Restoration Strategies Program Update February 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 January 22, 2019 total program expenditures are approximately \$314 million, and all projects are scheduled to be complete by December 2025.

Eastern Flowpath

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

Initial flooding of Cells 7 and 8 started.

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

Initial screening of six design alternatives to be completed in February 2019. State and Federal permit application expected in July 2019.

G-341 Related Conveyance Improvements

Construction activities are continuing and nearing completion. Project is 96% complete.

Western Flowpath

STA-5/6 Internal Improvements

Progress this month included continuing area burn operations, vegetation grubbing in Cells 2A & 3A and commencement of excavation activities in Cell 3A.

C-139 Flow Equalization Basin (FEB)

Geotechnical and survey work in progress. Field work to be completed by mid-February 2019. Environmental/biological assessment and wetland delineation survey started.

Additional Components

Sub-Regional Source Controls

Development of sub-regional source control concepts and coordination with stakeholders is ongoing.

C-18 West Impoundment (Replacement Feature/Mecca)

Design Statement of work is under review.

Restoration Strategies Program Update February 2019

Stormwater Treatment Area (STA) Science Plan

There are currently twelve Science Plan Studies. Of these twelve studies, five have been completed, two are nearing completion and five 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 Rooted Floating Aquatic Vegetation in STAs	Completed in 2018
P Forms, Flux and Transformation Processes	Nearing Completion
STA Water and P Budget Treatment Performance Improvements	Nearing Completion
Vegetation Inundation Depth and Duration Sustainability	In-Progress
Soil Amendments to Control P Flux	In-Progress
Factors for Formation of Floating Tussocks in STAs	In-Progress
Effects of Faunal Species on P Cycling in STAs	In-Progress
Improving Resilience of Sub-Aquatic Vegetation in STAs	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	12/21/2018	
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)

Restoration Strategies Program Update February 2019



STA-1W Expansion No. 1: Initial flooding started on January 28, 2019 following El Nino rains. Looking west into Cell 7 from G-731B.