

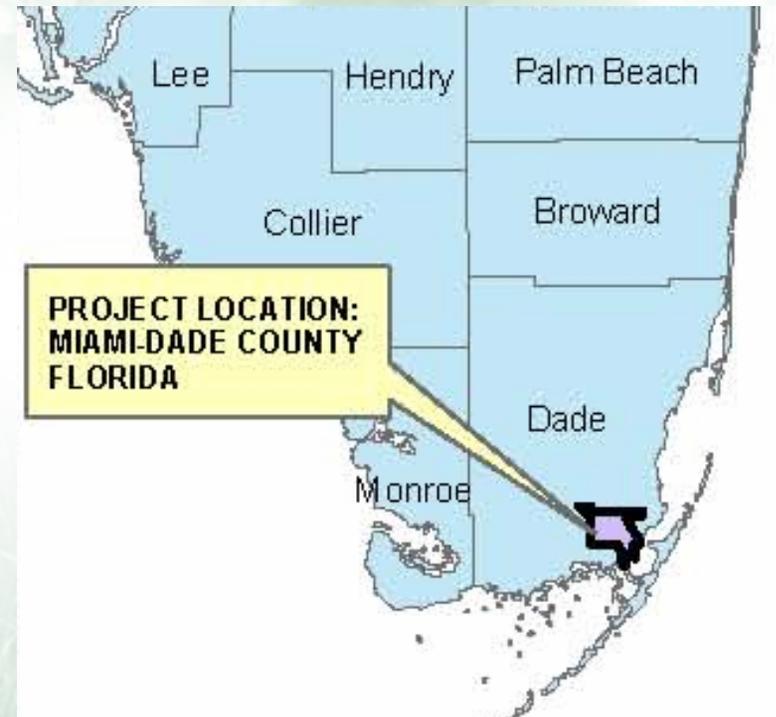
C-111 Spreader Canal Project Phase I (Revisions to Basis of Design Report)

Water Resources Advisory Commission

**Kissimmee, Florida
March 8, 2007**

C-111 Project Background

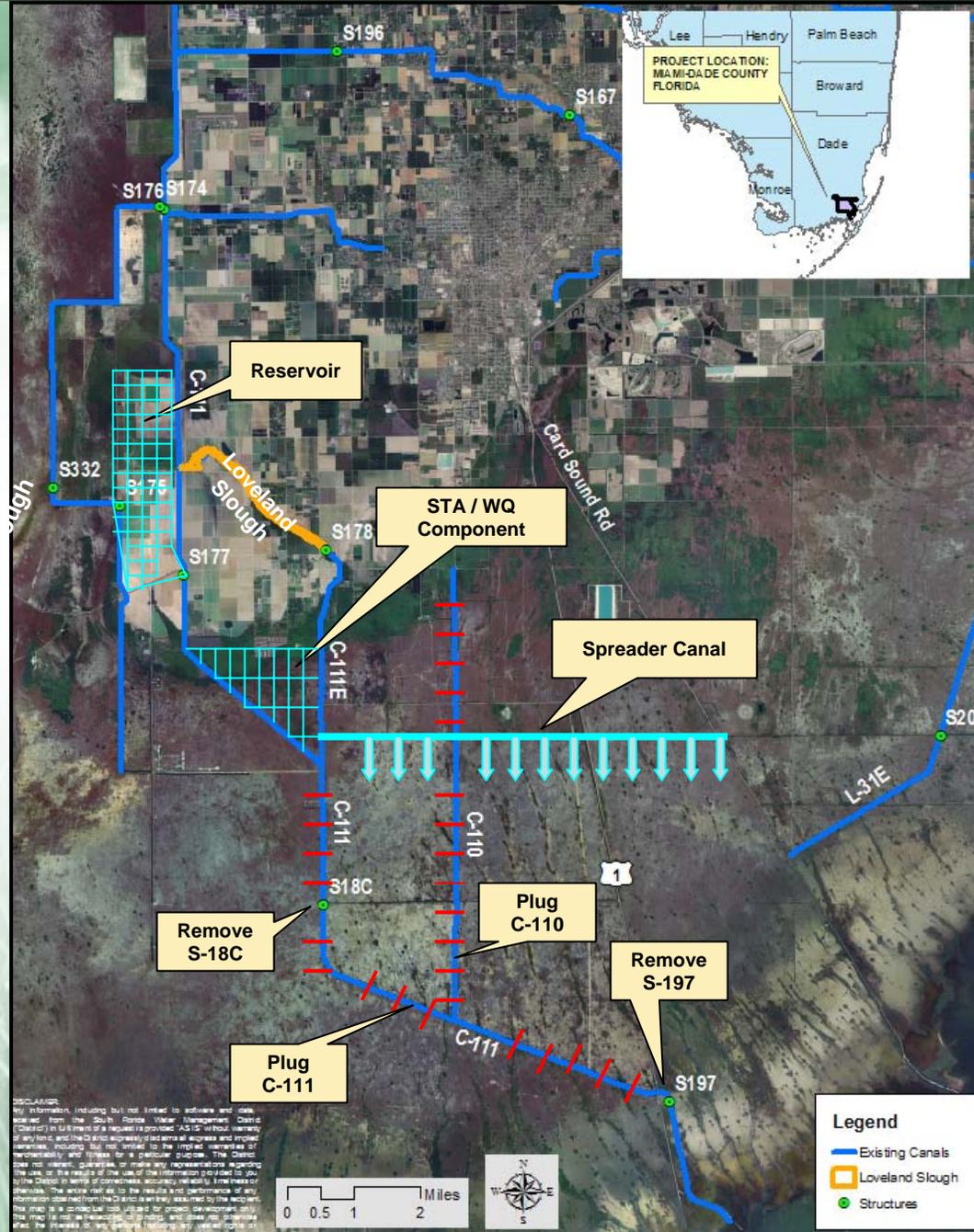
- ◆ Located in Southern Miami Dade County
- ◆ One of initial Projects authorized for CERP under WRDA 2000 for \$94M
- ◆ Identified for design and construction under Acceler8 in October 2004



C-111 Spreader Canal Project Components (Full Scale)

BROWN AND CALDWELL

ACCELER8
evergladesnow.org



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Legend
 — Existing Canals
 — Loveland Slough
 ● Structures

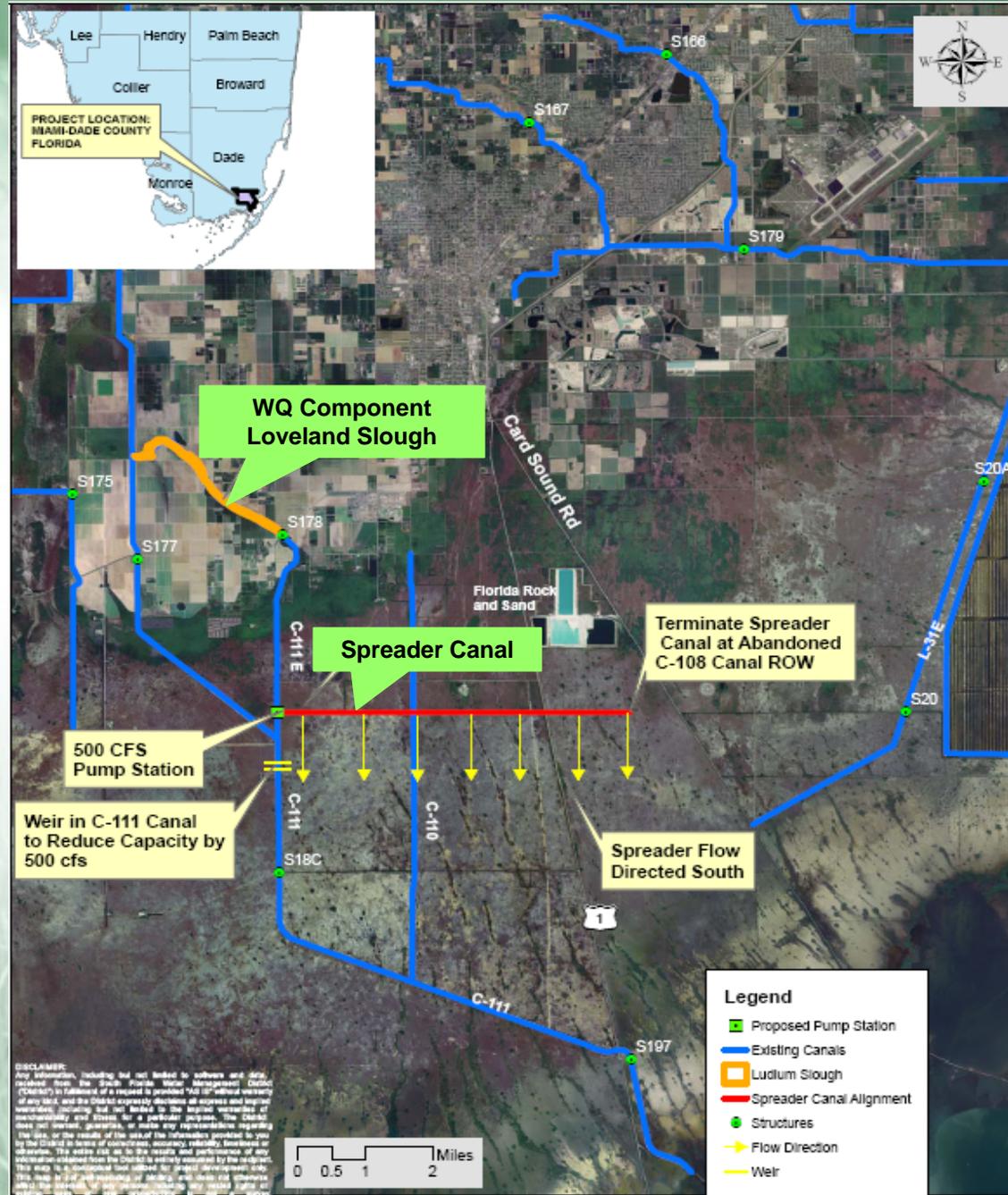
0 0.5 1 2 Miles



Draft BODR Project Components Phase 1

Recommended Design Alternative 5:

- 5.4 mile Canal Along Central Alignment from C-111E to C-108 (Abandoned Canal Right-of-Way)
- 500 cfs Pump Station at C-111E Canal
- Overflow Weirs along Spreader Canal
- Flow control structure in C-111 Downstream of Proposed Pumping Station
- Loveland Slough Water Quality improvements
- Modifications to Operations of S-18C



Stakeholder Briefings Draft BODR

- ◆ **May 11, 2006 - Draft BODR Posted**
- ◆ **May 17, 2006 - PIR/PDT Team**
- ◆ **May 22, 2006 - Environmental and Agricultural Groups**
- ◆ **May 25, 2006 - Miami Dade County & Municipalities**
- ◆ **May 31, 2006 - SFWMD Gov. Board Members**
- ◆ **May 31, 2006 - Miami Dade County Commissioner District 8**
- ◆ **June 1, 2006 - WRAC Issues Workshop**
- ◆ **June 8, 2006 - WRAC Meeting**
- ◆ **June 23, 2006 - Biscayne Bay Regional Restoration Task Force**
- ◆ **June 23, 2006 - Technical Review Briefing**
- ◆ **July 26, 2006 - Everglades National Park**
- ◆ **August 15, 2006 – Fla. Keys Sanctuary Advisory Council**

Stakeholders Input

- ◆ **Improve Water Quality in the Loveland Slough**
- ◆ **Reduce flow from Taylor Slough into C-111 Canal to improve deliveries to Florida Bay**
- ◆ **Plug Aero Jet, C-110 and L-31W canals and evaluate deliveries of water via Taylor Slough to Florida Bay**
- ◆ **Concerns about design of proposed flow control weir in the C-111 Canal**
- ◆ **Concerns about the timing between Phase 1 and Phase 2**

What Followed After Technical Reviews and Stakeholders Briefings?

- ◆ **A8 Team reviewed and evaluated all comments received on the draft BODR.**
- ◆ **A8 Team concluded the following:**
 - The alignment of the spreader canal is still under evaluation by the PIR/PDT.
 - There are major concerns with water quality in the Loveland Slough.
 - Need to coordinate with the USACE the plugging of Aero Jet, C-110 and L-31W canals to maximize deliveries of freshwater to Florida Bay via Taylor Slough.
 - Need to retain water in Taylor Slough to maximize benefits to Florida Bay.
 - There are major concerns with point source discharges of freshwater through C-111 to the estuarine systems of Manatee Bay and Barnes Sound.
 - Limited budget to design and build the full scale project in one phase.
- ◆ **A8 Team took the following action:**
 - Identified and evaluated project components included in Alternatives under evaluation by the PIR/PDT that will provide benefits to Manatee Bay, Barnes Sound and Florida Bay.
 - The new proposed Phase 1 components will integrate with Phase 2.

Amended Draft BODR Project Components Phase 1

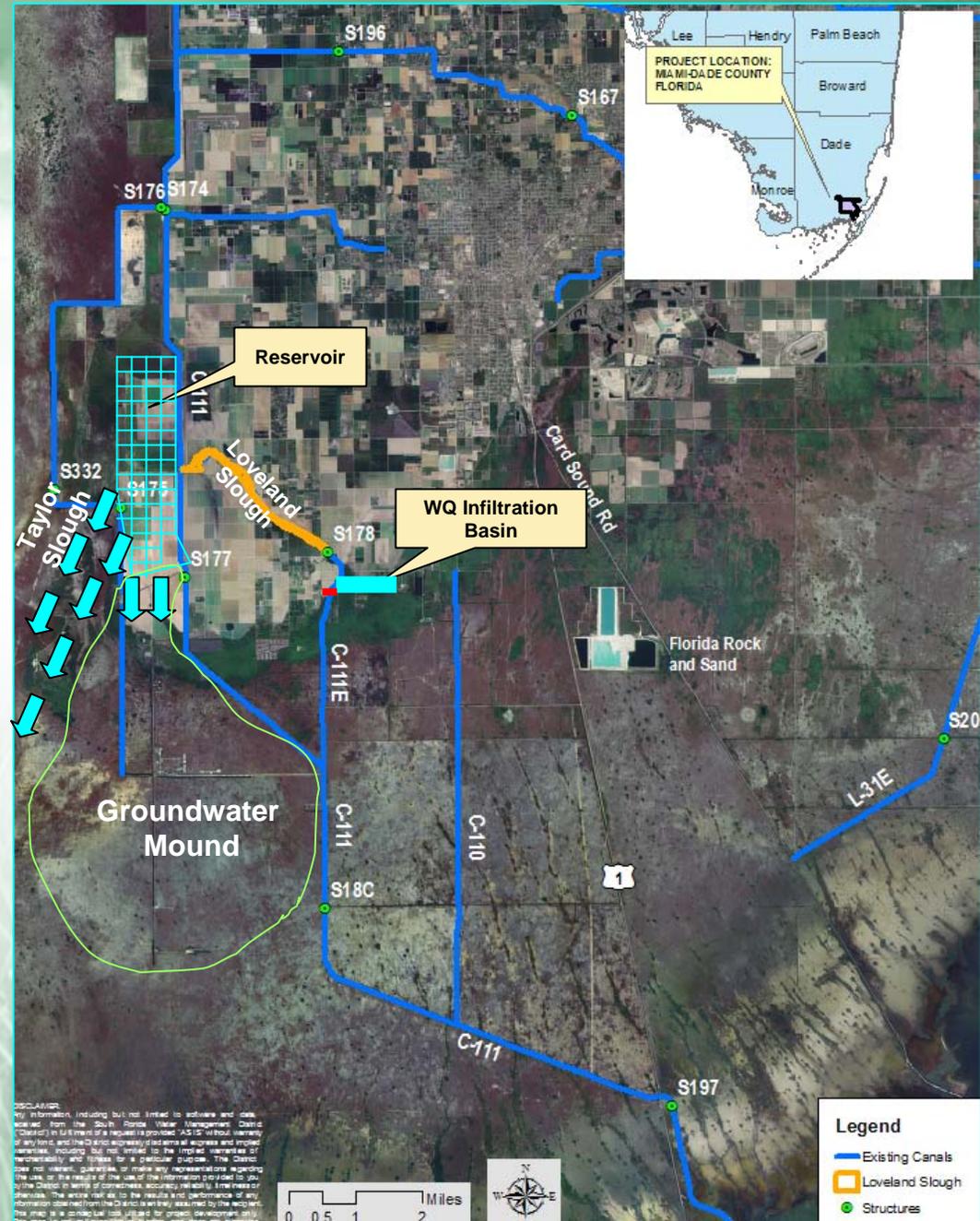
Reservoir and Pump Station

- Up to 1,421 Acres.
- Canals, Levees, Water Control Structures, and Pump Station.

Water Quality Component - Infiltration Basin

- Use Public Lands
- Inflow Canal.
- Pump Station.
- Plug / Gate Structure C-111E Canal

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Stakeholder Briefings Revisions to Draft BODR

- ◆ **October 26, 2006 - CERP Project Delivery Team**
- ◆ **November 8, 2006 - Briefing to SFWMD Governing Board**
- ◆ **November 13, 2006 - Miami Dade County Commissioner District 8**
- ◆ **November 20, 2006 - Environmental and Agricultural Groups**
- ◆ **November 20, 2006 - Miami Dade County & Municipalities**
- ◆ **November 29, 2006 - Miami Dade County Commissioner District 12**
- ◆ **December 7, 2006 - WRAC Issues Workshop**
- ◆ **January 18, 2007 – CERP Project Delivery Team**

Conceptual Designs

Following to technical reviews and stakeholder briefings on proposed revisions to the Draft BODR the A8/PDT teams began to....

- ◆ **Develop conceptual designs**
 - Frog Pond Reservoir
 - Loveland Slough Infiltration Basin
- ◆ **Conduct preliminary environmental impact assessment**
- ◆ **Recommend preferred alternatives**
- ◆ **Review geotechnical, geologic, and hydro-geologic data**

Recommended Frog Pond Reservoir Conceptual Design

Alternative 3

- Approximately 500 acres
- 500 cfs pumping station
- Outflow structure
- Culverts under Ingraham Highway to convey flow southward

Additional Considerations:

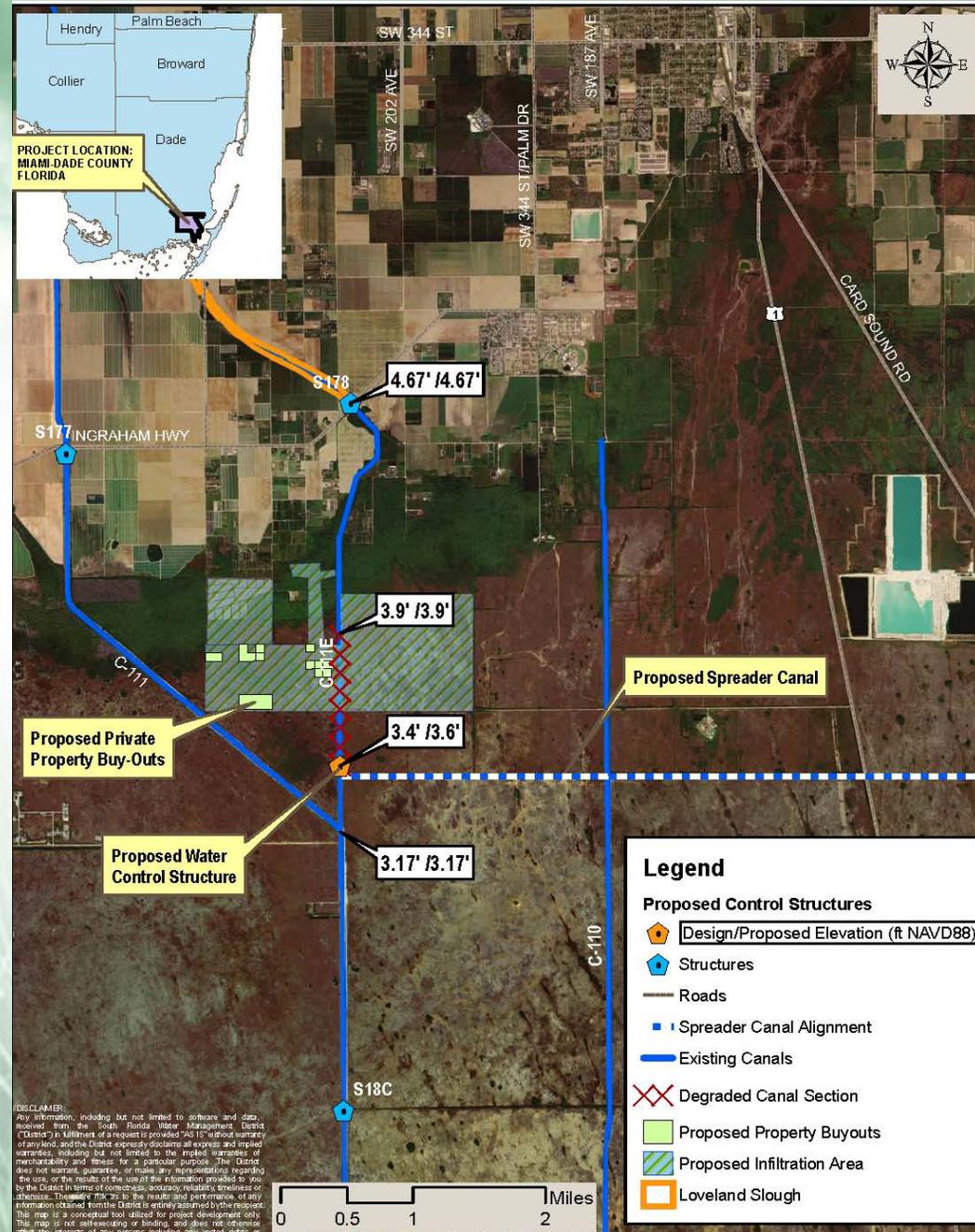
- Seepage control
- Improvements to Ingraham Highway



Recommended Loveland Slough Infiltration Basin Conceptual Design

Alternative 3

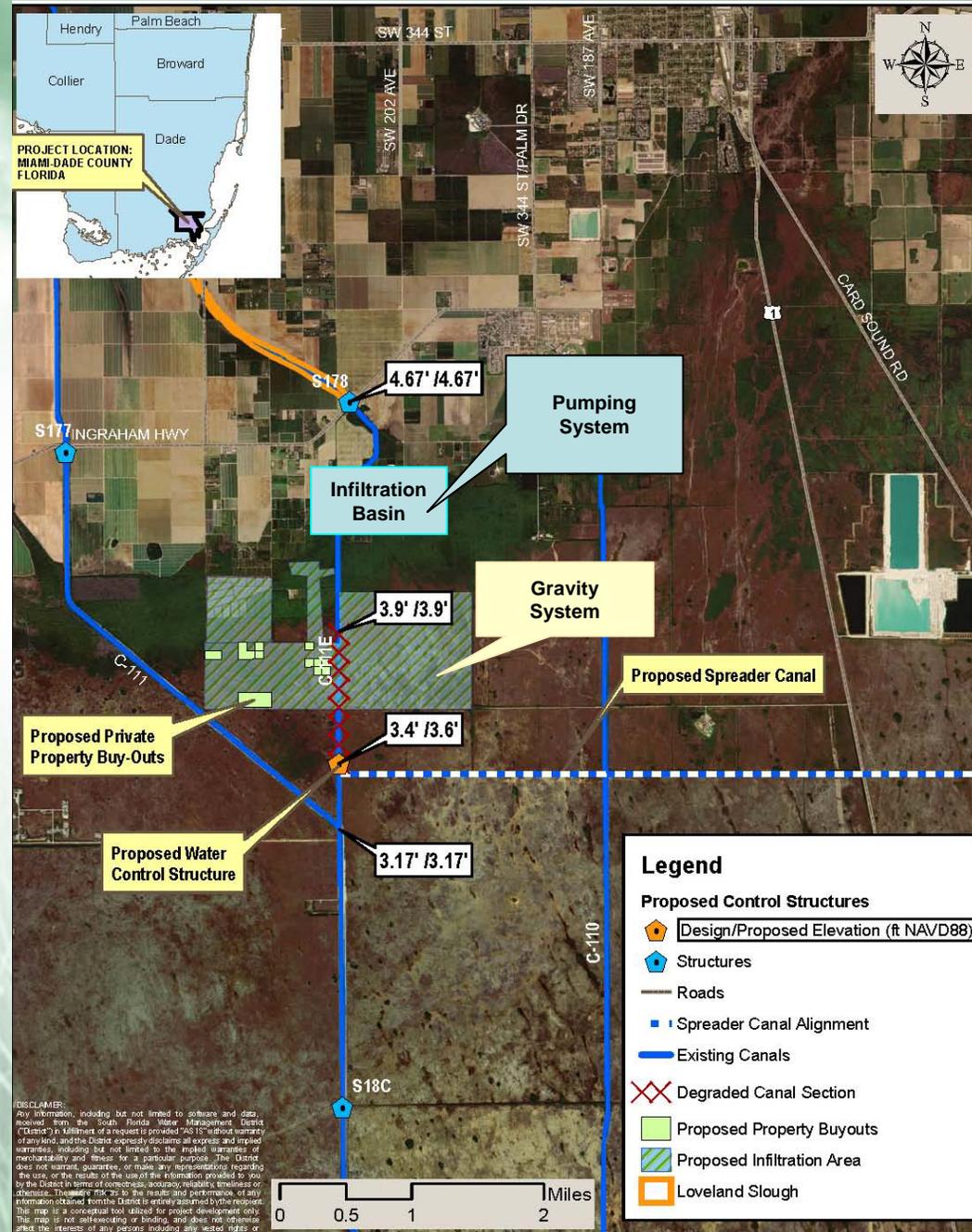
- Purchase approximately 150 acres of private property
- Widen C-111E canal
- Degrade C-111E levees
- Approximately 1000 acre IB
- Gravity conveyance to IB
- Overflow structure to C-111E
- Improvements to Loveland Slough
- Agricultural BMPs in Loveland Slough watershed
- Drainage improvements for northern flow



Opinion of Probable Costs Frog Pond Reservoir and Infiltration Basin (Gravity System)

Project Component	Estimated Construction Cost
Frog Pond Reservoir / Pump Station	\$16.8 million
Loveland Slough Infiltration Basin (Gravity System)	\$9.0 million
Total – Primary Project Features	\$25.8 million

PDT and Stakeholder Recommended to Evaluate an Infiltration Basin Pumping System located within the Forested Upper Lands and just North of the Propose Gravity System



Opinion of Probable Costs Frog Pond Reservoir and Infiltration Basin (Pumping System)

Project Component	Estimated Construction Cost
Frog Pond Reservoir / Pump Station	\$16.8 million
Loveland Slough Infiltration Basin (Pumping System)	\$20.0 million
Total – Primary Project Features	\$36.8 million

Project Schedule & Budget

	<u>Current</u>	<u>Proposed</u>
◆ Initial Phase	May 2005	Completed
◆ Draft BODR	May 2006	Completed
◆ Draft Conceptual Designs		Jan. 2007
◆ BODR		Feb. 2007
◆ Preliminary Design	Oct. 2006	March 2007
◆ Complete Final Design	Aug. 2007	Dec. 2008
◆ Construction NTP	Nov. 2007	May 2009
◆ Complete Construction	Dec. 2010	July 2012

Construction Budget is \$ 40 Million



Land Ownership in the Vicinity of the Spreader Canal

