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, rehabilitate, and renew large portions of the existing facilities, some of which have been in operation for the last 20 years.
Restoration Strategies Program
and Stormwater Treatment Area Enhancement Update November 2021

STA-1E Repairs and Modifications (Cells 5 and 7)
Earthwork to regrade Cells 5 to correct topographic deficiencies of the original construction is complete. Vegetation management planting activities are ongoing. Cell 7 regrade is ongoing. Substantial completion is expected by January 2022.

STA-1W Expansion #2
Construction of Civil Works and Inflow Pump Station is ongoing. The lower foundation slabs for G-780 and G-781 pump stations were completed in October. Sheet pile installation for G-782 pump station is ongoing.

G-341 Related Conveyance Improvements
Segment 4 construction is ongoing; concrete work for the Boca Chica bridge deck is complete. Construction is expected to be completed by mid-November 2021. Segment 5 design is ongoing and is expected to be finalized in December 2021.

STA-1W Refurbishment
Earthwork for various enhancements is ongoing. Work includes 50-acre regrade in Cell 3 to remove finger canals, levee realignment between Cells 5B and 2A for improved flow patterns, removal of levees and structures between Cells 2B and 4, and replacement of structures between Cells 1B and 3. The 2B/4 levee removal is complete. The Cell 3 earthwork is complete and vegetation management activities are ongoing. The levee removal between 5B and 2A levee is near completion. Substantial completion of all STA-1W refurbishments is expected in March 2022.

Central Flow Path

STA-2 Refurbishment
Earthwork to regrade uneven topography is ongoing and includes raising a 500-acre low-lying area in northwest Cell 2. Earthwork to make 49 cuts through remnant farm berms in Cell 3 is complete.

Western Flow Path

STA-5/6 Internal Improvements
Cells 2A and 3A are currently in the initial flooding and optimization period.

C-139 Flow Equalization Basin (FEB)
Construction activity for the G-550 Inflow pump station and G-551 structures are ongoing. ERP Permits for G-552 and G-711E complete.

Connection of STA-5/6 to Lake Okeechobee
Hydraulic Feasibility Study and Conceptual Design have been completed. Phase 1 design will commence in November 2021 to improve conveyance, build a pump station, and rely on temporary facilities to connect the Miami Canal to the inflow of STA-5/6.

www.sfwmd.gov/restorationstrategies
Of the fourteen Science Plan studies, eight have been completed and six are in progress. Six additional study proposals have been approved.

**Ongoing Science Plan Studies**
- 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

**Additional Studies**
- Biomarker Study ............................................................................................................... Sept 2022
- Fauna study ....................................................................................................................... Sept 2023
- Ecotopes Study ................................................................................................................ Sept 2023
- P Dynamics Study ............................................................................................................. Sept 2023
- Data Integration Study ..................................................................................................... Sept 2024
- Marl Study ......................................................................................................................... Sept 2024

Construction of the Boca Chica Bridge. Substantial completion is expected by mid November.

[www.sfwmd.gov/restorationstrategies](http://www.sfwmd.gov/restorationstrategies)
<table>
<thead>
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<tr>
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<td>Submit state and federal permit applications</td>
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**Projects Complete = 7 of 13**

**Activities Complete = 61 of 74**

% Activities Complete = 82%

% Time Complete = 68%

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**LEGEND**

- Flow Equalization Basin
- Stormwater Treatment Area
- Conveyance Improvement

- Complete