

## **Restoration Strategies Program Update**

### **March 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)**

Geotechnical and Environmental testing complete. Preliminary site preparation began November 2019. The 408 permit was received from USACE in December 2019. Import of fill material for Cell 5 has commenced. Project expected to be completed by November 2022.

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

Received concurrence from FDEP regarding flow path for flow-through during installation of pipes under discharge canal. Initial flooding and optimization underway and expected to be completed by December 2020.

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

Preliminary design of STA was completed in August 2019. State and Federal permit applications required for construction were submitted in July 2019. Commencement of pipe installation under STA-1W Expansion #1 Discharge Canal expected to start March 2020. Design is expected to be completed in July 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 has begun. Segment 5 will proceed subsequent to Segment 4. Survey for hydraulic modeling of conveyance 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 are being reviewed for submission to the engineer-of-record. FDEP representatives have been contacted for coordinating the as-built review and permit close-out.

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

Technical Review Briefing for 30 percent design was completed in October 2019. Additional geotechnical survey for L-3 outflow structure was completed in December 2019. Conducted Uniform Mitigation Assessment Method (UMAM) site visits with ACOE and FDEP in January 2020; no major issues identified. The 60 percent design is in progress and expected to be completed by April 2020.

#### **Additional Components**

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

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

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## March 2020

### 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



Completion of the Jett Farm bridge over the Bolles East Canal.

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## March 2020

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

Project: Activity	Deadline	Date Completed
<b>Eastern Flow Path</b>		
STA-1W Expansion #1: Construction Status Report	3/1/2018	2/23/2018
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	
<b>Central Flow Path</b>		
A-1 FEB: Operational Monitoring and Testing Period Complete	7/29/2018	7/29/2018
<b>Western Flow Path</b>		
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: Construction Status Report	3/1/2024	

1: 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)