

South Florida Everglades Ecosystem Restoration Program

Restoration Program and Project Briefings

Joint Working Group / Science Coordination Group Meeting
April 2, 2014

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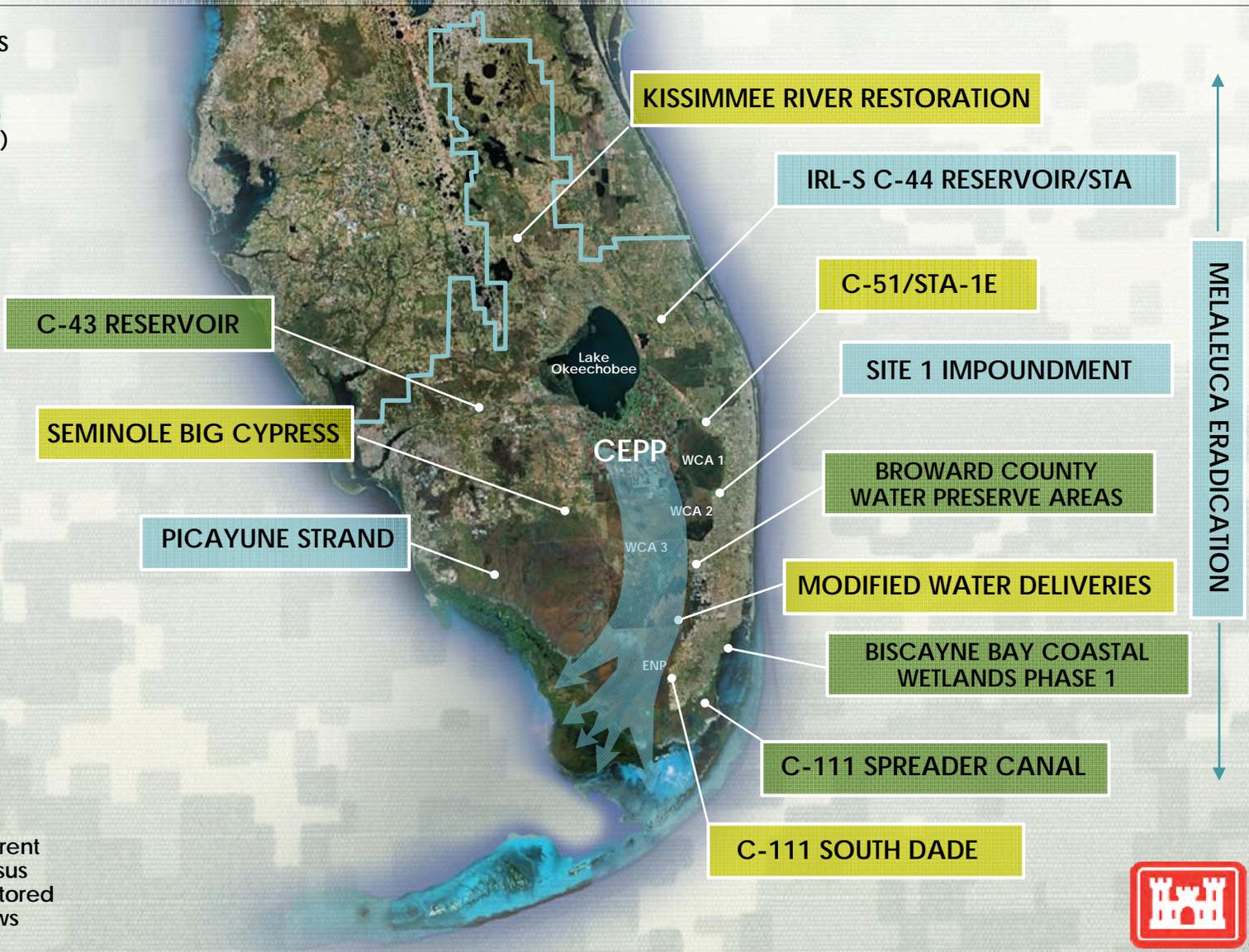


Restoration Progress

- FOUNDATION PROJECTS
 - 1ST GENERATION CERP
 - 2ND GENERATION CERP (awaiting authorization)
- CEPP: Central Everglades Planning Project



Current versus Restored Flows



Foundation Projects

Kissimmee River Restoration

West Palm Beach Canal (C-51/STA-1E)

Seminole Big Cypress

**Modified Water Deliveries to
Everglades National Park**

C-111 South Dade



Kissimmee River Restoration

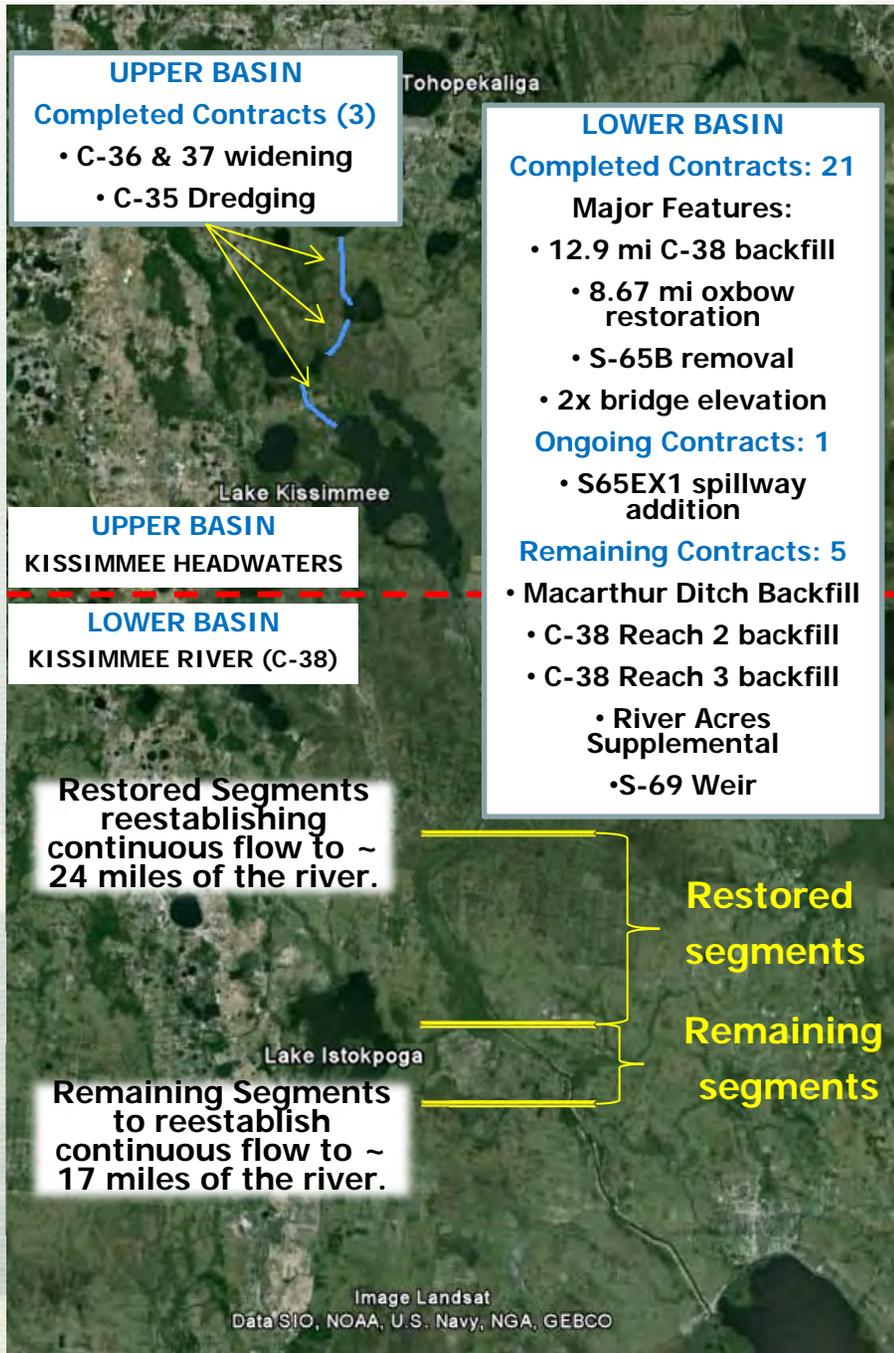
Purpose. Restoration of more than 40 sq. mi. of river-floodplain ecosystem, including 20,000 acres of wetlands and 44 miles of historic river channel.

Observed Benefits.

- Undesirable floating and mat-forming plants have been replaced by emergent plants native to the historic river;
- Organic deposits on the river bottom decreased 70%, reestablishing sand bars and providing new habitat;
- Dissolved oxygen, which is critical to for the long-term survival of fish and other aquatic organisms, has increased up to six-fold;
- Largemouth bass and sunfishes now comprise 63% of the fish community—up from 38%;
- Increase/ return of wading birds, ducks, and shorebird species.

Path Forward:

- Complete construction by 2019;
- Implement Regulation Schedule upon completion of all segments;
- Ecological Monitoring



Modified Water Deliveries to ENP



Project Components/Status:

- Constructed S-355A & S-355B
- Raised Tigertail Camp
- Degraded the lower 4 miles of L-67 extension & levee
- Constructed temporary S-356 pump station
- Completing construction of 8.5 Square Mile Area flood mitigation features
- One-mile Tamiami Trail bridge constructed
- Initiating Operations Test of S-356/G-3273



C-111 South Dade



Status:

- 7 Contracts Complete
- 2 contracts pending:
 - Contract 8 - Northern Detention Area
 - Contract 9 - L-31W canal plugging
- Completion of Contract 8 is necessary to allow full operations of the Modified Water Deliveries project
- Working with Assistant Secretary of the Army – Civil Works to resolve policy issues for PCA Amendment to allow completion of Contracts 8 and 9



CERP Implementation

1st Generation

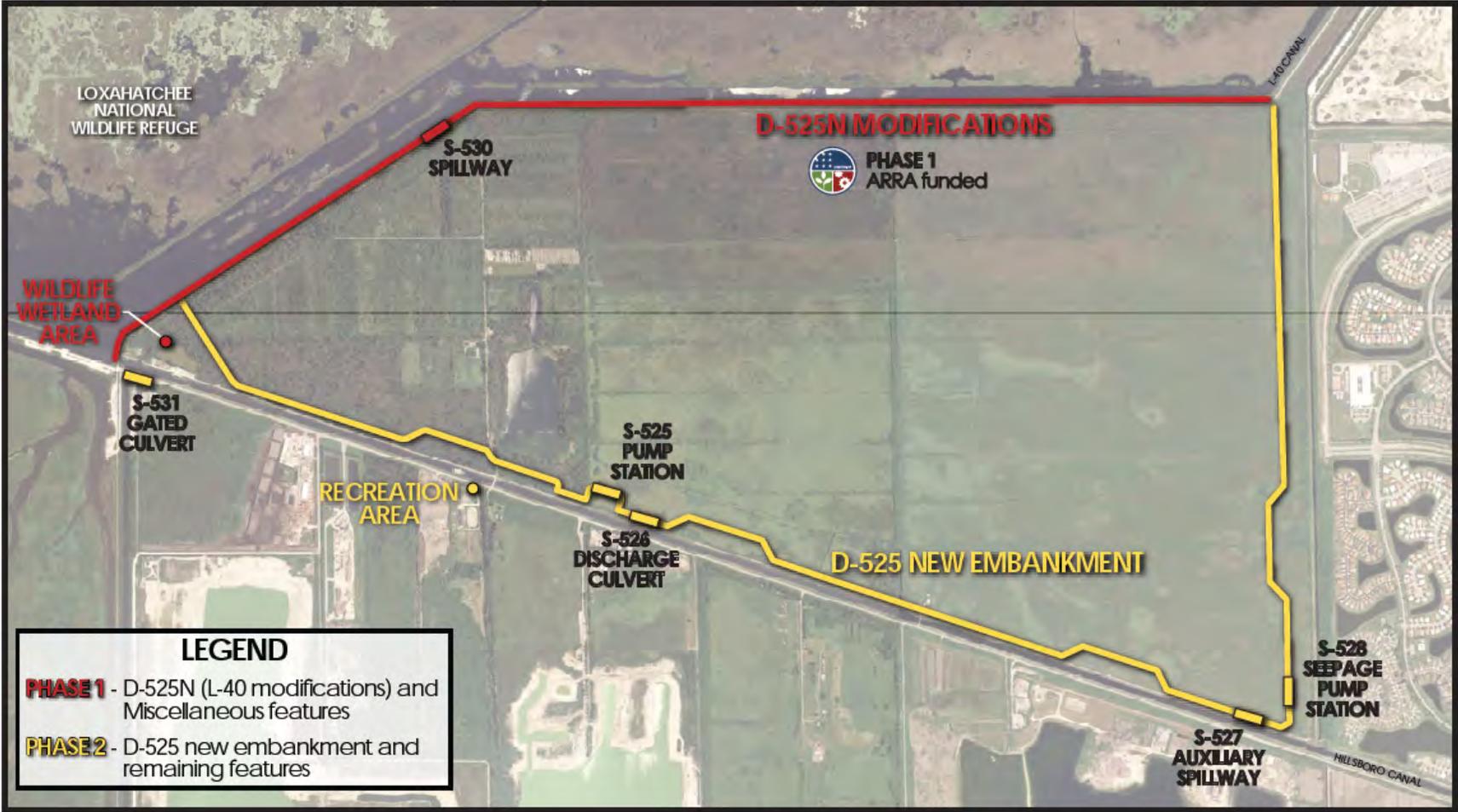
- Site 1 Impoundment
- Indian River Lagoon – South (IRL-S)
- Picayune Strand Restoration Project
- Melaleuca Eradication and Other Exotic Plants
- DECOMP Physical Model

2nd Generation

- C-43 West Basin Storage Reservoir
- C-111 Spreader Canal Western Project
- Biscayne Bay Coastal Wetlands
- Broward County Water Preserve Area



Site 1 Impoundment



Project Purpose: Improve water deliveries to Hillsboro Canal by capturing and storing water in above ground reservoir (13,280 acre-feet capacity)



Site 1 Impoundment



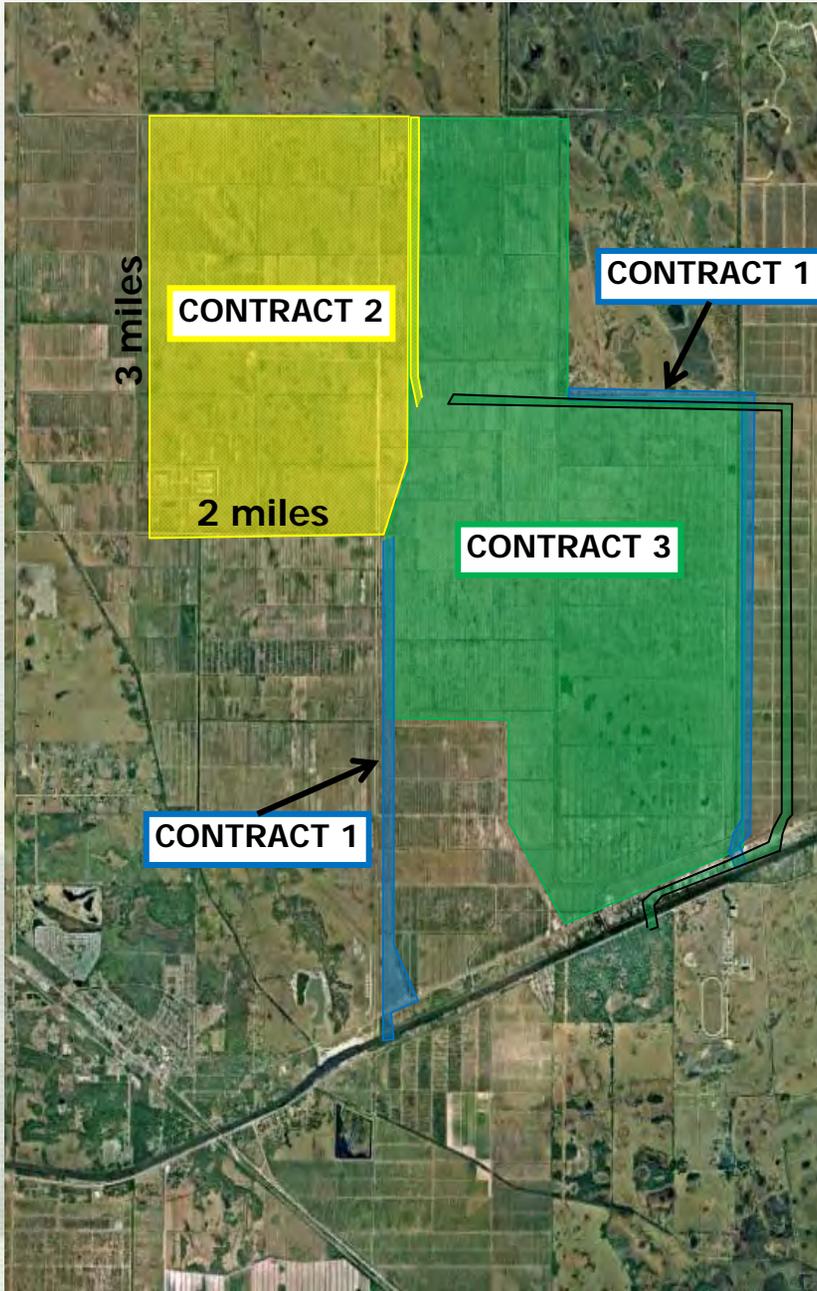
- Phase 1: Construction initiated in FY2010 and reinitiated in FY2012; Scheduled for completion in March 2015
- Phase 2: Implementation schedule TBD



Indian River Lagoon – South (IRL-S): C-44 Reservoir/STA



Indian River Lagoon – South (IRL-S): C-44 Reservoir/STA



Purpose: Capture local run-off from the C-44 basin, reducing average annual total nutrient loads and improving salinity regimen for the St. Lucie Estuary and southern portion of the Indian River Lagoon.

Major Components:

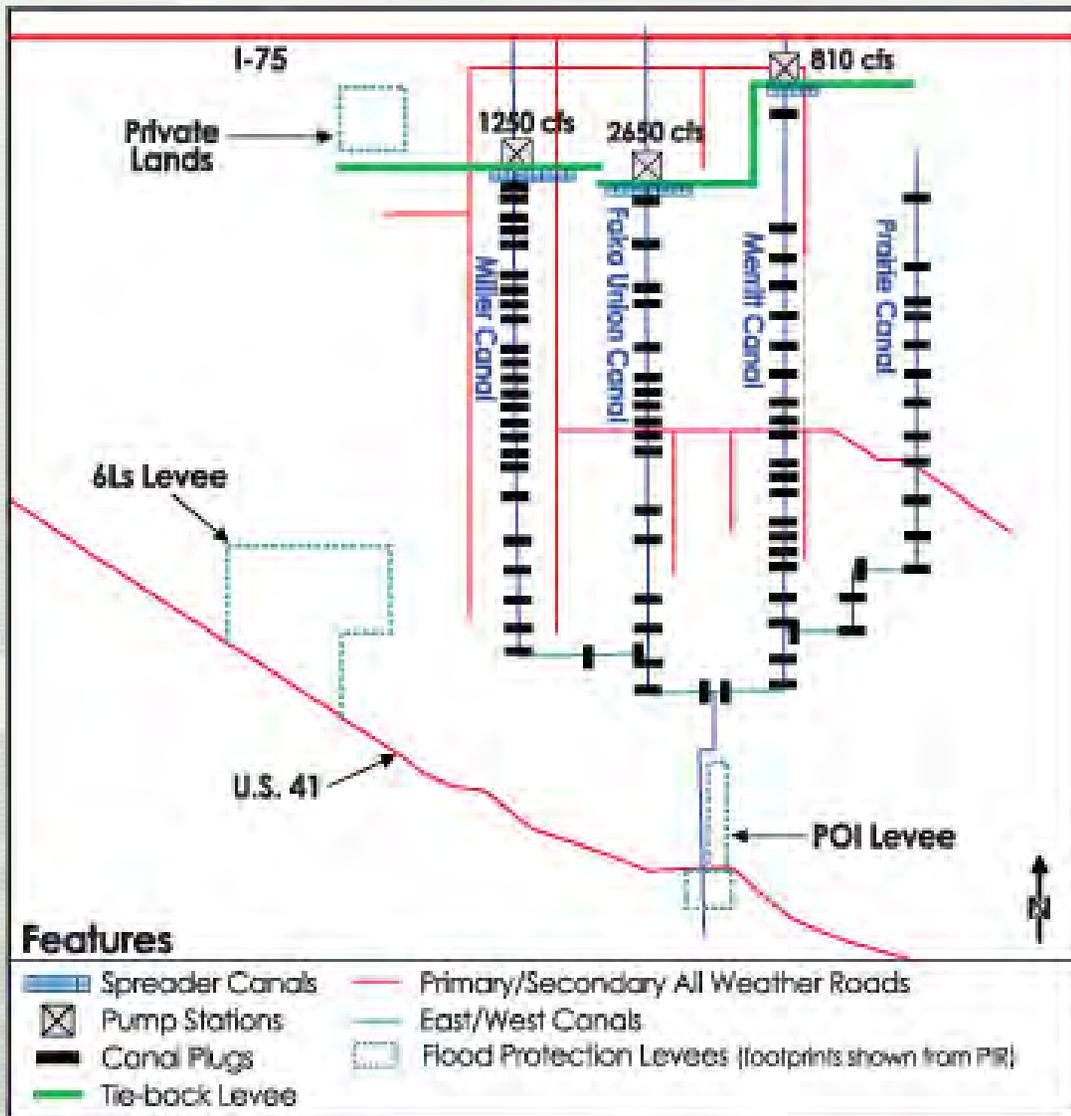
- Construction of intake canal and access roads
- Construction of above-ground reservoir
- Construction of storm-water treatment area

Schedule:

Contract	Award	Completion
CNT-1 (USACE)	JUL 11	AUG 14
CNT-2 (USACE)	JUN 15	Winter 18
CNT-3 (SFWMD)		
System Discharge	JUN 14	Summer 15
STA	AUG 14	Spring 16
Pump Station	MAR 15	Spring 17



Picayune Strand Restoration Project



PROJECT FEATURES

- Three spreader canals
- Three pump stations: Merritt, Faka Union and Miller
- Plugging 48 miles of canals (with more than 100 plugs to block the flow)
- Removing and degrading 260 miles of crumbling roads
- Managing non-native vegetation
- Features to maintain current levels of flood protection (levees, canals and culverts)
- Features to mitigate effects of manatee refugium at the Port of the Islands Marina



Picayune Strand Restoration Project

Merritt Pump Station Features:

- 810-cubic feet per second (cfs) pump station, spreader canal and tie-back levee
- Plug 13.5 miles of canals to block flow
- Remove and degrade 95 miles of roads and tram roads

Faka Union Pump Stations Features:

- 2,650-cfs pump station, spreader canal and tie-back levee
- Plug 12 miles of canal to block flow
- Remove 100 miles of roads

Miller Pump Stations Features:

- 1,250-cfs pump station, spreader canal and tie-back levee
- Plug 13 miles of canal to block flow
- Remove and degrade 65 miles of roads



Melaleuca Eradication and Other Exotic Plants

- Joint effort of the U.S. Army Corps of Engineers, U.S. Department of Agriculture, U.S. Department of Interior, South Florida Water Management District and the University of Florida
- This new facility is part of a long-term plan to use biological controls to supplement existing efforts to control and reduce the most aggressive, widespread and problematic invasive exotic plants in south Florida
- The biological controls to combat Melaleuca, Brazilian Pepper, Australian Pine, and Old World Climbing Fern are the focus of this system-wide approach to combat these invasive, non-native, plants.



DECOMP Physical Model



L-67A S-152 Structure (pictured)

- ◆ 10-60" gated culverts
- ◆ Headwater: 5.90' to 11.50' (NAVD88)
- ◆ Tailwater: 4.5' to 8.80' (NAVD88)

L-67C Backfill Treatments

- ◆ 1000' Complete Backfill (marsh grade)
- ◆ 1000' Partial Backfill
- ◆ 1000' No Backfill

L-67C Levee Degradation

- ◆ Adjacent to Canal backfill treatments
- ◆ Levees completely degraded. All materials used for backfill treatments



2nd Generation CERP Projects



C-43 West Basin Storage Reservoir

- Purpose = improve timing, quantity and quality of freshwater deliveries to Caloosahatchee River estuary
- Record of Decision signed and report submitted to Congress on April 13, 2011
- Awaiting Congressional Authorization and Appropriation

C-111 Spreader Canal

- Purpose = improve water deliveries to Florida Bay and to improve hydroperiods and hydroperiods in Southern Glades /Model Lands
- Record of Decision signed and report submitted to Congress on July 19, 2012
- Awaiting Congressional Authorization and Appropriation



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2nd Generation CERP Projects

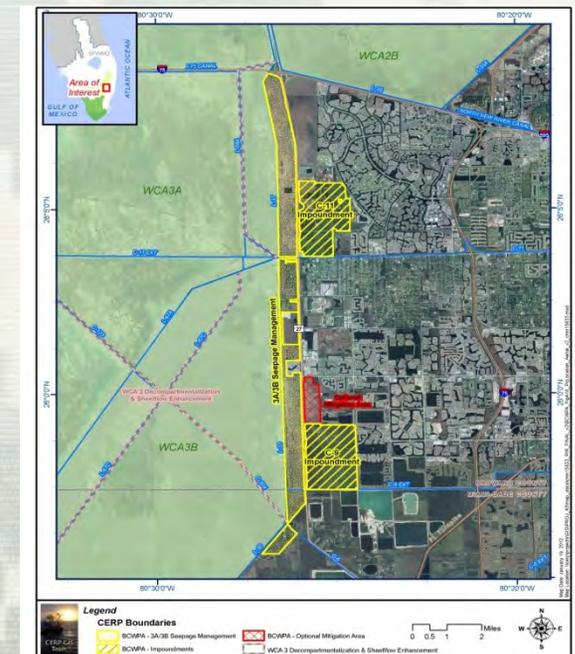


Biscayne Bay Coastal Wetlands

- Purpose = improve freshwater deliveries to Biscayne Bay
- Record of Decision signed and report submitted to Congress on September 19, 2012
- Awaiting Congressional Authorization and Appropriation

Broward County Water Preserve Area

- Purpose = reduce seepage, recharge groundwater, provide water supply, and prevent saltwater intrusion in western Broward County
- Record of Decision signed and report submitted to Congress on October 25, 2012
- Awaiting Congressional Authorization and Appropriation



Central Everglades Planning Project (CEPP)

STATUS:

▪ Draft PIR/EIS

- Published in Federal Register 30 August 2012
- Public Comment Period closed 1 November 2012
- Public & Agency Review complete
- SAD & HQ Review complete
- Agency Technical Review (ATR) complete
- Independent External Peer Review (IEPR) complete
- Response to all comments received complete

▪ Final PIR

- PIR revised based on public, agency and IEPR, SAD, HQ reviews
- Incorporated NMFS Biological Opinion
- Agency Technical Review complete
- SAD review underway



Central Everglades Planning Project (CEPP)

NEXT STEPS:

- **Incorporate USFWS Biological Opinion**
- **Final PIR**
 - SFWMD approval of Letter of Support and Financial Capability
 - SAD & HQ review of Final PIR
 - Civil Works Review Board and approval to release Final PIR
- **30-Day Public & Agency review of Final PIR**
- **Address comments and prepare Chief of Engineers Report**



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Questions?



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