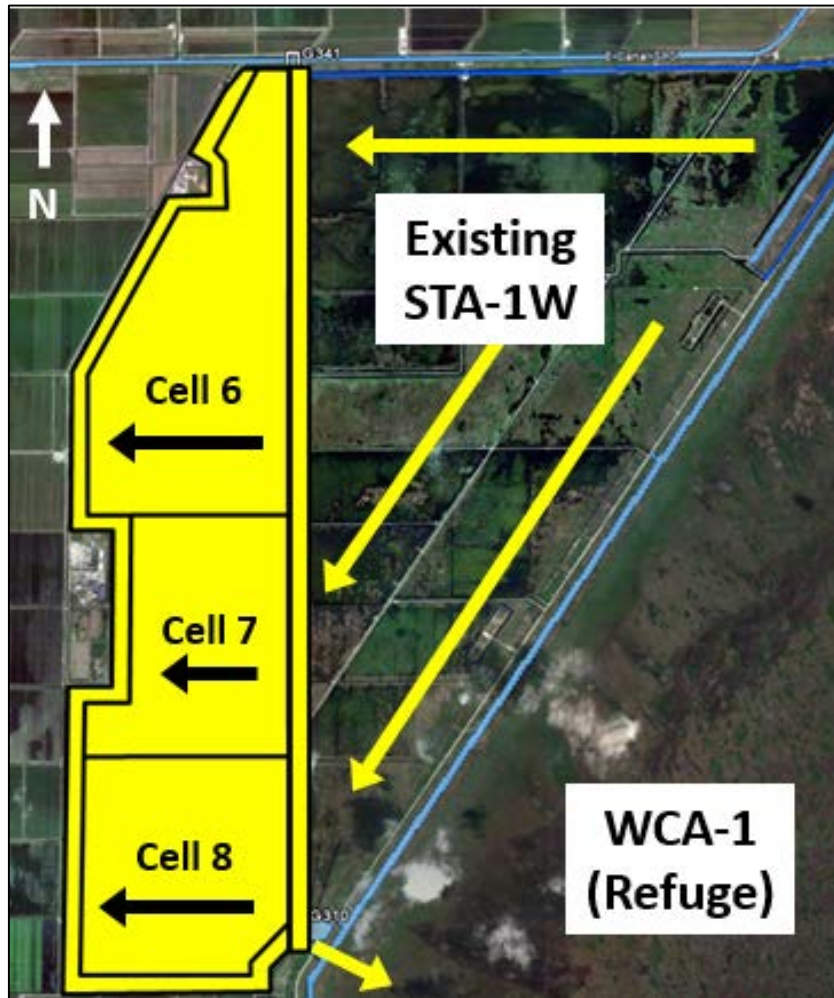
L-8 Flow Equalization Basin (FEB)



- Designed to improve performance of STA-1E and STA-1W
- 800 acres by 58 feet deep \approx 45,000 acre-feet
- Status:
 - Substantial completion has been achieved for all project components except outflow pump station
 - Completion expected Summer/Fall 2017



STA-1W Expansion #1



- Designed to assist STA-1W and STA-1E
- 4,300 acres of additional effective stormwater treatment area
- Status:
 - Construction is 36% complete
 - Completion expected by December 2018
- Expansion #2 (~1,600 acres) design to begin by 2018

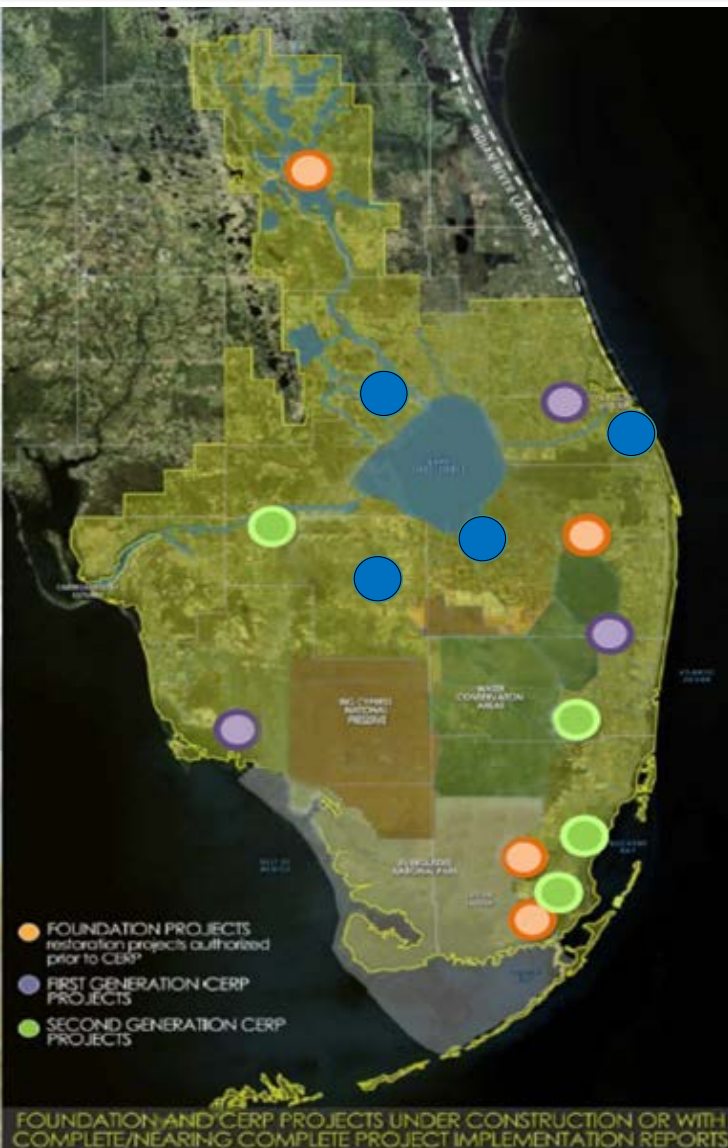
Conveyance Improvement Projects



- L-8 Divide Structure
- S-5AS Modifications
- S-375 Expansion (G-716)
- G-341 Conveyance Improvements (Bolles East L-16 Canal)



South Florida Ecosystem Restoration Projects



Pre-CERP Foundation Projects

- Kissimmee River Restoration
 - Modified Water Deliveries
 - C-111 South Dade
- Significant Progress/ Nearing Completion*

1st Generation CERP

- Melaleuca Eradication Facility *Completed*
- IRL-South *Under construction*
- Picayune Strand *Under Construction*

2nd Generation CERP

- C-43 Reservoir *Under Construction*
- Broward County WPA *Under Design*
- C-111 Spreader Canal Western Features *Operational*
- Biscayne Bay Coastal Wetlands *Partially Constructed, Operational, Under Design*

Completed and Active Planning Studies

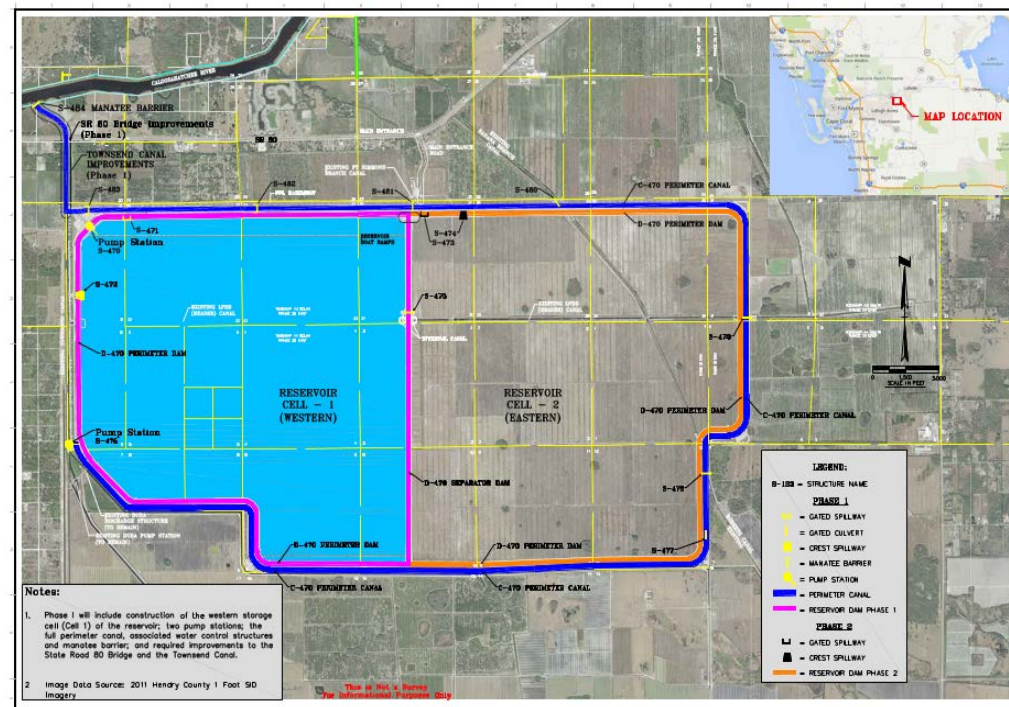
- Central Everglades Planning Project *Authorized*
- Loxahatchee River Watershed Restoration *Planning Underway*
- Lake Okeechobee Watershed Project *Planning Underway*
- Western Everglades Restoration Project *Planning Underway*

Integrated Delivery Schedule (IDS)

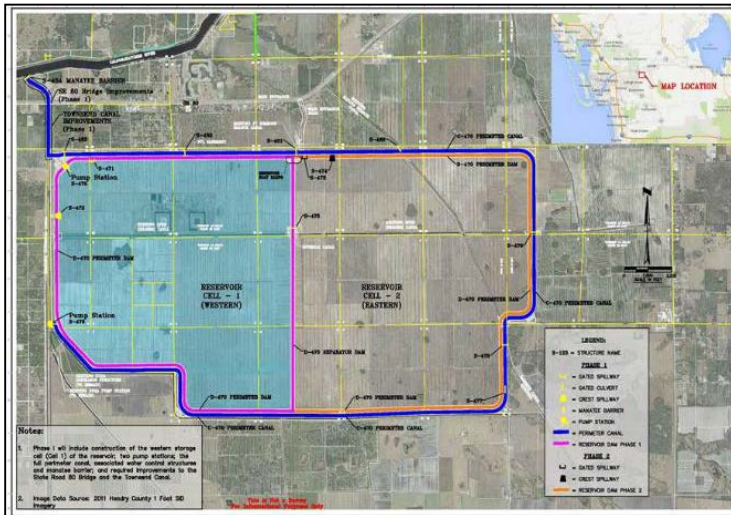
Project	Yellow Book Code	FISCAL YEAR																	
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Planning Estimates Federal Construction Cost (\$FER)++		126	106	190	147	145	217	207	206	223	213	196	210	154	161	109	0	0	0
Planning Estimates Non-Federal Construction Cost (\$FER)++		85	110	127	152	164	143	212	142	141	210	210	192	192	123	123	0	0	0
Planning Estimates Total Construction Cost (\$FER)++		211	216	317	299	309	360	419	348	364	423	406	402	346	284	232	0	0	0
Modified Water Deliveries to Everglades National Park*		○○○○○	○○○○○	○○○○○															
Herbert Hoover Dike*																			
Seminole Big Cypress*	OPE																		
Restoration Strategies*																			
Tamiami Trail Next Steps Phase 1*		*****																	
Kissimmee River Restoration																			
West Palm Beach Canal/STA-1E																			
C-111 South Dade Contract 8																			
C-111 South Dade Contract 8a																			
C-111 South Dade Contract 9																			
C-111 South Dade PACR		●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○
Picayune Strand Restoration	OPE																		
Merritt Pump Station																			
Faka Union Pump Station		●○○○○																	
Manatee Mitigation and Flood Protection Features																			
Miller Pump Station																			
Road removal & canal plugging																			
Site 1 Impoundment	M																		
Phase 1		●○○○○																	
Indian River Lagoon-South																			
C-44 Intake Canal	S																		
C-44 Reservoir	S																		
C-44 STA & Pump Station	S																		
C-23/24 Reservoir North	S																		
C-23/24 Reservoir South	S																		
C-23/24 STA	S																		
C-25 Reservoir	S																		
C-25 STA	S																		
Natural Lands	S																		
Decomp Physical Model	Q	○○○○○	○○○○○	○○○○○															
Caloosahatchee River (C-45) West Basin Storage																			
Pump Station and Reservoir	D	●○○○○																	
Broward County Water Preserve Areas																			
Northern Mitigation Area	Q	●○○○○																	
C-13 Impoundment	Q	●○○○○																	
WCA 3A&3B Seepage Management	O																		
C-9 Impoundment	S																		
Biscayne Bay Coastal Wetlands Phase 1	FFF, OPE																		
L-31 East Flowway		●○○○○																	
Cutler Wetlands		●○○○○																	
C-111 Spreader Canal Western Project (Requires PPA)	WW																		
Central Everglades Planning Project																			
PPA South: LRR & PPA Execution	AA, FF, H, QQ																		
Remove Old Tamiami Trail (ENP Preparing NEPA)		●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○
L-67A Structure 1 & Gap in L-67C Levee																			
Increase S-356																			
L-29 Gated Spillway																			
Increase S-333																			
L-67A Structures 2 & 3																			
Removal L-67C & L-67 Ext, Constr L-67D Levee																			
Removal L-29 Levee & Backfill L-67 Ext																			
PPA North	QQ, II, G																		
PPA New Water	V																		
Loxahatchee River Watershed Restoration Project	X, Y, K	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○
Lake Okeechobee Watershed Restoration Project	A, GG	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○
Western Everglades Restoration Project	CCC	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○
EAA Storage & ASR/Decomp Ph2	G, GG	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○
C-111 Spreader Canal Eastern & BBCW Ph2	WW, FFF	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○
Lake Okeechobee Regulation Schedule Revision*		●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○	●○○○○
++ Does not reflect budgetary development dollars or capability																			
● = Non-Federal																			
● = Federal																			
* Funded through other program authorities or by other entities																			
○○○○● Planning																			
●●●●● Design, PPA Execution, Real Estate Acquisition																			
● Construction																			
○○○○● Operational Testing and Monitoring Period																			
Non-CERP and Foundation Projects																			
CERP Generation 1 Projects - Authorized, Project Partnership Agreement (PPA) Executed																			
CERP Generation 2 Projects - Authorized, PPA Executed Except Where Noted																			
Planning Phase - Authorized in 2016																			
Planning Phase - Initiated and Proposed																			

Project Features

- 10,500 acre reservoir (170,000-acre feet)
- Two cells
- PS 476: 195 cfs irrigation water supply pump station
- PS 470: 1500 cfs
- Four construction packages
- Cell 1 to be completed in 2021



C-43 Reservoir



- Project is being delivered in 4 bid packages
- Package 1: Preload & Demolition
 - Construction Start: November 2015
 - Construction Finish: July 2017
 - \$10.8M
- Package 2: Pump Station S476
 - Construction Start: June 2016
 - Construction Finish: January 2018
 - \$10.7M
- Package 3: Pump Station S470 and Inflow Works
 - Construction Start: November 2017
 - Construction Finish: April 2020
- Package 4: Embankment/Civil Works
 - Construction Start: November 2018
 - Construction Finish: Late 2022

C-43 Reservoir Progress

Preload Mound Structure 475



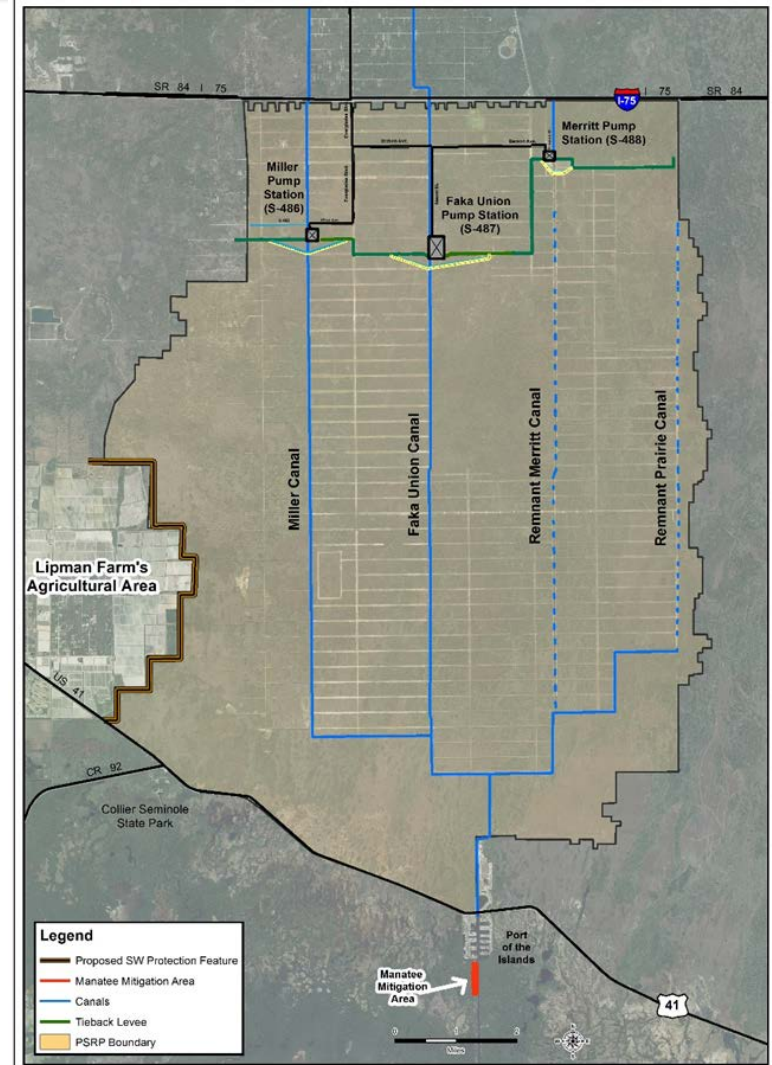
Installation of Sheet Pile at PS 476



Excavation at PS 476 site

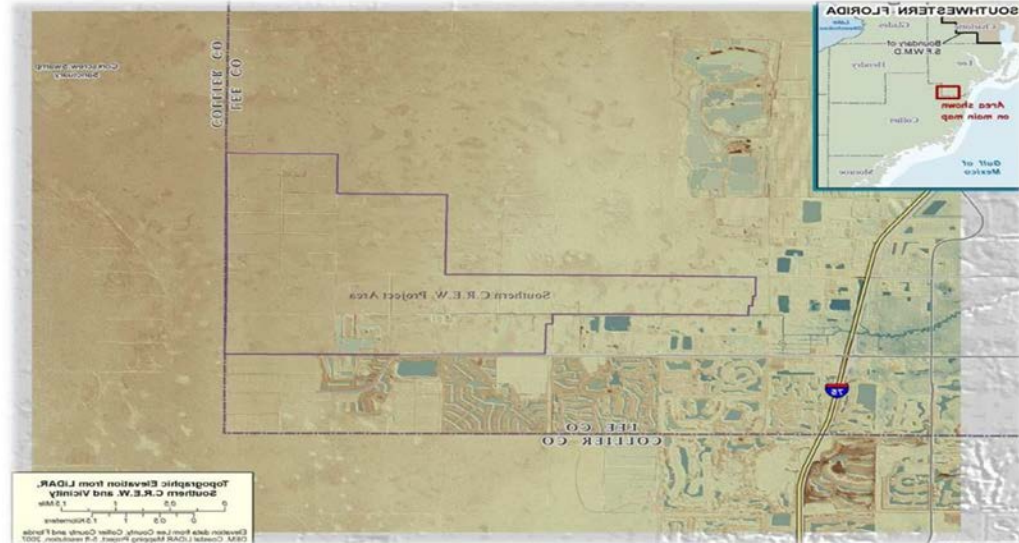
Picayune Strand Restoration Project

- Faka Union Pump Station
 - Operational Testing and Monitoring Period: January 2016 to March 2017
 - Transfer to SFWMD: April 2017
 - Canal Plugging: March 2020
- Miller Pump Station
 - Construction Complete: Fall 2017
 - Miller Road Removal: March 2018
 - Canal Plugging: March 2020
- Southwestern Protection Feature Status:
 - Design is underway
 - Construction Start: October 2018
 - Construction Complete: February 2020



Southern CREW

- Restores and improves hydrology and ecology without significant adverse impacts outside the project boundary
- Improves habitat and increases hydroperiod within project boundary
- Status:
 - Construction start: February 2016
 - Construction complete: October 2017



C-44 Reservoir/STA

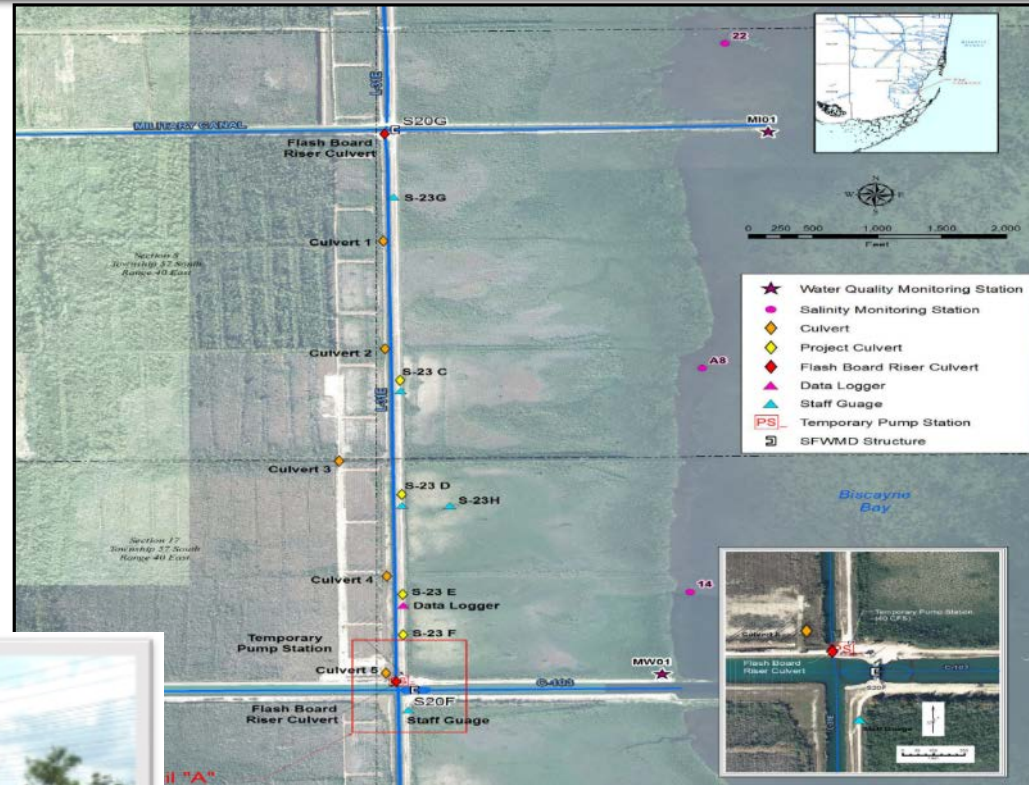


- S-404 Spillway Status:
 - Construction complete
- STA Status:
 - Construction Start: October 2014
 - Construction Finish: December 2017
 - 60% complete
- Pump Station Status:
 - Construction Start: April 2015
 - Construction Finish: September 2018
 - 40% complete

Biscayne Bay Coastal Wetlands: L31E Flowway Pilot Pump Test

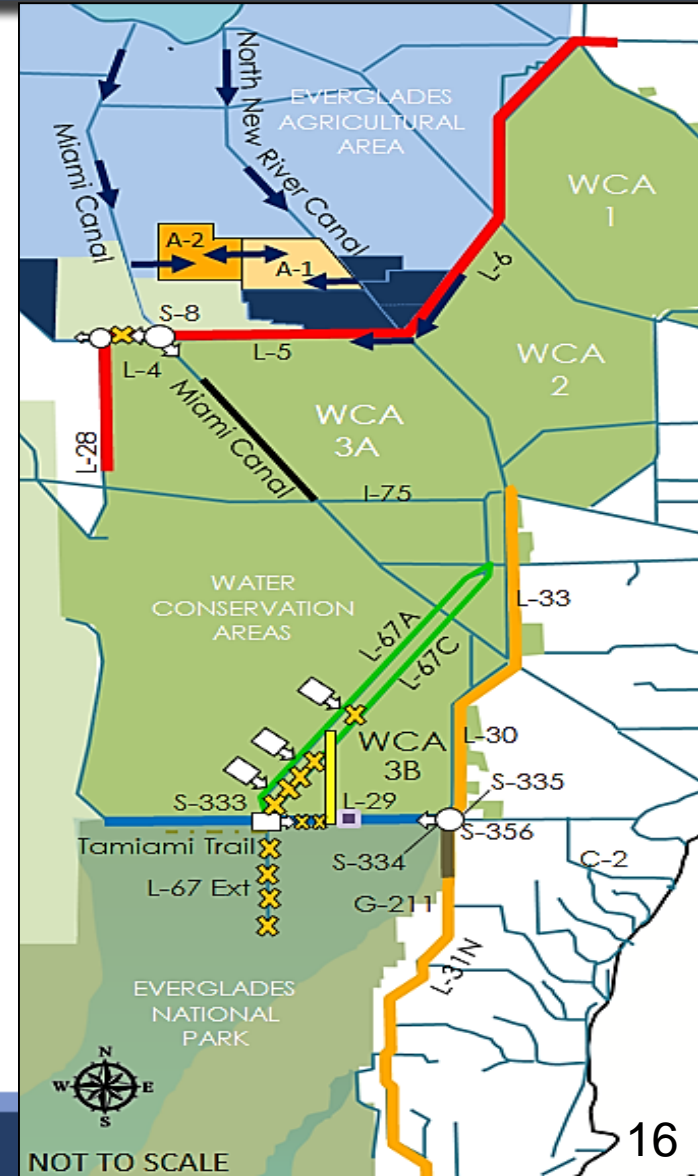
Status:

- Remaining interim pump features and power installation March 2017
- Pump operational April 2017
- 90% complete



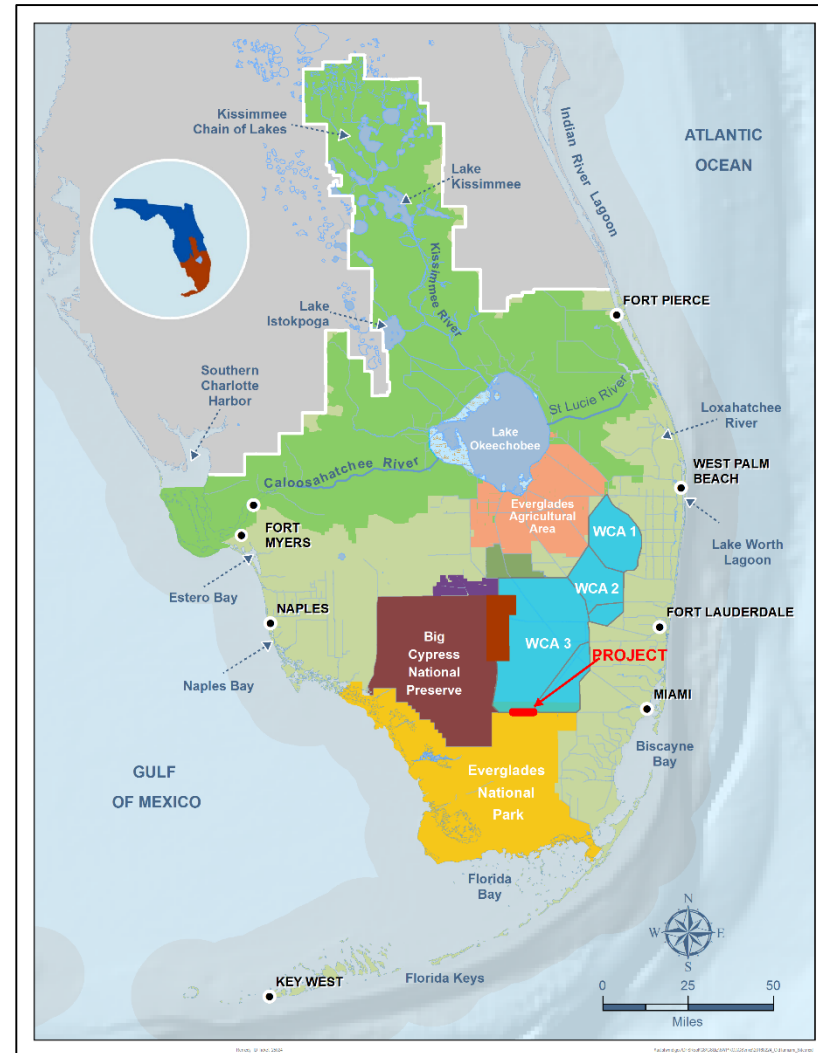
Central Everglades Planning Project

- Increases storage, treatment and conveyance of water south of Lake Okeechobee
 - Sends ~200,000 ac-ft of water south from the lake
- Removes and/or plugs canals and levees within the central Everglades
- Improves hydroperiod and flow through Everglades National Park while protecting urban and agricultural areas to the east from flooding



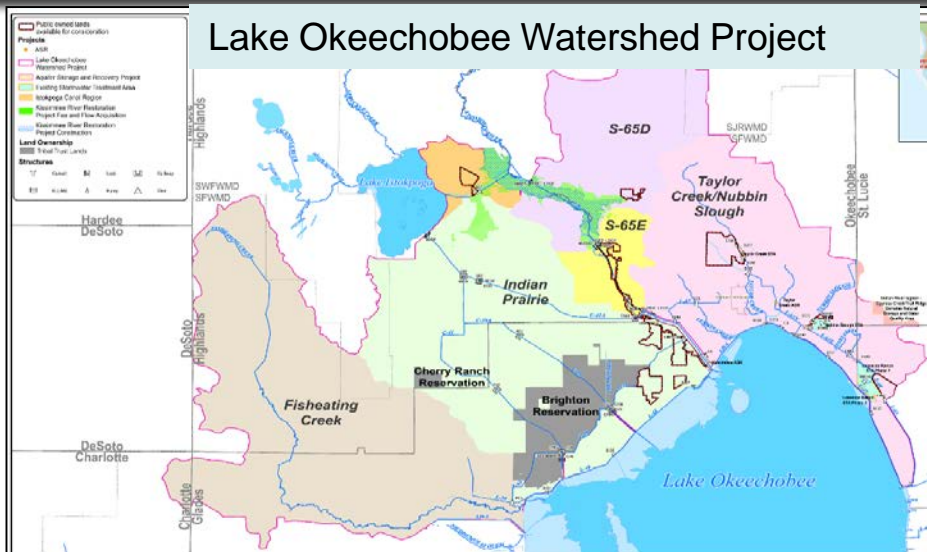
Central Everglades Planning Project: Old Tamiami Trail Removal

- Road removal project supported by ENP, FFWCC, FDEP and USACE
- CEPP authorized by Congress December 2016
- Status:
 - Remove up to 5.7 miles of old road
 - Relocate power lines
 - ENP currently preparing NEPA documents

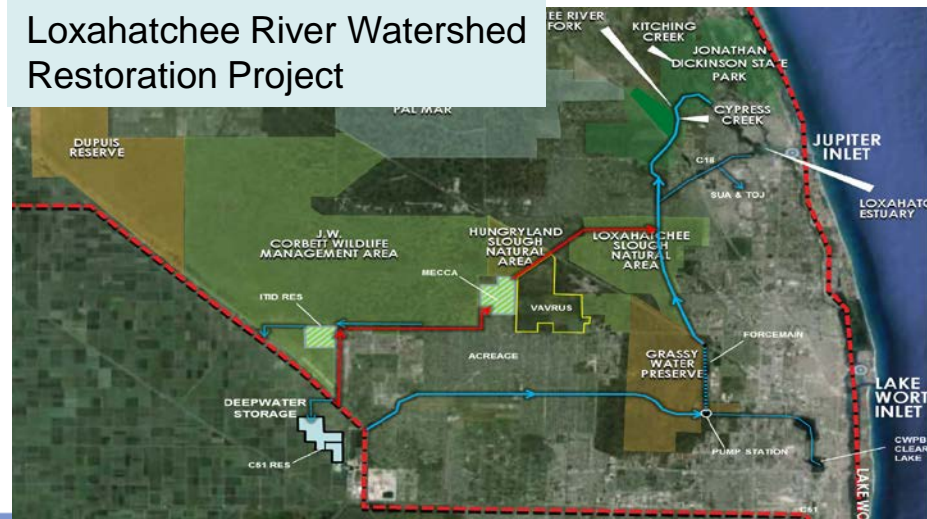


CERP Planning Efforts

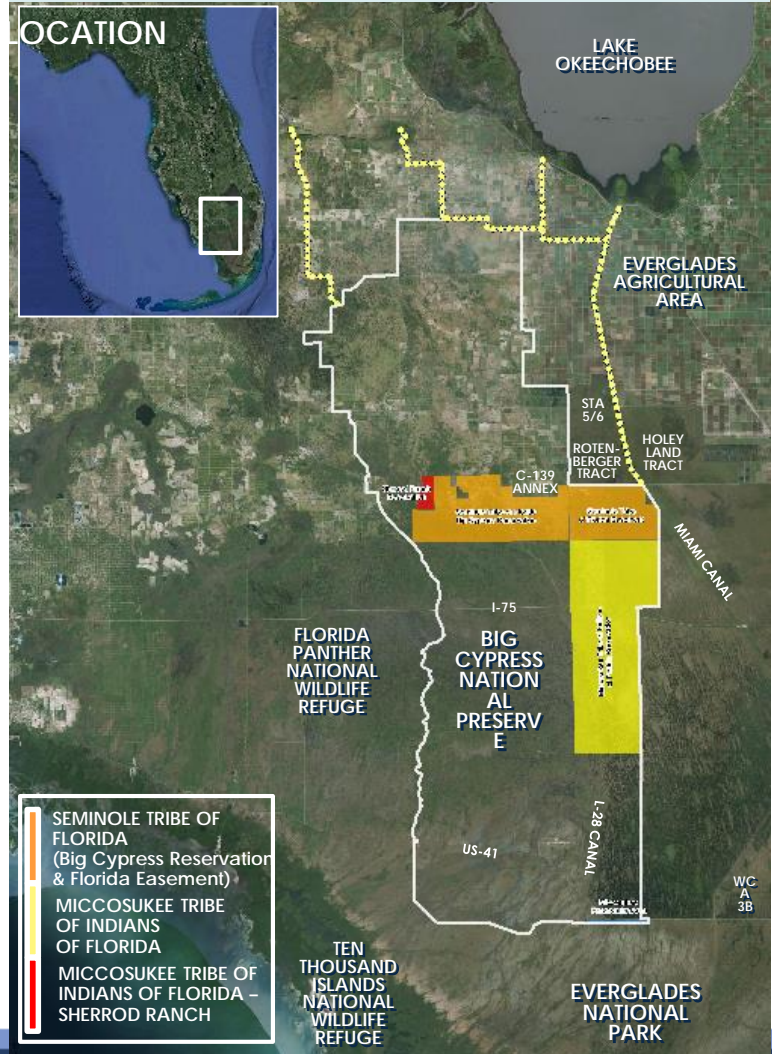
Lake Okeechobee Watershed Project



Loxahatchee River Watershed Restoration Project



Western Everglades Restoration Project





Questions

For more information:

<https://www.sfwmd.gov/our-work/restoration-strategies>

<https://www.sfwmd.gov/our-work/everglades>