

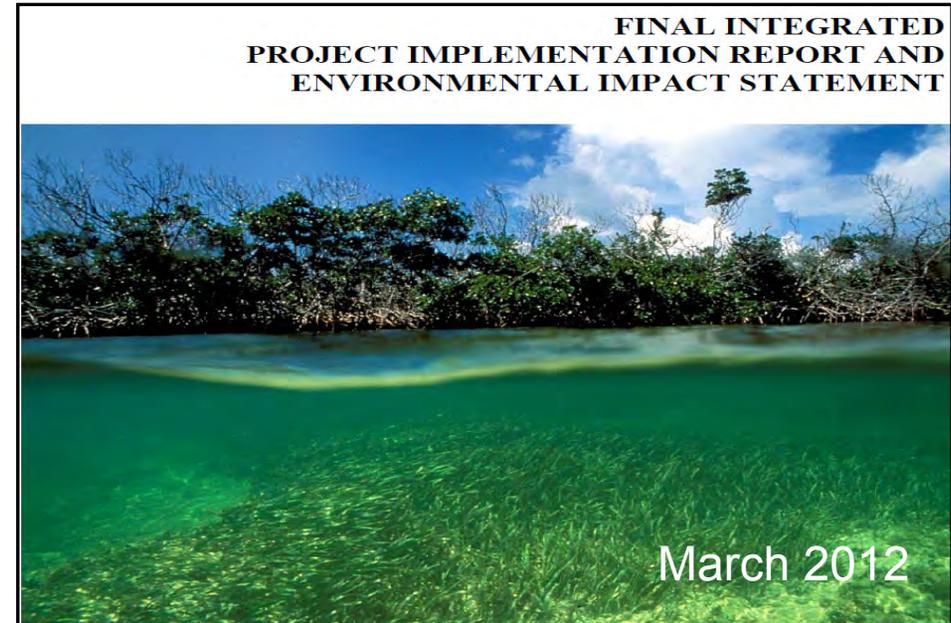
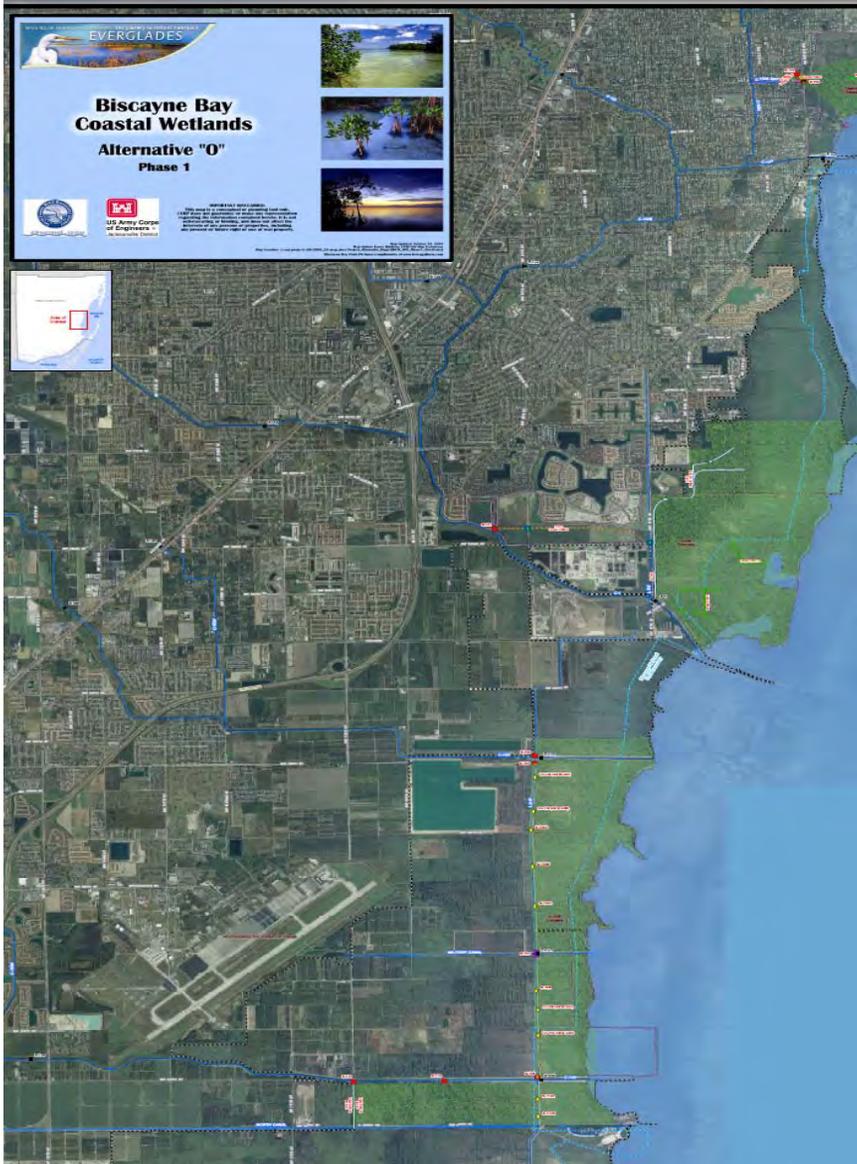


Biscayne Bay Coastal Wetlands Project - Future Opportunities for Incremental Implementation

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SFWMD - Office Federal Policy & Coordination

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Comprehensive Everglades Restoration Plan Biscayne Bay Coastal Wetland Phase 1



FINAL INTEGRATED PROJECT IMPLEMENTATION REPORT AND ENVIRONMENTAL IMPACT STATEMENT

- Chief's Report - May 2012
- Current Status - Pending Congressional Action
- All future incremental implementation opportunities must be consistent with Final PIR

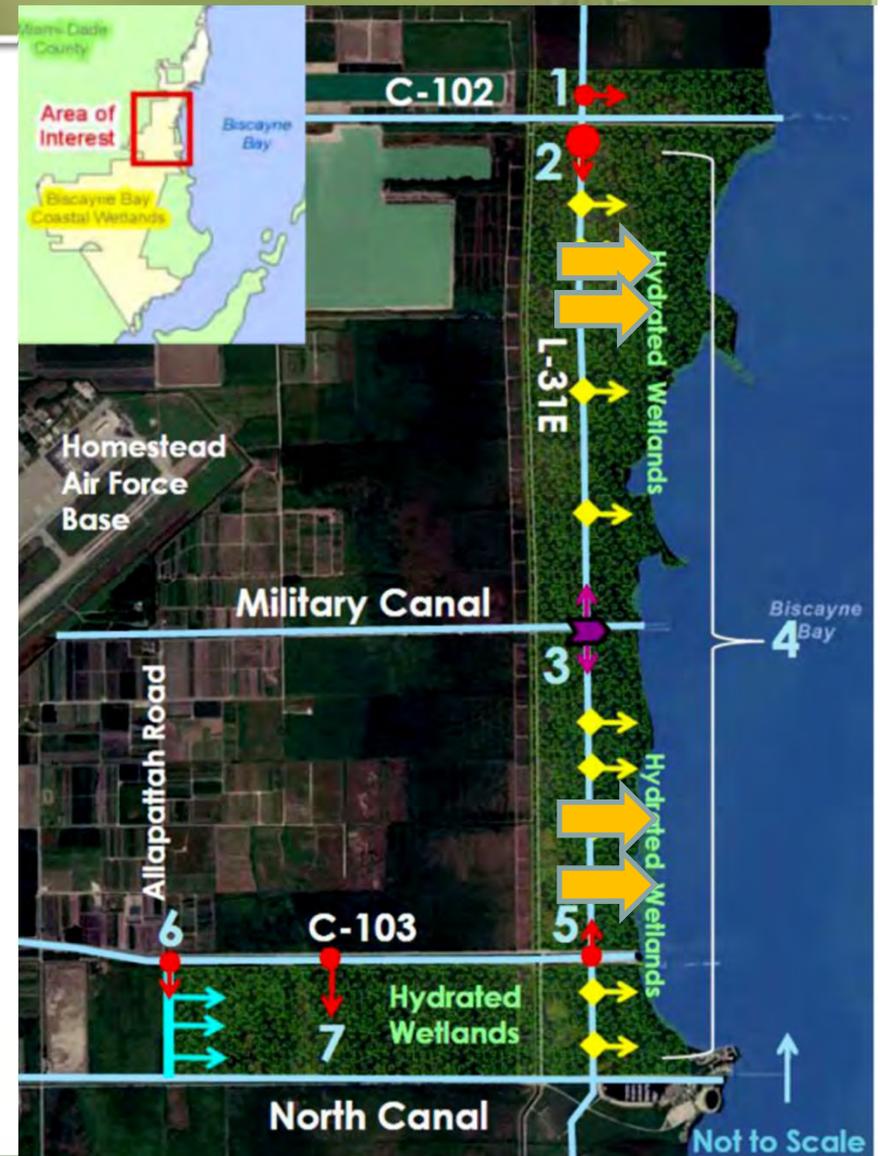
BBCW: Potential Incremental Components

- Pennsuco Project Fund: Interest earnings
 - \$2 Million
- Reviewed a number of potential options for incremental components and real estate for Deering Estate, Cutler and L-31 East Flow-ways
- Focus
 - Achievable components and partnerships
 - Consistent with PIR



L-31E Flow-way Components

1. Pump station (50 cfs) with outlet spreader to deliver water to saltwater wetlands
2. Pump station (100 cfs) to discharge south in L-31E barrow canal
3. Inverted siphon to isolate Military Canal from L-31E
4. Ten (10) riser structures with flap gated culverts to discharge from L-31E to saltwater wetlands east of L-31E
5. Pump Station (40 cfs) to discharge from C-103 north into L-31E
6. Pump Station (40 cfs) and spreader canal to deliver water to freshwater wetlands south of C-103
7. Pump Station (40 cfs) and spreader structure to deliver water to freshwater wetlands south of C-103



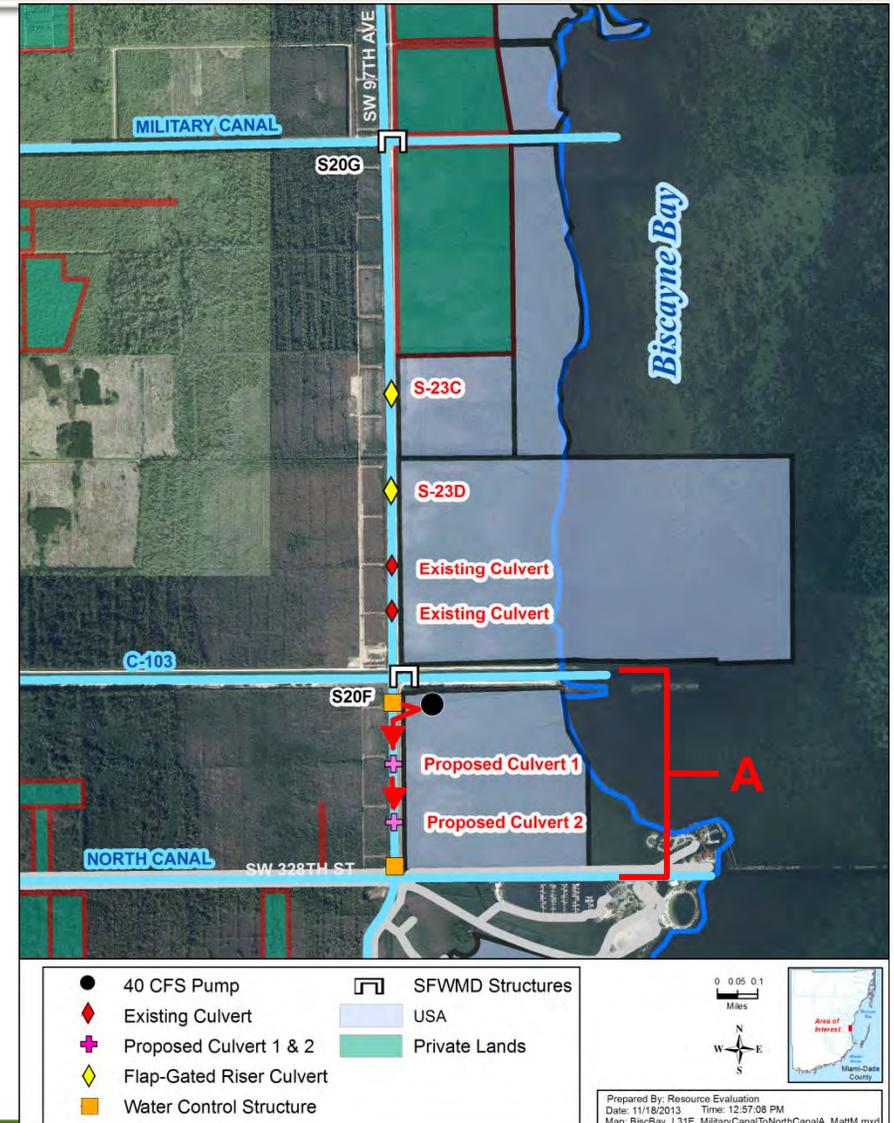
BBCW Potential Incremental Project Components: Project A

Rehydration of wetlands east of L-31E Canal:

- Divert freshwater from C-103 Canal to L-31E Canal south of C-103 through two (2) new 30-inch CMP culverts

Components:

- Installation of a permanent 40 cfs pump with concrete housing and SCADA telemetry
- Water Control Structures: L-31E Canal at C-103 and North Canals
- Construction of two (2) 30-inch culverts between North Canal and C-103



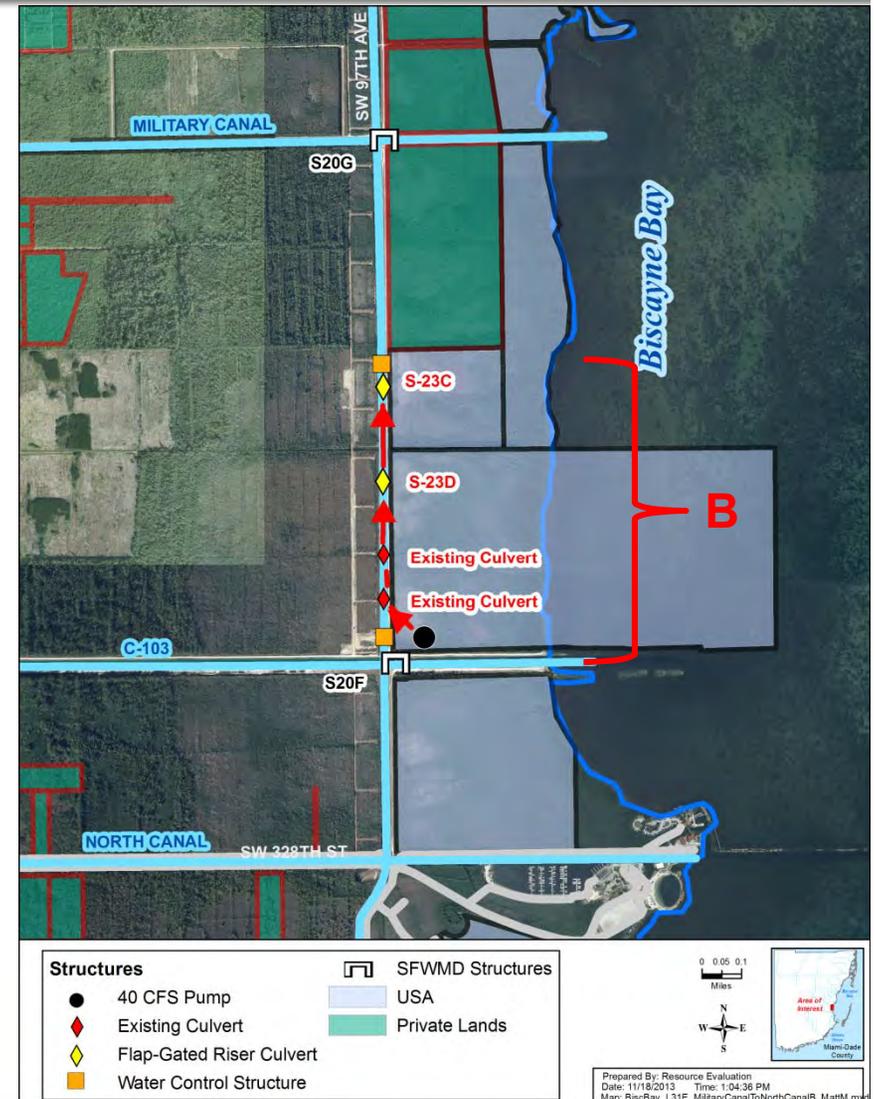
BBCW Potential Incremental Project Components: Project B

Rehydration of wetlands east of L-31E Canal:

- Divert freshwater from C-103 Canal to L-31E Canal north of C-103 through four (4) existing flap-gated culverts

Components:

- Installation of a permanent 40 cfs pump with concrete housing and SCADA telemetry
- Water Control Structure: L-31E Canal, north of S-23C
- Water Control Structure: L-31E Canal at C-103



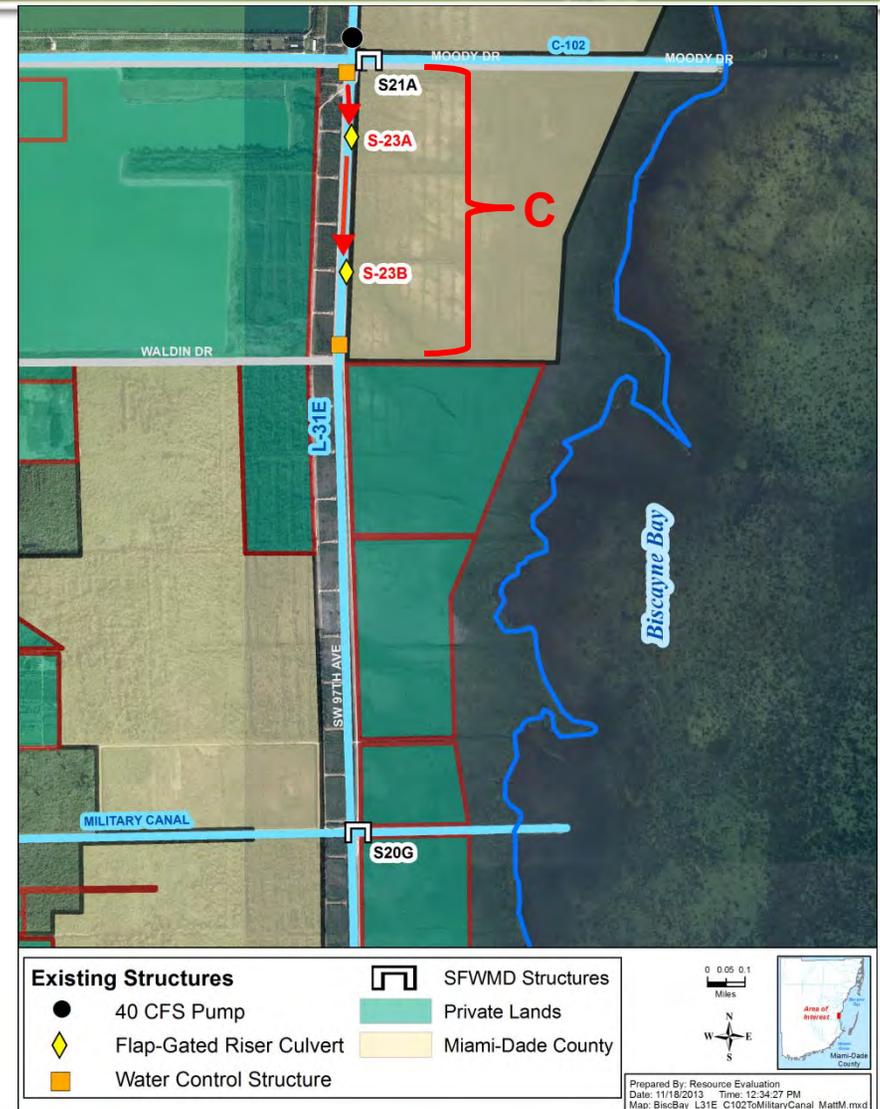
BBCW Potential Incremental Project Components: Project C

Rehydration of wetlands east of L-31E Canal:

- Divert freshwater from C-102 Canal through a 40 cfs pump and then through existing culverts to saltwater wetlands east of L-31E

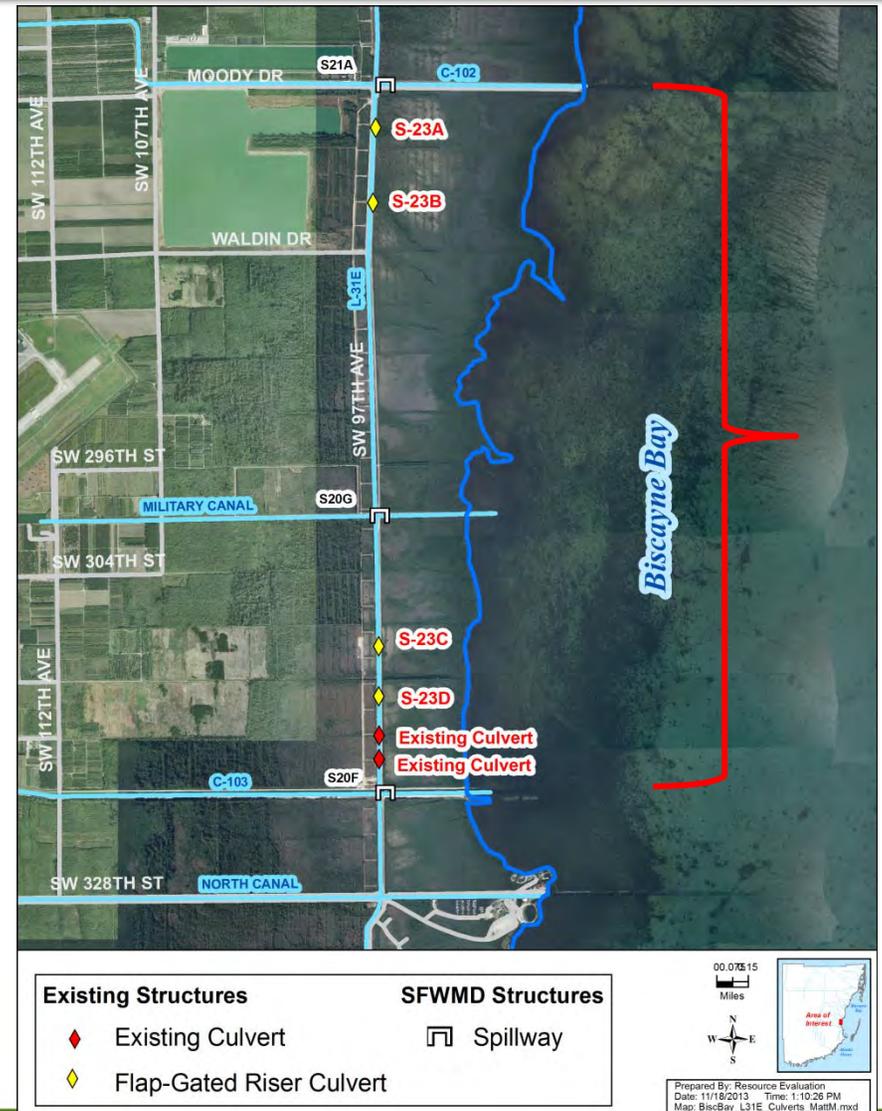
Components:

- Installation of a permanent 40 cfs pump with concrete housing and SCADA telemetry
- Water Control Structures: L-31E Canal at C-102 and one plug south of C-102 at Waldin Drive



Miami- Dade County Concept

To increase flow through the L-31E culverts through diversions from the C-102 Canal while providing increased hydro-period to the wetlands immediately west of the L-31 in the area around Military Canal; by reducing the influence of the dry season agricultural drawdown in an area that no longer supports seasonal agricultural and is largely publicly owned.



Miami-Dade County Concept

Miami – Dade County Concept Components

- Two 40 cfs pumps constructed at the intersection of C-102 and the L-31E borrow canal to pump water from C-102 south into the L-31E canal
- Operate S-20G at the 2.2 foot NGVD open trigger all year (even during the dry season agricultural drawdown)
- Open existing connections between Military Canal and L-31E so that water pumped into the canal flows south via the L-31E canal beyond Military Canal
- Close existing, or construct a structure at the connection of L31E with the C-103 Canal to further reduce seepage into C-103 at this junction.
- Install one or two additional culverts through the L-31E levee between Military Canal and the C-103 Canal equivalent to the ones already installed
- As an option if possible, install one or two additional culverts through the L-31E levee between C-102 Canal and the Military Canal utilizing existing county and/or federal right of way (no new land purchases east of L-31E north of Military Canal) or have the county do it in the county ROW to the SFWMD's specifications
- As an option, consider installing a flap gate at the point in the L-31E where the water would flow past Military Canal into the portion of the L-31E between the Military and C-103 canals; this flap gate would prevent any water being lost through the S-20G structure when it opens that had already made it south of this point prior to the S-20G structure opening from operation of the proposed C-102 pumps

BBCW Potential Incremental Project Components: Cost Estimates

Project A:

Subtotal: \$2,030,497

Annual Operation Costs: \$90,000

Project B:

Subtotal: \$1,600,000

Annual Operation Costs: \$90,000

Project C:

Subtotal: \$1,230,000

Annual Operation Costs: \$90,000

Miami-Dade County Concept:

Subtotal: \$1,828,822

Annual Operation Costs: \$90,000

Note: all cost estimates are based on conceptual plans and are subject to change

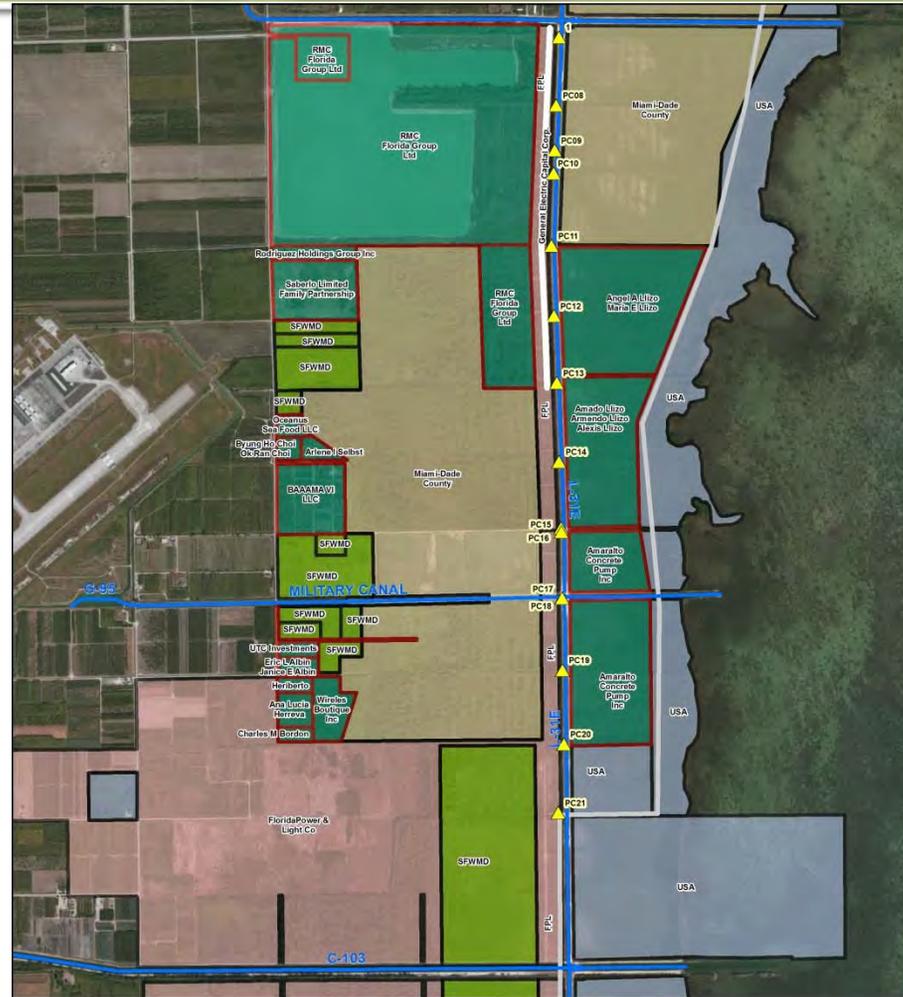
Next Steps

- Further investigate potential incremental project components:
 - Engineering, Design and Cost including O&M
 - Land Assessment/Swap Opportunities
- Present findings and recommendations for implementation of incremental project components to a future SFWMD Project & Lands Committee meeting



Discussion

L-31E Real Estate Map w/ Culverts



Parcels		
 Private Lands	 SFWMD	 Culverts to L31-E Canal
 USA	 FPL	
 Miami-Dade County	 Florida	



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Project Area Real Estate Map



Parcels

 Private Lands	 SFWMD
 USA	 FPL
 Miami-Dade County	 Florida

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Miles



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