EVERGLADES STATUS REPORT

January 12, 1988

Prepared by

Executive Office of the Governor
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The Save Our Everglades Program was initiated in August 1983 to restore and protect the values of the Kissimmee River-Lake Okeechobee-Everglades System. A system-wide approach was taken, with concentration on known problem areas. The program was designed to be flexible so that new objectives could be included as the need arose. Originally, the program had six parts; in 1986 Lake Okeechobee was added.

Increased problems and concerns with the water conservation areas have prompted their inclusion as a major topical area in this report, under which the Holey Land and Rotenberger restoration and management of the deer herd will be covered. Since construction of I-75 along Alligator Alley is well underway and nearing completion in Broward County, and most major issues regarding the road are resolved, progress on the environmental improvements will be included in reports on the Big Cypress Swamp, a new topical area in the report (see Figure 1).
Kissimmee River—Lake Okeechobee—Everglades System

Figure 1
I. REESTABLISH THE VALUES OF THE KISSIMMEE RIVER

A. Background

Prior to its channelization, the Kissimme River meandered 98 miles south from Lake Kissimme to Lake Okeechobee. In the 1960s, the river was transformed into a canal, 52 miles long, 200 feet wide, and 30 feet deep with six water control structures and navigational locks.

The canal, C-38, functions as a huge drainage ditch for the lower Kissimme Basin. Construction of the canal resulted in the drainage of almost 200,000 acres of river marsh and other wetlands. Groundwater levels in large areas of the basin have been lowered. Water recedes from the river valley up to 11 times faster than before channelization.

Never before has an attempt been made to restore a river channelized as a major public works project. Restoration of the Kissimme began on July 26, 1984 with a demonstration project by the South Florida Water Management District (SFWMD). As a part of the phase one restoration demonstration project, construction of three steel weirs across the canal, culverts and berms, and alteration of water levels in the canal were completed in 1986 at a cost of $1.3 million to the District.

The demonstration project has so far been a success, causing substantial flow through old river oxbows and reflooding of 12 miles of the river's floodplain for the first time since channelization.

The phase I restoration demonstration project also involves monitoring the effects of restoration activities on water quality, wildlife populations, vegetation, and reestablishment of wetlands. This work is being done by the Department of Environmental Regulation (DER), Game and Fresh Water Fish Commission (GFWFC) and SFWMD.

Monitoring and testing of the weir project is being conducted in conjunction with an $800,000 restoration study being done by the University of California at Berkeley under contract with the SFWMD. This work by Dr. Shen, to be completed in October 1989, will utilize computer and physical models to determine weir design and placement and earthen plug design and placement.
In October 1986, Congress passed the Water Resources Development Act of 1986. Section 1135 of this Act authorizes the Secretary of the Army to review water resources projects constructed by the Army Corps of Engineers (Corps) prior to October 1986 to determine the need for modifications of these projects for improving the quality of the environment in the public interest. Section 1135 includes an authorization of up to $25 million in federal funds (75/25 federal/state funding formula) for specific demonstration projects.

B. 1987 Accomplishments

1. On May 1, 1987, Governor Martinez wrote to Mr. John Doyle, Acting Assistant Secretary of the Army for Civil Works, requesting that the Corps be mindful of Florida's strong desire to restore the values of the Kissimmee River as it makes plans for implementing Section 1135. Several members of the Florida congressional delegation and the Everglades Coalition also urged inclusion of the Kissimmee River in plans for implementing Section 1135. The Jacksonville District of the Corps has also recommended that the Kissimmee River be included in plans to implement Section 1135. Although no final decision has been made by the Chief of Engineers, Congress included $2 million in the Fiscal Year 1988 budget for a restoration demonstration project by the Corps for the Kissimmee River.

2. In January 1987, as a part of the phase I restoration demonstration project testing, large water discharges were sent down the Kissimmee River to test the integrity and effectiveness of the weirs. The weirs held, forcing water from the canal and flooding over one thousand acres of historic floodplain.

3. In December 1987, the SFWMD modified Dr. Shen's contract to enable him to do an intensive 4-6 month analysis of additional weirs. This work should be complete between April and June 1988.
C. Activities and Needs for the Next 90 Days:

1. As a component of the restoration effort, the SFWMD planned to purchase the original Kissimmee River floodplain—approximately 50,000 acres. Since January 1985, the SFWMD has purchased 9,000 acres, bringing the SFWMD's land ownership to 19,000 acres. The SFWMD did not purchase any land in the Kissimmee floodplain in 1987.

Need: The Trustees staff and the SFWMD should give urgent attention to this issue and propose a resolution prior to the April 12, 1988 meeting of the Governor and Cabinet.

2. In February 1988, the SFWMD will seek approval from the DER, the Corps, and the Trustees for further Kissimmee restoration. The SFWMD's plan is to install gated culverts in the control structures (S-65B, C, and D) to increase the flow through the old river channel from its current level of 200-400 cubic feet per second (cfs) to 1200-1500 cfs. This will restore flow in 15 miles of the old river channel. The SFWMD hopes to obtain the necessary approvals in time to let bids for the work in June 1988. Construction time will be approximately 12 months.

3. The SFWMD has plans to create marshes in areas on the west side of the Kissimmee River known as Rattlesnake Hammock and Tick Island Slough. These areas are approximately 6 and 10 miles south of the confluence of the River and Lake Kissimmee, respectively. The Rattlesnake Hammock project will create about 550 acres of impounded marsh to be fluctuated seasonally to simulate natural conditions. The Tick Island Slough project will create about 640 acres of impounded marsh to be fluctuated seasonally.

The District plans to seek a DER permit for the Rattlesnake Hammock project in early February 1988. DER has issued a "notice of intent to issue" a permit for the Tick Island Slough project. However, the permit is on temporary hold until January 25, 1988 while the SFWMD negotiates with the Florida Audubon Society on objections to the plan. The SFWMD is optimistic that it can resolve the differences with the Audubon Society and get the project underway without undue delay.
II. PROTECT LAKE OKEECHOBEE

A. Background

Lake Okeechobee is the largest freshwater lake in the United States south of the Great Lakes. This 730 square-mile lake is 37 miles long by 30 miles wide, with an average depth of about 10 feet. Its water storage capacity is 1.5 trillion gallons. Lake Okeechobee receives about 40% of its water from rainfall and 36% from the Kissimmee River. Small percentages of its water come from Lake Istokpoga, Fisheating Creek, Taylor Creek-Nubbin Slough, and the Everglades Agricultural Area.

Lake Okeechobee is critical to water supplies in South Florida. It directly supplies water to the cities of Okeechobee, Belle Glade, Pahokee, Clewiston, and Moore Haven. In times of drought, water is routed southeast from the lake to recharge the Biscayne Aquifer, the water supply for nearly four million people in Palm Beach, Broward, Dade, and Monroe counties. Lake Okeechobee is considered to have the best bass, bream, and crappie fishing in the United States, and each year thousands of anglers enjoy the lake.

Lake Okeechobee is in jeopardy. High levels of nutrients, especially phosphorus from agricultural runoff are degrading the water quality and threatening the continued viability of the lake.

Since 1982, the SFWMD has been working under a permit from the DER to improve water quality in Lake Okeechobee. Measures implemented include greatly reduced pumping into the Lake from the Everglades Agricultural Area to the South.

The SFWMD has succeeded in including all eligible dairies in the Taylor Creek-Nubbin Slough Basin in the "best management practices" program which includes installing fences, cattle shade areas, cattle waste collection lagoons, and other measures to keep high nutrient cattle waste out of Taylor Creek and Nubbin Slough and, consequently, Lake Okeechobee. The U.S. Soil Conservation Service and Florida Department of Agriculture and Consumer Services (DACS) assisted in funding this program.
B. 1987 Accomplishments

1. Passage of the Surface Water Management and Improvement (SWIM) Act: The SWIM Act specified that $4.8 million be made available to the SFWMD for Lake Okeechobee, and created the Lake Okeechobee Technical Advisory Council (LOTAC). LOTAC consists of 11 people, including experts in the fields of botany, wildlife biology, aquatic biology, water quality chemistry, and hydrology. The purpose of LOTAC is to investigate the adverse effects of past diversions of water and potential effects of future diversions on indigenous wildlife and vegetation and to report to the Legislature, no later than March 1, 1988, with findings and recommendations proposing permanent solutions to eliminate any adverse effects.

2. LOTAC has met five times since its creation. Some of the specific items under investigation are: (1) the diversion of Taylor Creek and Nubbin Slough to a 10,000 acre reservoir that would be created 10 miles to the east in Martin County, (2) injection of Taylor Creek and Nubbin Slough water into the deep saline aquifer via injection wells, (3) the creation of reservoirs in the Everglades Agricultural Area to hold agricultural runoff, and (4) the creation of an agricultural runoff flowway from Lake Okeechobee to Water Conservation Area 3.

LOTAC members believe that they cannot make specific recommendations to the Legislature by March 1, 1988 on permanent solutions to eliminate adverse effects of diversions of water or future diversions because much of the data from ongoing research will not be available until mid-1989. LOTAC will be submitting an interim report to the Legislature on March 1, 1988, asking for a one-year extension of time to make further recommendations.

3. In June 1987, a DER dairy rule went into effect. The rule requires that within 6 months, all existing dairies in the Lake Okeechobee Basin submit a description of their dairy operation and request any assistance in developing a management plan. Within another 24 months, management plans and permit applications must be submitted to DER. Within another 18 months, necessary construction must be completed. The rule requires that dairies (both existing and new) (1) allow no direct discharges into surface waters, (2) in high
intensity use areas, such as in and around barns, runoff from the 25-year 24-hour storm be collected and spread on the land so as not to allow runoff or ponding, and (3) fences be constructed 25 feet upland of any water body.

4. The 1987 Legislature appropriated $4 million to the DACS for best management practices in the Lake Okeechobee Basin. To date, approximately $1 million has been spent to assist six dairies in the Lower Kissimmee Basin in installing best management practices which will meet the requirements of the DER dairy rule.

C. **Activities and Needs for the Next 90 Days:**

1. A land exchange involving 3,750 acres of state-owned land south of Lake Okeechobee currently under lease by the S.N. Knight Company and land owned by A.D. Duda, Inc., north of Lake Apopka has been proposed to the Trustees by the St. Johns River Water Management District. This proposal, and the controversy that it has created, emphasize the need for the Trustees to decide how they plan to use state-owned land in the Everglades Agricultural Area (EAA).

**Need:** LOTAC, the SFWMD, and the Trustees' staff need to give priority attention to determining how state-owned land in the EAA might be used and better managed to help clean up Lake Okeechobee and protect the water conservation areas and Everglades.
III. PROTECT THE WATER CONSERVATION AREAS

A. Background

The Everglades water conservation areas, lying south of Lake Okeechobee, consist of Water Conservation Areas 1 (220 square miles), 2 (210 square miles) and 3 (914 square miles) in Palm Beach, Broward and Dade Counties. The Holey Land and Rotenberger Tracts (100 square miles) are adjacent to and north of Water Conservation Area 3 in Palm Beach County.

The water conservation areas are a vital component of southeast Florida's water supply. They store water and, in association with the east coast canal system, serve to recharge and prevent saltwater intrusion into the Biscayne Aquifer. The Biscayne Aquifer is the sole source of freshwater for southern Palm Beach, Broward, Dade and Monroe Counties. The levees along the east side of the water conservation areas are a critical part of the flood protection system for Southeast Florida. The water conservation areas provide one-half of the water for the eastern portion of Everglades National Park.

These areas are extremely rich in fish and wildlife, including such species as the Florida Panther, Everglades Kite, and Wood Stork (endangered species), and the American Alligator and White-tailed Deer. Water Conservation Area 1 is leased to the U.S. Fish and Wildlife Service (FWS) and is the Arthur Marshall Loxahatchee National Wildlife Refuge. Fish and wildlife in Water Conservation Areas 2 and 3 are managed by the GFWFC as the Everglades Wildlife Management Area.

Of the total 1,344 square miles within the water conservation areas, the state owns 755 square miles, and 589 square miles are controlled by flowage easements held by the SFWMD. All but 35 acres of the 35,300 acre Holey Land Tract are owned by the state, and all but 10,340 acres of the 29,170 acres of the Rotenberger Tract are under state ownership.

Numerous levees, canals and structures control water levels in the water conservation areas. Four of these outlets (referred to as the S-12 structures) located on Tamiami Trail, control water flow into the eastern portion of Everglades National Park (NP). Prior to 1983, the water conservation areas were
managed to maximize water storage while protecting the east coast against flooding. Consequently, the natural amounts and timing of flow through the Everglades and Everglades NP were drastically altered, adversely affecting the life cycles of the fish and wildlife. Since May 1984, the S-12 structures have been operated to release water into the park in proportion to rainfall in the water conservation areas, resulting in more natural water flows to Everglades NP.

In the summer of 1982, the Everglades deer herd in Conservation Areas 2 and 3 suffered large losses as a result of high water in the water conservation areas. Subsequently, the Everglades Wildlife Committee made several recommendations for improving both wildlife management and water management in the Everglades. The GFWFC enacted a deer management plan in Water Conservation Areas 2 and 3 that has resulted in a smaller size herd that can survive higher water levels. The estimated deer population in Conservation Area 3 is 1,200 which is safely below the recommended high water carrying capacity range of 2,500 to 3,000.

Operation of the water management system by the SFWMD and the Corps to achieve more natural flows in the Everglades has resulted in safer water levels for the herd since 1983.

The Holey Land and Rotenberger Tracts are former Everglades areas that have been degraded by overdrainage, muck fires, and invasion by upland weeds and other plants. An interagency agreement between the SFWMD, GFWFC, DNR and DER dated June 10, 1983 set forth a plan for reflooding of these areas. Construction of levees for restoration of the Holey Land tract began in March 1985 and is 90% complete. Completion of the entire levee system is scheduled for June 1988. Construction of the main pump station will commence in June 1988, with completion in June 1989. Construction of the southeast pump station will begin in October 1988 with anticipated completion in October 1989. The SFWMD and GFWFC are currently developing an operational plan for the area. The GFWFC will manage the land and the District will maintain the water management system.
B. **1987 Accomplishments**

1. The State of Florida settled long-standing litigation with the Seminole Indian Tribe over ownership of a portion of the water conservation areas. The Tribe relinquished claim to 14,720 acres in Water Conservation Area 3 and sold 4,470 acres of Tribal land in the southern portion of the Rotenberger Tract to the state (see Appendix A for a summary of 1987 land acquisition).

2. The DNR purchased 4,500 acres in the Rotenberger Tract, leaving a balance to be purchased of 10,340 acres. Of the 4,500 acres purchased, 4,470 were part of the Seminole settlement.

3. As a part of its efforts to identify a location for a supplemental air carrier facility in Southeast Florida, Dade County asked Governor Martinez for assistance in locating the airport at a site known as "Site 14." Most of Site 14 is in Water Conservation Area 3. On December 21, 1987, Governor Martinez sent a letter to Dade County Mayor Stephen P. Clark stating his opposition to any development that would threaten the Everglades and that planning of an airport should exclude consideration of any development within the water conservation areas.

C. **Needs for the next 90 days:**

1. Only 35 acres of privately-owned land remain in the Holey Land Tract.

**Need:** The DNR should file eminent domain proceedings to acquire these areas as soon as possible.


**Need:** The DNR should escalate land acquisition efforts in the Rotenberger Tract, exercising its eminent domain authority as necessary.

3. Recent findings have shown that water quality in the water conservation areas is suffering from discharges from the Everglades Agricultural Area.
Need: The LOTAC, the SFWMD and the GFWFC should design an operating plan for the Holey Land Tract, within the context of the 1983 Interagency Agreement, to reflood this tract and at the same time be of maximum benefit to Lake Okeechobee and the water conservation areas.
IV. PROTECT THE BIG CYPRESS SWAMP

A. Background

The Big Cypress Swamp is a relatively flat area of about 771,000 acres with average elevations varying from 13 to 40 feet above sea level. Because of the relatively flat slope, as much as 90 percent of the Big Cypress Swamp is seasonally covered with water. Water moves slowly to the south by overland flow toward the estuaries of the Gulf. About one-half of the surface water that flows into the western portion of Everglades National Park comes from the Big Cypress Swamp (see Figure 2). The quality of water in the Big Cypress, particularly in the undrained parts, is generally good. However, some contamination due to human activities does occur. The Big Cypress Swamp is the primary habitat for the endangered Florida Panther, a wide variety of endangered plants, and other wildlife.

The Big Cypress Swamp encompasses the Big Cypress National Preserve (NP), Fakahatchee Strand State Preserve, Fakahatchee Strand National Wildlife Preserve, and Golden Gate Estates.

The Florida Legislature enacted "The Big Cypress Conservation Act of 1973" (Section 380.055, F.S.) for the conservation and protection of the natural resources and scenic beauty of the Big Cypress Area of Florida. Under the Act, the State contributed $40 million toward the cost of acquisition of the Big Cypress NP.

The Big Cypress NP, consisting of about 570,000 acres, was established in 1974 by Public Law 93-440 for the purpose of ensuring "the preservation, conservation, and protection of the natural, scenic, hydrologic, floral and faunal, and recreational values of the Big Cypress watershed in the State of Florida and to provide for the enhancement and public enjoyment thereof." The legislation establishing the Preserve specifically allowed continuation of prior uses, such as hunting and oil exploration.

State Road 29 is near the western boundary of the Preserve, Water Conservation Area 3 is on the eastern boundary, Tamiami Trail (U.S. 41) intersects the lower one-third of the Preserve, and Alligator Alley traverses the northern portion. These roads and associated drainage canals, particularly Alligator Alley, have caused overdrainage in some
Kissimmee River—
Lake Okeechobee—
Everglades System

HISTORIC WATER FLOW

Figure 2
parts of the Everglades system and impoundment in other parts. Alligator Alley is a threat to the Florida Panther and many other animal species as the highway crosses the Pahkahatchee Strand and Big Cypress Swamp. Automobiles on State Road 29 and Alligator Alley are the known principal cause of death to the Florida Panther.

In development plans for converting Alligator Alley to I-75, the DOT included hydrological and environmental improvements. Construction of I-75 will include three new bridges, several culverts and improved design of roadside canals to improve overland waterflow. Interstate 75 will also include 36 animal and panther underpasses and fencing on both sides to allow animals to move safely from one side of the road to the other. The State of Florida will pay the total cost ($10.75 million) for 24 of the animal underpasses and the FHWA will share in the cost of 12 underpasses.

Construction of I-75 is underway in Broward County and scheduled for completion in July 1988. The DOT is in the process of acquiring access rights along the portion of the highway from Naples to the Broward County line. Construction in Collier County began in September 1987 and is scheduled for completion in December 1989.

The conversion of Alligator Alley to I-75 was a major impetus to the proposed acquisition of a 146,000 acre addition to the Big Cypress NP. The necessary payment from interstate construction funds of severance damages to private property owners for loss of highway access will greatly reduce the cost of most of the land proposed to be acquired for the "Addition," and will facilitate public acquisition. Legislation to expand the Big Cypress NP was initially introduced in January 1986 by Congressman Lewis and Senator Chiles. The proposed legislation provided for an 80% federal and 20% state cost sharing of the purchase.

Anticipating the federal legislation, on January 7, 1986, the Governor and Cabinet reserved $22.5 million of the CARL acquisition funds for acquisition of land in the Big Cypress "Addition" and other lands in the Save Our Everglades program. Subsequently, the Governor and Cabinet authorized the DNR to participate with the DOT in joint acquisition of land in the "Addition."
About 85,000 acres of the "Addition" are owned by Collier Enterprises and the Barron Collier Company. The U.S. Department of the Interior (DOI) and the Colliers have proposed a land exchange involving Collier lands in the "Addition" plus other Collier lands in the Big Cypress Swamp for a parcel of federal property in downtown Phoenix. The DOI favors the exchange over outright purchase because it would not require cash payment. Since interstate land exchanges require federal legislation, the DOI has urged the inclusion of the exchange in legislation to purchase the "addition" (S 90 and HR 184). However, due to unresolved issues raised by the Arizona Congressional Delegation, the exchange has not been incorporated in the legislation. The land exchange would be very beneficial to Florida. It would bring 118,000 acres of the Collier property in the Big Cypress Swamp into public ownership; including 85,000 acres in the addition, 15,000 acres in the proposed Fakahatchee Strand National Wildlife Refuge and 18,000 acres in the Ten Thousand Islands area.

Additional unresolved issues associated with conversion of Alligator Alley to I-75 are the number and use of recreational access points to be included along the highway, and the addition of an interchange at State Road 29. While the state asked for six motorist rest areas/recreational access points, the FHWA's current approval allows only two access points along the entire 76 miles. The DOT and GFWPC are currently studying the issue. The DOT and FHWA are analyzing the feasibility of adding an interchange at State Road 29.

Golden Gate Estates, west of the Fakahatchee Strand and north of Everglades NP, was developed in the 1960s by Gulf American Corporation as an 111,000 acre residential subdivision. This project includes 183 miles of canals and 813 miles of roads. Although over 50,000 residential lots were sold, only portions of Golden Gate Estates north of Alligator Alley have been developed as a residential area and the portion south of the Alley remains largely undeveloped.

The Golden Gate Estates/Faka Union canal system has had drastic effects on the hydrology of the Fakahatchee Strand and the Ten Thousand Islands estuaries of Everglades NP. Over 360 square-miles are drained by these canals. Water levels have been lowered by two to four feet, and the length of seasonal flooding of the land has been shortened by five to seven months.
These canals discharge 1.6 billion gallons of fresh water annually into the estuaries of the Ten Thousand Islands - more than double the pre-drainage volume. As a result of this discharge, the biological productivity of Faka Union Bay and Fakahatchee Bay has diminished. Fish, shrimp, and other marine life have been greatly reduced. Wildfire damage in Collier County has increased from about 8,800 acres per year during the pre-drainage period to nearly 77,000 acres per year since Golden Gate Estates was developed.

A February 1986 draft report by the Corps describes methods for returning a large part of Golden Gate Estates to near its natural state. The report indicates that a combination of canal filling, modification of water control structures, and land acquisition would significantly improve the hydrology of the Fakahatchee Strand south of Alligator Alley. Seasonal flooding would be restored on over 30,000 acres of land, and fin fish in Faka Union Bay would increase by 28%. No flooding of homes would occur. The Corps estimates that construction costs would be $2.2 million and states that this work is not eligible for federal participation due to the lack of a net national economic benefit.

In response to the Corps study, the Secretary of the DER in 1986, established a committee on the restoration of Golden Gate Estates. The committee was composed of state and local government representatives and private interests.

**B. 1987 Accomplishments**

1. During 1987, the DNR purchased 530 acres in the Fakahatchee Strand (#2 on the CARL list), bringing state ownership to 46,530 acres of the 74,000 acre project. DNR purchased 11 acres of the 41,000 acre Golden Gate Estates project (part of the SOE project - #18 on the CARL list), leaving a balance of 40,989 acres to be acquired. It is estimated that there are about 9,000 owners of the remaining 27,470 acres in the Fakahatchee Strand, and over 22,000 owners of the remaining 40,989 acres in Golden Gate Estates.

2. The Big Cypress National Preserve "Addition" legislation introduced in 1987 by Congressman Lewis as HR 184 and Senators Chiles and Graham as S 90 passed both houses of Congress. However,
because S 90 was amended to increase the size of the "Addition" from 136,000 to 146,000 acres, change the oil and gas regulations, and encourage hunting and fishing, it has been referred back to the House for consideration. The House is expected to take up S 90 early in 1988.

3. The DOT and DNR have jointly acquired 10,842 acres along the I-75 corridor.

4. Governor Martinez proposed legislation that passed during the 1987 session which shifted funding of the CARL acquisition program from the phosphate severance tax to the documentary stamp tax. This funding shift will result in over $200 million in additional funds for land acquisition over the next nine years.

5. The state committee on the restoration of Golden Gate Estates submitted a report to the Secretary of the DER in March 1987 making recommendations for restoring southern Golden Gate Estates. Recommendations included (1) expansion of the Big Cypress Area of Critical State Concern (ACSC) to include the Golden Gate Estates CARL project, (2) accelerate the acquisition of the area, (3) inclusion of the area in the Collier County Local Government Comprehensive Plan as a conservation/acquisition area, and (4) further analysis of drainage alterations necessary to restore more natural flow of water.

6. Governor Martinez supported legislation which passed during the 1987 session granting DNR eminent domain authority for land acquisition in Golden Gate Estates.

7. In 1987, the National Park Service (NPS) began restoration of three canals that overdrain portions of the Big Cypress NP. Having obtained DER and Corps permits and Collier County approval, an earthen weir has been placed in Turner River Canal south of Tamiami Trail. Plans include more weirs in the canal and weirs in Wagon Wheel and Birdon Canals.

8. The DOI received $600,000 for Fiscal Year 1987 to complete acquisition of the Big Cypress National Preserve.

9. The NPS acquired 2,000 acres of out-parcels in the Big Cypress National Preserve, leaving only 60 remaining privately-owned parcels. Eminent domain proceedings have been filed on 40 of the remaining 60 parcels.
C. Activities and Needs for the Next 90 Days:

1. Congress is expected to take final action in 1988 on authorizing federal acquisition of 146,000 acres as an addition to the Big Cypress National Preserve. Final action is expected to include authorization of the land exchange between the Department of Interior and the Colliers.

2. Early plans for I-75 excluded an interchange at State Road 29 to discourage development of the natural lands in the vicinity. Current public acquisition proposals would bring all the land within several miles of the intersection of Alligator Alley and State Road 29 into public ownership. This will alleviate the need to exclude the interchange. The DOT will continue its analysis of an interchange on I-75 at State Road 29, providing public acquisition of land surrounding the interchange proceeds.

3. Currently, there is considerable public use of the land and waters adjacent to Alligator Alley. Public access needs to be provided to the recreational land in the water conservation areas, Big Cypress NP, and the "Addition." However, public access and use of these lands should be consistent with management plans for the area. The DOT will work toward completion and implementation of plans for recreational access along I-75.

4. DOT and DNR expect to jointly acquire approximately 700 acres along Alligator Alley to be included in the Big Cypress NP "Addition."
V. RESTORE EVERGLADES NATIONAL PARK

A. Background

Alteration of the natural water flow into Everglades National Park by levees and canals has reduced fish and wildlife populations and the overall quality of the park. Prolonged reductions in water to the park have converted wetlands to upland ecosystems. Sudden, large discharges of water have destroyed wildlife. The estuarine fisheries of the park have also declined as a result of altered freshwater flow.

In 1983, the SFWMD Governing Board issued an emergency order to approve a seven-point request by the NPS to address critical water problems in the park. The plan included filling in canals, removing levees, water quality monitoring, and establishing a new water delivery schedule for the park. Through cooperative efforts between the park, the SFWMD and the Corps, each of the seven points of the plan has been entirely or partially implemented.

An important element of restoring the park is the restoration of natural water flow to the Northeast Shark River Slough and Taylor Slough in the East Everglades. Historically, the Northeast Shark River Slough supplied one-half of the water flowing into the eastern portion of the park from the Everglades.

In December 1983, Congress passed Public Law 98-181 which provides for experimental water deliveries to the park over a two-year period, authorizes purchase of agricultural lands affected by modification of the park's water delivery schedule, and authorizes funding of up to $10 million for flood protection for residential areas in the East Everglades affected by changes in water delivery to the park. In December 1985, Congress enacted legislation to continue the experimental water delivery program for the park until January 1, 1989. This is being undertaken by the Corps and SFWMD in coordination with the NPS.

A major feature of the experimental water delivery program for the park is the SFWMD's Northeast Shark River Slough water delivery test program. More natural hydrological conditions are
being established by routing water from the water conservation areas along Tamiami Trail into the slough in proportion to rainfall in the water conservation areas. As a result, over the past two years approximately 40% of the flow into the eastern portion of the park has come through the slough; previously virtually no flow was received in the park from this area.

Acquisition of land in the East Everglades is important to restoration of the park. Over 55,000 acres in this area were purchased in 1983 and 1984 by DNR and the SFWMD. An additional 75,000 acres (5,000 parcels) remain in private ownership. The SFWMD has placed approximately 25,000 of these acres on its "Save Our Rivers" five-year acquisition plan. The remaining 50,000 acres are ranked as #53 on the CARL list. These purchases would bring all of the undeveloped land in Northeast Shark River Slough into public ownership.

B. 1987 Accomplishments:

1. In late 1987, the Corps completed a draft General Design Memorandum addressing structural and operational modifications to the water management system to improve flow to the park.

2. In late 1987, the Corps completed work on a plan (GDM) for restoration of the Canal III (C-111) Basin in the southern portion of the East Everglades and Everglades NP. The document addresses structural modifications and additional structures to increase flows to the park and Florida Bay and hold groundwater levels higher while continuing to provide flood protection to developed and agricultural areas in the East Everglades.

3. In 1987, the DOI proposed the exchange of several thousand acres of federal land in Nevada for approximately 5,000 acres of Aerojet Corporation land in the Taylor Slough Basin in the East Everglades. The SFWMD plans to purchase the land in the East Everglades from the DOI for $1.6 million. The DOI would subsequently use those proceeds to purchase land in the Key Deer National Wildlife Refuge and Lower Suwannee National Wildlife Refuge. The exchange proposal is pending U.S. House and Senate committee action.
4. For the past several years, the SFWMD has used its canals to lower water levels on 1,500 acres of an area in the East Everglades known as the "Frog Pond." Water level drawdowns are necessary to enable early fall planting on this land, owned by Aerojet and leased for farming. Land elevations are 4 1/2 to 5 feet above msl and to allow farming the water levels need to be lowered to 3 1/2 feet msl. Groundwater drawdowns also lower ground water levels for 1-2 miles in Everglades NP which abuts the Frog Pond to the west. In June 1987, the SFWMD issued a resolution establishing the following phase-out schedule for Frog Pond drawdowns:

1987 - drawdown commences on October 15;
1988 - drawdown commences on November 1;
1989 - drawdown commences on November 1;
1990 - no drawdown.

C. Activities and Needs for the Next 90 Days:

1. The Corps is studying structural and operational modifications to the water management system to improve flow to the park as a part of the Everglades National Park Water Supply General Design Memorandum. In addition to a plan of action for providing improved water deliveries to the park, the GDM will include an analysis of flood control options for the residential and agricultural areas in the East Everglades, and designs for any necessary structural modifications to the existing water management system. A major issue raised by the Corps is whether compensation to private land owners will be required as a result of raising water levels in the East Everglades. The GDM is scheduled to be sent by the Jacksonville District to the South Atlantic Division Office of the Corps in March 1988.

2. A draft report containing the Corps' recommendations for restoration of the C-111 Basin will be released in February 1988 with an estimated 30-60 day public comment period. It is anticipated that a final report, including an Environmental Assessment, will be released for public comment by the Corps in June, 1988.
VI. PROTECT THE FLORIDA PANTHER AND OTHER ENDANGERED WILDLIFE

A. Background:

Florida Panthers, once plentiful throughout the Southeast United States, are struggling for survival in a diminishing habitat confined to South Florida. It is estimated that fewer than 50 Florida Panthers now survive in the Everglades region, making it one of the most endangered species on earth. Habitat loss to urban and agricultural development, poor food supplies, and highway mortalities are the greatest threats to the panther. Automobiles on Alligator Alley and State Road 29 are the leading causes of panther deaths; since 1972, of 21 known panther deaths 13 have been by automobiles.

The freshwater swamps in the Big Cypress and Fakahatchee Strand support some of the most diverse plant and animal communities in North America. Many species of animals and plants depend upon the protection of this area for their survival. A large part of this native habitat critical to the Florida Panther, peregrine falcon, bald eagle, native orchids and many other endangered species, is in private ownership. Public ownership of this land is essential to ensure that it will remain as suitable habitat for sensitive species.

Protection of the Florida Panther has become a national priority. The Fish and Wildlife Service and the National Park Service are directing substantial resources to the panther. In April 1986, the FWS, NPS, GFWFC and DNR formally joined together in creating an interagency task force on panther recovery. In addition, the State has a Florida Panther Technical Advisory Committee.

The NPS budgeted $400,000 over the next three years for panther recovery work. Plans include research on panthers and their prey (deer) in Everglades NP and the Big Cypress NP.

Over the past three years, the GFWFC has directed 25% of its research budget ($250,000 each year) toward the panther. Extensive radio tracking, biomedical study, field investigation and law enforcement efforts are being conducted. The locations for the panther and animal underpasses on I-75 were derived from radio tracking studies by the GFWFC.
In an effort to increase the deer population, the principle food source of the panther, in 1985, the GFWFC adopted regulations that prohibit the use of all-terrain vehicles for taking game in the Big Cypress NP and limited the use of dogs for hunting.

On July 3, 1986, the GFWFC entered into a contract with Gilman Paper Company to develop a near-natural panther captive breeding program. Gilman Paper Company owns White Oak Plantation, a 7,000 acre natural area in Nassau County. It is one of the few privately funded, non-profit, rare and endangered species breeding programs in the country. Plans involve mating adult male panthers with females to be brought from the Big Cypress Swamp and from the western United States. Offspring will be released in the wild.

In January 1986, the GFWFC captured and then released a healthy five-month old panther kitten in the Big Cypress Swamp. In early July 1986, a mother and kitten panther were also identified in the Big Cypress Swamp. A small population (5 or 6) of panthers live in the eastern portion of Everglades NP. Extensive research of these panthers is underway.

The Fish and Wildlife Service has received over $8 million for the purchase of a 30,000 acre national wildlife refuge in the Fakahatchee Strand. This area, lying immediately north of Alligator Alley and west of State Road 29, is excellent panther habitat. The DOI-Collier land exchange includes 15,000 acres in the proposed refuge.

Along Alligator Alley, State Road 29, and Tamiami Trail, where panthers are known to cross, speed zones of 45 miles per hour have been established. The Florida Highway Patrol has increased enforcement of these lowered speed limits to help protect the panther. The Florida Department of Highway Safety and Motor Vehicles and the DOT have erected billboards and traffic signs to alert motorists of the panther. The DOT also placed motorist alert strips across these highways before and within the speed zones.
B. 1987 Accomplishments:

1. The DNR purchased 530 acres in the Fakahatchee Strand, leaving the amount yet to be acquired at 27,470 acres.


4. The GFWFC closed the Fakahatchee Strand to all hunting.

5. The DNR began a program to increase the deer population in the Fakahatchee Strand State Preserve, including controlled burning, clearing and food plot planting.

6. The NPS began in intensive research program on the panther population in ENP including radio tracking.

C. Activities and Needs for the Next 90 Days:

1. The National Park Service, in January 1988, plans to ask the GFWFC to significantly reduce hunting in the Big Cypress NP in an effort to increase the deer population.

THE EVERGLADES COALITION:

Background:

In 1984, several national and state conservation organizations joined together forming the Everglades Coalition to support the restoration and protection of the Everglades. From 1984 through 1987, the Coalition had numerous meetings with the Assistant Secretary of the Army for Civil Works, the Corps of Engineers, the Assistant Secretary of Interior for Fish and Wildlife and Parks, the Administrator of the Federal Highway Administration and members of Congress to promote components of the program. The Coalition has been very effective in gaining federal approval of the Big Cypress National Preserve addition, funding for the Kissimmee River restoration under Section 1135, and funding for acquisition of the Fakahatchee National Wildlife Refuge.

The Third Annual Conference of the Everglades Coalition is scheduled for January 21-23, at the Sheraton Hotel in Key Largo.
# Append A

## EVERGLADES LAND ACQUISITION

### SUMMARY - As of 1/12/88

<table>
<thead>
<tr>
<th>Area</th>
<th>Total Project Area</th>
<th>Acres Purchased in 1987</th>
<th>Total Acres in State Ownership</th>
<th>Remaining Acres</th>
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<td><strong>130,478</strong></td>
<td><strong>321,292</strong></td>
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*Total does not include 2,000 acres purchased by the National Park Service in the Big Cypress National Preserve.*