South Florida Ecosystem Restoration (SFER) Program Overview

RESTORING AMERICA’S EVERGLADES

BACKGROUND

As a result of the engineering performed as early as the 1880s to make south Florida more inhabitable, the natural flow of water to, and through, the Everglades was severely altered. The construction of roads, canals and levees created barriers that now interrupt the natural flow of water that is necessary for the Everglades to survive.

- Upon congressional authorization in 2000, the Federal Government and the State of Florida entered into a progrm 50/50 partnership to restore, protect and preserve water resources in central and southern Florida, including the Everglades.
- The Comprehensive Everglades Restoration Plan (CERP) is the largest environmental restoration program in history.
- CERP is composed of a series of projects designed to address four major characteristics of water flow: quantity, quality, timing, and distribution.
- Ongoing CERP projects are broken down into Generation 1 and Generation 2 projects. These projects work in concert with the Foundation Projects, authorized prior to CERP.
- Together, these actions will not only provide significant lasting environmental benefits, but will also enhance water supplies and maintain flood mitigation for the region.
- Through congressional appropriations, the U.S. Army Corps of Engineers has invested $2.4 billion to date into the South Florida Ecosystem Restoration program, which includes Central and Southern Florida (C&SF) and CERP projects.
- This includes costs for planning, designing and constructing CERP and Foundation projects as part of the SFER Program, along with science and monitoring programs.

LEGISLATIVE ACTION

1980s
Agricultural Development & Settlements

1985
Swamp Land Act

1992
Kissimmee River Restoration Project

1996
WRDA - Critical Projects Authorized

1999
Central & Southern Florida Comprehensive Review Study (Yellow Book)

2000
WRDA - Comprehensive Everglades Restoration Plan (CERP) Authorized

2007
WRDA - Generation 1 CERP Projects Authorized

2014
WRDA - Generation 2 CERP Projects Authorized

2016
Water Infrastructure Improvements for the Nation (WIN) Act - Central Everglades Planning Project (CEPP) Authorized

EFFECTS

- Increase in population
- Increase in economic development
- Disruption in quantity, timing, and distribution of water
- Degradation of water quality
- Declining estuary health
- Oxidation of peat soils
- 90% decline in wading bird populations
- Impacts to 67 federally listed threatened and endangered species

CURRENT ENVIRONMENTAL CONDITIONS

Limited outlet capacity
Canals south of lake do not have as much capacity to move water like the St. Lucie Canal & Caloosahatchee River; limited capacity in state's stormwater treatment areas (55%).

Declining estuary health
Estuaries receive too much or too little water, impacting salinity balance.

Soil oxidation, muck fires, loss of sawgrass ridges, tree islands & sloughs
Interior canals overdrain areas and interior levees hold water too deep for too long in southern Water Conservation Area-3A (WCA-3A).

Declining Everglades & Florida Bay habitat
Too little water sent to Everglades National Park and Florida Bay; too much water seeps out of Everglades.

SOLUTION

Everglades restoration will enable the right quantity of water, at the right quality, to be distributed to the right place, at the right time throughout south Florida.

This will be accomplished through the implementation of multiple projects that will work together to provide:
- Water Storage
- Water Treatment
- Water Conveyance
- Water Distribution

DESIREd OUTCOME

Ultimately, Everglades restoration will:

- Improve the health of over 2.4 million acres of the south Florida ecosystem, including Everglades National Park.
- Improve the health of Lake Okeechobee.
- Significantly reduce damaging freshwater releases to the estuaries.
- Improve water deliveries to Florida Bay and Biscayne Bay.
- Improve water quality.
- Enhance water supply and maintain flood mitigation.

The Kissimmee River Restoration project will restore the channelized river back to its natural meandering flow pattern. This will provide natural floodplain storage and slow down the flow of water from the Kissimmee Basin into Lake Okeechobee, thereby slowing down the rise in the lake that often results in high-volume discharges to the Caloosahatchee and St. Lucie estuaries.
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### Generation 1 Projects

**Project** | **Total Benefits** | **Benefits To Date**
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1- Melaleuca Eradication | **$4.4 million** | • As of March 2018, more than 5 million biocidal agents have been released: 0.3 million on potato beetles, 1.99 million on water hyacinth plant hoppers, 1.8 million on Lysiphasis mites, and 0.37 million on Lysiphylus mites. All agents are proving effective.
2- Site 1 Impoundment Distribution | **$75 million** | • L-404 Lane Rehabilitation (Phase 1) provided approximately 10% reduction in seepage loss.
3- Picayune Strand Restoration | **$330.8 million** | • Approximately 20,000 acres restored with Merritt Canal project phase. Approximately 500 acres restored with Fakahatchee Strand phase. 
4- Indian River Lagoon-South C-44 Reservoir & STA | **$226.9 million** | • Intake canal completed to provide the water supply source for the reservoir.

### Generation 2 Projects

**Project** | **Total Benefits** | **Benefits To Date**
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10 - C-111 Sprinkler Canal Wasteland Project | **$12.7 million** | • State of Florida completed most project features to adjust water flow into Pond Detention Areas containing 500 acres of storage. 
11 - Biscayne Bay Coastal Wetlands - Phase One | **$15.3 million** | • State of Florida completed Deering Estate and portions of the L-131 East culverts that distribute freshwater flow to coastal wetlands. 
12 - C-43 Western Basin Storage Reservoir | **$9.2 million** | • Design and construction by SWFWMD on Phase 1 began in 2014. 
13 - Broward County Water Preserve Areas | **$22.6 million** | • C-11 Impoundment design has begun, with scheduled completion in 2021.

### Planning Studies

**Project** | **Total Benefits** | **Benefits To Date**
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14 - Central Everglades Planning Project | **$9.8 million** | • Project authorized in 2015.
15 - Loxahatchee River Watershed Restoration Distribution | **$8.3 million** | • Planning efforts have resulted in tools and assessments to help focus the new SMART effort to be implemented in 2018-2019.
16 - Lake Okeechobee Watershed Distribution | **$1.8 million** | • Study initiated in summer 2016.
17 - Western Everglades Restoration | **$1.2 million** | • Study initiated in summer 2016.

### PATH FORWARD

Recovery is contingent on maintaining momentum and continuing to work alongside partnering agencies and stakeholders to align project priorities and move restoration efforts forward. There are many ongoing efforts, including:

- **Completing construction on Foundation and Generation 1 projects:** Construction of Foundation and Generation 1 projects are nearing completion.
- **Making construction progress on Generation 2 projects:** Following execution of partnership agreements in 2016, construction is ongoing for 3 Generation 2 projects. The fourth (C-111 Sprinkler Canal) was completed by the State of Florida.
- **Synchronizing priorities:** The IDS provides the sequencing strategy for planning, designing, and constructing federal projects cost-shared with local sponsors as part of the South Florida Ecosystem Restoration Program, based on ecosystem needs, benefits, costs, and available funding.
- **Refining operations to achieve operational & ecological benefits:** Increment 1 of the G-373 & S-356 Pump Station Field Test began.