

Restoration Strategies Program Update

August 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 July 17, 2019, total program expenditures are approximately \$330.7 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 testing work order issued for Cells 5 and 7. Final design under review, next step is to produce final plans and specifications. The 408 permit submittal is under review by USACE. Project expected to be completed by November 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. Preliminary design completion of STA is scheduled for August 1, 2019. State and Federal permit applications submitted on July 26, 2019. Milestone notification report submitted to FDEP on July 29, 2019.

G-341 Related Conveyance Improvements

Construction of Segment 3 is 90% complete. 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 complete in Cell 3A and continue in Cell 2A. Excavation operations continue in Cell 3A and the excess material is being hauled to the future C-139 FEB stockpile area. Finish grading operations continue in Cell 3A and Cell 2A.

C-139 Flow Equalization Basin (FEB)

Preliminary design was submitted on June 30, 2019, reviewed, and returned with comments on July 10, 2019. Revised submittal is expected in early August of 2019. The FDEP pre-application process will start by mid-August and the permit application is expected to be submitted to FDEP by August 30th as per consent order deadline.

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	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	07/29/2019
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 Conveyance Related Improvements: Bolles East (L-16) Segment 3 Canal re-filled, and berm grassed.