Restoration Strategies Program Update January 2020

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.

Eastern Flow Path

Stormwater Treatment Area 1 East (STA-1E) Repairs and Modifications (Cells 5 and 7)

Geotechnical and Environmental testing complete. Preliminary site preparation began November 2019. The 408 permit was received from USACE in December 2019. Project expected to be completed by November 2022.

STA-1W Expansion #1

Received concurrence from FDEP regarding flow path for flow-through. Initial flooding and optimization period underway and expected to be completed by December 2020.

STA-1W Expansion #2

Preliminary design of STA was completed in August 2019. State and Federal permit applications submitted in July 2019. Design is expected to be completed in July 2020.

G-341 Related Conveyance Improvements

Construction of Segment 3 is nearing completion. Segment 4 Construction Contract was approved at October Governing Board with notice to proceed effective November 2019. Jett Farm bridge installation is complete. Walkthrough scheduled in January 2020. Environmental and safety plans submitted. Segment 5 will proceed subsequent to Segment 4. Survey for modeling of conveyance modeling under way.

Western Flow Path

STA-5/6 Internal Improvements

Excavation operations and the divider levee are complete. Drainage control ditches have been backfilled. Final as-built survey drawings are being prepared for submission to the engineer-of-record.

C-139 Flow Equalization Basin (FEB)

Technical Review Briefing for 30 percent design was completed in October 2019. Additional geotechnical survey for L-3 structure was completed in December 2019. The 60 percent design is in progress and expected to be completed by April 2020.

Additional Components

Sub-Regional Source Controls

On-going development of sub-regional source control concepts and coordination with stakeholders.

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Restoration Strategies Science Plan

Of the fourteen Science Plan studies, six have been completed 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	Completed in 2019
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



P forms, flux and transformation processes study. Collecting subaquatic vegetation sample from 0.25 m² quadrant for biomass measurements.

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Consent Order¹ Milestones

Project: Activity	Deadline	Date Completed
Eastern Flow Path		
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: Initiate Design	10/1/2018	9/25/2018
STA-1W Expansion #2: State and Federal Permit Applications	8/1/2019	7/29/2019
STA-1W Expansion #2: Complete Design	7/31/2020	
G-341 Related Conveyance Improvements: Initiate Construction	11/30/2022	8/13/2015
G-341 Related Conveyance Improvements: Complete Construction	12/31/2024	
Central Flow Path		
A-1 FEB: Operational Monitoring and Testing Period Complete	7/29/2018	7/29/2018
Western Flow Path		
C-139 FEB: Initiate Design	10/31/2018	8/22/2018
C-139 FEB: Submit State and Federal Permit Applications	8/30/2019	8/23/2019
C-139 FEB: Complete Design	10/31/2020	
STA-5/6 Internal Improvements: Initiate Construction	1/31/2022	9/25/2018
STA-5/6 Internal Improvements: Construction Status Report	3/1/2023	9/24/2019
STA-5/6 Internal Improvements: Construction Status Report	3/1/2024	

^{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)