

South Florida Ecosystem Restoration Task Force

REPORT
of the Independent Panel Concerning
PRIORITIZING SCIENCE GAPS
in the
South Florida Ecosystem Restoration Task Force
Plan for Coordinating Science

Review Panel:

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Task Force Request to Independent Review Panel

1. Read and review the *Plan for Coordinating Science (PCS, final draft October 30, 2006)*
2. Develop a process to assess the gaps in the *PCS* and establish clearer priorities for the science gaps
3. Use the process to prioritize the gaps
4. Present these recommendations to the Task Force.



Prioritization Method

- Considered what tools were available that could be used to prioritize the science gaps
- **Started with the strategic goals as stated in the Task Force report for restoration of the South Florida ecosystem:**
 - Goal 1: Get the Water Right
 - Goal 2: Restore, Preserve, and Protect natural habitats and species
 - Goal 3: Foster Compatibility of the built and natural systems
- Identified the best tool to prioritize science gaps to be the task force system-wide indicators as developed using the Conceptual Ecological Models as one of the selection guides.
- **Selected task force system-wide indicators to use in prioritizing science gaps for the four regional modules and the overall system.**
- Also considered the sequential nature involved in the gaps (what sub-region needs work first? what do we need to know first to get at something else?).



Indicators by Module

- **Total System**
 - Water volume
 - Wading birds (white ibis, wood stork)
 - Invasive exotic plants
 - Fish and crustacean macroinvertebrates
 - Periphyton
- **Lake Okeechobee**
 - Water volume
 - Lake Okeechobee littoral zone
 - Wading birds (white ibis, wood stork)
 - Invasive exotic plants
 - Crocodilians
 - Periphyton
- **Northern Estuaries**
 - Water volume
 - Wading birds (white ibis, wood stork)
 - Fish and crustacean macroinvertebrates
 - Invasive exotic plants
 - Eastern oyster (sometimes called American oyster)
 - Crocodilians (especially Loxahatchee)
 - Periphyton
- **Greater Everglades**
 - Water volume
 - Wading birds (white ibis, wood stork)
 - Invasive exotic plants
 - Fish and crustacean macroinvertebrates
 - Crocodilians
 - Periphyton
- **Southern Estuaries**
 - Water volume
 - Biscayne Aquifer saltwater intrusion (SE parts of Dade and eastern Broward Counties)
 - Wading birds (white ibis, wood stork)
 - Fish and crustacean macroinvertebrates
 - Pink shrimp
 - Wading birds (roseate spoonbill)
 - Florida Bay SAV
 - Florida Bay algal blooms
 - Periphyton
 - Crocodilians



Number 1 Priorities by Module



- **Total System:** Evaluate and update the current characterization or definition of restoration success, and define restoration goals at the Total System scale to support the prioritization of restoration activities.



- **Lake Okeechobee:** Improve information regarding how restoration and water management activities particularly those related to extreme lake stages (high/low, duration, frequency and timing), affect the lake's communities, including submerged and emergent aquatic vegetation and associated fauna.



- **Northern Estuaries:** Need mapping and fish monitoring programs that relate fish and other aquatic fauna habitats to high-resolution bathymetry and bottom classification.



- **Everglades:** Need to better characterize and understand the hydrological and water quality relationships throughout the Greater Everglades at a spatial and temporal scale that is relevant to both restoration assessments and biological investigations.



- **Southern Estuaries:** Need coupled hydrodynamic and water quality models, linked with regional hydrological models that can be used to evaluate effects of restoration of the introduction and distribution of nutrients or contaminants.



THANK YOU

- ANY QUESTIONS?

