

Everglades Restoration

Annual
Progress Report



Submitted to
the Governor,
the Florida State
Legislature and
the Florida Department
of Environmental
Protection by the
South Florida
Water Management
District

January 1994

This is a yearly report on Everglades restoration
as required by the Marjory Stoneman Douglas
Everglades Protection Act.

Introduction

This document is provided by the South Florida Water Management District to the Florida Department of Environmental Protection, the Governor, the Speaker of the House of Representatives, the Minority Leader of the House of Representatives, the President of the Senate, and the Minority Leader of the Senate as an annual report on the progress of implementation of the 1991 Marjory Stoneman Douglas Everglades Protection Act and other Everglades restoration efforts. This is the third annual progress report. The first was published in early 1992 for the 1991 calendar year.

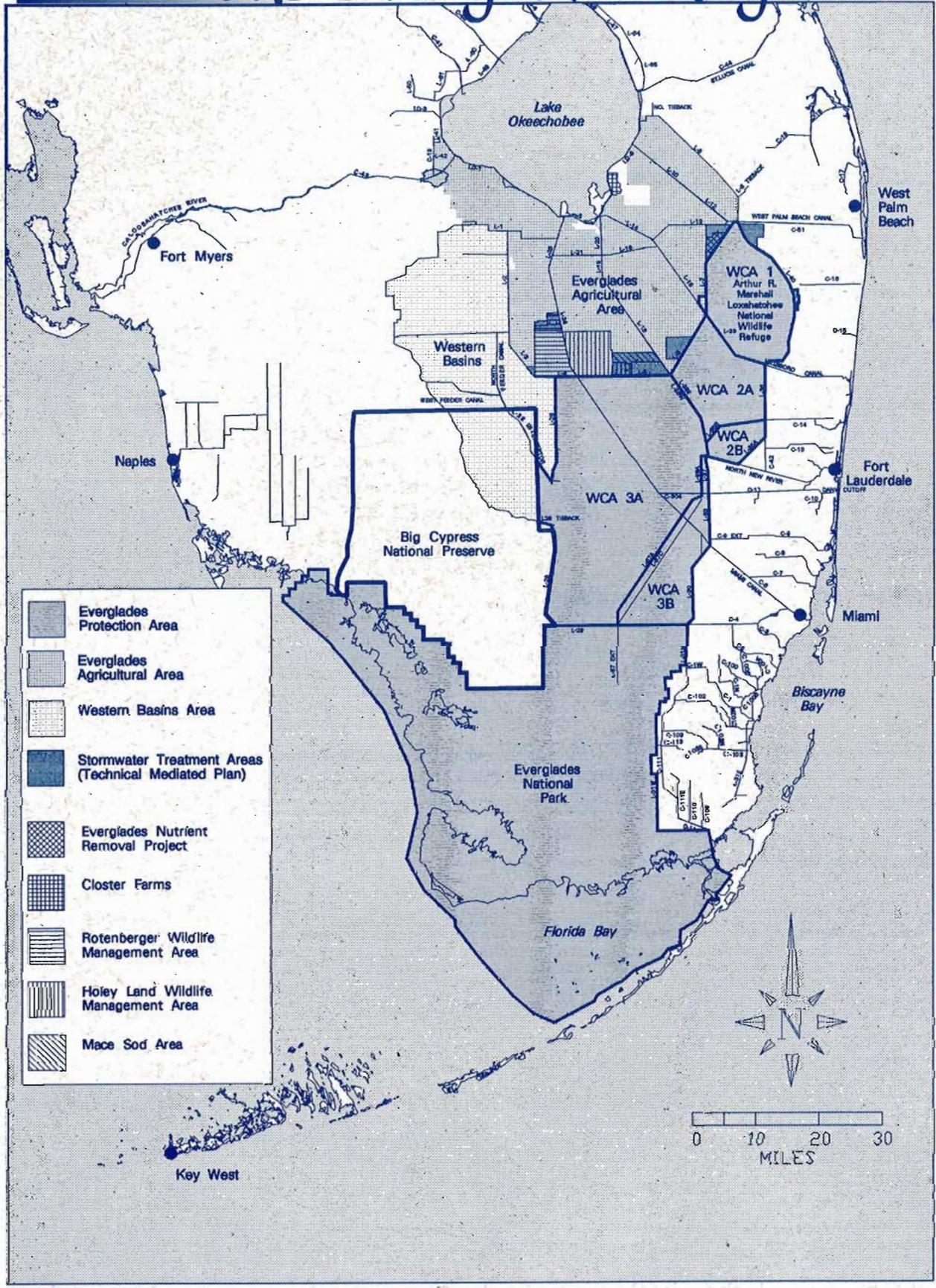
Florida's Everglades once sprawled across four million acres. Today, close to half the Everglades are gone. The economic promise of the Everglades' rich peat soils led to the drainage of thousands of acres for agriculture. Other Everglades areas closer to the coast were drained, making way for the rapid urbanization of south Florida. To accommodate both agricultural and urban development, the once vast sawgrass prairies were cordoned off by levees and water control structures which today funnel most of the water that flows through the Everglades.

Water was then, and is now, the lifeblood of the Everglades. Changes in the quality, quantity, distribution and timing of that essential flow have caused the Everglades to diminish in vitality.

Today, the Everglades is at the center of many complex water resource and environmental management dilemmas, most the result of rapid urban and agricultural development in south Florida over the past 45 years. Water quality changes can be traced to excess nutrients such as phosphorus, predominantly a byproduct of agricultural operations.



The Everglades Region



1993 Everglades Restoration Progress Report



Executive Summary

Background and Framework

Background

Framework

SWIM Legislation

Marjory Stoneman Douglas Everglades Protection Act

Federal Lawsuit Settlement

SWIM Plan Approval

Mediation Dominates 1993

Restoring the Everglades

Regulating the Everglades Agricultural Area

Public Works

Everglades Nutrient Removal Project

Stormwater Treatment Areas

Obtaining a Permit for the Everglades Protection Area

Western Basins

Land Acquisition

Research and Monitoring

Technical Review and Public Participation

Technical Support Committees

Technical Oversight Committee

Scientific Advisory Group for the Everglades

Everglades Restoration Council on Funding Policy

Public Participation

Funding Considerations



Executive Summary

This past year was marked by optimism and frustration for Everglades restoration. One of the most intense activities was mediation of the SWIM Plan and permit challenges. Much time, effort and good faith was put forth by all parties participating in this complex process. Mediation was an achievement in that it was the first time the various parties having a key role in Everglades restoration came to the table together to discuss important issues.

There was genuine hope a mediated settlement would be reached throughout the nearly year-long process. A technical plan was developed which is considered the best and most comprehensive Everglades cleanup and restoration plan proposed to date — providing many additional benefits not included in earlier plans. In July, agreement on a Statement of Principles was announced, outlining a broad framework for a cleanup and restoration program.

Discussions continued between July and mid-December to negotiate final points of the cleanup and restoration plan, as outlined in the Statement of Principles. Key parties in these discussions included the federal government, state of Florida, South Florida Water Management District, and some farming and environmental interests. While most would agree it was an extraordinary effort, negotiations reached an impasse in mid-December over a number of concerns. These included uncertainty regarding 1) long-term funding, cost and scheduling responsibilities, 2) a proposed constitutional referendum for the 1994 ballot to tax sugar production, 3) an end-of-the-year announcement requiring a federal NPDES permit for the treatment marshes, and 4) a federal report listing options for restoration which included the development of a filtering wetland through the center of the Everglades Agricultural Area.

While talks stalled at the end of the year, the process did bring many important policy issues to light. In late December the Governing Board was considering its options for 1994. The District is proceeding with an administrative hearing for the SWIM Plan, with a trial tentatively to be scheduled in early April. In addition, at the Governor's request, the District is working with the state and federal governments to develop an alternative restoration plan.

While mediation dominated the calendar, many other projects initiated by the District occurred in 1993 to advance Everglades restoration and protection. These include completing construction of the nearly 4,000-acre Everglades Nutrient Removal Project, implementation of new research

programs and the continuation of those efforts already under way, and the hiring of one of the nation's leading researchers to act as liaison with the scientific community and universities in the region.

Other highlights for 1993:

- The Everglades Agricultural Area (EAA) Regulatory Program — to reduce phosphorus load leaving the EAA by 25 percent — continued on schedule with all land users in compliance with regulatory application requirements. Growers are now implementing programs to reduce the phosphorus load leaving their property.

- An evaluation of the 20-year economic impact on the EAA of implementing the Marjory Stoneman Douglas Everglades Protection Act was completed.

- The District continued to develop a stormwater utility special assessment for the EAA pursuant to the Marjory Stoneman Douglas Everglades Protection Act.

- The Governing Board approved \$21.8 million for FY 94 for Everglades restoration projects, with these funds to be managed in a special trust.

- The District successfully negotiated acquisition of the 7,065-acre Mace Sod Farm to be part of a stormwater treatment area. Closing is scheduled for early 1994.

- An environmental assessment was completed for a 711-square-mile area of Collier and Hendry counties, known as the Western Basins, which is contributing nutrients to the Everglades.

- The Governing Board unanimously adopted a resolution opposing oil drilling exploration in the Everglades.

- Vigorous melaleuca control efforts continued in historic Everglades areas.

- The District continued to assist state and federal interests to learn the source of mercury contamination in tissue of Everglades fish and other wildlife.

- The District created its Ecosystem Restoration Office to coordinate the agency's many programs to restore and protect south Florida's interconnected ecosystem, including the Everglades.





- A District-sponsored educational display for children and adults on the Everglades ecosystem opened at the Museum of Discovery and Science in Broward County.

Federal and state government action:

- The federal government took a strong advocacy position for greater Everglades ecosystem restoration, citing this as a test case for ecosystem restorations around the nation. During the year:

Interior Secretary Bruce Babbitt announced the formation of a federal multi-agency Everglades Task Force in February, and later in the year toured the Everglades to see degradation problems first-hand.

The U.S. Army Corps of Engineers launched a comprehensive three-year review study of the Central and Southern Florida (C&SF) Project, expected to have a major impact on Everglades ecosystem restoration. As local sponsor, the District is working closely with the Corps in this undertaking.

Marjory Stoneman Douglas received the Presidential Medal of Freedom at the White House on Nov. 30. Florida's most famous environmentalist was awarded the nation's highest civilian honor for her 70-year fight to defend the "River of Grass."

- Florida's Save Our Everglades program celebrated its tenth anniversary in August. Launched by Governor Bob Graham in 1983, it sought to preserve the greater Everglades ecosystem — from the Kissimmee River to Florida Bay. The program's goal is that by the year 2000 the Everglades will look and function more like it did in 1900 than 1983.

Background & Framework

BACKGROUND

The Everglades is an internationally recognized ecosystem which once sprawled across four million acres of southern Florida. Its vast sawgrass prairies and tree islands provided a home to many rare and endangered species. Water which moved as sheetflow slowly over the Everglades eventually fed southern bays and estuaries and recharged the region's underground aquifers.

In the past 100 years, man's efforts to develop Florida have resulted in the Everglades being radically altered. Almost half the original wetlands have been lost — with approximately two million original Everglades acres remaining today. These expanses are largely contained in three Water Conservation Areas located in western Palm Beach, Broward and Dade counties, and Everglades National Park at the southern end of the peninsula. The northernmost Water Conservation Area is the federally-designated Arthur R. Marshall Loxahatchee National Wildlife Refuge.

Within the remaining Everglades, some areas are in near-pristine condition while others are visibly suffering. Problems which have affected the Everglades include changes in water flow, timing, distribution and quality; invasion of non-native plants; and other consequences resulting from man's encroachment. The sources of some other potential dangers, such as mercury contamination, are still unclear.

The state of Florida and the South Florida Water Management District have long recognized the importance of protecting the Everglades. Research by District scientists began more than 20 years ago. Restoration efforts intensified in 1983 when Governor Graham launched the Save Our Everglades initiative to unite state agencies in preserving the greater Everglades ecosystem.

FRAMEWORK

SWIM Legislation

In 1987, the District was given an important boost in its efforts to restore the Everglades with the passage of the landmark Surface Water Improvement and Management (SWIM) Act by the State Legislature. This act required the state's five water management districts to clean up and preserve Florida's bays, lakes, estuaries and rivers. The act specifically called for the District to develop SWIM plans for Lake Okeechobee, the





Indian River Lagoon and Biscayne Bay. The District Governing Board made the Everglades a priority for SWIM Plan development as well, as did the Legislature in 1991.

The District began the process of developing a comprehensive SWIM Plan to protect the Everglades in 1988. The plan, subject to public, state and local review, took four years to complete. Details of it are listed later in this report.

Marjory Stoneman Douglas Everglades Protection Act

In 1991, the State Legislature unanimously passed the Marjory Stoneman Douglas Everglades Protection Act. The Douglas Act required the District to complete a SWIM Plan, to apply for a five-year interim permit from the then-Department of Environmental Regulation (DER)—renamed Department of Environmental Protection (DEP) in 1993—to operate water control structures discharging to the Everglades, and to initiate Everglades Agricultural Area regulatory rulemaking procedures.

The Douglas Act gave the District several clearly defined tools to meet its obligations under the bill. These included the authority to establish a stormwater utility to collect fees to fund an agricultural stormwater management system, and the power of eminent domain to acquire the land needed for construction of the proposed stormwater treatment areas. The passage of the Douglas Act paved the way for the settlement of the federal lawsuit.

Federal Lawsuit Settlement

Everglades restoration reached national attention in 1988 after SWIM Plan development had begun. The U.S. Department of Justice filed suit against the DER and the District for not enforcing water quality standards for agricultural runoff water entering the Loxahatchee National Wildlife Refuge—a federally-designated refuge within the original Everglades—and Everglades National Park. The lawsuit lasted three years and a settlement among the government parties was finally reached in 1991. A federal judge accepted the settlement agreement in February 1992. It is presently on appeal in federal court by parties that were granted a limited right to intervene, with oral arguments scheduled for January 1994.

The lawsuit settlement required a number of actions be taken to ensure a vigorous cleanup effort. These included, but are not limited to, meeting DEP water quality standards for Everglades discharges by July 1, 2002; meeting interim phosphorus concentration limits for Everglades National

Park and the Loxahatchee National Wildlife Refuge by July 1, 1997; development of an Everglades Agricultural Area Regulatory Program to reduce total phosphorus load by 25 percent by February 1996; and, in cooperation with the state, development of a water quality and quantity monitoring program for Everglades restoration.

SWIM Plan Approval

In March 1992, the Everglades SWIM Plan was approved by the Governing Board, as required by the Douglas Act.

The plan outlined measures to ensure the preservation and restoration of the remaining two million acres of original Everglades, referred to as the Everglades Protection Area (an area which stretches from the Water Conservation Areas to Everglades National Park, and including most of Florida Bay). The plan integrated proposed and existing programs to address water resource management issues such as water quality, water quantity (hydroperiod), flood protection and environmental enhancement.

The SWIM Plan also set objectives for interim phosphorus concentration limits for Everglades National Park and the Loxahatchee National Wildlife Refuge to be met by July 1, 1997, and described an EAA Regulatory Program which required agricultural users to meet strict water quality guidelines.

Approximately 36 lawsuits, challenges and appeals were filed against the District and the state and federal governments regarding various aspects of the restoration from 1988 through 1992, with the main suit being an administrative challenge to the SWIM Plan. The SWIM Plan cannot be formally adopted until the legal challenges are resolved.

Mediation Dominates 1993

Enormous staff resources were being diverted away from other projects to defend the many legal challenges. In late 1992, in a final effort to avoid this time-consuming and expensive litigation, parties involved in Everglades restoration agreed to enter into mediation. These parties included the District, federal and state governments, and some agricultural and environmental interests. A technical plan was developed in the mediation process, based on input from all interests, which is considered more comprehensive than the SWIM Plan. It covers a larger land area, treats more stormwater runoff, improves hydroperiod, and provides other benefits to the Everglades and south Florida not found in the SWIM Plan. In mid-July, agree-





ment to a Statement of Principles outlining the framework for a settlement was announced. The main elements of the framework included:

- south Florida agricultural interests contributing up to \$322 million over a 20-year period, but receiving financial credits for on-site phosphorus reduction above the 25 percent required in the mediated plan;
- the District annually dedicating 1/10th mill in ad valorem taxes over a 10-year period for Everglades restoration (which for FY 94 was approximately \$21.8 million), and establishing a special trust fund to assure funds collected for Everglades restoration are used solely for that purpose;
- the state providing funding through Preservation 2000 and other programs; and
- the federal government pursuing the C-51 project, providing urban flood control benefits and additional amounts of fresh water to the Everglades.

After the announcement of agreement to the Statement of Principles, an administrative hearing officer granted four stays of litigation — through December 17 — for parties to negotiate final plan details. Significant progress was made on several issues, but key provisions — largely the uncertainty over issues such as funding, scheduling and cost — remained unresolved. On December 16, despite extraordinary efforts of all parties, negotiations stalled.

There was important progress made in 1993 during the mediation discussions nonetheless. The technical plan and approach was jointly crafted to serve as a basis for the settlement talks. The Statement of Principles was signed to guide discussions. Significant progress occurred to make those principles a reality.

Most involved would concur that the time and effort put forth were both necessary and worthwhile. There is a clearer understanding of the needs and interests of the parties and the options available for addressing this complex problem. The groundwork may very well lead to future agreements.

Restoring the Everglades

REGULATING THE EVERGLADES AGRICULTURAL AREA

An important component of the overall Everglades restoration effort is the development of a regulatory program for land within the Everglades Agricultural Area. This fertile area south of Lake Okeechobee contains approximately 470,000 acres of sugar cane and 60,000 harvested acres of vegetables. Development of a regulatory program to reduce phosphorus load on-site is required by the Douglas Act and federal lawsuit settlement.

The EAA Regulatory Program requires a minimum 25 percent reduction of phosphorus in stormwater runoff throughout the approximately 553,000-acre basin. This program complements other proposed phosphorus reduction programs such as the constructed wetlands.

The Governing Board completed rulemaking for the EAA Regulatory Program (Chapter 40E-63 F.A.C.) in June 1992. This program has become a very successful component of the Everglades restoration effort with 100 percent of the EAA land owners submitting applications and receiving permits for their phosphorus-reduction plans. The Governing Board took final agency action on the last of the 80 permits in July 1993.

Each permit includes a description of the land user's proposed on-site Best Management Practices (BMPs) — programs to reduce phosphorus load leaving their property. These activities provide reasonable assurances that total phosphorus load reductions will occur. Calibrated soil testing, fertilizer application directly to the crop root zone, longer drainage retention and sediment controls are examples of some BMPs used by growers. Non-agricultural users also must implement BMPs if they discharge into a District canal.

Today growers are implementing and fine-tuning their BMPs and District staff are conducting site visits to individual farms to inspect the BMPs. Land users have until January 1, 1995 to fully implement their BMPs.

The EAA Regulatory Program is unique in that its goal is to achieve a 25 percent reduction in phosphorus for the entire 553,000-acre basin — not for each individual farm. The District will determine if a 25 percent overall reduction has occurred by comparing phosphorus discharges for future 12-month annual average periods with a base 10-year period of record from 1978 to 1988. The first 12-month comparison period will be May 1, 1995 through April 30, 1996. Phosphorus amounts will be measured at five





District structures discharging into the Everglades located at the southern boundaries of the EAA.

If an overall phosphorus reduction of 25 percent has not occurred during the annual comparison period, the District will then begin examining practices of individual growers and other land users to see where additional reductions can be achieved. Both land users and District staff are optimistic that the targeted 25 percent reduction will be reached, based on current and previous monitoring. Land users have been conducting individual water quality monitoring at 290 privately-owned structures which discharge into District canals in the EAA in the event further refinements are needed. They began providing this information to the District in 1993.

Approximately 40 percent of the EAA growers have chosen an option called "early baseline" in which they must demonstrate a phosphorus reduction rate of 25 percent at the farm level if the overall basin average does not meet the 25 percent reduction. Under that scenario, these growers are limited from having to make additional BMP changes if they can show 25 percent reductions have been met at their individual farms. They began providing individual water quality monitoring data to the District on January 1, 1993.

PUBLIC WORKS

Everglades Nutrient Removal Project

A significant milestone in the District's Everglades protection efforts was achieved with the completion of construction of the Everglades Nutrient Removal (ENR) Project. Encompassing nearly 4,000 acres of former agricultural fields, the ENR Project is the world's largest constructed wetland designed to treat stormwater runoff. Presently in a start-up phase, the ENR Project will remove phosphorus from agricultural stormwater that is currently being discharged to the Loxahatchee Refuge through the S-5A pump station. When fully operational, the ENR Project should remove approximately 20 to 22 metric tons of phosphorus per year.

The ENR Project is located on state-owned land adjacent to the Refuge in Palm Beach County. The marsh flow-way treatment concept of utilizing a constructed wetland to remove nutrients had been researched for many years by District and other scientists. In late 1988, the Governor and Cabinet decided to terminate the lease on a parcel of state-owned land in the EAA, and at the recommendation of the Lake Okeechobee Technical Advisory

Council (LOTAC), made the land available to the District for development of a nutrient-removal project. Design was initiated in 1989, with construction begun in 1991 and completed in 1993. The \$13.85 million construction cost was funded primarily by Florida Power & Light (FPL) mitigation funds, with significant contributions from EAA agricultural interests.

The objectives of the ENR Project are both performance and demonstrative in nature, and are 1) to reduce the phosphorus load entering the Refuge to help minimize imbalances in Everglades flora and fauna to the extent possible, consistent with flood control and water supply purposes for which the Water Conservation Areas were originally designed, 2) to develop design, construction, operation and maintenance experience necessary for larger-scale applications of this flow-through treatment technology, and 3) to implement optimal nutrient-removal technology.

The constructed wetlands of the ENR Project consist of four vegetative treatment cells: two for bulk phosphorus removal and two for final polishing. Structural elements include pump stations, a perimeter levee, interior levees to separate the flow-through wetlands, research test cells, a seepage collection canal to minimize impacts to adjacent property, and a 2.1-mile inflow supply canal.

With construction complete, the ENR Project is presently holding water on site during the start-up phase. The project will be fully operational when marsh vegetation is established and release of phosphorus from the formerly fertilized agricultural soils is stabilized — probably in 1994. The operational trigger for initiating releases to the Refuge is a constant reduction in phosphorus concentration in the marsh compared to the inflow supply canal. Once the project is fully operational, peak nutrient removal performance could be reached within two to five years as the District optimizes the project's operation.

ENR Operating Permits

An application for a five-year state operation and maintenance permit for the ENR Project was submitted in November 1992. A year-long coordination effort culminated in December 1993 with the DEP issuing a Notice of Intent in late 1993. Barring any third party challenges, the permit should be issued in January 1994. As an interim measure, the state also granted the District authority to make emergency releases to the Refuge should high water levels endanger the viability of the ENR plant communities.





An unanticipated declaration of jurisdiction by the federal Environmental Protection Agency (EPA) over the ENR Project was announced in November 1993. A National Pollutant Discharge Elimination System (NPDES) permit application was developed and submitted to EPA in December, although the District reserved the right to contest EPA's jurisdiction over this project. According to the EPA, discharges to the Refuge may not occur prior to receipt of the NPDES permit, which they estimate should occur in May 1994.

Stormwater Treatment Areas

Stormwater treatment areas (STAs) are constructed wetlands that are proposed in both the SWIM and draft mediated plans as the primary method to remove phosphorus from EAA runoff water before it enters the Everglades. The STAs involve the construction of vegetative flow-way treatment marshes to remove nutrients from agricultural runoff. Constructed wetlands have been in use around the world for more than 20 years to treat wastewater, but have never been built on this large of a scale — totalling up to 40,000 acres — to treat stormwater runoff.

Treatment Alternatives

In 1992 and 1993, the District examined alternative treatment technologies to determine if a more cost effective stormwater runoff treatment method was available, and also to learn if other methods could be used in conjunction with the STAs.

Chemical treatment, limerock adsorption and absorption, percolation ponds, deep well injection, aquifer storage and recovery, algal turn scrubbers, ozone treatment, sediment dredging, managed wetlands, overland flow and other alternatives were examined.

Evaluation of treatment alternatives was concluded by the District in mid-1993, concurrent with announcement of the Statement of Principles. Participants in mediation agreed the STAs would be the primary phosphorus treatment method for the Everglades protection program.

Obtaining a Permit for the Everglades Protection Area

The Douglas Act requires the District to apply for an interim state permit for the construction, operation, and maintenance of stormwater management systems for District structures discharging into or within the Everglades Protection Area.

In October 1991, the District submitted an application to the DER for the five-year interim permit. District and DER staff interacted extensively for a year fine-tuning the permit requirements and conditions. In October 1992, the DER published a "Notice of Intent" to issue the permit.

During the ensuing public comment period, petitions for administrative hearings were filed by agricultural and environmental interests. The permit challenges have been consolidated with the existing SWIM Plan litigation.

WESTERN BASINS

As part of the overall Everglades cleanup strategy, the District identified a 711-square-mile area of Hendry and Collier counties as contributing nutrients to the Everglades. Known as the Western Basins area for the Everglades protection program, the major land uses are pasture and native range land with increasing conversion to citrus. It is estimated that the area contributes 11 percent of the phosphorus load to the Everglades, with the EAA providing approximately 48 percent. The remainder comes primarily from rainfall, with very minor amounts from several drainage districts.

The District approached a phosphorus-reduction strategy for the Western Basins area in three phases: environmental assessment, evaluation of management alternatives, and selection and implementation of strategies. A two-year environmental assessment study was completed in early 1993, with two public workshops held for Western Basins landowners to provide study results, answer questions, and discuss future plans.

Shortly after the study was completed the draft Everglades mediation technical plan was released which included phosphorus treatment plans for this drainage basin. As a result, the second phase of the study has not been initiated, pending the outcome of mediation.

LAND ACQUISITION

Land acquisition activities in support of Everglades restoration progressed through 1993. The District has continued with pre-acquisition activities for the stormwater treatment areas including the identification of record title holders and preliminary map drafting.

In 1993, the District also successfully negotiated the acquisition of a





7,065-acre parcel known as Mace Sod Farm 1, which will be included in the proposed STA No. 3/4. This transaction was projected to close in early 1994. Other negotiations with owners in STA No. 3/4 are on-going and are anticipated to result in contracts for acquisition in early 1994.

The Closter Farms three-way land exchange closing has been postponed until at least 1995. Begun in 1992, this involves the exchange of a state-owned parcel of prime agricultural land to a private company, Flo-Sun Land Corp., for lands owned by Flo-Sun in the proposed STAs. The District has identified some of the lands it wishes to receive in the exchange. The remainder will be identified as soon as the additional lands available are identified by Flo-Sun. These exchanges should result in the District acquiring title to approximately 4,500 acres of land for the proposed STAs. Possible exchanges of other state-owned parcels for lands in the STAs have also been postponed until 1995.

RESEARCH AND MONITORING

Research and monitoring programs are essential to ensure the survival of the remaining Everglades. The more scientists know about the ecosystem, the greater the District's and state's ability to make sound, effective decisions about programs that are designed to protect and restore this unique natural resource.

The Douglas Act, SWIM Plan, federal lawsuit settlement, and parts of the draft mediated settlement agreement require the development of a research program to measure the effectiveness of management actions, and to monitor various aspects of water quality and hydroperiod restoration.

A number of multi-year research projects were launched in the past year, including:

- 1) an ENR Project research program which will examine the effects of vegetation types, water levels, and flow rates on nutrient removal within the constructed wetlands. This information will be critical to optimizing the operation of the STAs;

- 2) a study to determine nutrient threshold levels that do not cause an imbalance of Everglades flora and fauna;

- 3) field studies and model development to allow the District to better

understand and predict Everglades hydrology and its effect on nutrient and plant community dynamics; and

4) the development of a research plan for Florida Bay by Everglades National Park, for which the District is providing assistance.

Multi-year research efforts launched earlier include studies of phosphorus assimilation (how well wetlands remove nutrients from water) and computer modeling to understand the effect of water levels, timing and distribution on the Everglades ecosystem.

To carry out the District's many research initiatives, 12 additional full-time scientists, engineers and technicians were added to the staff in 1993 to conduct field and laboratory work. The agency also hired a leading scientific expert to serve as "Distinguished Scientific Contributor for the Environment." Kenneth W. Cummins, Ph.D. will advise the District on scientific studies associated with environmental restoration, and is one of a number of university-level researchers who have joined the agency in recent years.

The District continuously monitors and documents hydrologic and environmental variables through data collected from dozens of monitoring stations throughout the Everglades and Florida Bay. Over time, the compilation of all this information may reveal trends which, in turn, provide more definitive answers about the relationship between management actions and ecological dynamics of the Everglades system.





Technical Review

TECHNICAL SUPPORT COMMITTEES

The District supports the formation of technical committees to help evaluate specific aspects of the restoration program. An integral part of shaping the future of Everglades restoration, these committees were formed to examine technical, scientific and funding issues.

Technical Oversight Committee

The Technical Oversight Committee (TOC) was formed as a requirement of the federal lawsuit settlement agreement and was given the authority to plan, review, and recommend all research, monitoring and compliance related to Everglades restoration. The five-member committee includes representatives from the Everglades National Park, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, DEP, and the District. TOC's primary research objectives are to assess the current and continuing responses of the Everglades to nutrient inputs and determine the maximum level of nutrients that will not cause imbalances in the system. The group met regularly throughout 1992 and much of 1993. TOC has scheduled further meetings for 1994.

In 1993, the TOC took several actions to benefit the Everglades' long-term health. These included continuing development of 1) a memorandum of agreement for the Everglades nutrient threshold research plan — a plan that will determine the maximum level of nutrients the Everglades can receive before imbalances in the system occur and 2) marsh sampling protocols — methodology for collecting marsh water quality samples in the Everglades. The group also heard presentations by experts on various aspects of research and monitoring.

Scientific Advisory Group for the Everglades

The Scientific Advisory Group for the Everglades (SAGE) was created by the District Governing Board to act as a broad-based scientific fact-finding body. Its purpose is to assist board members in their evaluation of specific, scientific/engineering issues associated with Everglades restoration activities. SAGE members include representatives from federal, state and local governments; agriculture; environmental groups and regional Indian tribes.

In April 1992, SAGE was directed to evaluate the technical merits and cost considerations of the planned STAs and the treatment alternatives proposed by private interests. Throughout the year, the committee engaged in an extensive fact-finding process for this purpose.

& Public Participation

In early 1993, SAGE reported to the Governing Board that STAs are a viable treatment method for removing phosphorus from agricultural stormwater. In the area of treatment alternatives, SAGE recommended pilot-scale testing of one alternative — chemical treatment — and invited a worldwide expert on the direct filtration method of chemical treatment from Germany to share his knowledge of the subject. SAGE put meetings in abeyance in late spring due to the ongoing mediation discussions.

Everglades Restoration Council on Funding Policy

The Everglades Restoration Council on Funding Policy is a blue-ribbon committee that was established by the Governing Board to review difficult policy and equity issues associated with funding the restoration program. Some funding options the council considered in 1992 were the stormwater assessment, permit application fees, land exchange and acquisition, general obligation bonds, federal/state/local contributions and ad valorem taxes. The work of the group was concluded in 1993 and the Governing Board expressed its appreciation to members for their time and effort.

PUBLIC PARTICIPATION

Over the years, the District has actively solicited broad-based public review and comment for its Everglades restoration plans. Public meetings, workshops and conferences; tours for special interest groups, media and others; participation in local government task forces; and newsletters and other publications all help keep the public, governmental officials and media involved and informed.

Public Workshops and Meetings

In 1993, as mediation discussions progressed, the District made every effort to keep the public, media and others informed of the many technical, drafting and special board meetings regarding the mediated settlement. In August, the District initiated a telephone hotline containing information about mediation-related meetings that was updated regularly, and mailed a calendar to more than 1,000 people weekly which included District-sponsored Everglades meetings. The Governing Board held telephone conference calls and special meetings throughout the process to discuss important, late-breaking issues.





State, National and International Interest

The Everglades and its related restoration issues continued to receive widespread interest around the state, nation and world.

The District provided regular updates at District headquarters, throughout Florida, and in Washington to state and national officials concerned with Everglades restoration progress. Governor Chiles, Lt. Governor MacKay, and members of the U.S. Senate and House of Representatives and state Legislators and Legislative Committees were among those briefed and kept informed of progress.

In February, President Clinton's newly-appointed Interior Secretary Bruce Babbitt announced the creation of an interagency task force to expedite federal efforts to restore the Everglades. Secretary Babbitt returned to Florida later in the year to tour the Everglades by airboat.

District staff provided briefings and tours to international visitors from Brazil, Canada, Japan, Mexico, the Netherlands, Nigeria, Thailand and other foreign countries.

Conferences and Citizen Participation

The District participated in many conferences to exchange information on the Everglades ecosystem, including the Everglades Coalition Conference in February. In October, the agency hosted the Interamerican Dialogue on Water Management in Miami. Approximately 450 people from North and Latin America attended this first-time event. A centerpiece of the Dialogue was a cross-comparison of the South American Pantanal and the Florida Everglades.

Shortly after the Statement of Principles was announced in July — outlining the framework for the draft mediated settlement agreement — the District conducted a widespread public information effort to communicate the goals of the proposed settlement to elected officials and citizens of Florida.

Governing Board and staff members were interviewed on more than 18 public affairs programs and conducted nearly 50 speaking engagements throughout the agency's 16-county region. District staff gave presentations to many city and county commissions, and met with state and national leaders and aides to provide details of the Statement of Principles. More than 1,000 briefing packages detailing mediation efforts were distributed in the weeks following the announcement. As part of this process, the District

conducted public opinion research to better understand how south Floridians felt about the Everglades.

Local Special Interest Groups

Advocacy groups frequently took positions on Everglades issues in 1993. The Miami chapter of the national Clean Water Action organization regularly attended Governing Board meetings and continued a letter-writing campaign generating more than 3,000 pieces of correspondence to board members in 1993. National Audubon Society, Florida Audubon, Sierra Club, and Friends of the Everglades were among the other environmental organizations supporting a strong cleanup program. In late September, the newly-formed Save Our Everglades initiative launched a statewide campaign to place a referendum on the 1994 Florida ballot calling for a penny-per-pound fee on raw sugar produced in Florida to fund Everglades restoration programs.

Members of the Everglades agricultural community also followed Everglades restoration and mediation discussions closely, frequently attending board meetings to express their viewpoints. Residents of Monroe County became involved more recently as freshwater flows from the Everglades are thought to be one of many factors affecting Keys marine waters.

News Media Coverage

National TV coverage which involved District board members or staff included a CNN report on the ENR Project in February; a PBS MacNeil-Lehrer News Hour segment on Everglades mediation in October; and a National Geographic Explorer special on water in November. Locally, in early 1993 the District produced *Water Watch*, a 12-part public affairs program featuring coverage of Everglades issues, which aired in Dade and Monroe counties and was made available to other local access stations.

Print articles about the Everglades appeared almost daily. South Florida newspapers regularly reported on District meetings and activities, and Everglades issues. State and national papers and magazines frequently gave these subjects in-depth coverage. And in April, the *Palm Beach Post* produced an award-winning special report on current issues facing the greater Everglades ecosystem.

District Publications

The District continued to keep the public informed of Everglades programs through its publications, news releases, and other printed material. *Ecosystem Monthly* kept readers apprised of current District programs





affecting waterbodies stretching from the Kissimmee River to Florida Bay. *Everglades Connection* and the award-winning *Florida Water* magazine provided in-depth coverage.

Environmental Education

The District's environmental education program has been actively engaging students and their teachers in study about the Everglades ecosystem. Each year, nearly 180,000 student booklets, targeting three specific grade levels, are distributed to the 16 counties within the District's jurisdiction. Additionally, teachers' guides are provided along with a companion video program appropriate to each grade level. Teachers may opt to receive special in-service education about the Everglades watershed by attending one of the District's two-day teacher workshop programs. More than 400 teachers elected to do so in 1993.

Because of the keen interest in the Everglades on the part of teachers and other adults, a new 18-month project was begun in late 1993. In cooperation with the National Project WET (Water Education for Teachers), an innovative 250 to 300 page book, *Discover A Watershed: the Everglades*, will be developed for use in secondary and post-secondary education programs. The book will provide extensive background information on the Everglades watershed and also will contain hands-on activities for use in exploring the system in more detail.

In early 1993, a District-supported exhibit opened at the Museum of Discovery and Science in Broward County to educate both children and adults on many aspects of the unique Everglades wetland system.

Funding Considerations

A critical aspect of Everglades restoration is the establishment of a fair and equitable funding strategy. Restoration will take place over many years, and there are many beneficiaries to a healthy Everglades ecosystem. The amount of funding to be provided by the beneficiaries and by those creating an adverse impact on the Everglades has been the subject of extensive discussions.

The draft mediated plan, as outlined in the Statement of Principles, provided shared funding responsibilities among the signatories. Agricultural growers in the EAA, the U.S. Army Corps of Engineers, the U.S. Department of Interior, the state of Florida, and the South Florida Water Management District were to provide funding. The estimated cost of the draft mediated plan was \$685 million, to cover land acquisition, construction, operation and maintenance costs, spread out over a period of up to 20 years.

While continuing to pursue a mediated settlement for Everglades restoration, the District moved forward with providing for protection of the Everglades. As part of the 1994 budget, \$21.8 million of ad valorem taxes and \$27.9 million in non-ad valorem funds were included for restoration efforts. These funds were earmarked for land acquisition in the EAA and engineering design expenses related to the STAs.

Stormwater Utility Development

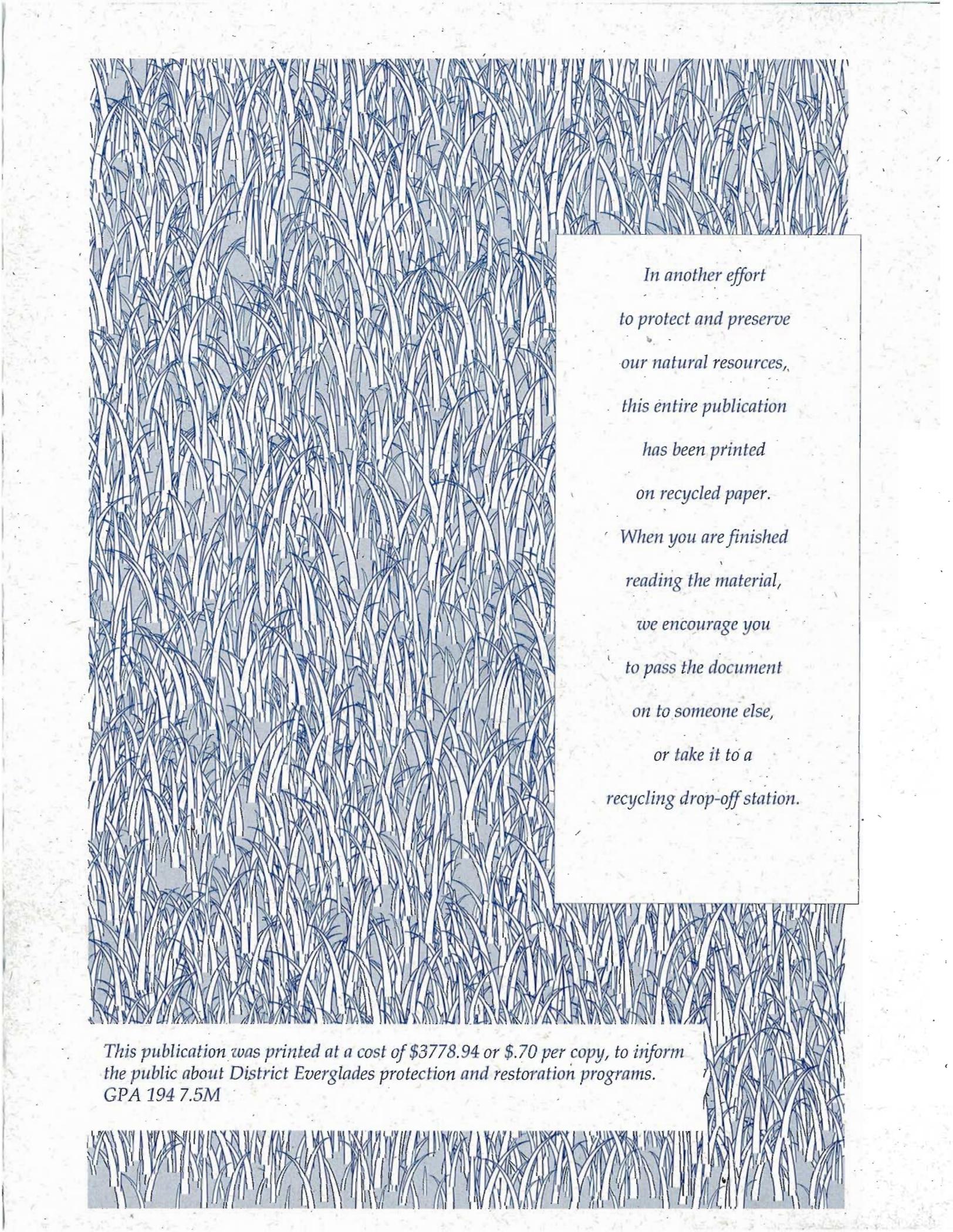
Options for other funding sources have been examined by the District and the establishment of a stormwater utility special assessment in the EAA appears to be the most likely source of additional funds from the agricultural industry.

Work on the stormwater utility continued to move forward through the year. In any such assessment, the District would use the process set forth in state statutes providing for the county property appraiser and tax collector to bill and collect stormwater utility special assessments levied by the District on EAA landowners. The process to develop how much each landowner would be charged continued to be refined. Work on a preliminary test assessment roll was started with the results of that work to be available in 1994. Establishment of the assessment mechanics and the billing and collection process will enable the District to move forward with an alternative funding plan if mediation efforts are unsuccessful. The District adopted a resolution in December giving the agency the opportunity to levy an assessment for the 1995 fiscal year if the administrative challenges to the DEP permit or SWIM Plan are completed in time.



Economic Impact Completed

In May an evaluation of the 20-year economic impact on the EAA of implementing the Marjory Stoneman Douglas Act was completed. This analysis examined the long-range impact of agricultural lands being removed from production, the implementation of BMPs, and the impact of various assessment amounts on the EAA economy. Conclusions reached in the report will help the District better understand the implications of District decisions on the agricultural industry.



*In another effort
to protect and preserve
our natural resources,
this entire publication
has been printed
on recycled paper.
When you are finished
reading the material,
we encourage you
to pass the document
on to someone else,
or take it to a
recycling drop-off station.*

*This publication was printed at a cost of \$3778.94 or \$.70 per copy, to inform
the public about District Everglades protection and restoration programs.
GPA 194 7.5M*

South Florida Water Management District

3301 Gun Club Road • P.O. Box 24680 • West Palm Beach, FL 33416-4680
(407) 686-8800 • 1-800-432-2045