

TRACKING SUCCESS:
BIENNIAL REPORT OF THE SOUTH FLORIDA ECOSYSTEM TASK FORCE

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REPORT PURPOSE

This biennial report summarizes the progress made in fiscal years 2002-04¹ achievements, ongoing activities, and accomplishments of the Task Force Working Group (Working Group) and its member agencies in their efforts to restore the imperiled South Florida ecosystem.

The 1996 Water Resources Development Act (WRDA) directs the South Florida Ecosystem Restoration Task Force (the Task Force) to report biennially on the following Task Force activities:

- Policies, strategies, plans, programs, projects, and activities and priorities planned, developed or implemented for South Florida ecosystem restoration
- Progress made toward restoration.

This report satisfies the WRDA requirements by providing the following information: First, it summarizes the major accomplishments of the reporting period in terms of policies, strategies, plans, programs, projects, and activities. Second, it tracks the progress made toward restoration during the reporting period in terms of selected measurable indicators of ecosystem health.

This report is intended for four principal audiences:

- United States Congress
- Florida Legislature
- Seminole Tribe of Florida
- Miccosukee Tribe of Indians of Florida

This report is intended to demonstrate to the above authorities that progress is being made and that funds targeted for restoration are being spent in logical and accountable ways. The information included here will also be broadly shared with state and federal agencies, local governments, regional agencies and industries, private interest groups, and private citizens interested in South Florida ecosystem restoration.

¹ The dollars specified in the summary funding tables are reflective of two different fiscal year periods. The dollars for all Federal agencies and the South Florida Water Management District reflect a fiscal year that begins on October 1 and ends on September 30 of each year. The dollars for State of Florida agencies reflect a fiscal year that starts on July 1 and ends on June 30 of each year. Pertinent footnotes are provided at the bottom of each summary table.

POLICIES, STRATEGIES, PLANS, PROGRAMS, PROJECTS, ACTIVITIES:

MAJOR ACCOMPLISHMENTS – OCTOBER 2002 THROUGH SEPTEMBER 2004

A comprehensive discussion of the principles and strategies adopted by the Task Force, along with the major plans, programs, and projects of the various Task Force member agencies, is provided in *Coordinating Success: Strategy for Restoration of the South Florida Ecosystem*, last updated in August 2002. This update to the biennial report, *Tracking Success*, addresses only the Task Force member agencies' activities during the past two years, and it covers only the highlights of those activities. More complete and detailed discussions of the recently completed and ongoing projects can be found in reports produced by the participating agencies, particularly the U.S. Army Corps of Engineers (USACE), the South Florida Water Management District (SFWMD), the Florida Department of Environmental Protection (FDEP), and the U.S. Department of the Interior (DOI).

Coordination and Adaptive Management of the Restoration Effort

CERP Programmatic Regulations

The USACE, with the concurrence of the Governor of Florida and the DOI, and in consultation with the Seminole Tribe of Florida, the Miccosukee Tribe of Indians of Florida, the Environmental Protection Agency, the Department of Commerce, and other federal, state, and local agencies, completed programmatic regulations. Largely procedural, the programmatic regulations define the relationships and the processes to be utilized among all the parties to ensure that the goals and objectives of the CERP are achieved. The final rule was published in the Federal Register on November 12, 2003. The process to develop interim goals and targets is well underway. The development of the programmatic regulations guidance memoranda has started; six memoranda will be developed by the Corps and SFWMD to outline the processes for planning, evaluating and operating CERP projects, for conducting adaptive assessment, for meeting the assurances requirements in WRDA 2000, and for implementing the agreement between the U.S. President and the Governor of Florida to ensure that water produced by the CERP will be reserved for restoration.

The Water Resources Advisory Commission (WRAC)

This advisory body, formally recognized by the Task Force in January 2002, established a regular meeting schedule, with the full board meeting monthly. The WRAC formed several smaller issue groups to provide additional public participation and consensus-making workshops on critical water resource issues, projects and programs affecting south Florida. These issue groups explore their topics and advise the WRAC and subsequently the SFWMD Governing Board. Some of the topics include programmatic regulations, water reservations, pre-CERP baseline conditions, CERP partnership opportunities, consumptive use permits, and recreation opportunities compatible with the CERP and Lake Okeechobee operations.

U.S. Department of the Interior Science Plan

The DOI bureaus with scientists working on restoration (the U.S. Geological Survey, the U.S. Fish and Wildlife Service, and the National Park Service) worked with the senior Everglades policy advisor to the Secretary of the Interior to develop a plan that will provide the basis for integrating and prioritizing the science conducted by these bureaus. A draft will be provided to the congressional committees and the Government Accounting Office, who recommended that DOI develop such a plan, in the winter of 2003.

Implementation of Analytical Tools to Track Ecosystem Health

The *Monitoring and Assessment Plan* (MAP) developed in 2001 is currently under review, and a final is expected in November 2003. Over the course of restoration this plan will continually be modified and updated to reflect how well the CERP is meeting its goals and objectives and to identify opportunities for improving the performance of CERP where needed.

WRDA 2000 and the CERP programmatic regulations direct the Restoration Coordination and Verification Team (RECOVER) to make recommendations for the interim goals and targets of the CERP. A final list of indicators to be used in the interim goals and targets was released in February 2003. A RECOVER subteam is currently developing the goals and targets. A draft report is expected to be released in January 2004 (after model runs are completed).

The RECOVER program has produced a draft Performance Measure Documentation Report that provides a summary of the currently proposed set of performance measures to be used to evaluate and assess the performance of the CERP. The RECOVER performance measures will be used for system-wide evaluation and assessment of CERP projects to support planning and adaptive management.

CERP Master Recreation Plan

An issue team under the Water Resources Advisory Commission held a series of workshops to solicit advice from a variety of stakeholders and develop a recreational access and use policy for district lands. Two principal issues were addressed in 2003. First, we developed a general policy on recreational access. The other issue involved the need to restore flow patterns in Water Conservation Area 3 while maintaining an important recreational fishery in the L-67 canal.

Goal 1 Accomplishments: Getting the Water Right

State and Federal CERP Funding Commitments

Federal and state budgets reflected a continued priority to restore America's Everglades. Congress enacted more than \$665 million to support the restoration process in 2003.

The Florida Legislature appropriated a record \$225 million in the FY 2003 budget for Everglades restoration. In June 2003 Governor Jeb Bush signed Senate Bill 54A, clarifying amendments to the Everglades Forever Act and providing the bonding authority for an additional \$800 million for Everglades restoration. Florida's total financial commitment to restore water flow through the Everglades currently exceeds \$1.5 billion.

Critical Restoration Projects

The progress made in FY 2003 on the nine Critical Restoration Projects authorized under WRDA 1996 to produce immediate, substantial, and independent benefits prior to the CERP is summarized below:

East Coast Canal Structures: (C-4 Structure) Construction completed in July 2003 and the project is now operational. This project will help reduce seepage losses from the Everglades, increase aquifer recharge, and enhance habitat in the Pennsuco Wetlands.

Western C-11 Basin Water Quality Treatment: Construction of the S-9A pump station was completed in 2002 and a contract for construction of the S-381 divide structure was awarded in September of 2003.

During non-flood conditions, these new features will separate seepage from stormwater runoff, allowing return of relatively clean seepage waters to WCA-3A.

Tamiami Trail Culverts: Construction plans and specifications are complete and construction is projected to start early in 2004. This project will help restore more natural hydropatterns and improve sheetflow of surface water within Ten Thousand Islands National Wildlife Refuge, Big Cypress National Preserve, and Everglades National Park. Implementation of the western portion of the project (Phase 1), located south of the Southern Golden Gate Estates project, is being accomplished with SFWMD (culvert construction) and FL DOT (road resurfacing) funds. Project Plans and Specs are being revised to meet SFWMD construction standards. This Phase I construction is expected to begin February 2004. Construction of the eastern portion of the project (Phase 2) is dependent upon additional funding.

Seminole Big Cypress Reservation Water Conservation Plan: This project will restore the Big Cypress Reservation's water storage capacity, bring back native vegetation, remove exotics, and reduce the concentration of phosphorus from water flowing off the Reservation. Outflows from the project will be routed southward to rehydrate the Reservation's undeveloped native area and the Big Cypress National Preserve.

Construction of Phase 1, the East-Side Conveyance Canal System, was completed by the Seminole Tribe in 2003. The project includes canal improvements designed to ensure delivery of water supply from the G-409 pump station to the reservation. The Tribe is completing the final design of the canal pump stations, which will connect the Phase 1 canals with the rest of the project features; the Tribe plans to begin their construction in early 2004. These canals will transport water to the project's water management features to be constructed in Phase II. The Corps of Engineers' detailed design of Phase II, a system of water storage cells and water resource areas, is 30% complete. The Corps plans to award the construction contract in summer 2004.

Southern CREW Addition/Imperial River Flowway: This project is approximately 70% complete, it is anticipated that land acquisition will be completed by the end of 2003. Construction is proceeding as restoration lands are acquired. This project will restore historical storage potential in the project lands, reduce freshwater discharges to Estero Bay during the rainy season, reduce loading of nutrients to the Imperial River and Estero Bay, and reduce flooding of homes and private lands west of the project area.

Lake Okeechobee Water Retention/Phosphorus Removal: Construction plans and specifications are complete for the Taylor Creek and Nubbin Slough Stormwater Treatment Areas (STAs). Construction of both STAs will be initiated in early calendar year 2004. The Grassy Island site along Taylor Creek will be a 169-acre STA. The competitive bidding is expected to start on January 20, 2003, with opening of the bids on March 5, 2004. Assuming the contractor selection proceeds on schedule, construction would start in the summer of 2004. The New Palm Dairy site would capture flows from Nubbin Slough into a 780-acre STA. Invitation for Bids was expected on November 17, 2003, with an expected award date on February 6, 2004. This project will attenuate peak flows and improve water quality discharged to Lake Okeechobee.

Ten Mile Creek Water Preservation Area: A groundbreaking ceremony was held on November 7, 2003. Construction and operation of this reservoir and associated STA will be an important test of the effectiveness of facilities that are proposed on a much larger scale throughout CERP. Detailed monitoring of the reservoir will give practical information on how well the reservoir can capture nutrients on its own, prior to treatment in the STA. In addition observation on how fish and wildlife utilize the reservoir and persist under its greatly fluctuating hydrologic regime. This project will attenuate flows and improve water quality to the St. Lucie Estuary and Indian River Lagoon.

Lake Trafford Restoration: Construction plans and specifications have been completed, but the Corps and SFWMD are currently evaluating options to reduce the costs while still achieving restoration objectives. The containment area for dredged material is being constructed. Dredging of the lake is dependent upon availability of additional funding. This project will improve water quality and enhance fish and wildlife habitat in Lake Trafford by removing approximately 8.5 million cubic yards of organic sediments that blanket the bottom of the lake.

Florida Keys Carrying Capacity Study: This study was completed in February of 2003. The Florida Keys Carrying Capacity Study: Carrying Capacity/Impact Assessment Model and Routine Planning Tool – User’s Manual was made available in March 2003. Results of this study will provide local planners and decision makers with a tool to determine if and how their comprehensive plans should be amended.

Objective 1-A.1: Provide 1.4 million acre-feet of surface water storage by 2036

Lake Belt In-Ground Reservoir Technology Pilot

The project is required to determine whether the two full-scale Lake Belt Storage Area CERP components can be successfully constructed and operated to supply environmental and water supply deliveries. The in-ground reservoir pilot project’s goal is to determine if the barrier technology can prevent adverse impacts by installing a barrier around a smaller area to be rock mined specifically for this pilot project in an area with similar geology to the full-scale in-ground reservoir site. A site (“North Stairstep”) has been selected for this effort. (Need additional information on what happened in reporting period.)

Objective 1-A.2: Develop aquifer storage and recovery systems capable of storing 1.6 billion gallons per day by 2026

The three ASR pilot projects (i.e., Hillsboro, Lake Okeechobee, and Caloosahatchee River Basin) and ASR Regional Study are designed to address technical issues regarding full-scale CERP ASR implementation. The interrelated nature of these pilot projects led to the decision to combine the associated design efforts into a single decision document called the Pilot Project Design Report (PPDR). A companion Environmental Impact Statement (EIS) also covering the three ASR pilot projects is being prepared. The combined DRAFT PPDR/EIS was released in December 2003, one month later than the schedule presented in the approved Project Management Plan (dated March 15, 2001) for these projects.

Objective 1-A.3: Modify 335 miles of impediments to flow by 2019

Modified Water Deliveries is planned to be completed by 2006, the projected date for the Combined Structural and Operational Plan. (Need additional information on what happened in reporting period.)

Kissimmee River Restoration Project

Approximately eighty- five percent of the total 105, 000 acres needed for restoration has been acquired. 7.5 miles of the C-38 canal have been backfilled, Phase I, resulting in a 15-mile section of the river being returned to more natural conditions. As a result of the backfilled canal and 24 months of continuous flow, approximately 12,000 acres of river flood plain and wetlands have been reestablished.

Overall Kissimmee River Restoration project completion has been changed from 2010 and is now scheduled for 2012. Upon completion, the project, which is being jointly implemented and cost-shared by the SFWMD and the USACE; will eliminate two major water control structures, restore over forty square miles of river/floodplain ecosystem, including 43 miles of meandering river channel and 27,000 acres of wetlands.

C-111 Project/Modified Water Deliveries/CSOP**The C-111 Project**

Initially authorized by the Flood Control Act of 1962, this project has been modified by several authorizations. A General Reevaluation Report (GRR) completed in 1994 detailed the current plan to improve water deliveries to Everglades National Park (ENP) while maintaining flood control in the system. The Water Resource Development Act (WRDA) of 1996 specifically authorized implementation of the recommended plan of improvement contained in the 1994 GRR. The WRDA of 1996 also modified the cost sharing to be 50 percent non-Federal and 50 percent Federal for the total project costs including land acquisition necessary for the C-111 Canal Project purposes regardless of the date of acquisition. The 1994 modifications to the C-111 project will help restore flows from Taylor Slough to Florida Bay. The Final Integrated GRR and Supplemental Environmental Impact Statement (SEIS) dated January 2002 addressing the addition of features for water quality improvement, land exchange between ENP and the South Florida Water Management District (SFWMD) was approved by the SFWMD Governing Board. The Final Integrated GRR and SEIS is still under review by the USACE approval process.

Modified Water Deliveries to Everglades National Park (MWD)

This project, authorized by the Everglades National Park Protection and Expansion Act in 1989 to construct modifications to the C&SF Project needed to improve water deliveries to Everglades National Park, has been delayed for a number of reasons. This project was on hold due to litigation on the authority of the USACE to implement the selected plan for the 8.5 Square Mile Area (SMA). The litigation was resolved in February 2002 and work was restarted in March of 2002. Land acquisition for the 8.5 SMA is underway, and the S-356 pump structure has been constructed.

Combined Structural and Operational Plan (CSOP)

A CSOP Advisory Team was established to assist the Task Force in providing recommendations to the Army Corps of Engineers during key phases in the CSOP process, and by doing so, increase stakeholder participation. The Advisory Team held its first meeting December 17-18, 2003. The purpose of the CSOP Team is to identify refinements (minor structural changes) and define the operational plans for the C-111 Canal Project and the MWD to ENP Project. The implementation of the C-111 Canal project is unusual due to both the early implementation of components (e.g. S-332B, S-332C, and S-332D) due to a jeopardy opinion on the Cape Sable Seaside Sparrow by FWS and the additional water quality authorization and responsibilities provided by WRDA 1996. Preparation of the Final EIS for the CSOP is anticipated to occur in 2005 with implementation in 2006 or 2007.

Objective 1-A.4: Other Related Hydrology Projects**Seepage Management Pilot**

The alternatives for seepage management technologies were screened to a total of five candidate technologies. Wells are being installed to capture baseline groundwater flow data. The purpose of this project is to investigate seepage management technologies to control seepage from Everglades National Park and to provide necessary information to determine the appropriate amount of wet season groundwater flow to return to the park while minimizing potential impacts to Miami-Dade County's west wellfield and freshwater flows to Biscayne Bay.

Objective 1-B.1: Construct 70,000 acres of stormwater treatment areas by 2036

Water Quality Standards

In July 2003 the FDEP proposed a rule establishing a long-term geometric mean of 10 ppb as the numeric phosphorus criterion for Class III waters in the Everglades Protection Area (EPA). The rule also establishes moderating provisions for permits authorizing discharges into the EPA in compliance with water quality standards, including the numeric phosphorus criterion; and a method for determining achievement of the numeric phosphorus criterion. The rule incorporates the use of best available phosphorus reduction technology (BAPRT) to achieve and maintain compliance with the numeric criterion and to develop and implement maximum incremental phosphorus reduction measures. For purposes of the rule, the Everglades Protection Area Tributary Basins Conceptual Plan for Achieving Long-Term Water Quality Goals Final Report will constitute BAPRT.

Everglades Construction Project.

Four of the six Storm Water Treatment Areas (STAs) totaling over 18,000 acres are fully operational and are removing total phosphorus that otherwise would have gone into the Everglades Protection Area. During Fiscal Year 2003, STA-1W, STA-2, STA-5, and STA-6 Section 1 removed more than 110 metric tons of total phosphorus. Portions of the new stormwater treatment areas are being managed for submerged aquatic vegetation; the remainder is being managed for cattails and other emergent vegetation. The phosphorus removal performance of the stormwater treatment areas is exceeding expectations, with discharges from STA-2, and STA-6 consistently below 30 parts per billion (ppb). STA-1W has averaged about 40 ppb since operation began in 1994. Although still considered a young wetland system, STA-5 has been able to reduce inflow concentrations averaging 265 ppb to about 110 ppb. Since 1994, the stormwater treatment areas have removed over 411 tons of phosphorus that would have otherwise entered the Everglades. STA-1E should be complete, although not fully operational, by December 2003. Start-up operations began in STA-3/4 at the end of FY03, although construction is continuing. Approximately 9,000-10,000 acres of STA-3/4 are vegetated at this time. Due to a prime contractor bankruptcy, the construction of STA-3/4 is approximately 8 months behind schedule. Both the Everglades Forever Act and the Everglades Settlement Agreement allow for schedule slippages due to factors outside the control of the District and the Corps. When STA-1E and STA-3/4 are completed, the Everglades Construction Project will contain over 41,000 acres of effective treatment area. During FY04, the District will begin the design and implementation of enhancements to STA-3/4, designed to further lower phosphorus levels. Key components include additional levees and water control structures, refined operations, and revisions to the vegetation communities within the STAs.

Some of the key technologies evaluated include submerged aquatic vegetation, periphyton-based stormwater treatment areas, chemical treatment, and optimization of the stormwater treatment areas. The District is proceeding with a 400-acre demonstration project of Periphyton Stormwater Treatment Area (PSTA) within the footprint of STA-3/4. Within this demonstration project, approximately 100 acres of shallow peat will be removed to expose the limerock, and construction is set to begin in late spring 2004. The Corps is also evaluating the potential for a PSTA demonstration project within STA-1E.

Objective 1-B.2: Prepare plans to comply with total maximum daily loads for 100 percent of impaired water bodies by 2011

Update status.

Goal 2 Accomplishments: Restoring, Preserving, and Protecting Natural Habitats and Species

Objective 2-A.1: Complete acquisition of 5.6 million acres of land identified for habitat protection by 2015

Land Acquisition Strategy and Data Base

The Task Force Land Acquisition Team (LAT) presented the first *Land Acquisition Strategy* to the Task Force, and after some improvements the Task Force accepted it on February 4, 2003. The report was developed as a response to a recommendation by the GAO for a land acquisition plan to identify and prioritize additional lands needed to achieve the restoration goals. The GAO highlighted the importance of acquiring as much land as possible, and quickly, because undeveloped land in South Florida is becoming increasingly scarce and costly.

The LAT submitted an updated land acquisition data to the Task Force in December 2003. The LAT was successful in adding representatives of the 16 counties in the watershed to improve the detail in the data base, making it possible to reflect what the counties are doing to support restoration through their individual land acquisition programs, which are not tracked by the state or federal agencies. This information will be incorporated into the 2004 update to the data base.

Habitat Acquisition

State and federal agencies have acquired 4.9 million acres of land for habitat preservation. As of September 2003 the state had acquired 3.5 million acres of habitat conservation land in South Florida at a cost of over \$1.5 billion.

Table 11. Land Acquisition Expenditures Summary, FY2002-FY2003^{2*}

Funding Source	Amount (\$ millions)	Acres
Farm Bill 1996 ³	\$15.28	2252
Florida Forever ⁴	\$127.4	52,104
Save Our Everglades Trust Fund	\$182.9	17,297
State, Local & Other Funding Sources (a)	\$91.1	15,550
LWCF(b)	\$.038	16
TOTALS	\$416.718	143,827

² The fiscal year for FDEP is July 1 through June 30. The fiscal year for the SFWMD, the FWS, and the NPS is Oct. 1 through September 30.

(a) The following funding sources are captured in this category: SFWMD ad valorem, county, mitigation, special state appropriations, Preservation 200, Land Acquisition Trust Fund, and Water Management Lands Trust Fund; the category excludes SFWMED acquisition of 1060 acres using CARL funds.

(b) This category includes all federal funds other than lands acquired with Farm Bill funds.

³ 40 acres out of the 116 were jointly acquired using State funds

⁴ 1411 acres out of the 1422 were jointly acquired using Water Management Lands Trust Funds and Martin county funds

Subgoal 2-A.2: Protect 20 percent of the coral reefs by 2010

Need additional information from NOAA, ENP, FKMS The 2002 strategy set a target with one project that met half - can we identify how the next 10 percent of coral reefs will be protected by 2010 or does this target need to be amended? What has happened and is expected to happen in the reporting period- 9/02 - 8/04?

Subgoal 2-A.3: Improve Habitat Quality for 2.4 million acres of natural areas

Biscayne Bay Regional Restoration Coordination Team.

Biscayne Bay Action Plan will be completed and presented to the Working Group in 2004.

Loxahatchee National Wildlife Refuge Prescribed Burn Program.

In June 2003, A.R.M. Loxahatchee National Wildlife Refuge (NWR) prescribed burned 2,300 acres of the refuge interior (the first burn in almost 20 years). The vegetative response was almost immediate, with healthy, new sawgrass sprouting and areas opened up. Waterfowl were recently observed using the burned areas.

Biscayne Bay Coastal Wetlands.

This project is developing alternatives that will improve wetland, mangrove and estuarine habitat in Miami-Dade County.

Indian River Lagoon.

This Project's report is due out in November 2003. The project will restore approximately 90,000 acres of wetland and 4000 acres of estuary. (Update needed)

The Loxahatchee Impoundment Landscape Assessment (LILA)

"The Fish and Wildlife Service signed a cooperative agreement with SFWMD to manage two impoundments on the Arthur R. Marshall Loxahatchee NWR to conduct long term research which will aid in developing several CERP performance measures that sustain a healthy Everglades ecosystem. The Loxahatchee Impoundment Landscape Assessment (LILA) will serve as a pilot study for hydrologic regimes proposed under CERP. The approach will be to sculpt key Everglades landscape features, overlay controlled hydrologic regimes with flow rates that simulate historic flows, and measure response by wading birds, tree islands and ridge and sloughs. LILA provides a unique opportunity to fill key information gaps of CERP and to provide the public with a rare opportunity to see restored Everglades habitats".

Subgoal 2-A.4: Strategies for Species Recovery

Florida Panther Landscape Conservation Strategy

The primary goal of the Panther Subteam was to identify a strategically located set of lands containing sufficient area and appropriate land cover types to ensure the long-term survival of the panther. The Panther Subteam focused its efforts on the area south of the Caloosahatchee River, where the only reproducing Florida panther population currently exists. The methodology and results of the Panther Subteam's document was scientifically peer reviewed. The Panther Subteam's "Landscape Conservation Strategy for the Florida Panther in South Florida" was submitted to the Service in December 2002. This Landscape Strategy identifies lands essential for the continued conservation of panthers in south Florida, as well as a landscape linkage to provide for population expansion north of the Caloosahatchee River to aid in the recovery of the species. The Service plans to publish a Notice of Availability in the Federal

Register to obtain comments on this document from the broad scientific community and general public to ensure the highest level of quality possible. Comments from the scientific community and general public may result in changes to the Landscape Strategy.

Florida Panther Regulatory Review Update

January 2002 through November 2003, the Service through our review of section 7 consultations with the Corps and in corporation with private land developers have preserved through conservation easements and acquisitions 6,495 acres of habitat important to Florida panthers. These preserved lands are generally adjacent to larger tracts of publicly owned lands in the core area of the Florida panther population.

Key Deer Recovery

Consistent with the MSRP, the Service has implemented a program to translocate significant numbers of Key deer beyond the boundaries of the core populations, four deer were moved from Big Pine Key to Sugarloaf Key on May 14-15, 2003. Additional recovery activities that have been or will be accomplished with the DOI funding provided for this effort includes more translocations, a soft-release enclosure on Cudjoe Key, research and monitoring of translocated deer, and appointing a biologist for project oversight and continuity.

South Florida Multi-Species Recovery Plan

The primary focus of the team was development of an implementation schedule which incorporates an ecosystem approach toward accomplishing the restoration and recovery tasks identified in the MSRP. The draft implementation schedule was completed in early 2003 and is currently undergoing review in the Service's Southeast Regional Office prior to publication in the Federal Register for public review and comment. The MSRP and the implementation schedule are intended to be used by State and Federal agencies, tribes, non-governmental organizations, and other partners who are committed to endangered species conservation and restoration of the South Florida Ecosystem. The implementation schedule will assist with prioritizing, planning, and implementing species-specific tasks and various restoration activities. At this time, the Service and its many partners are working to implement the tasks outlined in the MSRP to achieve species protection while working towards the goals of reclassification and delisting.

Listed Species Recovery and Candidate Conservation Projects

Between 1996 and 2003, the Service obligated over \$2.5 million for endangered and threatened species recovery projects in South Florida. Examples include: Key Largo woodrat monitoring and captive propagation; status surveys for plants and animals endemic to Lake Wales Ridge; genetic work on listed species in the Keys; Everglade snail kite, Florida grasshopper sparrow, and Cape Sable seaside sparrow research; Schaus swallowtail butterfly surveys; beach jacquemontia restoration; Florida ziziphus research; Florida scrub-jay dispersal; American crocodile monitoring; and Lower Keys marsh rabbit conservation and reintroduction. In that same time frame, the Service has obligated over \$850,000 for candidate conservation/imperiled species projects in South Florida. Examples include: snowy plover population trend and dispersal, surveys for rare tropical hardwood hammock butterflies, Miami blue conservation and captive propagation, West Coast dune sunflower and aboriginal pricklyapple studies, population status of three rare bats, Florida semaphore cactus surveys, and rare native plant inventories.

[Subgoal 2-B-1: Coordinate the development of management plans for the top twenty South Florida invasive exotic plants species by 2010](#)

Update status.

Noxious Exotic Weed Task Team (NEWTT)

The Environmental Law Institute is conducting research on how existing federal and state authorities can be used to manage invasive species in Florida and identification of gaps in these authorities. Contractor services have been obtained to develop a web-based database of invasive plant control activities being conducted in South Florida. The database will serve to track on-going activities and find gaps in current control efforts.

[Subgoal 2-B.2: Achieve maintenance control status for Brazilian pepper, melaleuca, Australian pine, and Old World Climbing fern in all natural areas statewide by 2020](#)

Update status.

Loxahatchee National Wildlife Refuge Exotic Management

An Integrated Pest Management Plan, consisting of an Integrated Pest Plant Management Plan and an Exotic Animal Management Plan, has been written for A.R.M. Loxahatchee NWR. The pest plan management plan has been implemented with the focus on controlling Category 1 State-listed invasive exotics, primarily melaleuca, Lygodium (Old World climbing fern), Brazilian pepper, and Australian pine. Australian pine is almost 100% controlled. Over 17,000 acres of the refuge interior were treated for melaleuca and Lygodium during 2002-2003.

Melaleuca Control Program - Melaleuca Eradication and Other Exotic Plants Project

Biological Control Agents

USACE and SFWMD are coordinating to amend the existing CERP design agreement to include this project. Preparation of the Project Management Plan (PMP) is underway and the schedule for Project Implementation Report (PIR) has been expedited and is also underway.

Gainesville Quarantine and Research Facility

FDACS does not have funds for Phase II this fiscal year (2003-04). The design agreement between USACE and FDACS is being postponed until funding is available for Phase II.

Special Report on Invasive Species

A work order was issued for DOI to provide support with special report identifying the overall problem with exotic invasive plants and to make recommendations on further Federal involvement.

Removal of Exotic Plants from Big Cypress National Preserve.

The preserve has achieved 90 percent elimination of melaleuca. **(What happened during the reporting period?)**

[Subgoal 2-B.3: Complete an invasive exotic plant prevention, early detection and eradication plan by 2005](#)

Exotic Species Quarantine Facility

The facility is nearing completion, and a grand opening is anticipated in January 2004, when the USACE will turn the facility over to the USDA.

Noxious Exotic Animal Task Team (NEATT)

The Working Group has formed an invasive animal task team for the purpose of developing a comprehensive assessment and strategy for the control and management of nonindigenous animals. The team is initially completing a comprehensive status assessment of invasive exotic animals for South Florida which includes a prioritized list of invasive animal species. **Any milestone during the reporting period?**

Goal 3 Accomplishments: Fostering Compatibility of the Built and Natural Systems

Integrated Land Use and Water Supply Planning

The Florida Department of Community Affairs (FDCA) and the Florida Department of Environmental Protection (FDEP) worked on ways to implement the law passed in 2002 that requires the comprehensive plans of counties and cities to be coordinated with the regional water supply plans of the state's water management districts.

In March 2002, the FDCA, FDEP and the five Water Management Districts (WMD's) launched an improved interagency coordination process to improve the integration of land use comprehensive planning and water supply planning through technical assistance and the review of comprehensive plan amendments and evaluation and appraisal reports (EAR's). This is outlined in a "white paper" titled "Agency Coordination of Comprehensive Planning and Water Supply Planning in Florida" dated November 2002.

Objective 3-A.1 Designate an additional 480,000 acres as part of the Florida Greenways and Trails System by 2008⁵

Designation of Greenways and Trails

The Florida Department of Environmental Protection, Office of Greenways & Trails (OGT) is working to establish a statewide system of greenways and trails, a "green infrastructure" that connects Florida's communities with the nature that surrounds them. To meet this goal, OGT administers the annual \$4.5 million Florida Greenways and Trails Land Acquisition Program under the Florida Forever Act.

The Florida Department of Environmental Protection reports that 227,094 acres plus an additional 75 linear miles of greenways and trails land are now in the sixteen county area as part of Florida's Statewide System of Greenways and Trails. These figures are for state programs only; many local initiatives are making substantial contributions to the statewide system of greenways and trails. The South Florida Water Management District encompasses all of Broward, Collier, Miami-Dade, Glades, Hendry, Lee, Martin, Palm Beach and St. Lucie Counties, as well as portions of Charlotte, Highlands, Okeechobee, Orange, Osceola and Polk Counties. Local counties partner with the state for designation and funding for greenways and trails.

⁵ This is a statewide goal; a regional breakout was not available from the reporting agency at the time this goal was established by the Task Force.

Objective 3-A.2: Increase participation in the voluntary Farm Bill Conservation Programs by 230,000 acres by 2014

The USDA's Natural Resource Conservation Service administers these programs and reports that there are 25,575 acres participating in these programs in the sixteen-county South Florida Ecosystem Restoration region as of September 30, 2003.

Objective 3-A.3: Acquire an additional 2,500 acres of park, recreation, and open space lands by 2005⁶

Acquisition of Parklands

The Land Acquisition Task Team has collected and synthesized some level of data has been received from all sixteen counties within the boundaries of the South Florida Water Management District. Those counties with a conservation lands acquisition program have provided a summary of their programs. Now that an initial inventory of county held conservation lands has been assembled, the Land Acquisition Task Team can track progress towards meeting this objective. The counties were asked to list those land acquisitions that the county holds title to on a summary table and provide a map illustrating those projects. To date, 44,040 acres have been acquired. Cost figures were not available for some acquisitions at this time.

Acquisition of Greenways and Trails⁷

The state of Florida has invested \$9 million to acquire an additional 3073 acres to facilitate connectivity of the greenways and trails system between October 2002 and September 2004. The Greenways and Trails Florida Forever Acquisition Program is a competitive program that provides funding for local and regional land acquisition projects that will facilitate the establishment of a statewide system of greenways and trails. The primary mission of this program is to provide a recreational trail or greenway experience within 15 minutes of every residence and business within the state. Once acquired, the property is owned by the Board of Trustees of the Internal Improvement Trust Fund (Governor and Cabinet) and managed by state, regional and local governments.

Lake Okeechobee Scenic Trail (LOST) State Park

The LOST is a new project in the ecosystem that will consist of an 11 foot wide paved trail with 3 foot wide grassed shoulder on the lake side. It is a 50-50 cost share between the federal and state governments at a total cost of \$12.5 million for the entire project.

This project will enhance the accessibility to the community to appreciate this natural resource, and will accommodate pedestrians, backpackers, bicyclists, equestrians, sightseers, naturalists, skaters, picnickers, campers and fishermen. The trail will be approximately 115 miles long. Design and land acquisition were begun in 2003 and construction is expected to be completed in 2004.

Objective 3-A.4: Complete five brownfield rehabilitation and redevelopment projects by 2006

Update status.

⁶ This is a statewide goal: a regional breakout was not available from the reporting agency at the time this goal was established by the Task Force.

⁷ The Greenways and Trails Florida Forever Acquisition Program is a statewide initiative and regional numbers are not yet available.

Objective 3-A.5: Increase community understanding of ecosystem restoration

CERP Outreach and Regional Coordination

Update status

The Museum of Discovery and Science and the Task Force Collaboration Committee

Off-Site Outreach Programs were implemented in partnership with Broward Community College, Broward County Schools and BECON TV. The museum secured a grant from Broward Community College to support the pilot phase of creating and delivering new interactive educational programming in South Florida's public schools and community centers. The museum also contracted with the Task Force (Office of the Executive Director) to create and deliver 40 new outreach programs to underserved communities in Broward County. The outreach programs will deliver relevant environmental education activities in an informal, engaging setting that has proven to be effective in reaching diverse audiences. Efforts are also underway to secure funding to replicate the Living in the Everglades exhibit and travel the exhibition.

Objective 3-B.1: Maintain or improve existing levels of flood protection

State Funding Commitments

Update status

C-4 Basin Flood Mitigation Project

This consists of a series of projects which will work together to raise the flood protection level in the C-4 basin from a 5 year service level to over a 10 year service level. The projects consist of a forward pump station at the coastal structure, raising the canal banks to prevent canal overflows into adjacent low areas, an emergency detention basin to reduce severe flood stages in the west end, and canal improvements to improve conveyance capacity to tide. The project is scheduled to be completed December, 2004.

C-111 Canal Project

Need to look at this as it was discussed under water? Is this project on schedule for 2005 target? - Does it belong in both water and goal three?

Objective 3-C.1: Increase the regional water supply by 397 million gallons per day by 2005

Regional Water Supply Plan Estimated Water Made Available (MGD)

The recommendations of the regional water supply plans are being implemented. The Water Supply Department tracks the progress of the water supply plan recommendations quarterly and produces a quarterly report. These recommendations are producing benefits such as the estimated water made available through the water conservation program, the mobile irrigation labs, reclaimed water efforts, and some operational and water management plans for specific areas. In addition, the water supply plan recommendations also address the CERP efforts to make water available through regional and local retention, etc. The first round of updates of the regional water supply plans was started in 2003, and will be concluded for all the regions by December 2005.

Objective 3-C.2: Increase the volume of water reuse on a regional basis

Wastewater Reuse Technology Pilot

During the past fiscal year, this project completed a draft PMP, which is scheduled for approval in November of 2003. Authorization was granted for the project to move forward on site selection, geotechnical scoping, and data collection. To date, the site-selection process has narrowed the number of potential sites to receive discharge from eight to four.

Objective 3-C.3: Achieve annual targets for water made available through the SFWMD alternative water supply program

Region	Achieve savings by 2004
Lower East Coast	41.2
Lower West Coast	68.7
Upper East Coast	4.40
Kissimmee Basin	23.38
Total	137.68

WMD Table needs legend 12/03

Objective 3-C.4: Reduce water consumption for irrigation by 13.9 (mgd) by 2004

Mobile Irrigation Lab

Status: Underway

(Note: This was changed from acre feet will need to be changed in the strategic plan also)

PROGRESS MADE TOWARD RESTORATION, 2003-2004

Working Group discussion - Please note -

This discussion may need revisions due to change in focus of RECOVER. It could be used as is with a few updates as an example of how we are going to be tracking restoration progress. RECOVER put this report card development on hold until the programmatic regulations were completed. They are now working on the interim goals and targets due by June 2004. In early 2004 CERP Performance measures and final systemwide monitoring plan will be complete. January 2004 a draft interim goals and targets with 26 indicators will be released for comment. It will be late in 2004 before work is begun again on the report card update.

The ultimate measure of Task Force success will be the restoration of the South Florida ecosystem. The appropriate Task Force agencies are tracking progress toward this end by developing and monitoring approximately 200 indicators of ecosystem health. These indicators, which range from the number of acres of periphyton in Everglades marshes to the frequency of water supply restrictions in urban and agricultural areas, represent the myriad physical, biological, and human elements that are all interrelated as parts of the ecosystem and are all important to ecosystem health. Many of these indicators of ecosystem health represent end results that may take up to fifty years to realize. Interim targets, which focus on earlier indications of successional change, will allow assessment of incremental progress.

The following indicators are a small subset of that much larger set of measures. They have been selected for inclusion in this biennial report because they are currently believed to be among the most indicative of natural system functioning throughout the region as a whole and among the most understandable and meaningful to the American people and the residents of South Florida. These preliminary indicators will be refined as more information is available to identify the best possible measures of ecosystem health for reports to Congress, the state legislature, the councils of the tribes, and the public.

Responding to Congress's direction that the restoration effort is guided by, and continuously adapted to, the best available science, a Restoration Coordination and Verification Team (RECOVER) has been established to support the implementation of the CERP with scientific and technical information. The RECOVER team is developing the majority of the performance measures that will be used to assess restoration progress and to make recommendations over time for adapting to new information. Additional scientific and technical information about areas not covered by the CERP is being developed and refined by other federal, state, and local agencies, including the FWS, which has developed and is implementing the Multi Species and Recovery Plan. The Task Force agencies that are tracking indicators of success provide data to the Task Force, which synthesizes the information for its reports. With the exception of the indicator for threatened and endangered species, which came from the U.S. Fish and Wildlife Service, the following indicators are from the 1999 *Baseline Report for the Comprehensive Everglades Restoration Plan*, prepared by RECOVER.

The following scale has been used to grade progress toward targets for the selected indicators of ecosystem health:

- Red** = No improvement towards target
- Yellow** = Intermediate status
- Green** = Reached / close to target

Progress in these indicators and the hundreds of other measures of ecosystem health will reinforce the current scientific judgments about what actions are needed to restore health to the ecosystem. If these indicators do not show incremental progress, the efforts will need to be reevaluated. That is the essential

link between the ultimate result of ecosystem restoration and the specific work goals and subgoals established by the Task Force.

Indicators of Total System Health

Threatened and Endangered Species

Target

Improved status for fourteen federally listed threatened or endangered species, and no declines in status for those additional species listed by the state, by 2020.

Recent Status and Trends

According to the Florida Fish and Wildlife Conservation Commission, the status of most state-listed wildlife species is in the red, largely due to continued trends of habitat loss and degradation. The Commission designated the Miami Blue butterfly (*Hemiargus thomasi brunebakeri*) as an endangered species on an emergency basis (status red). However, the Commission has also noticed improving trends in the numbers of individuals or nests for three marine species: The West Indies Manatee (*Trichechus manatus*), the green sea turtle (*Chelonia mydas*), and the leatherback sea turtle (*Dermochelys coriacea*). While the marine turtle situations can be characterized in the yellow it is not known whether the manatee situation is a result of improved management or improved sampling techniques.

According to the US Fish and Wildlife Service, the crocodile status is improving and progress is being made to prepare a proposal to reclassify this animal from endangered to threatened. The species status for the Cape Sable Seaside sparrow is considered "stable" for fiscal year 2003 because 4 of the 6 subpopulations increased in numbers since the 2002 surveys and the overall population was estimated to increase by 512 birds since 2002. The species status for the Everglade snail kite is considered "declining" for fiscal year 2003 because the threats to this animal have not changed, but surveys indicate a continuing decline in nesting success, and juvenile and adult survivorship.

Grade

Yellow

Nesting Wading Birds

Target

A minimum annual average of 10,000 nesting pairs of great egrets, 15,000 pairs of snowy egrets and tricolored herons combined 25,000 pairs of white ibis, and 5,000 pairs of wood storks.

Recent Status and Trends

Update Needed

2001	2003
5,450 great egret pairs	
3,600 snowy egret pairs	
2,200 tricolored heron pairs	
17,300 white ibis pairs	

2,050 wood stork pairs	
30,600 total pairs	

Grade

Yellow:

Urban and Agricultural Water Supply

Target

Meet urban and agricultural water supply needs in all years up to and including those years with droughts with a one-in-ten-year return frequency.

Recent Status and Trends

Interpretation of the most recent nineteen-year-period of years is made uncertain by the fact that some years during the early 1900s experienced very low rainfall amounts, and by the difficulties in determining the level of a drought at large regional scales. Also, a nineteen-year-period is insufficient to show the full range of water supply conditions that may exist with current management practices. Nevertheless, the nineteen-year record and the modeling predictions, as well as analysis for water supply planning, suggest that the current water supply system is not meeting the one-in-ten year level of service target in some areas. Additional storage is needed.

Grade

Yellow:

Indicators of Lake Okeechobee Health

Submerged Aquatic Vegetation

Target

Sustain at least 40,000 acres of total submerged vegetation, including benthic macro-algae, around the shoreline of Lake Okeechobee on an ongoing basis, and of that total have at least 20,000 acres of rooted plants, in particular, eelgrass and peppergrass.

Recent Status and Trends

The submerged vegetation displayed a dramatic recovery after a three-year period of lower than normal water levels in 2000-02, but lost acreage in 2003 due to stress of high water. Projects are not yet in place that can control water levels to the extent that the lake’s submerged vegetation can be ‘sustained’ at a high acreage. In the interim, the SFWMD and USACE will use flexibility within the lake regulation schedule to attain benefits for the lake without significantly impacting the estuaries or water supply.

Grade

Red:

Indicators of Estuary Health

Oyster Beds in the St. Lucie Estuary

Target

Increase the aerial extent of healthy oyster beds in the St. Lucie Estuary to approximately 900 acres.

Recent Status and Trends

At present, no program monitors the condition of oyster beds in the St. Lucie Estuary. Experimental cages containing oysters were placed in the St. Lucie Estuary in September/October 2002, to monitor oyster survivorship. The status and trend of indigenous populations is unknown at this time. However, hatchery raised oysters have been placed at several locations in the middle estuary and their survival monitored on a monthly basis since September 2002. Oysters at all locations exhibited a steady decline in numbers until August 2003. At this time a precipitous increase in mortality occurred owing to high discharges of freshwater to the St. Lucie. Based on this study, it is expected that oyster survivorship throughout the estuary is low. A study to map the presence of live and dead oysters is currently underway.

Grade

Red:

Roseate Spoonbills

Target

(1) Recover and stabilize the Florida Bay nesting population to at least 1,000 pairs annually distributed throughout the bay, including doubling of the number of pairs nesting in northeast Florida Bay from the current 125 to 250 pairs. (2) Recover some level of nesting by spoonbills in the coastal zone of the southwestern gulf coast between Lostman's River and the Caloosahatchee River estuary.

Recent Status and Trends

The number of roseate spoonbill nests in Florida Bay continues to be well below the Bay-wide goal of 1,000 nests. Audubon surveys recorded 429 nesting spoonbill pairs in Florida Bay for the 2002-2003 nesting season. Nest success for the 2001-2002 season was at its highest level in ten years, while success for the 2002-2003 season was near average for most sub-regions. The northwest sub-region continues to support the highest number of nests, chicks per nest, and proportion of successful nests. While the 2001-2002 season represented a successful nesting effort for northeast colonies (for the first time in ten years), the number of nests continued a long-term decline in this sub-region: the 2002-2003 survey indicated that the number of nests (101) and the number of colonies (2) were at their lowest levels since the 1960s. While spoonbill nesting effort has expanded into central portions of the Bay in recent years, this sub-region produces fewer nests and reduced nest success compared to historical colonies nesting in the northeast.

Grade

Red:

Indicators of the Health of the Everglades Ridge and Slough

Tree Islands

Target

No further degradation of tree islands, and recovery of as much as possible of the number and acreage of islands present in WCA-2 and WCA-3 in 1940

Recent Status and Trends

There is no indication of further tree island loss. However, hydrologic conditions have not been conducive for tree island restoration. Ponding and long hydroperiods continues to stress the growth of mature trees and prevent the recruitment of seedlings.

Grade

Red:

Indicators of Florida Bay Health

Seagrass Beds

Target

Coverage of 65-70 percent of Florida Bay with high quality seagrass beds distributed throughout the bay.

Recent Status and Trends

Seagrass monitoring results in Florida Bay show that coverage by *Thalassia testudinum* (turtle grass), the dominant species of the bay, has been relatively stable at the bay scale and that coverage by *Halodule wrightii* (shoal grass) has been highly variable between the mid 1990s and 2003. *Thalassia* die-off, similar to that observed in the late 1980s and 1990s is still occurring in southwestern bay basins, but increased coverage has occurred in more northerly basins, resulting in little overall bay-wide change. *Halodule*, which is a quicker growing and more variable (in space and time) species than *Thalassia*, increased dramatically between 1995 and 1999. This response was a positive indication of the recovery of seagrass habitat in terms of coverage and diversity and was associated with a period of relatively low to moderate salinity. However, this positive trend reversed in 2001, with decreased *Halodule* and *Thalassia* in association with increased salinity. Little change in these species has occurred since that time.

Grade

Yellow:

Commercial Pink Shrimp Harvests

Target

A long-term average rate of commercial harvest of pink shrimp on the Dry Tortugas fishing grounds that equals or exceeds 600 pounds per vessel-day, and an amount of large shrimp in the long-term average catch exceeding 500 pounds per vessel.

Recent Status and Trends

This indicator reflects the productivity of Florida Bay and adjacent marine waters. Pink shrimp harvests showed a general decline since the 1960s and 1970s, particularly for the larger shrimp. The indicator showed improvement in the mid 1990s for both large and small shrimp. This was a period of relatively low salinity in Florida Bay. Since that time, shrimp harvests decreased back to pre1993 levels (with total harvests of 400 to 500 lbs per vessel per day). The long-term trend of declining large shrimp abundance with an elevated proportion of small shrimp appeared to be continuing through 2002.

Grade

Yellow: