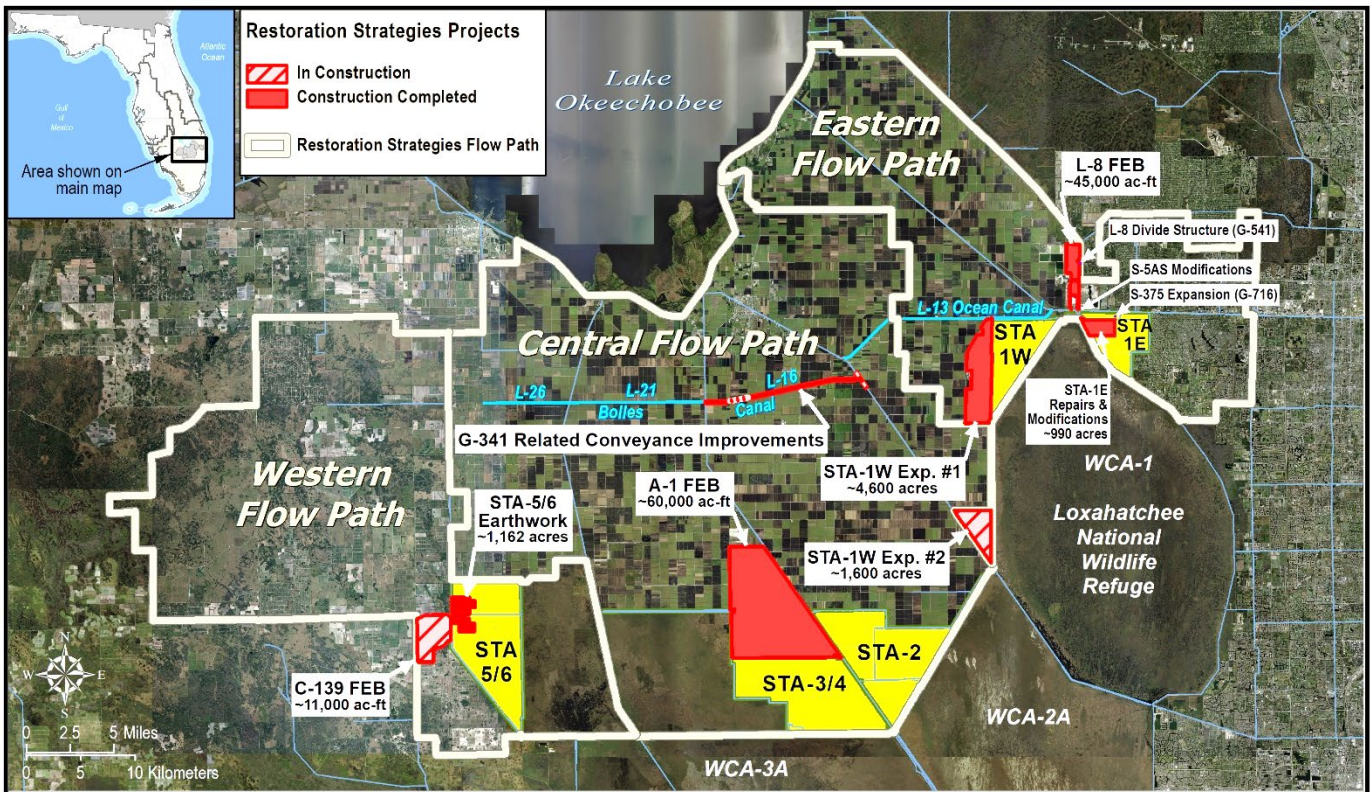


# Restoration Strategies Program and Stormwater Treatment Area Enhancement Update July 2022

The South Florida Water Management District's (District) \$880 million Restoration Strategies Program will improve water quality flowing into America's Everglades by implementing a suite of flow equalization basins (FEB's), stormwater treatment area (STA) expansions, and conveyance improvement projects over a 13-year timeline. The program includes a robust Science Plan focused on investigating the critical factors that influence phosphorus reduction and a better understanding of improving treatment performance at low phosphorus concentrations. A third part of the program is investigation of additional sub-regional source controls – where pollution is reduced at the source – in areas where phosphorus levels in stormwater runoff have been historically higher.

In 2012, FDEP issued watershed National Pollutant Discharge Elimination System (NPDES) and Everglades Forever Act (EFA) permits to the District to continue to operate its STAs. At the same time, Consent Orders were issued with these permits that require the District to construct 13 projects on an aggressive timeline to be completed by December 2025 with specific milestone due dates for each project activity. The existing Everglades STAs, an essential component of Restoration Strategies, are unique constructed treatment wetlands designed to improve the quality of water flowing into the Everglades. Upon completion of all Restoration Strategies projects, the permits require each STA to meet the Water Quality Based Effluent Limit (WQBEL), to ensure that the State's water quality standard for the Everglades is achieved.

In addition to the Restoration Strategies projects, the District is enhancing the performance of the existing Everglades STAs through a series of construction projects to refurbish, rehabilitate, and renew large portions of the existing facilities, some of which have been in operation for the last 20 years.



Restoration Strategies Flow Paths and Projects

# Restoration Strategies Program and Stormwater Treatment Area Enhancement Update July 2022

## Eastern Flow Path

### STA-1W Expansion #2

Construction of Civil Works and Inflow Pump Stations is ongoing. Formwork and reinforcing steel installation for the lower walls and columns of inflow pump stations is ongoing.

### G-341 Related Conveyance Improvements

Notice to Proceed for construction of Segment 5 issued. Contractor anticipates mobilization by early July 2022.

### STA-1W Refurbishment

All refurbishment construction is complete and as built documents accepted. Vegetation management activities are ongoing in newly graded areas. Replacement of structures between Cells 1B and 3 will occur in 2023.

## Central Flow Path

### STA-2 Refurbishment

Earthwork to raise a 530-acre low-lying area in northwest Cell 2 to design elevation is ongoing, 350 acres have been raised, and approximately 180 acres remain.

## Western Flow Path

### STA-5/6 Internal Improvements

Cells 2A and 3A are currently in the initial flooding and optimization period.

### C-139 Flow Equalization Basin (FEB)

Construction activity for the G-550 inflow pump station, G-551 outflow structure, and G711E divide structure are ongoing. ERP Permits for G-552 are complete. Levee and canal construction and land-levelling are ongoing.

### Connection of STA-5/6 to Lake Okeechobee

Phase 1 design to improve conveyance, build a pump station, and rely on temporary facilities to connect the Miami Canal to the inflow of STA-5/6 is ongoing. Embankment/Canal Design analysis is ongoing.

Design of G-774 interim pump station is ongoing.



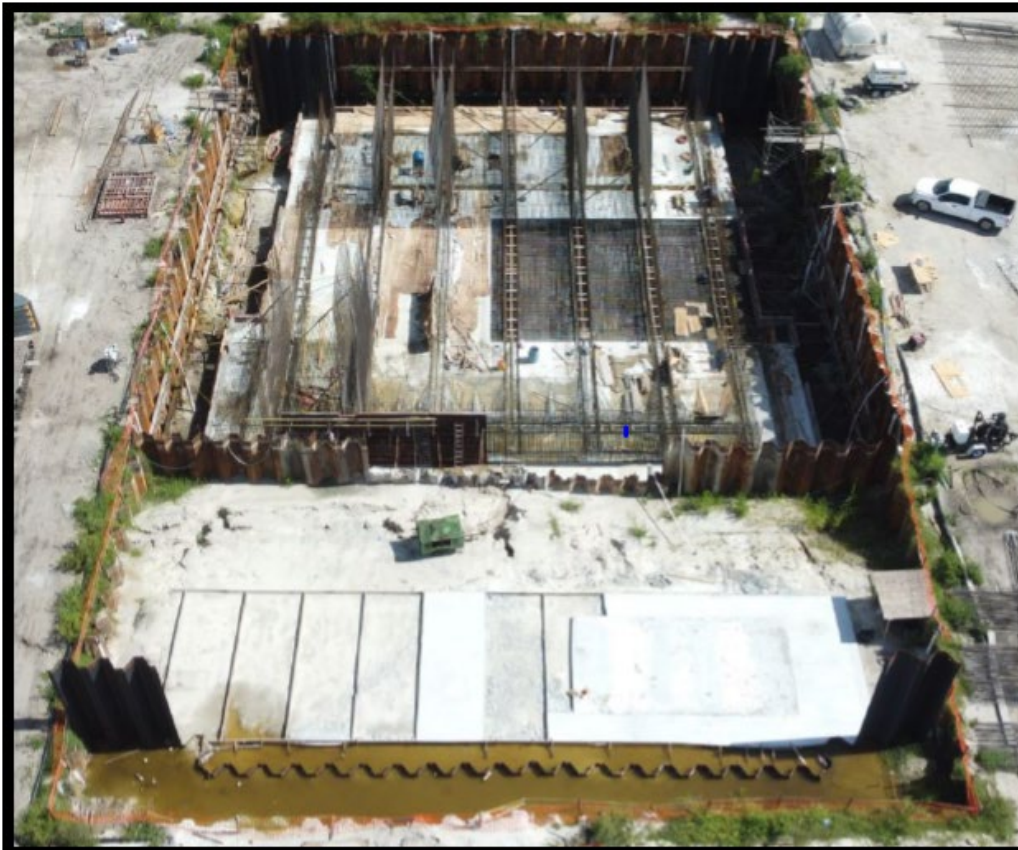
# Restoration Strategies Program and Stormwater Treatment Area Enhancement Update July 2022

## Restoration Strategies Science Plan

Eight Science Plan studies have been completed and thirteen studies are ongoing.

<u>Ongoing Science Plan Studies</u>	<u>Completion By</u>
Factors for Formation of Floating Tussocks in STAs.....	Sept 2022
L-8 FEB and STA Operational Guidance .....	Sept 2022
Improving Resilience of Submerged Aquatic Vegetation in STAs.....	Sept 2022
Biomarker Study.....	Sept 2022
Ecotopes Study .....	Sept 2022
P Dynamics Study .....	Sept 2023
Advection Study.....	Sept 2023
Landscape Study.....	Sept 2023
Effects of Faunal Species on P Cycling in STAs.....	Sept 2023
Periphyton and Phytoplankton P Uptake and Release.....	Sept 2023
Fauna study .....	Sept 2023
Data Integration Study .....	Sept 2024
Marl Study .....	Sept 2024

PICTURE OF THE MONTH



Area Location within Site

G-550 Pump Station construction at C-139 FEB.

# Restoration Strategies Program and Stormwater Treatment Area Enhancement Update July 2022

EASTERN FLOW PATH				CENTRAL FLOW PATH			
<b>STA-1W Expansion #2 (100864)</b>		<b>Activity</b>	<b>Deadline</b>	<b>G-341 Related Conveyance Improvements (100802)</b>		<b>Activity</b>	<b>Deadline</b>
Complete land acquisition	3/31/2018	✓		Initiate design	10/1/2020	✓	
Initiate design	10/1/2018	✓		Submit state and federal permit applications	8/1/2021	✓	
Submit state and federal permit applications	8/1/2019	✓		Complete land acquisition (if required)	9/30/2021	✓	
Complete design	7/31/2020	✓		Complete design	7/31/2022	✓	
Initiate construction	11/30/2020	✓		Initiate construction	11/30/2022	✓	
Construction status report	3/1/2021	✓		Construction status report	3/1/2023	✓	
Construction status report	3/1/2022	✓		<b>Construction status report</b>	<b>3/1/2024</b>		
<b>Complete construction</b>	<b>12/31/2022</b>			Complete construction	12/31/2024		
Initial flooding and optimization period complete	12/31/2024						
<b>STA-1W Expansion #1 (100818)</b>		<b>Activity</b>	<b>Deadline</b>	<b>L-8 Divide Structure (100817)</b>		<b>Activity</b>	<b>Deadline</b>
Complete land acquisition	9/30/2013	✓		Initiate design	10/1/2012	✓	
Initiate design	9/30/2013	✓		Complete design	<b>COMPLETE</b>	9/30/2014	✓
Submit state and federal permit applications	7/30/2014	✓		Initiate construction	10/1/2016	✓	
Complete design	7/30/2015	✓		Complete construction	9/30/2018	✓	
Initiate construction	<b>COMPLETE</b>	1/31/2016	✓				
Construction status report	3/1/2017	✓					
Construction status report	3/1/2018	✓					
Complete construction	12/31/2018	✓					
Initial flooding and optimization period complete	12/31/2020	✓					
<b>STA-1E Repairs and Modifications</b>		<b>Activity</b>	<b>Deadline</b>	<b>S-5AS Modifications (100822)</b>		<b>Activity</b>	<b>Deadline</b>
PSTA Decommissioning complete	12/31/2022	✓		Initiate design	10/1/2012	✓	
Culvert repairs complete	12/31/2022	✓		Complete design	9/30/2014	✓	
Cell 5 and 7 improvements complete	12/31/2022	✓		Initiate construction	10/1/2014	✓	
				Complete construction	9/30/2016	✓	
<b>L-8 FEB (100813)</b>		<b>Activity</b>	<b>Deadline</b>	<b>S-375 Expansion (100819)</b>		<b>Activity</b>	<b>Deadline</b>
Submit state and federal permit applications	1/31/2014	✓		Initiate design	9/30/2013	✓	
Construction status report	3/1/2014	✓		Complete design	7/30/2015	✓	
Construction status report	3/1/2015	✓		Initiate construction	1/31/2016	✓	
Complete construction (begin multi-purpose ops)	12/31/2016	✓		Complete construction	12/31/2018	✓	
<b>Long term operations commence</b>	<b>12/31/2022</b>						
				<b>LEGEND</b> <span style="display: inline-block; width: 15px; height: 15px; background-color: #add8e6; border: 1px solid black; margin-right: 5px;"></span> Flow Equalization Basin <span style="display: inline-block; width: 15px; height: 15px; background-color: #90ee90; border: 1px solid black; margin-right: 5px;"></span> Stormwater Treatment Area <span style="display: inline-block; width: 15px; height: 15px; background-color: #90ee90; border: 1px solid black; margin-right: 5px;"></span> Conveyance Improvement ✓ Complete			
<b>STA-2 Expansion: Compartment B</b>		<b>Activity</b>	<b>Deadline</b>	<b>WESTERN FLOW PATH</b>			
Initial flooding and optimization period complete	<b>COMPLETE</b>	5/31/2014	✓	<b>STA-5/6 Internal Improvements (100868)</b>			
				<b>Activity</b>	<b>Deadline</b>		
				Initiate design	10/31/2019	✓	
				Submit state and federal permit applications	8/30/2020	✓	
				Complete design	10/31/2021	✓	
				Initiate construction	1/31/2022	✓	
				Construction status report	3/1/2023	✓	
				Construction status report	3/1/2024	✓	
				Complete construction	12/31/2024	✓	
				Initial flooding and optimization period complete	12/31/2025	✓	
<b>A-1 FEB (100706)</b>		<b>Activity</b>	<b>Deadline</b>	<b>STA-5/6 Expansion: Compartment C</b>			
Initiate design	4/1/2012	✓		<b>Activity</b>	<b>Deadline</b>		
Submit state and federal permit applications	12/1/2012	✓		Initial flooding and optimization period complete	<b>COMPLETE</b>	5/31/2014	✓
Design status report	3/1/2013	✓					
Complete design	8/1/2013	✓		<b>C-139 FEB (100867)</b>			
Initiate construction	<b>COMPLETE</b>	6/30/2014	✓	<b>Activity</b>	<b>Deadline</b>		
Construction status report	3/1/2015	✓		Initiate design	10/31/2018	✓	
Construction status report	3/1/2016	✓		Submit state and federal permit applications	8/30/2019	✓	
Complete construction	7/30/2016	✓		Complete design	10/31/2020	✓	
Operational monitoring and testing period complete	7/29/2018	✓		Initiate construction	1/31/2021	✓	
				Construction status report	3/1/2021	✓	
				Construction status report	3/1/2022	✓	
				<b>Construction status report</b>	<b>3/1/2023</b>		
				Complete construction	12/31/2023		
				Operational monitoring and testing period complete	12/31/2024		

Projects Complete = 8 of 13  
 Activities Complete = 65 of 74  
 % Activities Complete = 88 %  
 % Time Complete = 74 %

Revised June 15, 2022