## Restoration Strategies Program Update June 2020

The South Florida Water Management District's (SFWMD) \$880 million Restoration Strategies Program includes the design and construction of a suite of regional water storage, treatment and conveyance improvement projects that will enhance water quality in America's Everglades. The program also includes a robust Science Plan consisting of research activities focused on investigating the critical factors that influence phosphorus (P) reduction and better understanding the sustainability of P removal performance at low P concentrations. The strategies also feature implementation of additional sub-regional source controls – where pollution is reduced at the source – in areas where P levels in stormwater runoff have been historically higher.

#### **Eastern Flow Path**

#### Stormwater Treatment Area 1 East (STA-1E) Repairs and Modifications (Cells 5 and 7)

Contract for earthwork was approved at March Governing Board. Notice to proceed issued April 2020.

Project is on schedule and expected to be completed by November 2022.

#### STA-1W Expansion #1

Initial flooding and optimization underway and expected to be completed by December 2020. Earthwork for plugs to allow flow through the new discharge canal is expected during the final quarter 2020.

#### **STA-1W Expansion #2**

Pipe Installation under STA-1W Expansion #1 Discharge Canal approved at February Governing Board. Notice to Proceed was issued in March 2020. Final Design for civil works delivered on May 25, 2020. Final Design for Pump Stations due by July 2020. Work for Underground Pipes due by October 2020.

#### **G-341 Related Conveyance Improvements**

Construction of Segment 3 in Bolles East Canal is nearing completion. Jett Farm bridge installation is complete. Construction of Segment 4 is ongoing. Segment 5 will proceed subsequent to Segment 4. Survey for hydraulic modeling of alternatives for conveyance improvements in Ocean and Hillsboro canals is under way.

#### **Western Flow Path**

#### **STA-5/6 Internal Improvements**

Earthwork to lower ground elevation in Cells 2A and 3A is complete. Final as-built survey drawings have been certified by the engineer-of-record.

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

Conducted Uniform Mitigation Assessment Method (UMAM) site visits with ACOE and FDEP in January 2020; Caracara monitoring work order issued. Interim Design in progress and due by June 2020.

#### **Additional Components**

#### **Sub-Regional Source Controls**

On-going development of sub-regional source control concepts and coordination with stakeholders.

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### **Restoration Strategies Science Plan**

Of the fourteen Science Plan studies, six have been completed and eight are in progress.

Operational Guidance for FEB and STA Regional Operation	Completed in 2017
Influence of canal Conveyance on P Concentrations	Completed in 2017
Evaluation of Sampling Methods for TP	Completed in 2017
Periphyton-Based STA Performance, Design and Operational Factors	Completed in 2018
Evaluation of Rooted Floating Aquatic Vegetation in STAs	Completed in 2018
P Forms, Flux and Transformation Processes	Completed in 2019
STA Water and P Budget Improvements for Treatment Performance	In Progress
Vegetation Inundation Depth and Duration Sustainability	In Progress
Soil Amendments to Control P Flux	In Progress
Effects of Faunal Species on P Cycling in STAs	In Progress
Factors for Formation of Floating Tussocks in STAs	In Progress
Improving Resilience of Submerged Aquatic Vegetation in STAs	In Progress
L-8 FEB and STA Operational Guidance	In Progress
Periphyton and Phytoplankton P Uptake and Release	In Progress



Contractor taking samples for the rooted Floating Aquatic Vegetation study

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### **Consent Order<sup>1</sup> Milestones**

Project: Activity	Deadline	Date Completed
Eastern Flow Path		
STA-1W Expansion #1: Complete Construction	12/31/2018	12/27/2018
STA -1W Expansion #1: Initial Flooding and Optimization	12/31/2020	
STA-1W Expansion #2: Initiate Design	10/1/2018	9/25/2018
STA-1W Expansion #2: State and Federal Permit Applications	8/1/2019	7/29/2019
STA-1W Expansion #2: Complete Design	7/31/2020	
G-341 Related Conveyance Improvements: Initiate Construction	11/30/2022	8/13/2015
G-341 Related Conveyance Improvements: Complete Construction	12/31/2024	
Central Flow Path		
A-1 FEB: Operational Monitoring and Testing Period Complete	7/29/2018	7/29/2018
Western Flow Path		
C-139 FEB: Initiate Design	10/31/2018	8/22/2018
C-139 FEB: Submit State and Federal Permit Applications	8/30/2019	8/23/2019
C-139 FEB: Complete Design	10/31/2020	
STA-5/6 Internal Improvements: Initiate Construction	1/31/2022	9/25/2018
STA-5/6 Internal Improvements: Construction Status Report	3/1/2023	9/24/2019
STA-5/6 Internal Improvements: Complete Construction	12/31/2024	

<sup>1:</sup> FDEP Consent Order 12-1148 (associated with National Pollutant Discharge Elimination System Permit No. FL0778451-001-FL7A/RA) and FDEP Consent Order 12-1149 (associated with Everglades Forever Act Permit No. 0311207)