

Restoration Strategies Program Update December 2019

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. As of November 22, 2019, total program expenditures are approximately \$337.9 million, and all projects are scheduled to be complete by December 2025.

Eastern Flow Path

STA-1E Repairs and Modifications (Cells 5 and 7)

Geotechnical and Environmental testing of fill is complete and report is under review. The 408 permit submittal is under review by USACE. Preliminary site preparation began November 2019.

Cell 6 earthwork will be performed using District staff and resources.

Project expected to be completed by November 2022.

Stormwater Treatment Area 1 West (STA-1W) Expansion #1

Received concurrence from FDEP regarding approval to flow-through.

Initial flooding and optimization period to be completed by December 2020.

Stormwater Treatment Area 1 West (STA-1W) Expansion #2

Preliminary design of STA was completed on August 1, 2019. State and Federal permit applications submitted on July 26, 2019. Design is expected to be completed in July 2020.

G-341 Related Conveyance Improvements

Construction of Segment 3 is nearly complete. Jett Farm Bridge installation commenced this month.

Segment 4 Construction Contract was approved at October Governing Board with Notice to Proceed effective November 15, 2019. Environmental and safety plans submitted.

Segment 5 is on hold awaiting direction for replacement bridges.

Western Flow Path

STA-5/6 Internal Improvements

Excavation operations are being finalized. Final grading and road rock operations continue on divider levee.

Final as-built surveying of the eastern and western portions of Cell 2A are near completion.

C-139 Flow Equalization Basin (FEB)

Review and Technical Review Briefing for 30 percent design complete in October 2019.

Sixty percent design initiated and expected to be complete by February 2020.

Additional Components

Sub-Regional Source Controls

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

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Stormwater Treatment Area (STA) Science Plan

There are currently fourteen Science Plan Studies. Five have been completed, one is nearing completion 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

Consent Order¹ Milestones

Project: Activity	Deadline	Date Completed
Eastern Flowpath		
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	
Central Flowpath		
A-1 FEB: Operational Monitoring and Testing Period Complete	7/29/2018	7/29/2018
Western Flowpath		
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)

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G-341 Conveyance Improvements: Installation of steel superstructure at the Jett Farm Bridge