

Restoration Strategies Program Update

April 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 March 21, 2019, total program expenditures are approximately \$322.6 million, and all projects are scheduled to be complete by December 2025.

Eastern Flowpath

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

Completed survey and geotechnical work to confirm quantity of on-site material for regrading. Project plan completed with an estimated cost of \$40.1 million to be completed by October 2020. Will use on-site material and some imported fill to level Cells 5 and 7 upward to an elevation of 12.5 feet NGVD.

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

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

Segment 3 is 98% complete. 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 proceeding in Cells 2A and 3A in advance of excavation operations. Excavation continues in Cell 3A including loading and hauling of excess material to the stockpile area in the future C-139 FEB site and grading operations in the southeast section of that cell.

C-139 Flow Equalization Basin (FEB)

Draft reports for geotechnical data and survey elevations are under review. First phase of H&H analysis and modeling expected by May 2019. Environmental/biological assessment and wetland delineation survey reports due by July 2019. 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.

C-18 West Impoundment (Replacement Feature/Mecca)

USACE released the Draft Project Implementation Report that includes C-18 West Impoundment for public and agency review. Design work to start with topographic survey and geotechnical survey.

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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	Nearing 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-1W Expansion #1: Initial flooding and startup water quality monitoring. View of Cell 6 facing south toward Cells 7 and 8.