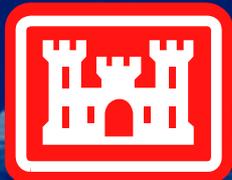


Everglades National Park Seepage Management



U.S. Army Corps Of Engineers and
South Florida Water Management District



Working Group - Apr 2007

Interagency Team

- **US Army Corps of Engineers (USACE)**
- **South Florida Water Management District (SFWMD)**
- **U.S. Fish and Wildlife Service (USFWS)**
- **National Park Service (NPS) – Biscayne and Everglades**
- **Miami-Dade County**
- **Florida Department of Environmental Protection (FDEP)**
- **Florida Department of Transportation (FDOT)**
- **U.S. Geological Survey (USGS)**

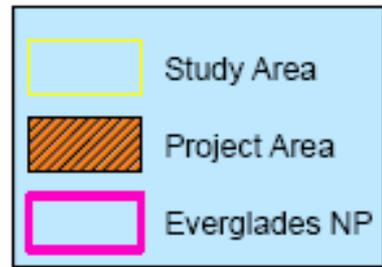
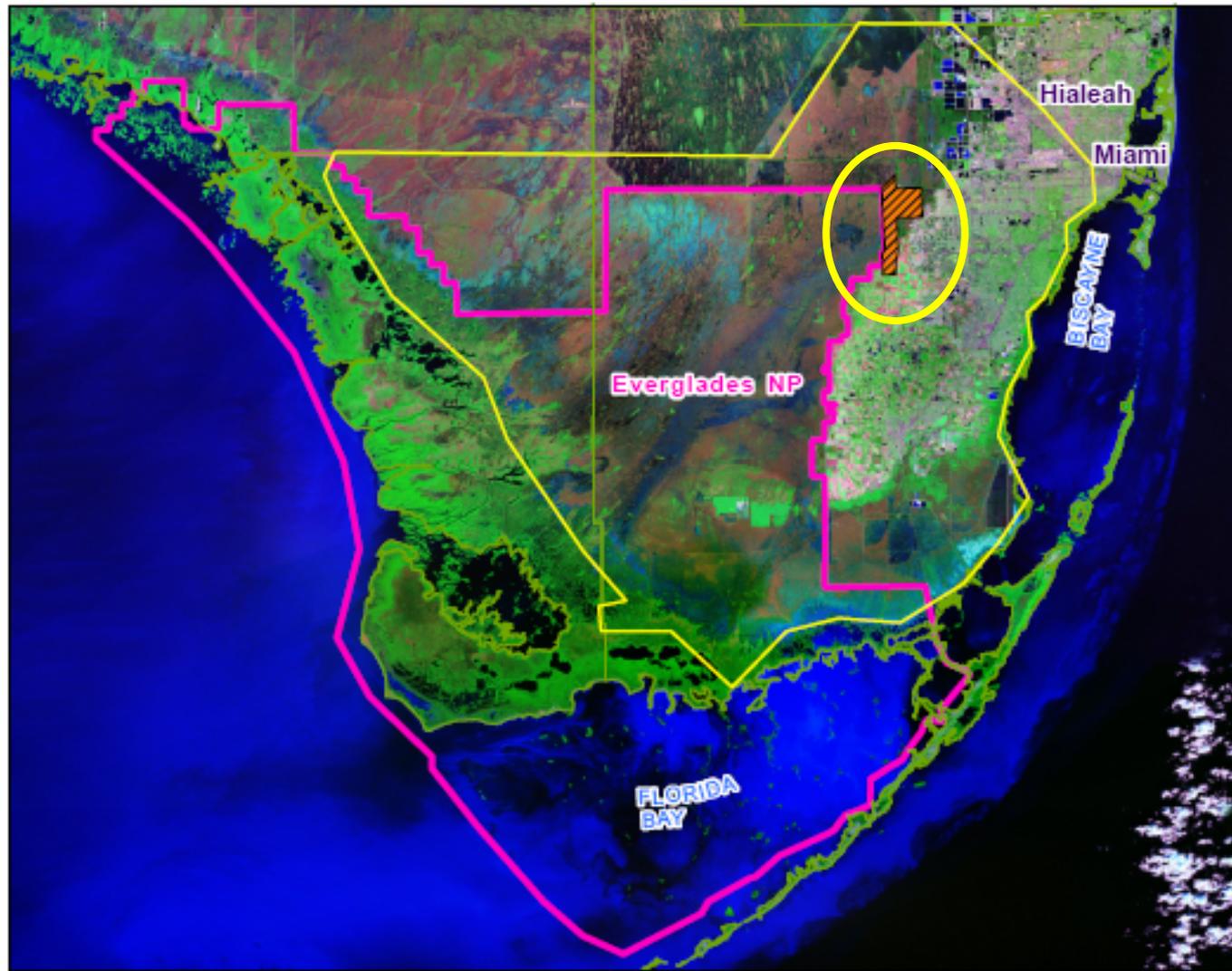
Briefing Purpose

- **Provide project background**
- **Present Issues/Concerns documented in the FSM package**
- **Discuss recent management request to include Dade-Broward Levee/Pennsuco Wetland CERP Component**
- **Identify Next Steps**

Study Authorization

- **Component of CERP**
- **Falls under Section 601(d) – WRDA 2000**
 - **Not one of the initially authorized projects**
 - **Requires Congressional Authorization**

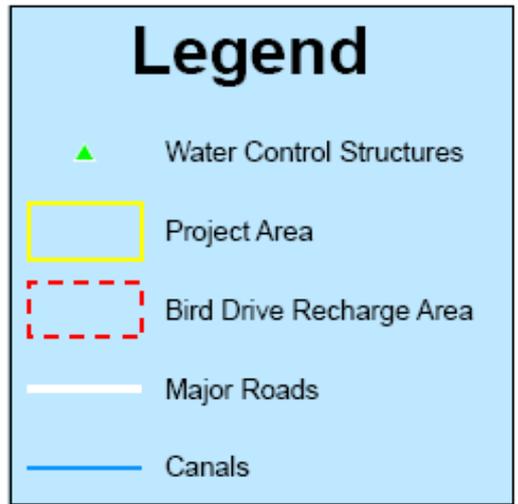
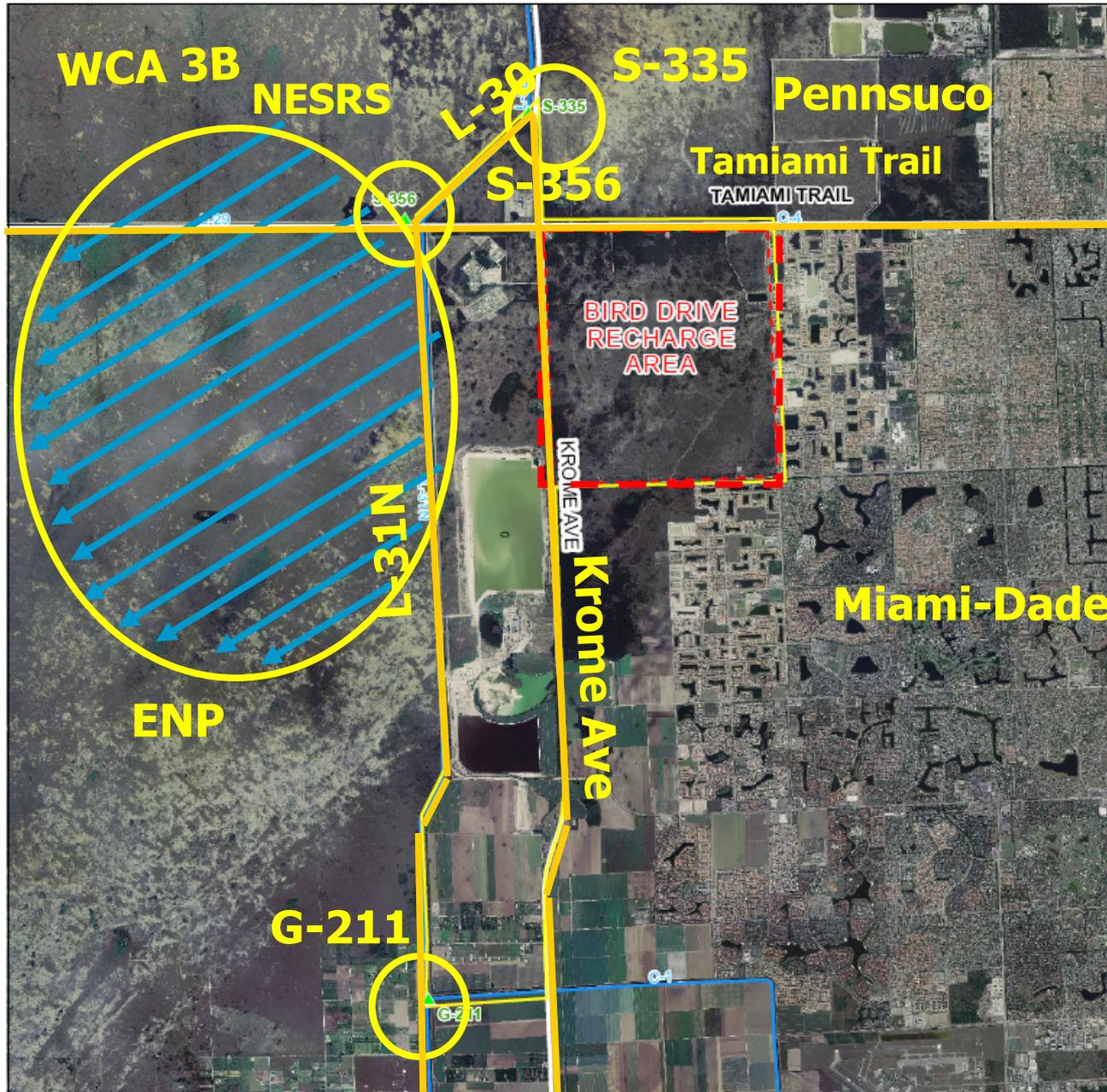
ENP Seepage Management Project Study Area Map



This graphic is a conceptual tool utilized for project development only. This graphic is not self-executing or binding, and does not otherwise affect the interests of any person including any vested rights or existing uses of real property.



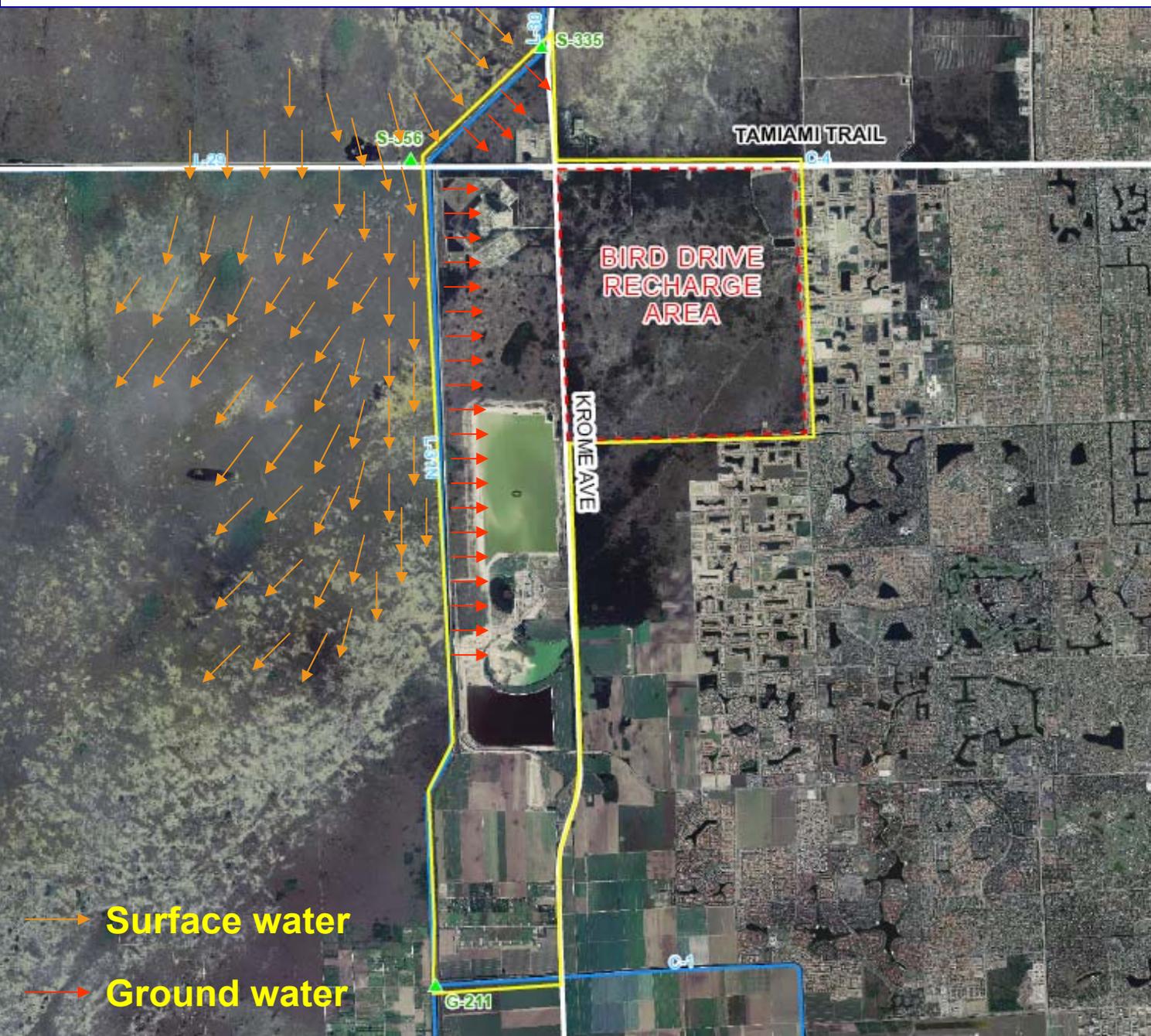
ENP Seepage Management Project Area Map



Project Purpose

To restore more natural hydrologic regime in the Northeast Shark River Slough area of Everglades National Park

Existing Flow Patterns in project area



Yellow Book Components

- **Bird Drive Recharge Area (U)**
- **L-31N Improvements for Seepage Management (V)**
- **S-356 Structures (FF)**
 - **Grouped together in the CERP Master Implementation Sequencing Plan (MISP)**
 - **Reaffirmation of Yellow book components**
 - **Current Cost estimate (\$356 M)**

Relationship to other CERP Projects

Allows water deliveries into ENP by other CERP projects by preventing seepage along L-30 / L-31N canals

-very porous, additional water brought into ENP will increase seepage out of park

Evaluation of Alternatives

- **Approximately 2 dozen preliminary alts**
- **Will be screened further**
- **MODBRANCH & 2x2 model will be used for alternative analysis**
- **Performance Measures will be used to evaluate project benefits**

Policy Issues

- 1. Combined Structural and Operational Plan (CSOP) in FWOP**
- 2. WRDA 2000 Savings Clause and Separability of Project Components**
- 3. Dependencies on and Relationships to Other CERP Projects**
- 4. Evaluating Potential Savings Clause Impacts on Downstream Water Bodies**

CSOP in FWOP

- **Provides important information of how the C-111 and MWD will be operated**
- **CSOP likely to result in changes in hydroperiods and hydropatterns in ENP**
- **CSOP (or CSOP-like operations) likely to be implemented prior to construction start for ENP SM**

- **Team Recommend: Use of CSOP TSP included in FWOP**
- **HQ Response: ok –but want to make sure that we aren't constantly reformulating FWOP (CSOP is moving target)**

Savings Clause & Separability

- **Functions of BDRA not separable from ENPSM**
- **Water currently seeping from ENP recharges Miami-Dade wellfields and Biscayne Bay**
- **Reduction in seepage could reduce water quality and quantity available for wellfields**
- **BDRA addresses Savings**
- **Recommend: Project components should be formulated and evaluated together to ensure that Savings Clause requirements are met.**
- **Benefits/costs of acquiring BDRA should be weighed against other possible options for recharge and water supply to ensure the most cost effective alternative**
- **HQ: concurs that other options need to be considered to identify the most cost effective solutions for ecosystem restoration**

Dependency on and Relationship to other CERP Projects

- Sequencing of projects:
 - Decomp – Increase flows into Park
 - Seepage management along L-30 and L-31N canals are important in maintaining LOS to east of ENP
 - L-31 SM Pilot – Test technologies for seepage management
 - Data collection won't be complete for ENP SM formulation based on current schedule
- PDT Recommendation: Implement a phased approach
- HQ Comment: No objections to proceeding with a phased approach that allows studies to move forward while awaiting additional information from the Pilot for use in refining the L-31N component as long as the study efforts will provide useful results when additional information becomes available

Evaluating Impacts on Downstream Water Bodies

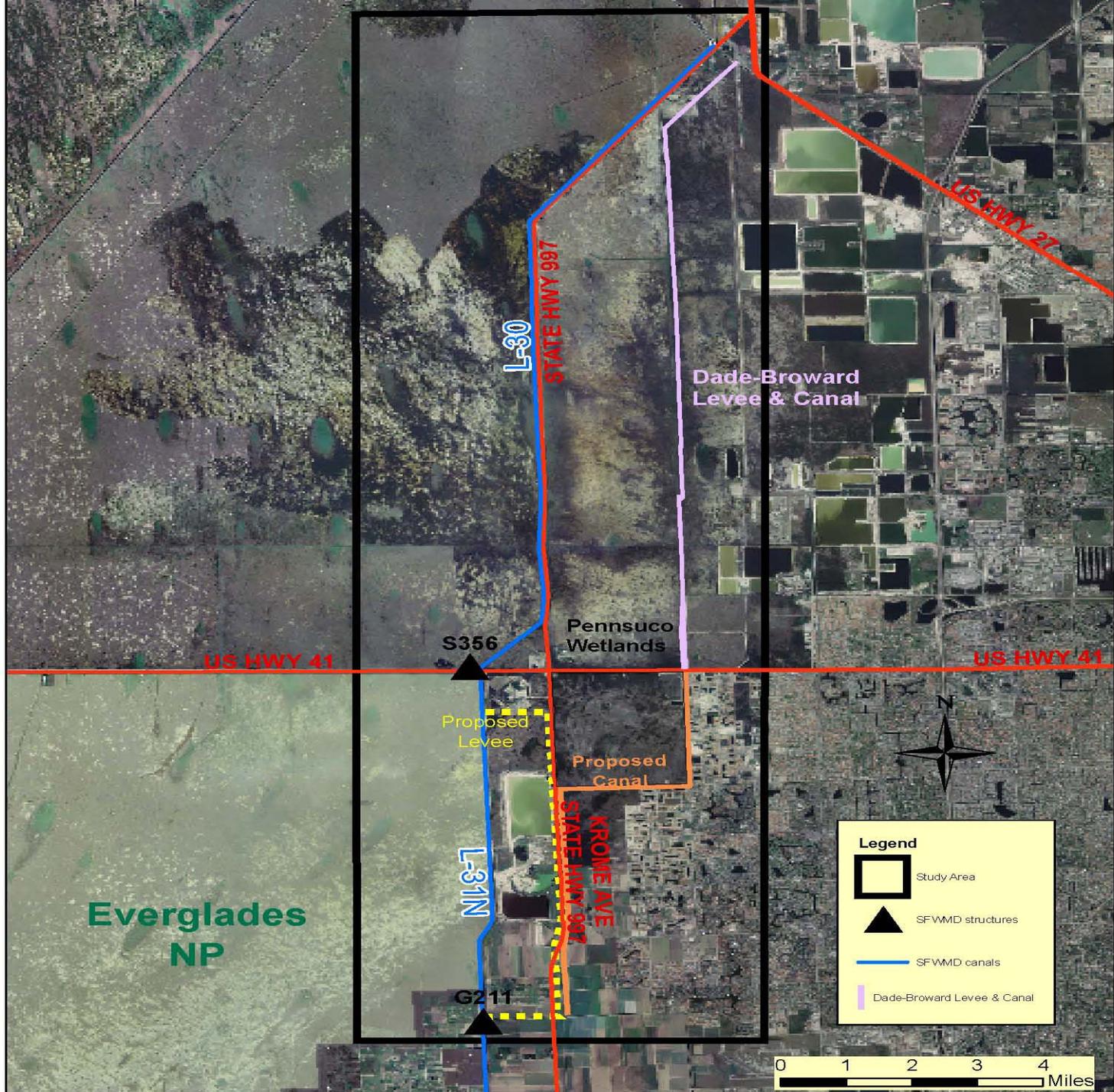
- Pilot will provide additional technical data about seepage management technology
- Pilot originally sequenced as predecessor to ENP SM
- Analytical tools developed from Pilot could be critical for evaluation of Savings Clause

- PDT Recommendation: IMC review needed to evaluate the assumptions and risks associated with use of analytical tool. PDT & CERP Program Managers should determine if modeling risks, assumptions can be addressed without the results from the Pilot

- HQ Comment: The team must evaluate the significance of the information to be obtained from the Pilot relative to the schedule for ENP SM. The team should seriously consider the NAS recommendation on how to address unknowns while making forward progress (IAR). The team will brief QRB in June on the potential to implement IAR to resolve this.

Recent QRB Direction

- Management requested project team look into including the Dade-Broward Levee/Pennsuco Wetland CERP Component
- Component is in line with project purpose and goals
 - Will benefit Pennsuco Wetlands and ENP



Major Milestones

- **External ITR Completed** Nov 06
- **Site Visit/ FSM with SAD/HQ** Mar 07
- **Alternative Formulation Briefing** Jul 08
- **Draft PIR/NEPA in Fed Register** Aug 09
- **Public/Agency Review of Draft PIR** Sep-Oct 09
- **Civil Works Review Board** Dec 09
- **Final PIR/NEPA in Fed Register** Mar 10

Questions
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