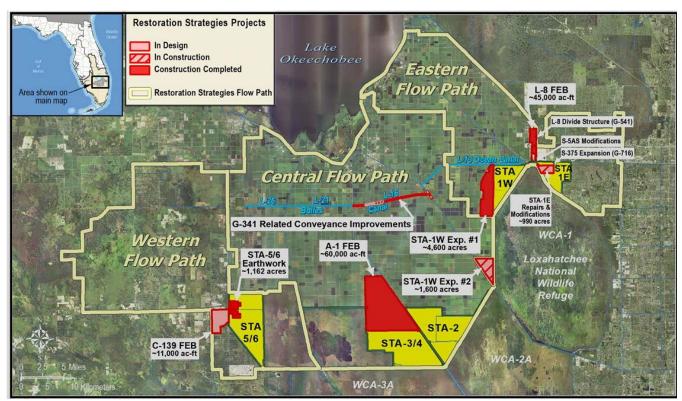
Restoration Strategies Program and Stormwater Treatment Area Enhancement Update December 2020

The South Florida Water Management District's (District) \$880 million Restoration Strategies Program will improve water quality flowing into America's Everglades by implementing a suite of flow equalization basins (FEB's), stormwater treatment area (STA) expansions, and conveyance improvement projects over a 13 year timeline. The program includes a robust Science Plan focused on investigating the critical factors that influence phosphorus reduction and a better understanding of improving treatment performance at low phosphorus concentrations. A third part of the program is investigation of additional sub-regional source controls — where pollution is reduced at the source — in areas where phosphorus levels in stormwater runoff have been historically higher.

In 2012, FDEP issued watershed National Pollutant Discharge Elimination System (NPDES) and Everglades Forever Act (EFA) permits to the District to continue to operate its STAs. At the same time, Consent Orders were issued with these permits that require the District to construct 13 projects on an aggressive timeline to be completed by December 2025 with specific milestone due dates for each project activity. The existing Everglades STAs, an essential component of Restoration Strategies, are unique constructed treatment wetlands designed to improve the quality of water flowing into the Everglades. Upon completion of all Restoration Strategies projects, the permits require each STA to meet the Water Quality Based Effluent Limit (WQBEL), to ensure that the State's water quality standard for the Everglades is achieved.

In addition to the Restoration Strategies projects, the District is enhancing the performance of the existing Everglades STAs through a series of construction projects to refurbish, rehabiliate, and renew large portions of the existing facilities, some of which have been in operation for the last 20 years.



Restoration Strategies Flow Paths and Projects

Restoration Strategies Program and Stormwater Treatment Area Enhancement Update December 2020

Eastern Flow Path

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

Earthwork to regrade Cell 5 and importing of soil in Cell 7 to correct topographic deficiencies in the original construction are ongoing. Project is on schedule and expected to be completed by October 2022.

STA-1W Expansion #1

Milestone compliance report for Initial flooding and optimization period being finalized. Earthwork to relocate plug in Expansion #1 Discharge Canal is ongoing and expected to be complete in December 2020.

STA-1W Expansion #2

Notice to proceed for civil works construction was issued in September 2020. Underground pipe Installation under STA-1W Expansion #1 Discharge Canal complete. Governing Board approval of pump station construction obtained in November. Notice to Proceed to be issued in December 2020.

G-341 Related Conveyance Improvements

Construction of Segment 3 in Bolles East Canal is complete. Construction of Segment 4 is ongoing. Segment 5 is in design and expected to start construction in 2021.

STA-1E Refurbishment

Degrade remnant farm roads and fill ditches in Cell 6. Amphibious excavator mobilized; work is ongoing.

STA-1W Refurbishment

Earthwork for various enhancements are ongoing. Work includes regrade of 50 acres in Cell 3 to remove finger canals, realign levee between Cells 5B and 2A for improved flow patterns, remove levees and structures between Cells 2B and 4, and replace structures between Cells 1B and 3.

Central Flow Path

STA-2 Refurbishment

Earthwork to regrade a 500-acre low-lying area, repair plugs in borrow canal, and other enhancements in Cell 2 is ongoing.

Final Design complete for 49 cuts through remnant farm berms in Cell 3.

Western Flow Path

STA-5/6 Internal Improvements

Currently in initial flooding and optimization for Cells 2A and 3A.

C-139 Flow Equalization Basin (FEB)

USACE permit and Final Design deliverable have been received. Bid recommendation and approval to initiate construction is scheduled for **December Governing Board.**

Connection of STA-5/6 to Lake Okeechobee

Hydraulic Feasibility Study ongoing and expected to be complete by mid-December 2020. Conceptual design and options are complete. Review of Technical Report is ongoing.

Restoration Strategies Program and Stormwater Treatment Area Enhancement Update December 2020

Restoration Strategies Science Plan

Of the fourteen Science Plan studies, seven have been completed and seven are in progress. Four additional study proposals have been approved and are ready to start.

Ongoing Science Plan Studies	Completion By
Vegetation Inundation Depth and Duration Sustainability	Sept 2021
Factors for Formation of Floating Tussocks in STAs	Sept 2021
L-8 FEB and STA Operational Guidance	Sept 2021
Improving Resilience of Submerged Aquatic Vegetation in STAs	Sept 2022
Effects of Faunal Species on P Cycling in STAs	Sept 2022
Periphyton and Phytoplankton P Uptake and Release	Sept 2023
Soil Amendments to Control P Flux	Sept 2023
<u>Additional Studies</u>	
Biomarker Study	Sept 2022
Fauna study	Sept 2023
Data Integration Study	Sept 2023
P Dynamics Study	Sept 2023



Eastern view of Segment 4 farm ditches and farm road replacement (G-341 Related Conveyance Improvements). Image depicts muck removal down to rock layer prior to placement of farm road and canal levee.

Restoration Strategies Program and Stormwater Treatment Area Enhancement Update December 2020

