

Restoration Strategies Program Update

June 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 April 18, 2019, total program expenditures are approximately \$326.5 million, and all projects are scheduled to be complete by December 2025.

Eastern Flowpath

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

Surveying and geotechnical deliverable received and under review. Project scheduled for completion on or before December 2022.

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

Continued with initial flooding of expansion area and startup water quality monitoring.
Initial flooding and optimization period to be completed by December 2020.

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

STA configuration selected in May 2019. Design of STA inflow canal and other features is in progress.
State and Federal permit application expected in July 2019.

G-341 Related Conveyance Improvements

Work commenced on JET farm bridge as part of Segment 3. Segment 4 design being revised without bridge areas to proceed with canal improvement while bridge details are negotiated.

Western Flowpath

STA-5/6 Internal Improvements

Grubbing operations are nearly complete in Cell 3A and continue in Cell 2A. Excavation and grading continues in Cell 3A including loading and hauling of excess material to the stockpile area in the future C-139 FEB site.

C-139 Flow Equalization Basin (FEB)

Draft reports for geotechnical and survey data were reviewed. First phase of hydrology and hydraulics analysis and modeling expected by late May 2019. Draft report for environmental/biological assessment and wetland delineation survey submitted and under review. Preliminary design planned by early July 2019.
State and Federal permit application expected by July 2019.

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 OperationCompleted 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 FactorsCompleted in 2018
- Evaluation of Rooted Floating Aquatic Vegetation in STAsCompleted in 2018
- P Forms, Flux and Transformation ProcessesNearing Completion
- 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: Complete Land Acquisition	3/31/2018	1/31/2018
STA-1W Expansion #2: Initiate Design	10/1/2018	9/25/18
STA-1W Expansion #2: State and Federal Permit Applications	8/1/2019	
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	8/22/18
C-139 FEB: Submit State and Federal Permit Applications	8/30/2019	
STA-5/6 Internal Improvements: Initiate Design	10/31/2019	9/10/2018
STA-5/6 Internal Improvements: Submit Permit Applications	8/30/2020	8/14/18
STA-5/6 Internal Improvements: Complete Design	10/31/2021	9/24/18
STA-5/6 Internal Improvements: Initiate Construction	1/31/2022	9/25/18
STA-5/6 Internal Improvements: Construction Status Report	3/1/2023	

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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STA-5/6 Internal Improvements: Bulldozer tracks to spread material and achieve design grade elevation. View over Cell 3A facing west.