

Restoration Strategies Program Update

July 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 June 19, 2019, total program expenditures are approximately \$327.6 million, and all projects are scheduled to be complete by December 2025.

Eastern Flow Path

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

Surveying, structural, and geotechnical field work complete. Final design in comment evaluation phase. Submitted 408 permit that is under review by USACE. Project to be completed by November 2022 at an estimated cost between \$36.1M and \$39.8M.

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. Preliminary design of STA to be completed in July 2019. 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 Flow Path

STA-5/6 Internal Improvements

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

C-139 Flow Equalization Basin (FEB)

Preliminary design expected by July 5, 2019; including geotechnical data review, survey report, and H&H analysis. State and Federal permit application expected by July 2019. Groundwater/biological assessment and wetland delineation survey to be delivered by August 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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G-341 Related Conveyance Improvements: Finalizing construction of Duda Road farm bridge along the L-16, Bolles East Canal, facing southwest.