

FY 1999-2000 BIENNIAL REPORT

**of the South Florida Ecosystem
Restoration Task Force**

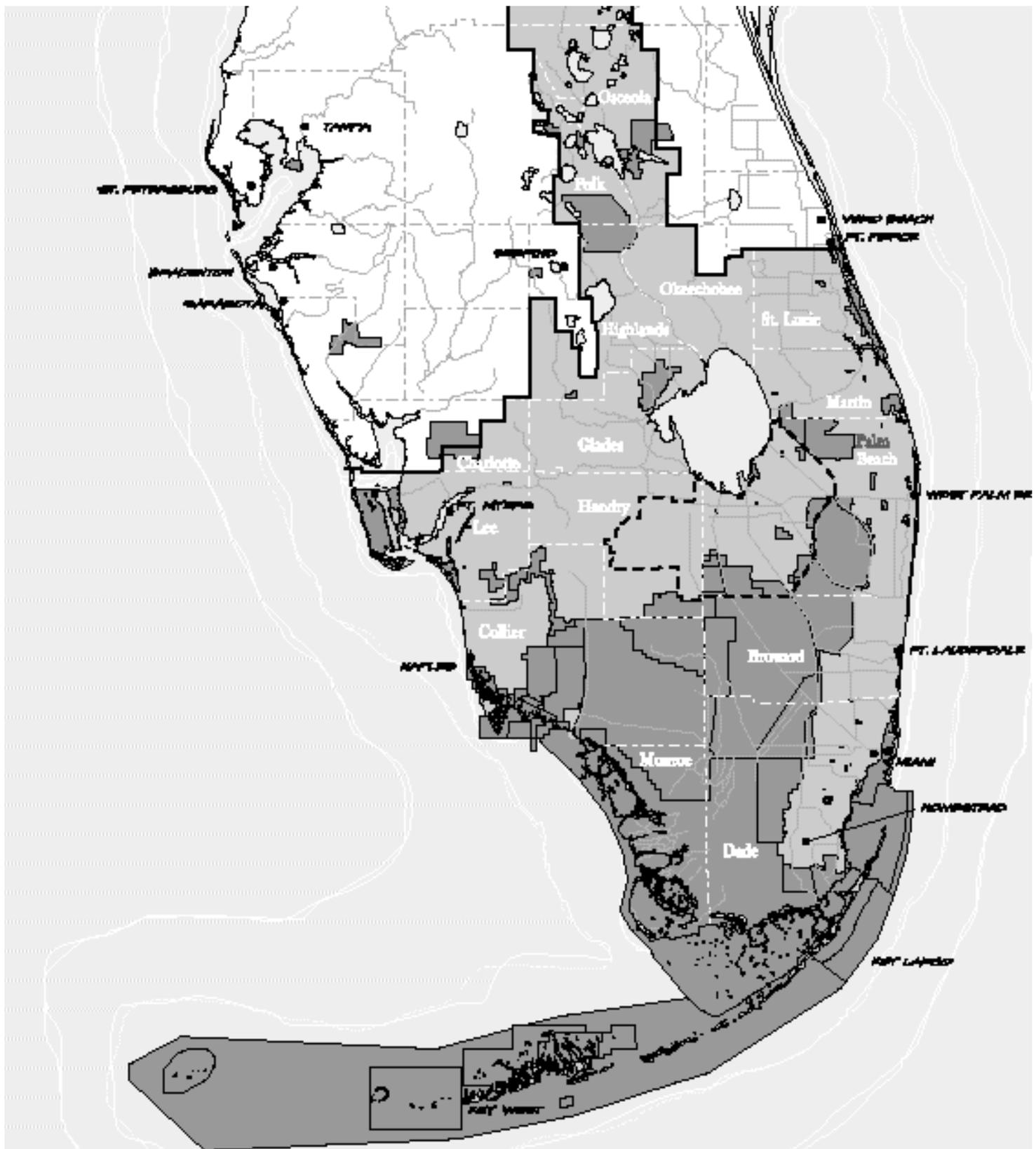
to the

**U.S. Congress, Florida
Legislature, Seminole Tribe of
Florida, and Miccosukee Tribe of
Indians of Florida**

March 2001



Courtesy of SFWMD



The South Florida Ecosystem

- South Florida Ecosystem Boundary
- Everglades Agricultural Area
- Conservation and Tribal Lands
- Non-Public Land

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**Members as of December 2000*



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White Fragrant Water Lily

CONTENTS

I	REPORT PURPOSE AND BACKGROUND I
1	Purpose
1	Authority
2	The Imperiled South Florida Ecosystem
2	Overview of Restoration Efforts
6	MAJOR ACCOMPLISHMENTS, FISCAL YEARS 1999-2000
6	An Articulated Strategy for Restoring the South Florida Ecosystem
7	Goal 1 Accomplishments: Getting the Water Right
7	Federal and State Funding of the Comprehensive Everglades Restoration Plan
8	Update on Ongoing Projects Predating CERP
9	Goal 2 Accomplishments: Restoring, Preserving, and Protecting Natural Habitats and Species
9	Habitat Acquisition
10	Highlights of Habitat Management
11	Goal 3 Accomplishments: Fostering Compatibility of the Built and Natural Systems
11	Data Compilation and Analysis
12	Flood Control and Water Supply
12	Strengthened Public Outreach
14	WHAT'S NEXT?

REPORT PURPOSE AND BACKGROUND

Purpose

This Biennial Report summarizes the progress made in fiscal year 1999 and fiscal year 2000 to restore the South Florida ecosystem. The report describes only the highlights of the task force member agencies' activities. The entirety of the effort includes over 200 projects underway by federal, state, tribal, regional, and local agencies and organizations to address critical issues related to water quantity and quality, natural habitats and species, and the compatibility of the built and natural systems in South Florida.

The report is illustrative, not all-inclusive. Instead, this report illustrates the kinds of actions taking place and the nature of the most recent accomplishments. Annual reports produced by participating agencies, such as the South Florida Water Management District (SFWMD) and the Florida Department of Environmental Protection, provide details about individual projects. This report paints the big picture.

This report is intended for four principal audiences, the

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

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.

This report is intended to demonstrate qualitatively to the above authorities and other interested parties that progress is being made and that funds targeted for restoration are being spent in logical and accountable ways. Subsequent biennial reports will contain quantitative information of progress

toward meeting restoration goals (see discussion in the "Accomplishments" section on the Strategy for Restoration of the South Florida Ecosystem).

Authority

The 1996 Water Resources Development Act (WRDA 1996) charged the U.S. Army Corps of Engineers (Corps of Engineers) to develop a comprehensive plan for restoring the hydrology of South Florida (the Central and Southern Florida Project Restudy).

WRDA 1996 also formally established a South Florida Ecosystem Restoration Task Force (the task force), comprised of federal, state, tribal, regional, and local governments, to coordinate ecosystem restoration efforts in South Florida. The task force had begun in 1993 as a federal interagency partnership, with informal participation by the State of Florida, the Seminole Tribe of Florida, and the Miccosukee Tribe of Indians of Florida. WRDA 1996 authorized the operation of the task force and provided for specific membership and duties. Pursuant to its statutory duties, the task force works to facilitate the resolution of conflicts among participants, coordinate research, assist participants, prepare an integrated financial plan, and report to Congress. The task force has no overriding authority to direct its members. Instead, the members are accountable individually to their appropriate authorities and to each other for the success of the restoration. Because on-the-ground restoration is accomplished through the efforts of the individual task force member agencies, they are the ones that are ultimately responsible for their particular programs, projects, and associated funding.

WRDA 1996 stipulated that every two years the task force would report on the following task force activities:

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

This is the second of the biennial reports required by the act.

The Imperiled South Florida Ecosystem

The South Florida ecosystem is an 18,000-square-mile region of subtropical uplands, wetlands, and coral reefs that extends from the Chain of Lakes south of Orlando through the reefs southwest of the Florida Keys. This ecosystem not only supports the economy and the quality of life of the Floridians and the Native American Indians who live there, but also enriches the legacy of all Americans. It encompasses many significant conservation areas, including Everglades and Biscayne National Parks, Big Cypress National Preserve, the Arthur R. Marshall Loxahatchee National Wildlife Refuge, the Florida Keys National Marine Sanctuary, numerous water conservation areas, Fakahatchee Strand, Kissimmee Prairie, Fisheating Creek, Rookery Bay, and the Ten Thousand Islands.

This ecosystem is sustained by water, and it has been seriously degraded by disruptions to the natural hydrology. Engineered flood control and water distribution systems for agriculture and urban development have dewatered large areas and greatly altered the quantity, timing, and distribution of water flows in other locations. Agricultural runoff and urban stormwater have introduced phosphorus and other contaminants into the water systems, polluting lakes, rivers, and wetlands. Discharges of stormwater into estuaries and coastal waters have severely degraded aquatic habitats. Groundwater is threatened by saltwater intrusion and other pollutants. These impacts have stressed the natural system, as evidenced by

- fifty percent reduction in the original extent of the Everglades, including important habitat and groundwater recharge areas
- ninety percent reductions in wading bird populations
- sixty-nine species on the federal endangered or threatened list and numerous additional species on the state list
- declines in fish and shellfish in Biscayne and Florida Bays

- subsidence of more than five feet of organic soil in parts of the Everglades Agricultural Area
- fifty percent declines in the clarity of water in certain locations within the Florida Keys
- infestations of exotic plant species on over 1.5 million acres
- damaging freshwater releases into the St. Lucie and Caloosahatchee Estuaries
- loss of 40,000 acres of grass beds in Lake Okeechobee
- loss of tree islands and damaging ecological effects in the water conservation areas
- nineteen percent decline in living corals in the last decade
- die-off of 67,000 acres of seagrass beds in Florida Bay
- severe reduction of pink shrimp catch
- loss of tree snails
- severe decline of Florida panther population and extirpation of Florida panther from Everglades National Park
- elevated levels of mercury in the Water Conservation Areas

There are indications that a return to more natural flows in the Everglades can reverse these trends. Monitoring results have shown an increase in pink shrimp and wading birds as well as an expansion of some seagrass beds in Florida Bay. This is attributable in part, to ongoing efforts to better manage the existing water management system as well as favorable rainfall conditions. The task force expects that implementation of restoration projects will result in additional improvements.

Overview of Restoration Efforts

The best current estimate is that the restoration of the South Florida ecosystem will take forty to fifty years and cost about \$14.8 billion. Of the total restoration cost, \$7.8 billion repre-

sents the first costs of implementing the Comprehensive Everglades Restoration Plan (CERP), which will be shared equally by the federal government and nonfederal sponsors. CERP outlines sixty-eight projects that will take more than thirty years to construct. CERP builds on, and is planned to be compatible and integrated with, other plans and projects that were authorized by Congress or the Florida Legislature prior to and independent of CERP. These include the Everglades Construction Project, the C-111 Project, the Modified Water Deliveries to Everglades National Park Project, the Kissimmee River Restoration Project, a number of smaller 'Critical Projects' authorized by WRDA 1996, the South Florida Multi-Species Recovery Plan, state water quality plans, state land acquisitions authorized for Save Our Rivers (SOR) and Conservation and Recreation Lands (CARL) programs, and federal land acquisitions for national parks, preserves, and wildlife refuges. Taken together, these projects represent an additional \$7 billion investment. Once the major projects are complete, additional time may be needed for the natural systems to reestablish the processes and structures of a healthy ecosystem.

The schedules and cost estimates for ecosystem restoration projects span multiple decades and depend upon certain assumptions about state and federal budget requests and funding levels, optimized construction schedules, willing sellers, and other contingencies. These assumptions are likely to change as the restoration effort progresses.

- 1947 Everglades National Park created.
- 1972 Florida Water Resources Act established fundamental water policy for Florida, attempting to meet human needs and sustain natural systems; put in place a comprehensive strategic program to preserve and restore the Everglades ecosystem.
- 1972 Florida Land Conservation Act authorized the issuance of bonds to purchase environmentally endangered and recreation lands.

- 1974 Big Cypress National Preserve created.
- 1983 Governor's Save Our Everglades Program recognized that the entire ecosystem should be restored and protected; initiated Kissimmee River Restoration Project.
- 1984 Florida Warren Henderson Act authorized the Department of Environmental Regulation (now the Department of Environmental Protection) to protect the state's wetlands and surface waters for public interest.
- 1985 Florida Local Government Comprehensive Planning and Land Development Regulation Act required the development and coordination of local land use plans.
- 1987 Compact amongst the Seminole Tribe of Florida, the State of Florida and the South Florida Water Management District completed.
- 1987 Florida Surface Water Improvement and Management Act required the five Florida water management districts to develop plans to clean up and preserve Florida lakes, bays, estuaries, and rivers.
- 1988 Land Settlement Act of 1987 transferred acreage in Water Conservation Area 3 (WCA-3) and the Rotenberger Tract to the State of Florida for Everglades restoration.
- 1988 Big Cypress National Preserve Addition Act expanded the preserve.
- 1989 Everglades National Park Expansion Act added the East Everglades addition.
- 1990 Florida Preservation 2000 Act established a coordinated land acquisition program at \$300 million per year for ten years to protect the integrity of ecological systems and to provide multiple benefits, including the preservation of fish and wildlife habitat, recreation space, and water recharge areas.

- 1990 Florida Keys National Marine Sanctuary and Protection Act established a 2,800 square-nautical-mile marine sanctuary and authorized a water quality protection program.
- 1991 Florida Everglades Protection Act provided the SFWMD with clear tools for ecosystem restoration.
- 1992 Water Resources Development Act authorized the Kissimmee River Restoration Project and the Central and Southern Florida Project Restudy; also provided for a fifty-fifty cost share between the federal government and the project sponsor, the SFWMD.
- 1993 Federal South Florida Ecosystem Restoration Task Force established to coordinate ecosystem restoration efforts in South Florida.
- 1993 Seminole Tribe approved by EPA to establish water quality standards for reservation lands in accordance with Section 518 of the Clean Water Act.
- 1994 Florida Everglades Forever Act established and required implementation of a comprehensive plan to restore significant portions of the South Florida ecosystem through construction, research, and regulation.
- 1994 Governor's Commission for a Sustainable South Florida established to make recommendations for achieving a healthy South Florida ecosystem that can coexist with and mutually support a sustainable economy and quality communities.
- 1994 Miccosukee Tribe approved by EPA to establish water quality standards for reservation lands in accordance with Section 518 of the Clean Water Act.
- 1996 Water Resources Development Act authorized a comprehensive review study for restoring the hydrology of South Florida; expanded the South Florida Ecosystem Restoration Task Force to include tribal, state, and local governments, mandated extensive public involvement, and allowed the task force to address the full scope of restoration needs (natural and built).
- 1996 Section 390 of the Farm Bill directly appropriated \$200 million to conduct restoration activities in the Everglades ecosystem in South Florida.
- 1997 Seminole Tribe of Florida's water quality standards for the Big Cypress Reservation approved by USEPA.
- 1997 Miccosukee Tribe water quality standards established for tribal lands located in WCA-3A. Standards established 10 ppb criteria for total phosphorus in tribal waters.
- 1997-2000 1997, 1998, 1999, and 2000 Interior Appropriations Acts provided for land acquisition by the National Park Service and the Fish and Wildlife Service in the Everglades ecosystem.
- 1998 Seminole Tribe of Florida's water quality standards for the Brighton Reservation approved by the Environmental Protection Agency.
- 1999 Comprehensive Everglades Restoration Plan submitted to Congress, outlining sixty-eight infrastructure projects to modify the current water delivery system and improve the quantity, quality, timing, and distribution of water to the natural system; estimated total cost of \$7.8 billion to be shared on a fifty-fifty basis by the federal and nonfederal sponsors.
- 1999 Water Resources Development Act extended Critical Restoration Project authority until 2003; authorized two pilot infrastructure projects proposed in CERP.
- 1999 Governor's Commission for the Everglades appointed to advise the South Florida Ecosystem Restoration Task Force on issues relating to Everglades protection and restoration, environmental justice, and water

resource protection, among other issues.

- 1999 Miccosukee water quality standards approved by the Environmental Protection Agency.
- 1999 Miccosukee Reserved Area Act directed Miccosukee Tribe to establish water quality standards for the Miccosukee Reserved Area (inflow points to Everglades National Park).
- 1999 Miccosukee Tribe water quality standards established for water passing through the Miccosukee Reserved Area, into Everglades National Park.
- 1999 Florida Forever Act improved and continued the coordinated land acquisition program initiated by the Florida Preservation

2000 Act of 1990; committed \$300 million per year for ten years.

- 2000 Florida Everglades Restoration Investment Act created a funding and accountability plan to help implement CERP; committed an estimated \$2 billion in state funding to Everglades restoration over ten years.
- 2000 Water Resources Development Act included \$1.4 billion in authorizations for ten initial Everglades infrastructure projects, four pilot projects, and an adaptive assessment and monitoring program; also granted programmatic authority for projects with immediate and substantial restoration benefits at a total cost of \$206 million. A fifty percent federal cost share was established for implementation of CERP and for operation and maintenance.



Courtesy of SFWMD

MAJOR ACCOMPLISHMENTS, FISCAL YEARS 1999-2000

An Articulated Strategy for Restoring the South Florida Ecosystem

In July 2000 the South Florida Ecosystem Restoration Task Force submitted its Strategy for the Restoration of the South Florida Ecosystem to Congress. The purpose of the strategy document was to describe the more than 200 federal, state, tribal, and local programs designed to restore and sustain the imperiled South Florida ecosystem and to provide the information needed to coordinate the restoration effort. The strategy responded to a need identified by the U.S. General Accounting Office (GAO) for an overall strategic plan for restoration and a decision-making process for resolving conflicts.

VISION

A healthy South Florida Ecosystem that supports diverse and sustainable communities of plants, animals, and people

In devising their coordination strategy, the task force members

- agreed upon a vision of the results to be achieved and how those results would be measured in terms of ecosystem health
- established three broad goals and measurable objectives for the work they would need to accomplish to achieve their vision
- identified the projects needed to meet their work objectives
- created data bases to help coordinate and track projects and accomplishments
- considered a protocol to facilitate the resolution of issues and conflicts

The specific, measurable work objectives and indicators of ecosystem health adopted by the task force will allow the task force to systematically track the progress of the restoration effort. Work has been underway in this reporting period to begin establishing the baselines and monitoring systems that will make this pos-

GOALS

Goal 1: Get the water right, which means restoring natural hydrologic functions and water quality in wetland, estuarine, marine, and groundwater systems, while also providing for the water resource needs of urban and agricultural landscapes.

Goal 2: Restore, preserve, and protect natural habitats and species, which means restoring the diversity, abundance, and behavior of native animals and plants and halting the spread of invasive species.

Goal 3: Foster compatibility of the built and natural systems.

sible. Subsequent biennial reports will include information about the actual percent of accomplishment of various work objectives and indicators of ecosystem health since the last biennial report. In these earliest years of the restoration effort, these percentages are still very low and for some indicators are imperceptible. Consequently, this biennial report describes the recent accomplishments in qualitative, rather than quantitative, terms.

The remainder of this biennial report is organized around the progress made in accomplishing the three goals established as part of the task force coordination strategy.

PROTOCOL FOR DISPUTE RESOLUTION

The GAO and Congress directed the task force to work with organizations and entities participating in the restoration effort to develop a decision-making process to resolve conflicts and accomplish the initiative in a timely and efficient manner. In response, the task force has commissioned the Florida Conflict Resolution Consortium and the US Institute for Environmental Conflict Resolution to develop a report due in early 2001 providing recommendations on building a more integrated system. This effort will clarify the task force roles in facilitating conflict resolution, propose possible components of an integrated system for dispute resolution, and recommend the next steps for task force action.

Goal I Accomplishments: Getting the Water Right

Federal and State Funding of the Comprehensive Everglades Restoration Plan

In July 1999, the Comprehensive Everglades Restoration Plan was presented to Congress. Through the Water Resources Development Act of 2000 (WRDA 2000), Congress authorized a \$1.4 billion package of projects that will begin implementation of CERP. This authorization included four pilot projects, ten specific project features, an adaptive assessment and monitoring program, and a programmatic authority through which smaller projects can be quickly implemented. Authorization for the remaining features of the plan will be requested in subsequent Water Resources Development Act proposals beginning in 2002.



Kissimmee River prior to channelization, 1961.

In 2000, the State of Florida approved legislation authorizing \$1 billion of state resources over the next ten years for Everglades restoration. This equates to more than \$100 million annually to be matched by an additional \$100 million from other South Florida resources for a total of \$200 million each year. To manage these funds, the state has created the Save Our Everglades Trust Fund to help build reserves for restoration.

Pilot Project Implementation Project management plans for the Lake Okeechobee and the Western Hillsboro aquifer storage and recovery pilot projects (authorized by WRDA 1999) were well underway by the end of FY 2000. WRDA

2000 authorized the Caloosahatchee ASR Pilot Project. Aquifer storage and recovery (ASR) is a significant water resource component of CERP. ASR involves the injection of freshwater into a confined brackish aquifer during times when supply exceeds demand (wet season), and recovering it during times when there is a supply deficit (dry season). ASR components represent one-fifth of the total CERP cost. The pilot projects will address technical and regulatory uncertainties and demonstrate the viability of storing partially treated surface water or groundwater in the brackish Floridan aquifer for subsequent recovery. Pilot project efforts will be supplemented by a proposed regional study that will address additional questions raised by the ASR Issue Team, including critical pressure for rock fracturing, characterization of regional hydrogeology, and regional changes in head and flow. The project management plans for the Lake Okeechobee and the Western Hillsboro ASR Pilot Projects will be completed in February 2001. The Caloosahatchee project management plan will be completed in Fall 2001.



Kissimmee River and Lake Kissimmee after channelization.

Water Quality Concerns All of the participants in CERP recognize that many uncertainties are associated with implementing the plan and that projects may need to be added, deleted, or

modified as these uncertainties are resolved. GAO has reported that additional water quality projects, in particular, may be needed, which could increase the cost of implementing CERP. The state government has primary responsibility for achieving water quality standards in Florida. As the state identifies additional projects to improve water quality, the Corps of Engineers will evaluate whether the projects are essential to the successful implementation of CERP and whether the federal government should participate in them and share their costs. The participants have agreed that future project authorization proposals will reflect the cumulative changes to CERP in terms of projects and costs and indicate the progress being made toward implementing CERP.



Corkscrew Swamp resident.

Courtesy of SFWMD

Update on Ongoing Projects Predating CERP

Kissimmee River Restoration Project: The Kissimmee River Restoration Project, authorized in WRDA 1992, is under construction. The project, which is being jointly implemented and cost-shared by the SFWMD and the Corps of Engineers, will restore over 40 square miles of river/floodplain ecosystem including 43 miles of meandering river channel and 27,000 acres of wetlands. To date, over three miles of the C-38 canal have been backfilled, with both the backfilled canal and degraded spoil mounds graded to historic floodplain elevations. A quarter-mile-long section of river channel has been recarved and linked to remnant river channels on the east and west sides of the backfilled canal, thereby restoring flow through more than eight miles of river chan-

nel. In addition, the S65B water control structure and boat lock were demolished in June 2000.

The reestablishment of flow resulting from these efforts has begun to restore geomorphic attributes (physical features such as sandbars). Wetland vegetation, particularly broadleaf marsh species and buttonbush, is rapidly expanding on the reflooded floodplain. Recent observations indicate that the reconstructed section of river channel has received increased use by wading bird species, particularly snowy egrets, white ibis, tricolored herons, wood storks, and black crowned night herons. Other notable bird observations in this region include a peregrine falcon, a roseate spoonbill, and a whooping crane.

Everglades Construction Project: In 1999 and 2000, the SFWMD completed construction on three additional stormwater treatment areas (STA-1 West, STA-2, and STA-5), bringing the total effective treatment area in operation to over 18,000 acres in four STAs. Following construction, a start-up process was initiated that included inundation of the areas to target depths and establishment of desired vegetation. Due to exceptional phosphorus removal performance observed in the prototype Everglades Nutrient Removal Project, portions of the new STAs are being managed for submerged aquatic vegetation; the remainder is being managed for cattails and other emergent vegetation. The phosphorus removal performance of the STAs has exceeded expectations, with discharges from STA-1W, STA-2, and STA-6 consistently below 30 parts per billion (ppb). Although still considered a young wetland system, STA-5 has been able to reduce inflow concentrations of over 300 ppb to below 50 ppb. Construction is set to begin on the largest STA (STA-3/4) within the next few months. Under the management of the Corps of Engineers, construction began in May 2000 on STA-1 East.

Over the last year, the SFWMD continued small-scale research on several advanced treatment technologies that will be utilized to lower

phosphorus to achieve the long-term Everglades standard. Some of the key technologies evaluated include submerged aquatic vegetation, periphyton-based STAs, chemical treatment, and optimization of the STAs.

Critical Projects: The Florida Keys Carrying Capacity Study is underway. Project cooperative agreements for eight additional projects (all authorized under WRDA 1996) were executed in January 2000. Progress on these projects is as follows:

- East Coast Canal Structures: Plans and specifications completed.
- Western C-11 Basin Water Quality Treatment: Plans and specifications underway.
- Tamiami Trail Culverts: Design 90 percent completed.
- Seminole Big Cypress Reservation Water Conservation Plan: Geotechnical and survey work completed; plans and specifications underway.
- Southern CREW Addition/Imperial River Flowway: Real estate acquisition and home removal underway.
- Lake Okeechobee Water Retention/Phosphorus Removal: Real estate acquisition underway for the stormwater treatment areas.
- Ten Mile Creek Water Preservation Area: Plans and specifications underway.
- Lake Trafford Restoration: Plans and specifications underway; boring underway to confirm depth of the material in the lake bottom.

Modified Water Deliveries to the Everglades National Park Project: In June 1999 the Corps of Engineers initiated a Supplemental Environmental Impact Statement (SEIS) to review its project plans for the 8.5 Square Mile Area, a very difficult and controversial component of the Modified Water Deliveries to the Everglades National Park Project. This project is funded from the Construction Account managed by the National Park Service and the Department of the Interior and is designed to restore more natural hydropatterns in Water

Conservation Area 3 and Shark River Slough. This will be accomplished by December 2003 through removal and modification of existing levees and canals, along with construction of new water control structures and pump stations. The 8.5 Square Mile Area is a flood-prone residential area located on the western side of the East Coast Protective Levee. In June 2000 the Governing Board of the SFWMD, the local sponsor of the project, recommended to the Corps of Engineers that it adopt Alternative 6D—a modified canal and levee alternative—as the federal project. In December 2000, a Record of Decision was signed approving Alternative 6D as the federal project. Work is underway on an accelerated schedule to complete sufficient project features to allow hydropattern restoration by December 2003.

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

Habitat Acquisition

Calendar years 1999 and 2000 saw the acquisition of 299,505 acres at a price of \$495.8 million. The lands were purchased with funding from the Farm Bill, the Florida P-2000 Program and Conservation and Recreation Lands (CARL) Program, the Land and Water Conservation Fund (LWCF), and other federal, state, regional, and local sources.

State and federal agencies have already acquired 4.7 million acres of land for ecosystem restoration purposes (4.55 million acres for habitat and 0.15 million acre for water storage). As of September 1999, the state alone had acquired 3.2 million acres of habitat conservation land in South Florida at a cost of \$1 billion.

One highlight of the past two years has been the acquisition of the majority of the Southern Golden Gate Estates. To date, the Florida Department of Environmental Protection has acquired a total of 41,605 acres (project size 57,200 acres) of sensitive cypress, wet prairie,



Courtesy of SPWRMD

Fisheating Creek: Save Our Rivers land acquisition project.

pine and hardwood hammock, and swamp communities in south central Collier County at a cost of \$52,613,478 using state and federal (Farm Bill) funds.

In April 2000 GAO reported that a land acquisition plan was needed to identify and prioritize the additional lands needed to achieve the restoration goals. The restoration strategy submitted by the task force in July 2000 lists the specific land acquisition projects with a primary purpose of restoring, preserving, and protecting natural habitats (goal 2), along with a schedule for their implementation. Additional land acquisition proposals are included as part of larger projects with the primary purpose of restoring more natural water quantity and quality (goal 1). Detailed project sheets for all of these projects, included in the strategy document, identify responsible agencies, estimated costs, and projected start and completion dates. The GAO report highlights the importance of acquiring as much land as possible, and quickly, because undeveloped land in South Florida is becoming increasingly scarce and costly.

Highlights of Habitat Management

Multi-Species/Ecosystem Recovery Implementation Team In November 1999 a Multi-Species/Ecosystem Recovery Implementation Team (MERIT) was appointed with the purpose of overseeing the implementation of the South Florida Multi-Species Recovery Plan. MERIT includes 36 members representing federal, state, and local governmental agencies, two tribal governments, academia, industry, and the private sector. The

focus of MERIT is on developing an implementation plan to prioritize the recovery and restoration actions identified in the recovery plan, and on recommending and funding on-



Courtesy of SPWRMD

Florida Panther

the-ground recovery and restoration activities. Several planned subteams were appointed to develop an overarching conservation strategy for all of the listed species in South Florida.

Exotic Species Quarantine Facility Congress approved the funding for the Invasive Plant Quarantine Facility located in Fort Lauderdale,

The State of Florida spends more than \$87 million each year on exotic plant control.

Florida. Invasive exotic plants and animals pose a significant threat to ecosystem restoration without direct and large-scale actions to manage them. The request for

proposals for construction of the quarantine facility was published in the Commerce Business Daily in December 2000. Contractor bids are due by January 31, 2001, and contractor selection is scheduled for early February 2001. Groundbreaking will be determined after contractor selection.

Melaleuca Control Program: The fourth revision and update of the Melaleuca Management Plan for Florida was recently completed. The efforts of many agencies as directed through this comprehensive plan have prioritized the expenditure of over \$24 million and removed almost 70 million melaleuca plants (over 100,000 acres) from the Everglades Protection Area. This program was implemented with



Removing exotic aquatic vegetation.

Courtesy of SFMND

integrated strategies and long-term systemwide approaches that included the development of biological control agents. Since the release of the first insect, the melaleuca snout beetle (*Oxyops vitiosa*), their populations have increased enormously and in several of the release sites beetle populations have had dramatic effects on the melaleuca.

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

Data Compilation and Analysis

South Florida Ecosystem Restoration Task Force Assessment Report: The Strategic Planning Team of the task force spent eighteen months canvassing South Florida governmental entities and nongovernmental organizations for a common vision of their desired future. The team reviewed hundreds of planning, visioning, and other efforts linked to achieving an improved quality of life for the citizens of South Florida, seeking specifically to (1) identify the particular interests and concerns of the many federal, state, tribal, and local participants in the restoration effort and the extent to which those interests and concerns could be synthesized into a shared vision and goals, and (2) identify major problems, if any, that would have to be overcome to ensure the effectiveness of this unprecedented multigovernmental ecosystem restoration effort.

The finding that the majority of all the participants in this process share similar goals was important information for the task force

charged with coordinating the restoration effort. This information formed the basis for articulating a shared vision and goals for the entire South Florida ecosystem. The other major finding was the broadly shared belief that achieving a common vision and common goals for a sustainable South Florida will require improved coordination of complex issues across jurisdictional boundaries.

Sustainable Agriculture Report: The working group's Sustainable Agriculture Task Team developed a report that details current conditions, concerns, and recommendations related to the conversion of agricultural lands to other land uses. Some 150,000 acres of productive agricultural land statewide are converted to other land uses each year. Growth pressures, rising property values and taxes, and other economic challenges to the agricultural industry have frequently resulted in the develop-



Ranch wetland area.

Courtesy of SFMND

ment of agricultural lands that could otherwise have been used to sustain the state's water resources, wildlife, open space, and environment. Task force member agencies can use the information in the report to help sustain agriculture.

Governor's Commission on Growth: In July 2000 Governor Jeb Bush created the Growth Management Study Commission to assess the effectiveness of Florida's growth management system and to determine revisions needed for the 21st century. The commission is composed of twenty-three members chosen to reflect a diversity of interests. Governor Bush asked the

commission to consider the respective roles of state, regional, and local governments and the roles and responsibilities of citizens in the development and enforcement of comprehensive plans. The commission will develop a state rural policy, and market and financial incentives for guiding development to designated areas. The commission will also consider whether current law provides adequate protection for property rights. The commission will prepare a report to the governor and the legislature by February 15, 2001, containing specific recommendations for addressing growth management in Florida.

Flood Control and Water Supply

Flood Control: Severe flooding occurred within areas of Miami-Dade County as a result of Hurricane Irene in October 1999 and intense rainfall in October 2000. In response to the



Flooding from Tropical Storm Jerry, 8/95.

October 2000 flood, the executive director of the SFWMD appointed a Recovery Task Force under the auspices of the Emergency Operations Center to develop a list of proposed flood mitigation projects for the impacted areas of Miami-Dade County. The task force, comprised of SFWMD staff with expertise in engineering, geographic information systems (GIS), emergency management, operations, planning, and local flooding issues, reviewed previous recommendations contained in Miami-Dade County, SFWMD, and Corps of Engineers reports, and recommended that mitigation projects should be considered on a basin-wide basis and include improvements to

both the primary and secondary stormwater conveyance systems. Although none of the recommendations is designed to "flood-proof" the basins in which they are constructed, the projects should provide for increased primary system conveyance, which will then allow flood mitigation benefits from secondary system improvements in local communities.

Water Supply Projects: Regional water supply plans with twenty-year planning horizons were completed for each of the four SFWMD regional water supply planning areas: Lower East Coast, Upper East Coast, Kissimmee Valley, and Lower West Coast. A regional water supply planning advisory committee composed of representatives of all interest groups was convened for each planning region to assist in plan development. The goal of each plan is to meet the water supply needs of the region during a 1:10 year drought without causing harm to the environment. These plans contain recommendations for water resource and water supply development projects to achieve the goal. Funding and implementation schedules for the projects are included in the plans. All plans will be updated every five years.

The Lower East Coast Water Supply Plan is the most complex plan and has the most extensive environmental, economic, and social implications. After nine years of work this plan was adopted by the district's Governing Board in May 2000. This planning effort was closely coordinated with development of CERP.

Strengthened Public Outreach

CERP Outreach: The Corps of Engineers and the SFWMD coordinated an intensive public involvement process during the development of CERP. A public involvement program was developed that was inclusive of all interests and concerns and balanced the sometimes-competing interests of the diverse region. Public involvement activities ranged from workshops, focus group meetings, educational and technical briefings, presentations to interested parties, public meetings, fact sheets, and newsletters, to having



Courtesy of SFWMD

Lace Coral in the Florida Keys.

the results of alternative plan formulation efforts available on a web site for comment back to the CERP planning team.

More than 1,500 people attended twelve public meetings in the fall of 1998 to comment on the draft CERP. Comments touched on most aspects of the complex restoration plan. Eleven meetings were held in South Florida from November 2 to December 1, and a final meeting was held in Washington, D.C., on December 8.

Public/Private Partnership between the Task Force and the Museum of Discovery and Science:

On September 30, 1999, the Museum of Discovery and Science and the South Florida Ecosystem Restoration Task Force struck a historic partnership agreement to foster public understanding of the complexities and values of South Florida ecosystem restoration. The agreement was part of the task force's public outreach strategy to form public/private partnerships to acquire expert assistance in disseminating useful and engaging information to the public. The partnership was desired by both the task force and the museum, which has demonstrated success for two decades in educating the public and has demonstrated success in outreach, inclusion, and environmental education of urban, minority, and underserved communities. The Museum of Discovery and Science has the highest visitation of all museums in the state, more than 500,000 people annually, including more than 75,000 children.

The museum runs several successful educational programs for schoolchildren, teachers, and the public at large and collaborates with museums worldwide in research, collections, program development, and exhibits. Collaborative work began this year on ideas and concepts that will be used to develop museum programs, exhibits, and special events related to South Florida ecosystem restoration. Additional venues will also be created to inform the public about the relevance of the many restoration efforts and the importance of a sustainable environment, economy, and society to the quality of life in Florida.

Agency Coordination and Public Outreach for the Tortugas Marine Ecological Reserve:

Widespread government and public support for the creation of the largest marine ecological reserve in this hemisphere was gained through an intensive agency coordination and public outreach effort. The Tortugas region in the Straits of Florida has near-pristine marine resources, including one of the best-developed tropical coral reef systems on the continent. It is the epicenter of marine productivity for the region. This vast system has recently come under assault from inappropriate fishing practices and other public use. Ensuring its long-term protection and appropriate public use will require cooperation among multiple and overlapping jurisdictions, including the U.S. Departments of Commerce and Interior and the State of Florida. In 2000 the managers of Florida Keys National Marine Sanctuary and Dry Tortugas National Park drafted coordinated plans for resource protection and public use. While the two managing agencies (the National Oceanic and Atmospheric Administration and the National Park Service) have distinctly different missions, they share common goals for Tortugas ecosystem health. By coordinating science, planning, and public outreach, and through collaboration with state agencies, the coordinated management of a vast area in the Tortugas region has been ensured.

WHAT'S NEXT?

In July 2000 the task force submitted its Strategy for the Restoration of the South Florida Ecosystem to Congress. The strategy document describes the more than 200 federal, state, tribal, and local programs designed to restore and sustain the imperiled South Florida ecosystem, and it provides the information needed to coordinate the restoration effort.

The specific, measurable work objectives and indicators of ecosystem health adopted by the task force are contained in that document. They will allow the task force to systematically track the progress of the restoration effort.

Work has been underway in this reporting period to begin establishing the baselines and monitoring systems that will make this possible. Subsequent biennial reports will include information about the actual percent of accomplishment of various work objectives and indicators of ecosystem health since the last biennial report. For more information, see the discussion in the "Accomplishments" section on the Strategy for Restoration of the South Florida Ecosystem. That document is available by contacting the task force office, or on the web at <http://www.sfrestore.org>.

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