

Progress Toward Restoring the Everglades: The Second Biennial Review, 2008

**Committee on Independent Scientific Review of
Everglades Restoration Progress**

Will Graf, Committee Chair

Committee Membership

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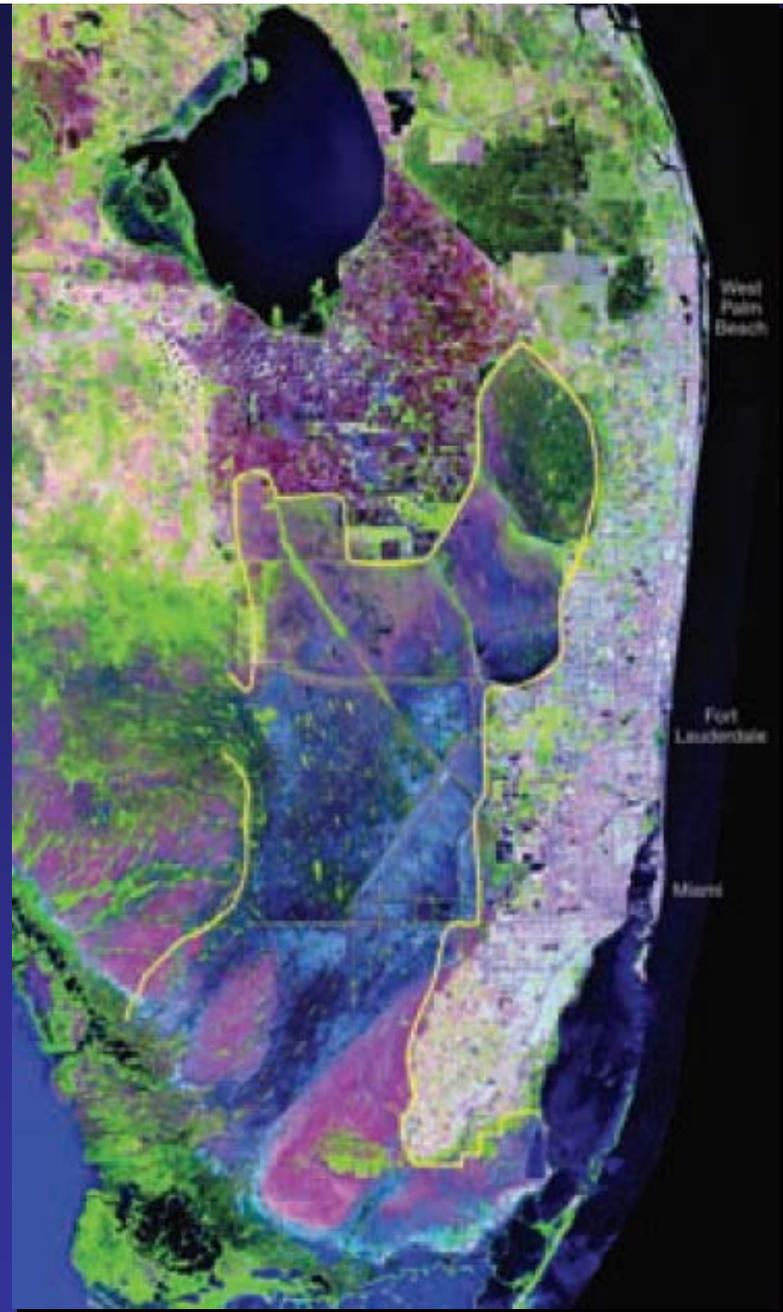
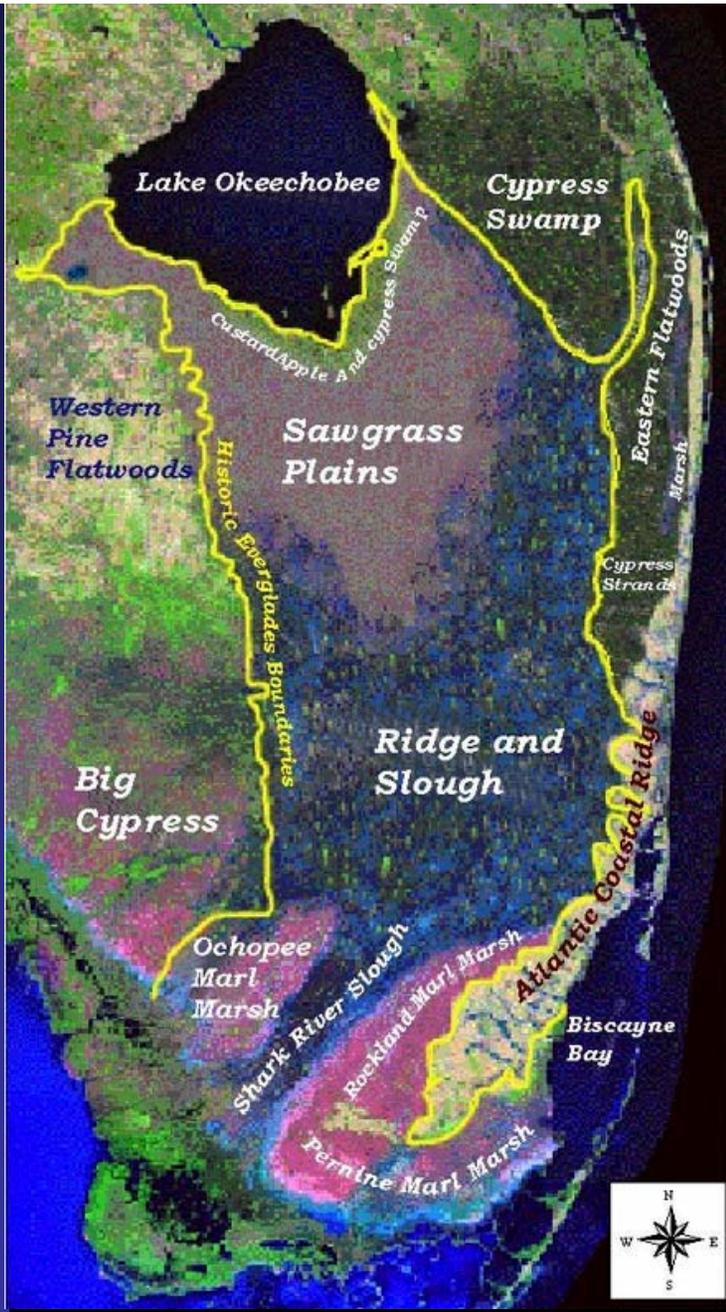
Stephanie Johnson, David Policansky, and Dorothy Weir

The NRC Study

- Congressionally mandated study of the Comprehensive Everglades Restoration Plan (CERP) under the WRDA 2000.
 - ❖ *“The Secretary, the Secretary of the Interior, and the Governor, in consultation with the South Florida Ecosystem Restoration Task Force, shall establish an independent scientific review panel convened by a body, such as the National Academy of Sciences, to review the Plan’s progress toward achieving the natural system restoration goals of the Plan.”*
 - ❖ *“The panel ... shall produce a biennial report to Congress...that includes an assessment of ecological indicators and other measures of progress in restoring the ecology of the natural system, based on the Plan.”*
- Study funded under a 5-yr contract with the Corps, with funding support from DOI and SFWMD

The South Florida Ecosystem

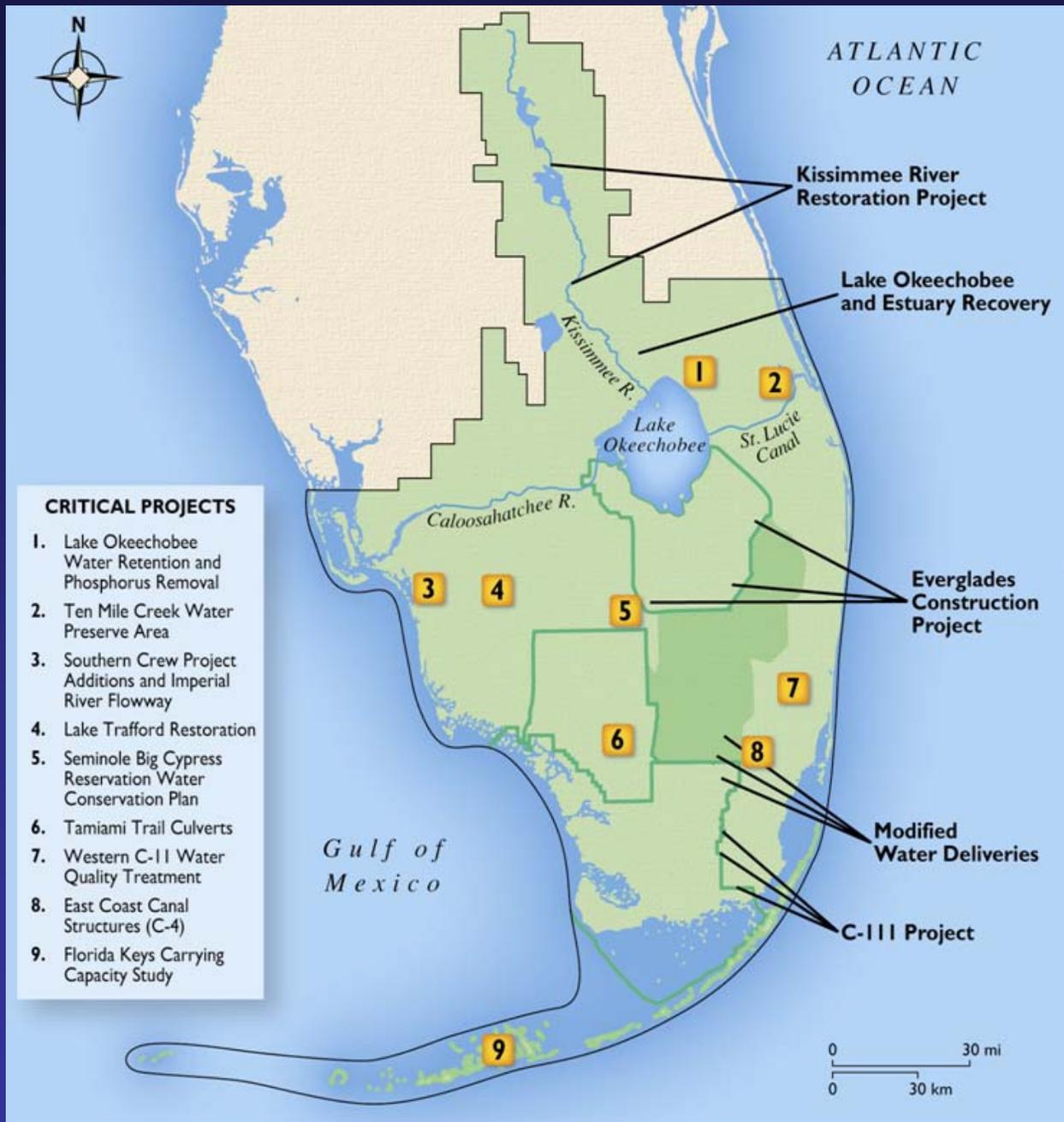






Comprehensive Everglades Restoration Plan (CERP)

- Joint federal-state program to “get the water right” and restore the S. FL ecosystem
- Estimated to cost \$10.9 billion and take ~40 years
- Authorized in WRDA 2000
- 40 major projects, 68 project components
- Builds on a number of non-CERP foundation projects



Non-CERP Projects

Statement of Task

The committee will produce biennial reports providing:

1. An assessment of progress in restoring the natural system
2. Discussion of significant accomplishments of the restoration
3. Discussion and evaluation of specific scientific and engineering issues that may impact progress in achieving the natural system restoration goals of the plan
4. Independent review of monitoring and assessment protocols to be used for evaluation of CERP progress

Study Process

- 7 meetings (5 information gathering) including public comment sessions and field trips
- Briefings/presentations from ~70 individuals representing ~20 agencies/organizations
- Meetings held from February 2007 through June 2008
- Report focuses on materials received prior to May 1, 2008
- Peer-reviewed consensus report
- Report intended to be useful to Congress

Restoration Context

Many restoration challenges:

- Population growth
- Urban sprawl
- Climate change/sea level rise
- Financing, increasing land costs
- Maintaining agency/stakeholder partnerships
- Maintaining societal and political will



- Ongoing restoration delays not only have postponed improvements to the hydrologic condition but also have allowed ecological decline to continue.
- In the face of these numerous challenges, Everglades restoration efforts are even more essential to improve the condition of the South Florida ecosystem and strengthen its resiliency as it faces additional stresses in the future.

Foundation for Adaptive Management Has Been Built

Significant accomplishment: All major elements to implement congressionally mandated adaptive approach have been produced

1. Guidance and strategies for adaptive management
2. Monitoring and assessment plans and conceptual models, and
3. An information and data management system

To adequately support CERP adaptive management:

- A robust program of ecological monitoring should remain a priority, and
- Integrated hydrologic, ecological, and water quality modeling tools are needed.

Evaluation of Restoration Progress

Progress is scant and slow:

- No projects completed as of mid-2008
- A few phased CERP projects under construction show partial benefits
- CERP bogged down in budget, planning, and procedural issues

Complex project planning and approval process is a major cause of delays.

- Slow pace of federal funding has largely been a symptom of the problems caused by the complex and lengthy CERP planning and authorization process
- But funding limitations will certainly create additional constraints to CERP progress in the years ahead

Improving the Pace of Progress

Improve system-wide planning mechanisms

- Current process appears to reward the least contentious projects, regardless of their potential contribution to ecosystem restoration

Develop a realistic schedule and a sound project sequence

- Funding should be allocated by the degree to which the projects are essential to restoration of the South Florida ecosystem, rather than by local stakeholder support or the order of authorization

Improving the Pace of Progress

Examine departure from traditional project-by-project review, authorization, and yearly funding

- Need more comprehensive approach that is scientifically and economically effective
- Would benefit the CERP and other multi-component ecosystem restoration projects across the nation

Strong political leadership is essential for Everglades restoration projects to achieve their goals

Improving the Pace of Progress

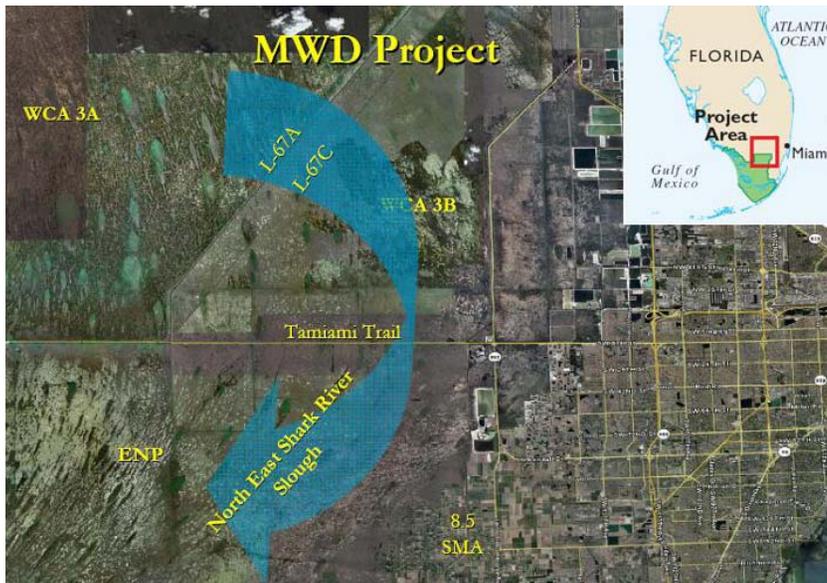
Develop Stronger Basis for Multi-Species Management

- There is no scientifically credible operational plan for managing multiple species at risk in South Florida
- DOI should immediately initiate and lead the development of a South Florida multi-species adaptive management strategy, including both science and policy dimensions

Improving the Pace of Progress

Continue active land acquisition efforts

- Everglades restoration depends on acquisition and protection of land
- Committee commends the state of Florida for its aggressive and effective support
- Recent proposal by Florida to buy 187,000 acres of U.S. Sugar's land has potential to significantly enhance restoration, although too early to judge details



Mod Waters

If Mod Waters is not completed, central CERP components cannot proceed

The reduced scope of the 2008 plan for modifying Tamiami Trail provides some environmental benefits but shifts increased responsibility (and cost) to the CERP to achieve goals.

- Critical to implement quickly, but it should be viewed as only a first step toward restoration
- Increases the urgency to proceed more quickly to implement the additional necessary modifications through the CERP or some other mechanism

Lake Okeechobee

- **Critical linchpin of South Florida ecosystem**
 - Water quality and quantity problems
 - Lake could be important for water storage
- **Water-quality goals for the lake unlikely to be achieved by 2015, and might not be reached for decades**
- **Integrated, system-wide view of water quality management is essential for restoration**
- **Short- and long-term trade-offs will be necessary in the rehabilitation of Lake Okeechobee and the northern estuaries**



Overall Summary

- To realize restoration goals, progress needs to come soon.
- CERP has not, to date, halted decline of South Florida ecosystem.
- Project is mired in complex planning, approval, and funding process.
- Delays will allow continued ecosystem decline and likely cause loss of public support.
- Clear funding priorities; modifications to project planning, authorization, and funding process; and strong political leadership are needed.