

FINAL TECHNICAL REPORT



NON-GOVERNMENTAL AND GOVERNMENTAL PROGRAMS FOR THE INDIAN RIVER LAGOON

INDIAN RIVER LAGOON NATIONAL ESTUARY PROGRAM MELBOURNE, FLORIDA

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This report is one of several volumes of Technical Reports prepared as support for the Characterization of the Indian River Lagoon. This report summarizes the significant non-governmental and governmental programs affecting the Indian River Lagoon as of June, 1993 as part of a comprehensive evaluation of the Lagoon for the Indian River Lagoon National Estuary Program (IRLNEP). The purpose of this technical report is to identify, update, and supplement information on governmental programs and non-government programs that affect the management and environment of the Indian River Lagoon. Information on governmental programs was generated for IRLNEP in a prior report by the East Central Florida Regional Planning Council (ECFRPC). This information will be incorporated into the "Characterization Report" that will summarize all technical reports and present an overview of the status of the Indian River Lagoon in a non-technical format for the public and decision makers who will ultimately control the necessary funding and support programs for the Lagoon and the IRLNEP.



2.1 GOVERNMENTAL PROGRAMS

There are fifteen federal agencies, eleven state agencies, thirty six cities towns and counties and sixteen special districts which have some regulatory or management authority within the Indian River Lagoon basin. Regulatory programs are distinguished from management or non-regulatory programs in that a permit is usually required for a specific activity affecting a water-based resource. These actions include but are not limited to, dredging and filling, hazardous waste disposal and management, construction within flood plains, impacts on threatened and endangered species, pollutant discharges, and surface water management. The ECFRPC report, "Inventory and Analysis of Management and Regulatory Programs Affecting the Indian River Lagoon," (ECFRPC, 1992) concluded that consistency between federal, state, and regional programs was high. The major shortcoming identified by the report was in protection of resources at the local government level. Non-regulatory programs provide policy guidance and may also provide direct or indirect oversight to regulatory programs within the same or different agencies. The programs identified in this study are described in Appendices A and B.

2.2 NON-GOVERNMENTAL PROGRAMS

Over 120 non-governmental organizations were contacted by questionnaire and telephone to determine their interest in the Indian River Lagoon. This list included such organizations as the Marine Resources Council of East Central Florida, Pelican Island Audubon Society, The 1000 Friends of Florida, and others. Twenty-five organizations responded about their activities to the written questionnaire or a subsequent telephone follow-up. Most of the responding organizations provide educational services through newsletters, workshops, seminars, and public school programs. Several organizations such as the Florida Audubon Society not only educate members about environmental issues, but also conduct research, act as environmental advocates, and acquire sensitive lands for protection and management. The programs identified in this study are described in Appendix C.



Most of the organizations with Indian River Lagoon programs are small with a specific goal or objective. For instance, the St. Lucie River Initiative is concerned with muck removal from the St. Lucie Estuary, management of discharges from the C-44 Canal, and stormwater management. By contrast, the Hobe Sound Nature Center conducts lectures on environmental topics and field trips to natural areas for students from pre-kindergarten through high school as well as providing educational and volunteer opportunities for the general public.



METHODS AND REPORT ORGANIZATION

The report is divided into two sections, one for governmental programs (Section 4.0) and one for non-governmental programs (Section 5.0). The government programs section is further divided into regulatory and non-regulatory sections within which federal, state and local government agency involvement with the Indian River Lagoon is discussed.

The information regarding governmental management and regulatory programs summarizes the comprehensive report prepared in June 1992 by the ECFRPC, entitled Inventory and Analysis of Management and Regulatory Programs Affecting the Indian River Lagoon for the National Estuary Program. The ECFRPC report is discussed in Section 4.1.

The non-government program section, presents information not covered in the ECFRPC report, including organizations that are mostly non-for-profit corporations and non-corporations who responded to a written survey and follow-up telephone conversations. The survey methodology is discussed in Section 4.2.

3.1 THE ECFRPC REPORT AND GOVERNMENTAL PROGRAMS

The ECFRPC report presented an inventory and analysis of those regulatory and non-regulatory management programs that affect the Indian River Lagoon. The inventory included information on 38 local governments, 12 Federal agencies, 13 State or regional agencies, and 18 Special Districts. The inventory concentrated on identifying programs that could influence the water quality, hydrology, or biological resources of the Indian River Lagoon. Specifically the ECFRPC report covered programs addressing wetlands, stormwater management, floodplain management, fisheries, and wildlife management (especially for listed species).

The information about each agency's program was summarized in individual narratives in the ECFRPC report, most of which were keyed to the enabling legislation that created the program, or the regulation that implemented them. Each narrative was organized by agency under the categories of Regulatory and Non-regulatory Programs. Maps were provided



within the report that illustrate the geographic extent of government jurisdiction, parks and managed areas and Special Districts. A set of matrices compared the degree to which Federal and State programs are consistent with one another, and how consistent local government programs are to those of State and regional agencies.

An analysis in the ECFRPC report of "gaps" and "overlaps" in management programs concluded that the consistency between Federal, State and regional programs is high. The major shortcoming identified by the inventory was protection of resources at the local government level.

3.2 THE NON-GOVERNMENTAL PROGRAM SURVEY

Information concerning non-governmental programs was generated by letters sent to organizations who were found to have at least some interest in the management of the Indian River Lagoon. The initial list of organizations used in the survey was compiled and printed in the spring 1993 issue of Florida Environments (Florida Environments, 1993). This list was supplemented by additional organizations suggested by the IRLNEP staff and others familiar with the region. Specific questions were asked of each organization receiving the letter. If we did not get a response within a timely manor, at least two telephone calls were made to remind organizations of the importance of their response. The questions asked were as follows:

- What is the legal title of your organization?
- If you are a tax exempt organization, what is the specific IRS rule that you operate under?
- Are you incorporated under the laws of the state of Florida?
- What is the major funding source for your organization?
- What local, state and federal codes, rules, regulations or acts does your agency work with in administering your program?



- Give us some key words regarding your organization and its activities.
- Give us a brief description of the purpose of your organization, its major activities and accomplishments. Include governmental agencies and other non-governmental agencies and groups you interact with. Do you have a specific charge or program to protect and manage the Indian River Lagoon?

The following organizations listed in Table 3-1 were contacted in the survey, and the information received from responding organizations was used to compile Appendix C. Like the ECFRPC report, this report is organized by government sector within the regulatory/non-regulatory framework, rather than by theme such as wetlands or stormwater, since many organizations often share responsibility for the same resources. Unlike the ECFRPC report, each agency is listed as a separate agency with a brief description of all agency regulatory and non regulatory responsibilities within a single description.

We summarize the major findings found within this report here as well as repeating text and maps where appropriate. The format of the organization accounts follows that of the ECFRPC report. This was done for consistency and the ability to input the information directly into the local governments inventory database which is maintained by the IRLNEP.



TABLE 3-1

**NON-GOVERNMENTAL ORGANIZATIONS
CONTACTED AS PART OF SURVEY**

| <u>ORGANIZATION</u> | <u>RESPONSE TO QUESTIONNAIRE</u> |
|--|----------------------------------|
| 1000 Friends of Florida | Yes |
| Ag. Institute of Florida, Inc. | Yes |
| American Littoral Society | Yes |
| American Rivers | No |
| Animal Voice, Inc. | No |
| Archibald Biological Station | No |
| Audubon Center for Birds of Prey | No |
| Audubon Society of Everglades | No |
| Barrier Island Preservation Association | No |
| Barrier Island Trust, Inc. | No |
| Center for Marine Conservation | No |
| Central Florida Wetlands Society | No |
| Citizens Better South Florida, Inc. | No |
| Coalition for Wilderness Islands | No |
| Coastal Plains Institute | No |
| Conservation Alliance - St. Lucie County | No |
| Conservation Alliance - Martin County | Yes |
| EE REG Service Project V | No |
| EE REG Service Project III | No |
| Environmental & Natural Resources Law Center, Inc. | No |
| Environmental Coalition - Broward County | No |
| Environmental Coordinators - Brevard County | No |
| Environmental Council Volusia - Flagler County | No |
| Environet of Indian River County | Yes |
| Environmental Learning Center | Yes |
| Environmental Solutions International | No |
| Florida Academy of Sciences | Yes |
| Florida Audubon Society | Yes |
| Florida Association of Counties | No |
| Florida Association of Environmental Professionals | No |
| Florida Association of Soil and Water Conservation Districts | Yes |
| Florida Canoe & Kayaking Association | No |
| Florida Committee On Rare/Endangered Plants & Animals | No |
| Florida Conservation Association | No |
| Florida Conservation Foundation | No |
| Florida Consumer Action Network | No |
| Florida Defenders of the Environment | No |
| Florida Institute of Technology | No |
| Florida International University | Yes |
| Florida Lake Management Society | No |
| Florida Local Environmental Regulation Association | No |
| Florida Marine Sciences Education Association | No |
| Florida Native Plant Society | Yes |
| Florida Natural Areas Inventory | Yes |
| Florida Oceanographic Society | Yes |
| Florida Ornithological Society | No |
| Florida Park Service/Volunteer Service | No |

TABLE 3-1

**NON-GOVERNMENTAL ORGANIZATIONS
CONTACTED AS PART OF SURVEY**

| <u>ORGANIZATION</u> | <u>RESPONSE TO QUESTIONNAIRE</u> |
|--|----------------------------------|
| Florida Pollution Control Association, Inc. | No |
| Florida Public Interest Research Group | No |
| Florida Society of Environmental Analysts | No |
| Florida Solar Energy Center | Yes |
| Florida Trail Association, Inc. | Yes |
| Florida Wildlife Federation | No |
| Florida Wildlife Sanctuary Hospital | No |
| Florida Everglades/Florida Wildlife Federation | No |
| Friends of Macarthur Beach State Park | No |
| Friends of Bald Eagle, Inc. | No |
| Friends of the Everglades | No |
| Friends of the Sebastian River | Yes |
| Growth Restraint & Environmental Education | No |
| Gumbo Limbo Nature Center | No |
| Harbor Branch Oceanographic Institute | No |
| Hobe Sound Nature Center | Yes |
| Indian River Audubon Society | No |
| Indian River Citrus League | No |
| Indian River Land Trust | No |
| Indian River-Halifax River Task Force | No |
| International Osprey Foundation | No |
| Izaak Walton League | No |
| Keep Florida Beautiful | No |
| Land Preservation Trust Palm Beach County | No |
| League of Conservation Voters | No |
| League of Environmental Educators | No |
| League of Women Voters | No |
| Legal Environmental Assistance Foundation | No |
| Manatee Survival Foundation | Yes |
| Marine Resources Council of East Central Florida | No |
| Martin County Audubon | No |
| Martin County Conservation Alliance | No |
| Martin County Environmental Coalition | No |
| Museum of History and Natural Science | No |
| National Audubon Society | No |
| North Fork Conservation Committee | No |
| Osceola Land Trust | No |
| Pelican Island Audubon Society, Inc. | Yes |
| People to Prevent Pollution | No |
| Project Reefkeeper | No |
| Protect the Manatee Foundation | No |
| Quest Foundation | No |
| Rails to Trails Conservation Association | No |
| Royal Palm Audubon Society | No |
| Save Our Creeks | No |
| Save the Manatee Club | Yes |

TABLE 3-1

NON-GOVERNMENTAL ORGANIZATIONS
CONTACTED AS PART OF SURVEY

| <u>ORGANIZATION</u> | <u>RESPONSE TO QUESTIONNAIRE</u> |
|--|----------------------------------|
| Save the Wildlife, Inc. | No |
| Sea Turtle Preservation Society | No |
| Sierra Club-The Florida Chapter | Yes |
| Sierra Club Legal Defense Fund | No |
| St. Francis Wildlife Education Office | No |
| St. Lucie County Audubon Society | No |
| St. Lucie River Initiative, Inc. | Yes |
| The Conservancy | Yes |
| The Nature Conservancy | Yes |
| The Real Wetlands Coalition Florida | No |
| The Wildlife Society Florida | No |
| Treasure Coast Dolphin Project | No |
| Treasure Coast Environmental Coalition | No |
| Treasure Coast Wildlife Hospital | No |
| Tree Florida | No |
| Trust for Public Land | No |
| Turtle Coast Sierra Club | No |
| United Assoc. Used Oil Services | Yes |
| USDA Soil Conservation League | No |
| Volusia County Land Trust | No |
| Wildlife Conservation League | No |

GOVERNMENTAL PROGRAMS

Through its extent of 155 miles from Ponce Inlet south to Jupiter Inlet, the Indian River Lagoon region encompasses seven counties, 31 cities, three Federal reservations, two water management districts and a number of federal, state, regional and local parks and conservation areas. All these entities have some regulatory or managerial responsibility for resources that affect the Indian River Lagoon watershed. In addition there are a number of Federal, state, regional and local programs that directly regulate or manage Indian River Lagoon resources.

Those federal, state and local agencies involved with the management and regulation of the Indian River Lagoon are listed in Table 4-1.

4.1 REGULATORY PROGRAMS

Regulatory Programs are administered by various federal, state and local governmental agencies. These programs are distinguished from non-regulatory programs in that a permit is usually required for a specific action affecting an air or water based resource. Non-regulatory programs provide policy guidance and may also provide direct or indirect oversight to regulatory programs.

This regulatory programs section is broken down by federal, state and local regulatory programs.

4.1.1 Federal Regulatory Programs

There are seven Federal agencies that regulate activities within the Indian River Lagoon Watershed. These are:

- U.S. Army Corps of Engineers (ACOE) (part of the Department of Defense)
- U.S. Environmental Protection Agency (EPA)



TABLE 4-1

FEDERAL, STATE AND LOCAL GOVERNMENT AGENCIES
WITH MANAGEMENT AND REGULATORY JURISDICTION
IN THE INDIAN RIVER LAGOON WATERSHED

| REGULATORY PROGRAMS | |
|---|---|
| <p><u>Federal Agencies</u> Environmental Protection Agency Federal Emergency Management Agency U.S. Army Corps of Engineers U.S. Coast Guard U.S. Fish and Wildlife Service</p> | <p><u>Acronym</u> EPA FEMA ACOE USCG USFWS</p> |
| <p><u>State and Regional</u> Florida Department of Agriculture and Consumer Services Florida Department of Community Affairs Florida Department of Environmental Protection Florida Department of Health and Rehabilitative Services Florida Department of Transportation Florida Game and Fresh Water Fish Commission Florida Marine Patrol South Florida Water Management District St. Johns River Water Management District</p> | <p>FDACS FDCA FDEP FDHRS FDOT FGFWFC FMP SFWMD SJRWMD</p> |
| <p><u>Local</u> Brevard County City of Cape Canaveral City of Cocoa City of Cocoa Beach City of Edgewater City of Fellsmere City of Fort Pierce City of Indian Harbor Beach City of Jupiter City of Melbourne City of New Smyrna Beach City of Oak Hill City of Palm Bay City of Port St. Lucie City of Port Salerno City of Rockledge City of Satellite Beach City of Sebastian City of Stuart City of Titusville City of Vero Beach City of West Melbourne Indian River County Martin County Okeechobee County Palm Beach County</p> | |

TABLE 4-1

FEDERAL, STATE AND LOCAL GOVERNMENT AGENCIES
WITH MANAGEMENT AND REGULATORY JURISDICTION
IN THE INDIAN RIVER LAGOON WATERSHED, Continued

| REGULATORY PROGRAMS, Continued | |
|---|--|
| <p>Local, Continued St. Lucie County Town of Hobe Sound Town of Indialantic Town of Indian River Shores Town of Jupiter Inlet Colony Town of Malabar Town of Melbourne Beach Town of Melbourne Village Town of Ocean Breeze Park Town of Palm Shores Town of Sewall's Point Town of St. Lucie Village Village of Tequesta Volusia County</p> | |
| NON-REGULATORY PROGRAMS | |
| <p>Federal Cape Canaveral Air Force Station Kennedy Space Center National Aeronautics and Space Administration National Marine Fisheries Service National Oceanographic and Atmospheric Administration National Park Service Patrick Air Force Station U.S.D.A. Soil Conservation Service U.S. Air Force U.S. Fish and Wildlife Service U.S. Geological Survey</p> | <p>CCAFS KSC NASA NMFS NOAA NPS PAFS SCS USAF USFWS USGS</p> |
| <p>State and Regional East Central Florida Regional Planning Council Florida Department of Community Affairs Florida Department of Environmental Protection Florida Game and Fresh Water Fish Commission Florida Inland Navigation District St. Johns River Water Management District South Florida Water Management District Treasure Coast Regional Planning Council</p> | <p>ECFRPC FDCA FDEP FGFWFC FIND SJRWMD SFWMD TCRPC</p> |

TABLE 4-1

FEDERAL, STATE AND LOCAL GOVERNMENT AGENCIES
WITH MANAGEMENT AND REGULATORY JURISDICTION
IN THE INDIAN RIVER LAGOON WATERSHED, Continued

| NON-REGULATORY PROGRAMS, Continued | |
|---|--|
| <p><u>Local</u> Brevard County City of Cape Canaveral City of Satellite Beach Indian River County Martin County Palm Beach County Town of Indialantic Volusia County</p> | |
| <p><u>Special Districts</u> Brevard Soil and Water Conservation District Brevard County Expressway Authority Brevard Mosquito Control District Canaveral Port Authority East Volusia Mosquito Control District Fellsmere Water Control District Ft. Pierce Farms Water Control District Hobe-St. Lucie Conservancy Indian River Farms Water Control District Indian River Soil and Water Conservation District Indian River Mosquito Control District Jupiter Inlet District Martin Soil and Water Conservation District North St. Lucie River Water Control District Palm Beach County Conservation District Ponce De Leon Port Authority Sebastian Inlet Tax District Sebastian River Water Control District St. Lucie County Expressway Authority St. Lucie County Mosquito Control District St. Lucie Soil and Water Control District Troupe-Indiantown Water Control District Vero Lakes Water Control District Volusia Soil and Water Conservation District Water Control District of South Brevard</p> | |

Source: ECFRPC, 1992.

- Federal Emergency Management Agency (FEMA) (part of the Department of Housing and Urban Development),
- Department of Interior (DOI)
- National Marine Fisheries Service (NMFS) (part of the Department of Interior)
- U.S. Fish and Wildlife Service (FWS) (part of the Department of the Interior)
- U.S. Coast Guard (USCG) (part of the Department of Transportation)

These agencies, described in Appendix A, are responsible for administering portions of Congressional Acts, including the Clean Water Act, the Resource Conservation and Recovery Act, the National Flood Insurance Act, the Fishery Conservation and Management Act, the Rivers and Harbors Act, the Coastal Barrier Resources Act, the Endangered Species Act and the Marine Mammal Protection Act. These Acts and responsible federal agencies are shown in Table 4-2.

4.1.2 State and Regional Regulatory Programs

There are seven state and regional agencies that have some regulatory authority within the Indian River Lagoon region. They include the Florida Department of Agriculture and Consumer Services (FDACS), the Florida Department of Community Affairs (FDCA), the Florida Department of Environmental Protection (FDEP), the Florida Department of Transportation (FDOT), the Florida Game and Fresh Water Fish Commission (FGFWFC), the Florida Department of Health and Rehabilitative Services (FDHRS), the St. Johns River Water Management District (SJRWMD), and the South Florida Water Management District (SFWMD). On July 1, 1993, the Florida Department of Environmental Regulation (FDER) and the Florida Department of Natural Resources (FDNR) were merged into the new Florida Department of Environmental Protection.

The major emphasis of the state regulatory programs is on land development, dredge and fill, stormwater and wastewater disposal regulations. Protection of rare plant and animal species



TABLE 4-2

A MATRIX OF CONGRESSIONAL ACTS AFFECTING THE
INDIAN RIVER LAGOON AND RESPONSIBLE FEDERAL AGENCIES

| CONGRESSIONAL ACT | ACOE | EPA | FEMA | NMFS | USCG | DOI | FWS |
|--|------|-----|------|------|------|-----|-----|
| Federal Water Control Act | • | | | | | | |
| Resource Conservation and Recovery Act | | • | | | | | |
| Superfund Amendments and Reauthorization Act of 1986 | | • | | | | | |
| Water Quality Act of 1972 | | • | | | | | |
| National Flood Insurance Act | | | • | | | | |
| Fishery Conservation and Management Act of 1976 | | | | • | | | |
| General Bridge Act of 1946 | | | | | • | | |
| Rivers and Harbors Act of 1899 | • | | | | | • | |
| Coastal Barrier Resources Act | | | | | | • | |
| Coastal Barrier Improvement Act of 1990 | | | | | | • | |
| Endangered Species Act of 1973 | | | | | | | • |
| Marine Mammal Protection Act of 1972 | | | | | | | • |
| Fish and Wildlife Coordinating Act | | | | | | | • |

is also an important state and regional role. A matrix of state and regional regulatory agencies and corresponding rule or Act is presented in Table 4-3.

4.1.3 Local Government Regulatory and Non-Regulatory Programs

There are 66 cities, counties and special districts that regulate activities or have programs affecting the Indian River Lagoon. Local government regulatory and non-regulatory programs are listed in Table 4-1 and have been discussed in detail in the report, "Inventory and Analysis of Management and Regulatory Programs Affecting the Indian River Lagoon," (ECFRPC, 1992).

4.2 NON-REGULATORY PROGRAMS

4.2.1 Federal Non-regulatory Programs

Federal agencies which provide non-regulatory management services within the Indian River Lagoon include the National Aeronautics and Space Administration (NASA), the National Oceanographic and Atmospheric Administration (NOAA) (part of the Department of Commerce), the National Park Service (NPS) (part of the Department of Interior), the U.S.D.A. Soil Conservation Service (SCS) (part of the Department of Agriculture), the U.S. Air Force (USAF) (part of the Department of Defense), and the U.S. Geological Survey (USGS) (part of the Department of Interior).

4.2.2 State and Regional Non-regulatory Programs

Many of the State and Regional agencies that exert regulatory powers also have non-regulatory programs. Most of these non-regulatory programs involve agency coordination, monitoring, land acquisition, policy development, permit review, mapping navigation planning, and endangered and threatened species management and protection. Agencies and their associated non-regulatory programs are listed below.



TABLE 4-3

A MATRIX OF STATE RULES, PROGRAMS AND LEGISLATION AFFECTING THE INDIAN RIVER LAGOON AND RESPONSIBLE STATE AGENCIES

| RULE/PROGRAM/LEGISLATION | FDACS | FDCA | FDEP | EGFWFC | FDHRS | EDOT | SIRWMD | SFWMD |
|---|-------|------|------|--------|-------|------|--------|-------|
| Soil and Water Conservation | • | | | | | | | |
| Mosquito Control | • | | | | | | | |
| Preservation of Native Flora | • | | | | | | | |
| Local Government Comp. Planning and Land Development Regulation Act | | • | | | | | | |
| Florida Coastal Management Act of 1978 | | • | | | | | | |
| Florida Air and Water Pollution Control Act | | | • | | | | | |
| Water Resources Restoration and Preservation Act | | | • | | | | | |
| Pollution Prevention Act | | | • | | | | | |
| National Pollutant Discharge Elimination System | | | • | | | | | |
| Florida Litter Law | | | • | | | | | |
| Transmission Line Siting Act | | | • | | | | | |
| Resource Recovery and Management Act | | | • | | | | | |
| Statewide Multipurpose Hazardous Waste Facility Siting Act | | | • | | | | | |
| Warren S. Henderson Wetlands Protection Act of 1984 | | | • | | | | | |
| Indian River Lagoon Zero Discharge Act | | | • | | | | | |
| Electric Power Plant and Transmission Line Siting Act | | | • | | | | | |
| Water Management Lands Trust Fund | | | • | | | | | |
| Construction Grants Program | | | • | | | | | |
| Surface Water Improvement and Management Act | | | • | | | | | |

TABLE 4-3

A MATRIX OF STATE RULES, PROGRAMS AND LEGISLATION AFFECTING THE INDIAN RIVER LAGOON AND RESPONSIBLE STATE AGENCIES, Continued

| RULE/PROGRAM/LEGISLATION | FDACS | FDCA | FDEP | FGFWFC | FDHRS | EDOT | SJRWMD | SFWMD |
|---|-------|------|------|--------|-------|------|--------|-------|
| Marine Turtle Protection Act | | | • | | | | | |
| Florida Manatee Sanctuary Act | | | • | | | | | |
| Florida Aquatic Weed Control Act | | | • | | | | | |
| Coastal Zone Protection Act of 1985 | | | • | | | | | |
| Florida Aquatic Preserve Act of 1975 | | | • | | | | | |
| Florida Preservation 2000 Act | | | • | | | | | |
| Conservation and Recreation Lands Trust Fund | | | • | | | | | |
| Florida Endangered and Threatened Species Act of 1977 | | | • | | | | | |
| Wildlife Code of Florida | | | | • | | | | |
| On-site Sewage Disposal Systems | | | | | • | | | |
| Public Bathing Beach Rules | | | | | • | | | |
| Drainage Connections | | | | | | • | | |
| Fishing and Boating Facilities on State Road System Bridges | | | | | | • | | |
| Consumptive Use of Water | | | | | | | • | • |
| Water Well Construction | | | | | | | • | • |
| Management and Storage of Surface Water | | | | | | | • | • |
| Artificial Recharge | | | | | | | • | • |
| Land Acquisition | | | | | | | • | • |

NON-GOVERNMENTAL PROGRAMS

Over 120 non-governmental organizations were contacted by letter to determine if they have any programs applicable to the Indian River Lagoon. Thirty-one organizations responded by letter to our letter requests for information and follow-up phone calls. Organizations which were sent a letter of request by June 30, 1993 are listed in Table 5-1. Those which responded with activities relating to Indian River Lagoon are described in more detail in Appendix C. The format used for the non-governmental organizations in Appendix C follows the format used for the analogous listing of governmental organizations in the report "Inventory and Analysis of Management and Regulatory Programs Affecting the Indian River Lagoon," prepared by ECFRPC (1992).



TABLE 5-1

NON-GOVERNMENTAL ORGANIZATIONS RESPONDING TO WRITTEN SURVEY AND TELEPHONE FOLLOW UP

| ORGANIZATION | ACTIVITIES | | | |
|--|------------|---------------------|-------------------------|------------------|
| | EDUCATION | PLANNING & RESEARCH | PROTECTION & MANAGEMENT | LAND ACQUISITION |
| 1000 Friends of Florida | • | • | • | • |
| Ag. Institute of Florida | • | • | | |
| American Littoral Society | • | | • | |
| Conservation Alliance - Martin County | • | | | |
| Environet of Indian River County | • | | | |
| Environmental Learning Center | • | | | |
| Florida Academy of Sciences | • | | | |
| Florida Advisory Council on Environmental Education | • | | | |
| Florida Audubon Society | • | • | • | • |
| Florida Association of Soil and Water Conservation Districts | • | • | | |
| Florida Native Plant Society | • | • | • | |
| Florida Natural Areas Inventory | • | • | | |
| Florida Oceanographic Society | • | • | | |
| Florida Solar Energy Center | • | | | |
| Florida Trail Association, Inc. | • | | | • |
| Friends of the Sebastian River | • | | • | |

TABLE 6-1

NON-GOVERNMENTAL ORGANIZATIONS RESPONDING TO WRITTEN SURVEY AND TELEPHONE FOLLOW UP, Continued

| ORGANIZATION | ACTIVITIES | | | |
|--|------------|---------------------|-------------------------|------------------|
| | EDUCATION | PLANNING & RESEARCH | PROTECTION & MANAGEMENT | LAND ACQUISITION |
| Hobe Sound Nature Center | • | | | |
| Marine Resources Council of East Central Florida | • | • | • | |
| Pelican Island Audubon Society, Inc. | • | | | |
| Save the Manatee Club | • | • | | |
| Sierra Club - The Florida Chapter | • | | • | |
| St. Lucie River Initiative, Inc. | • | • | • | |
| The Nature Conservancy | • | • | • | • |
| United Association Used Oil Services | • | • | | |

RECOMMENDATIONS AND CONCLUSIONS

6.1 CONCLUSIONS

This report represents a summary of governmental and non-governmental programs that directly and/or indirectly affect the Indian River Lagoon. Ninety-three federal, state, and local governmental agencies and special districts were found to have a regulatory or permitting role or a non-regulatory management responsibility for activities occurring within the Indian River Lagoon basin. The conclusions are based on information gathered in this report and in the ECFRPC (1992) report, on interviews with various people involved with the Lagoon, and an analysis of the results of these investigations in this and other Technical Reports.

Twenty-five of the non-governmental organizations, generally not-for-profit groups, which responded to the survey were identified as having an educational, research, land management or land acquisition role in the Indian River Lagoon basin. Most of the non-governmental organizations are devoted to educating their members about specific environmental topics about the Lagoon and surrounding ecosystems. Some organizations are devoted to habitat protection, management, and land acquisition. A few institutions are devoted primarily to research and teaching programs.

The ECFRPC report found that consistency between federal, state, and regional governmental programs is high. The primary governmental shortcoming that was identified in the 1992 ECFRPC survey is protection of resources at the local city and county levels although some counties (i.e., Brevard) have strong programs.

The update of resource protection services in this report indicates that some resource protection improvement has occurred since the ECFRPC report was published. Conservation and Recreational Lands (CARL) program funding has increased some local agencies' land acquisition efforts. Coordination between local mosquito control districts and the Surface Water Improvement and Management (SWIM) programs, administered by the water



management districts, is resulting in improved management and protection of salt water wetlands along the Lagoon.

Two actions which could result in additional improvements for resource protection are the resumption of state funding for the Preservation 2000 land acquisition program, and funding and coordination for governmental programs to purchase privately owned lands impounded for mosquito control.

To improve local governmental resource protection capabilities and inter-governmental coordination, U.S. Environmental Protection Agency (EPA), St. Johns River Water Management District (SJRWMD), and South Florida Water Management District (SFWMD), working through the IRLNEP staff, can play a significant role in steering local governments to establish consistent regulations and policies for the protection of air, water, and land resources within the Indian River Lagoon basin. Financial support and coordination for such resource or land protection programs as the CARL program between local agencies and groups and the water management districts can very effective for resource protection. Funding for local programs and interface with the IRLNEP and SWIM Programs appears to be restricting the effectiveness of local programs. There are some indications that funding for implementation programs and construction programs may be acceptable at the city or county jurisdictional level, but that funding for planning, coordination, or on-going research programs is less likely to be approved.

The number and diversity of governmental, administrative, and non-governmental organizations with possible interests, jurisdictions, or implementation authority for activities regarding the Lagoon is very large. Some of these, such as FIND or the Inlet Districts, may have direct authority over relatively small acreage, but the results of their decisions may have far-reaching effects on the Lagoon. A number of organizations such as the mosquito control districts and water control (Chapter 298 drainage) districts operate semi-autonomously from other agencies, and need to be kept informed and involved in Lagoon management activities. Many of these agencies have been actively addressing environmental concerns of the Lagoon.

Education and involvement of the general public appears to be an area in which greater progress needs to be made, although intensive efforts have been put forth by IRLNEP and



other agencies in this area. Many of the non-governmental organizations may be able to play a larger part in this endeavor, by mobilizing members, acting as co-sponsors, or in other capacities in a coordinated effort to further the conservation of the Indian River Lagoon.

6.2 RECOMMENDATIONS

Based upon the conclusions of Section 6.1, the following recommendations are provided in respect to the most efficient utilization of governmental and non-governmental organizations and programs in the Lagoon region.

- Local governments and citizens need to be convinced and reassured of the value of continuing research, monitoring, and planning programs for the Lagoon in order to maintain adequate resources for continuation or implementation of these programs.
- Stable sources of funding need to remain available for such programs to enable local governments and special districts to maintain cooperative programs.
- State cost-sharing and funding programs such as CARL and Preservation 2000 are critical for local government preservation programs and should be supported and implemented to the greatest extent possible.
- The ECFRPC report recommended the preparation of model management strategies for special districts. Significant progress has been made in this area in such areas as the mosquito impoundment management. These efforts should be expanded to address such issues as non-point source loadings, as information and guidelines become available.
- Although most of the non-governmental organizations list education and public awareness as primary purposes, they do not appear to be fully utilized in these capacities. Greater coordination, contact, and cooperative ventures (i.e., multiple sponsors of regional events) should be encouraged.



- Coordination of the efforts is difficult because of the number and diversity of organizations involved. It is suggested that one or a few non-governmental organizations such as the Marine Resources Council be approached to act as a clearing house or intermediary for involvement of other groups.
- Organization and sponsorship of symposiums, work days, or workshops under the sponsorship of local non-governmental groups should be encouraged to take advantage of the local influences of these groups.
- Educate and involve local organizations in other action projects, such as the Watershed Action Committees.

In summary, greater participation in IRLNEP activities by non-governmental organizations needs to be encouraged, greater funding for local government preservation, monitoring/research needs to be generated, and greater involvement of special districts needs to be initiated.



REFERENCES

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Appendix A

APPENDIX A
FEDERAL AND STATE/REGIONAL REGULATORY PROGRAMS

AGENCY: *U.S. Army Corps of Engineers (ACOE)*

RULE/PROGRAM: Federal Water Pollution Control Act of 1972 (Clean Water Act);
Permits of Dredged or Fill Material

KEYWORD(S): USACOE, wetlands, dredge and fill

DESCRIPTION: The ACOE issues permits for discharging dredged or filled material into navigable waters. Guidelines for permitting dredge and fill impacts are developed jointly by the EPA and ACOE.

AGENCY: *U.S. Environmental Protection Agency (EPA)*

RULE/PROGRAM: Federal Water Pollution Control Act of 1972 (Clean Water Act);
Water Quality Act of 1987, Resource Conservation and Recovery Act, Superfund Amendments and Reauthorization Act of 1986.

KEYWORD(S): Clean Water Act, water pollution control, intergovernmental coordination, water quality monitoring, demonstration projects, grants and funds, point source discharges, non-point source discharges, treatment, management plans, water quality standards, water quality inventory, effluent monitoring, hazardous waste, solid waste, aquiculture, National Estuary Program, dredge and fill, small quantity generator.

DESCRIPTION: The EPA is the lead Federal agency responsible for implementing the Federal Water Pollution Control Act of 1972 (Clean Water Act). The objective of this Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. The Act set goals of eliminating discharges of pollutants into navigable waters by 1985 and prohibiting the discharge of toxic pollutants in toxic amounts. It established an interim goal of meeting water quality standards for recreation and propagation of fish, shellfish and wildlife by 1983, and established a policy of federal financial assistance to construct publicly owned waste treatment works. The Act was amended in 1987 with the passage of the Water Quality Act of 1987, which established new guidelines and compliance deadlines and established the National Estuary Program.

Significant regulatory provisions of the Clean Water and Water Quality Acts deal with improving surface water quality through construction and operation of sewage treatment plants, municipal

and industrial waste discharge reduction, non-point source and toxic pollution control, oil or hazardous substance discharge elimination, stormwater and dredge and fill discharge permitting.

The EPA also administers the Resource Conservation and Recovery Act, whose purpose is to reduce waste and conserve energy and natural resources and reduce or eliminate the generation of hazardous waste, and the Superfund Amendments and Reauthorization Act of 1986, which funds the clean-up of significant hazardous waste release sites.

EPA issues permits or develops effluent limitations for the following activities directly or through delegated federal or state programs:

- Wastewater Treatment Facility Construction
- Discharges from Wastewater Treatment Facilities
- Discharges for Marine Sanitation Devices
- Thermal Discharges from Power Plants
- Discharges from Aquiculture Projects
- Non-point Source Pollution Discharges
- Dredge and Fill Discharges into Navigable Waters
- Disposal of Sewage Sludge
- Disposal of Solid Waste
- Disposal and Management of Hazardous Waste
- Placement or Removal of Underground Petroleum Storage Tanks

AGENCY: *Federal Emergency Management Agency*

RULE/PROGRAM: National Flood Insurance Act, National Flood Insurance Program (NFIP)

KEYWORD(S): FEMA, Floodplain Management, Flood Insurance, NFIP, Post-disaster Recovery, Intergovernmental Coordination

DESCRIPTION: The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP) because many factors make it uneconomic for the private insurance industry alone to offer flood insurance. The law does not require states and local governments to adopt the FEMA criteria, but withholds certain federal financial assistance and aid from those communities that fail to adopt consistent regulations.

The purpose of the National Flood Insurance Act is to:

- Substantially increase the limits of coverage authorized under the National Flood Insurance Program
- Provide for the expeditious identification of, and the dissemination of, information concerning flood prone areas
- Require states or local communities, as a condition of future federal financial assistance, to participate in the flood insurance program and to adopt adequate flood plain ordinances with effective enforcement provisions consistent with Federal standards to reduce or avoid future flood losses
- Require the purchase of flood insurance by property owners who are being assisted by federal programs or by federally supervised, regulated, or insurance agencies or institutions in the acquisition or improvement of land or facilities located in special flood areas

FEMA develops regulations that set the general terms and conditions of insurability under the National Flood Insurance Program, including:

- The types, classes and locations of eligible properties
- The nature and limits of loss or damage in any area; the classification, limitation and rejection of any risks
- Minimum premiums
- Appropriate loss-deductibles
- Any other terms and conditions necessary

FEMA has established the National Flood Insurance Fund from which payments are made for flood damage, reinsurance claims, repayment of funds borrowed from the Treasury, and to pay administrative costs.

AGENCY: *National Marine Fisheries Service*

RULE/PROGRAM: Fishery Conservation and Management Act of 1976

KEYWORD(S): NMFS, NOAA, FCMA

DESCRIPTION: The National Marine Fisheries Service (NMFS) administers the Fishery Conservation and Management Act of 1976 that extended the U.S. marine management jurisdiction from 3 to 200 miles offshore and mandated accelerated development of the fishing industry. The Act created eight regional Fishery Management Councils for the purpose of preparing Fishery Management Plans for selected species. The Councils are advised through input from technical committees. In the southeast region, the Assistant Regional Director for Habitat Conservation is an official member of Habitat Advisory Committees for the South Atlantic, Gulf of Mexico and Caribbean Fishery Management Councils.

The 1986 amendments to the Act required that habitat information be included in the fishery management plans and that the effects of habitat change be addressed in plan development. The amendments also authorize the regional fisheries counsels to recommend habitat protection measures for ongoing and proposed federal and state activities.

AGENCY: *U.S. Coast Guard*

RULE/PROGRAM: General Bridge Act of 1946, Rivers and Harbors Act of 1899, Bridge Administration (Permitting) Program

KEYWORD(S): USCG, causeway, bridge, permitting

DESCRIPTION: These Acts require anyone proposing to construct a bridge or causeway across navigable waters of the United States to submit plans to the Secretary of Transportation through the U.S. Coast Guard (USCG). The USCG can impose any conditions to the design, construction, maintenance and operation of these structures deemed necessary in the interest of public navigation. The USCG is also required to give weight to environmental considerations in their review of bridge and causeway permits, and is obligated to consult with any federal agency that has legal jurisdiction or special expertise with respect to any environmental or navigation impact in a permit application.

AGENCY: *U.S Department of the Interior*

RULE/PROGRAM: Coastal Barrier Resources Act (COBRA), Coastal Barrier Improvement Act of 1990

KEYWORD(S): USDO I, COBRA, barrier islands

DESCRIPTION: The U.S. Department of the Interior (USDO I) administers these Acts to restrict Federal expenditures and financial assistance that have the effect of encouraging development of "undeveloped coastal barriers." Coastal barriers are defined as depositional features (such as bay barrier, tombolo, barrier spit or barrier island) that: 1) are subject to wave, tidal and wind energies, 2) protect landward aquatic habitats from direct wave attack, and 3) include all associated aquatic habitats (wetlands, marshes, estuaries, and near shore features). The Coastal Barrier Resources System (CBRS) only includes those coastal barriers and associated habitats which "contain few manmade structures" and for which "these structures, and man's activities...do not significantly impede geomorphological and ecological processes."

The Acts prohibit new Federal expenditures for financial assistance within the CBRS for any purpose, including but not limited to: 1) construction or purchase of infrastructure, 2) construction or purchase of roads, airports, boat landing facilities, bridges or causeways, 3) shore or inlet stabilization projects, 4) provision of new flood insurance coverage under the National Flood Insurance Act of 1968 for new construction or substantial improvements, and 5) provision of financial assistance from the Department of Housing and Urban Development (HUD) for acquisition, construction or improvement purposes. Exceptions include: 1) stabilization projects to protect life, land and property adjacent to a CBRS in an emergency; 2) energy resource exploration, extraction or transport facilities which must be located in the coastal area; 3) maintenance of existing channel improvements (including the Intercoastal Waterway) and related structures; 4) maintenance, replacement, reconstruction and repair, but not expansion, of publicly owned or operated roads, structures or facilities that are essential links in a larger network or system; 5) military activities essential to national security; and 6) construction, operation and maintenance of Coast Guard facilities and access thereto.

AGENCY: *U.S. Fish Wildlife Service, Department of Interior*

RULE/PROGRAM: Endangered Species Act of 1973, Marine Mammal Protection Act of 1972, Fish and Wildlife Coordination Act

KEYWORD(S): Endangered species, listed species, critical habitat, threatened species, land acquisition, USFWS, incidental take, captive breeding, manatee, dolphin

DESCRIPTION: The U.S. Fish Wildlife Service (USFWS) is responsible for administering the Endangered Species Act of 1973 whose purpose is to provide a means to protect endangered or threatened species and the ecosystems on which they depend. All federal departments and agencies must seek to conserve endangered and threatened species, and must cooperate with state and local agencies to resolve water resource issues in concert with conservation of listed species. Conservation is defined as using all methods and procedures that are necessary to improve a species' persistence to the point where protection under the Act is no longer required.

The Secretary of Interior determines, by regulation through Section 4 of the Endangered Species Act, whether a species is endangered or threatened using an established criteria. The official list of endangered or threatened species is published in the Federal Register, reviewed at least every five years for possible changes, and revised as necessary from time to time. Through Section 6, the USFWS is directed to cooperate with states, including consultation regarding the acquisition of conservation lands. The USFWS may enter into agreements for administration and management of conservation lands. States may receive financial assistance for listed species conservation.

Federal agencies are required by Section 7 of the Act to consult with the Secretary of Interior for any agency action at the request of prospective permit or license applicants who have reason to believe that a listed species may be present in the area affected by their proposed project. Federal agencies must also initiate consultation per Section 7 for any species or critical habitat that is under consideration for listing per Section 4. The Secretary has 90 days to conclude consultation, after which he provides the requesting federal agency (and permit applicant, if any) with a written statement of the Secretary's opinion, including reasonable

and prudent alternatives that can be used to avoid jeopardy to a listed species or adverse modification of its critical habitat.

Section 7 also establishes certain parameters in which exemptions from consultations are granted. Exemptions are granted if 1) there are no reasonable or prudent alternatives to the agency action, 2) the public interest benefits of such action clearly outweigh the benefits of alternative courses of action needed to conserve the listed species or its critical habitat, 3) the agency action is of regional or national significance, 4) neither the Federal agency involved (or the exemption applicant) have made any irreversible commitment of resources prohibited by Section 7(d), and 5) the Endangered Species Committee establishes reasonable mitigation and enhancement measures as necessary and appropriate to minimize the adverse effects of the agency action on the listed species or critical habitat.

Section 9 of the Act makes unlawful the taking, importation, exportation, possession, transport, or sale of endangered or threatened species of fish, wildlife or plants. Permits can be issued for activities otherwise prohibited by Section 9 of the Act for any of the following reasons: scientific purposes, captive breeding programs, incidental taking of species while carrying out otherwise lawful activities. Permit applicants must submit a conservation plan that specifies: the likely impact to the listed species due to the proposed activity, steps taken by the applicant to minimize and mitigate the impacts, the funding that will be available for the mitigation effort, description of alternatives considered and reasons why they are not being used, and other measures the Secretary may require. The Secretary shall issue the permit if these requirements are met: the taking is incidental, the applicant will minimize and mitigate the taking to the maximum extent practicable, the applicant will provide adequate funding to implement the conservation plan, the taking will not appreciably reduce the chances of species recovery in the wild, any additional measures required by the Secretary will be met.

The USFWS also administers the Marine Mammal Protection Act of 1972. Marine mammals include any mammal species that is morphologically adapted to the marine environment, including sea otters, manatees, whales and dolphins. Permits are required for the incidental taking of marine mammals in the course of commercial fishing, although it is the "immediate goal" that the incidental kill or incidental serious injury of marine mammals

permitted in the course of commercial fishing operations be reduced to insignificant levels, approaching a zero mortality and serious injury rate.

The Secretary of the Interior may delegate enforcement of the Marine Mammal Protection Act to officers and employees of any state. States cannot enforce State laws relating to taking of marine mammals unless the Secretary has transferred authority for conservation and management of that species to the State. To do so, the State must have implemented a program for the conservation and management of the species which 1) is consistent with the purposes; policies and goals of the Act; 2) requires that all taking of the species be humane; 3) does not permit the taking of species unless the species can be maintained at or above its "optimum sustainable population"; 4) does not permit the taking of the species for scientific research or public display purposes, except for those efforts conducted on behalf of the state itself; 5) provides procedures for acquiring data related to the optimum sustainable population of the species; 6) provides procedures for resolving differences between the State and the Secretary; and 7) provides for submission of an annual report to the Secretary regarding the administration of the program.

The Fish and Wildlife Coordination Act of 1958 establishes procedures for the cooperation among the Departments of Agriculture, Commerce and Interior concerning game and fur-bearing animals, effects of domestic sewage and other pollutants on wildlife, and consultation with the USFWS and State fish and game agencies by any Federal agency whenever "waters of any stream or other body of water are authorized to be impounded, diverted or otherwise controlled."

AGENCY: *Florida Department of Agriculture and Consumer Services*

RULE/PROGRAM: Soil and Water Conservation, Mosquito Control, Preservation of Native Flora of Florida

KEYWORD(S): FDACS, mosquito control, endangered plants

DESCRIPTION: The Florida Department of Agriculture and Consumer Services (FDACS) is responsible for creating and operating soil and water conservation districts to control or prevent soil erosion, prevent floodwater or sediment damage, and further the conservation,

development and utilization of soil and water resources. The FDACS is also responsible for the establishment of district or county mosquito control programs and provides funding to local control agencies. The department has established rules for mosquito control that may affect environmentally sensitive and biologically productive public lands and other public lands (parks, wildlife management areas, preserves, fishing grounds, sea shores, etc.).

The FDACS has also established rules for the purpose of preserving the native flora of Florida by encouraging the propagation of endangered or depleted species of flora and by providing an orderly and controlled procedure for restricting harvesting of native flora from the wilds, thus preventing exploitation or destruction of Florida native plant populations. These rules also identify those species listed under Section 6 of the Federal Endangered Species Act that are known to occur in Florida.

AGENCY: *Florida Department of Community Affairs*

RULE/PROGRAM: Local Government Comprehensive Planning and Land Development Regulation Act, Developments of Regional Impact, Florida's Coastal Management Act of 1978

KEYWORD(S): FDCA, local government, comprehensive plans, concurrency, consistency, DRI, regional review, CZM

DESCRIPTION: The Florida Department of Community Affairs (FDCA) is charged with reviewing local comprehensive plans for consistency with the state statutes, rules and other regulations, in addition to appropriate regional policy plans and the State Comprehensive Plan.

Section 380.06 of the Florida Statutes establishes a Development of Regional Impact (DRI) review process designed to ensure that projects, which because of their size or nature have the potential to cause multi-jurisdictional impacts, are developed in a manner consistent with state and regional goals.

The FDCA has the responsibility for conducting coastal zone management consistency reviews and determinations for any

Federal licenses, permits, activities or projects subject to Federal consistency review.

AGENCY: *Florida Department of Environmental Regulation
(now part of Florida Department of Environmental Protection)*

RULE/PROGRAM: Florida Air and Water Pollution Control Act, Water Resources Restoration and Preservation Act, Pollution Prevention Act, National Pollutant Discharge Elimination System (NPDES), Florida Litter Law, Transmission Line Siting Act, Resource Recovery and Management, Statewide Multipurpose Hazardous Waste Facility Siting Act, Warren S. Henderson Wetlands Protection Act of 1984, Indian River Lagoon Zero Discharge Act, Electric Power Plant and Transmission Line Siting Act, Water Management Lands Trust Fund, Construction Grants Program, Surface Water Improvement and Management Act

KEYWORD(S): FDER, (FDEP), pollution control, laboratory certification, ground water, reclaimed water, gray water, sanitary sewer, waste treatment, permits, NPDES, Stormwater, hazardous waste, transmission lines, power plants, dredge and fill, wetlands, estuary, lagoon, jurisdictional wetlands, mangroves, monitoring, docks, seawall, water quality, industrial discharge, leak detection, oil, spill, solid waste, underground storage tanks

DESCRIPTION: The Florida Department of Environmental Regulation (FDER) was the lead state agency in implementing and enforcing the major environmental regulations in Florida. It was merged into the FDEP in July 1993. Those FDEP functions which were performed by FDER are listed separately in this section. These functions are still being performed under the new FDEP. The FDER administered numerous Florida Statutes dealing with such issues as sewage treatment, wetlands, hazardous waste, industrial and electric plan siting, stormwater discharge, underground storage tanks, and surface and groundwater. The major environmental laws which FDER administered are listed above. Most, if not all the rules and regulations promulgated by FDER affect the Indian River Lagoon in some way or another, especially those relating to waste water and stormwater discharges into the Lagoon and dredging and filling along its shores and tributaries.

The FDER issued General Permits for the following classes of activities:

- domestic wastewater facilities
- wetland resource management (dredge and fill)
- stormwater discharges
- solid waste facilities
- hazardous waste facilities

A general permit authorizes persons to undertake certain activities that cause minimal adverse environmental impact when performed in accordance with specific requirements established in the general permit.

FDER certified the siting, construction or expansion of electric power facilities and transmission lines. The certification process includes a review of the needs for increased electric power generation and the effects of generation related activities on human health and the environment and ecology of the lands and waters within the state.

The industrial siting rule provides for an option, effective, centrally coordinated permitting review and determine process for industrial commercial, wholesale or retail projects that are consistent with the protection of our natural resources and environment, and which are located, constructed, and operated in a manner that facilitates orderly and planned growth and development within the state.

FDER has established a permitting system for maintenance dredging in deep water commercial navigation areas of listed ports which for the IRL system include Port Canaveral and Ft. Pierce and limits the activities in the permit to maintenance dredging and disposal of the maintenance dredged material.

The Department regulated underground and above ground pollutant storage facilities, applicable to those facilities that receive, store, or use petroleum products that are distributed from such facilities for use as fuel in vehicles. FDER also developed standards for the construction, installation, maintenance, registration, removal, and disposal of underground and above ground storage tank systems, which consist of underground and above ground tanks and their on-site integral piping systems and associated release detection. FDER also provided cleanup criteria for any site contaminated with petroleum or petroleum products whether conducted by an owner, operator, response action contractor, local government or Department.

FDER was also responsible for establishing surface water quality standards, thermal surface water criteria, water quality based effluent limitations, standards for reuse of reclaimed water and land application of domestic wastewater, and feedlot and dairy wastewater treatment.

AGENCY: *Florida Department of Natural Resources
(now part of Florida Department of Environmental Protection)*

RULE/PROGRAM: Marine Turtle Protection Act, Florida Manatee Sanctuary Act, Protection of Mammalian Dolphins, Florida Aquatic Wee Control Act, Marine Fisheries Commission, Coastal Zone Protection Act of 1985, Florida Aquatic Preserve Act of 1975, Florida Preservation 2000 Act, Conservation and Recreation Lands Trust Fund, State Lands Management, Florida Endangered and Threatened Species Act of 1977

KEYWORD(S): endangered species, marine turtles, manatees, aquatic weeds, dolphins, marine fisheries, coastal construction, coastal barrier species, inland waterways, beaches and shores, shrimp, crawfish, oysters, crabs, herbicides, parks and recreation, law enforcement, salt water fishing, artificial reef, shellfish, FDNR, FDEP

DESCRIPTION: The Florida Department of Natural Resources (FDNR) was the lead state agency for managing Florida's natural resources and state owned lands prior to the merger into the Florida Department of Environmental Protection in July, 1993. Each of the following functions has now been acquired by FDEP. FDNR administered marine sea turtle recovery plans of the USFWS for the Atlantic loggerhead turtle, the Atlantic green turtle, the leatherback turtle, the Atlantic hawksbill turtle and the Atlantic ridley turtle. FDNR also was responsible for the protection of manatees and mammalian dolphins as well as the management and preservation of the state's renewable fishery and shellfish resources. The Marine Fisheries Commission, operating within FDNR, is delegated rule making authority over marine life, with the exception of endangered species. FDNR regulated commercial and recreational fishing of saltwater finfish, snook, bonefish, mullet, stone crab, blue crab, crawfish, shrimp, oysters and clams. FDNR has established slow speed zones, idle speed zones, maximum speed zones and motorboat prohibited zones to protect manatees throughout the state and within the IRL and its tributaries.

The Department was charged with the control, eradication, and regulation of noxious aquatic weeds and non indigenous aquatic plants and the research and planning related to these activities. FDNR regulated and permitted coastal construction or reconstruction in order to minimize damage to the natural environment as well as private property and life during a major disaster.

The Division of Recreation and Parks has responsibility of developing and executing a comprehensive multipurpose outdoor recreation and conservation program for the state. Responsibilities include development of comprehensive outdoor recreation plan and an environmentally endangered lands plan, acquisition of recreational lands and environmentally endangered lands, development, operation and maintenance of recreation areas, development of interpretive and educational programs and exhibits on Florida history and natural resources, administration of grant-in-aid programs for acquisition and development of outdoor recreation and facilities by local governments.

FDNR also issued permits or leases for the use of submerged lands for the construction of marinas, boat docks, sea walls, etc.

AGENCY: *Florida Department of Transportation*

RULE/PROGRAM: Fishing and Boating Facilities at State Road System Bridges, Bridge Inspection Standards, Drainage Connections, Florida Highway Beautification Council, Florida Seaport Transportation and Economic Development Council

KEYWORD(S): FDOT, bridges, public boat ramps, drainage connections

DESCRIPTION: The Florida Department of Transportation (FDOT) established rules regarding participation in the location, design, construction and maintenance of fishing and boating facilities located on, or on the immediate right of way of state road system bridges.

FDOT has established minimum bridge inspection and inventory requirements. FDOT also established criteria for application, review, issuance and exemptions for drainage connection permits.

The Florida Highway Beautification Council administers the state highway beautification program. The Florida Seaport

Transportation and Economic Council provides matching funds for eligible ports for port transportation projects.

AGENCY: *Florida Game and Fresh Water Fish Commission*

RULE/PROGRAM: General Prohibitions and Requirements

KEYWORD(S): FGFWFC, Wildlife Code of the State of Florida

DESCRIPTION: The major functions of the Commission include the protection and management of wild animal life and freshwater aquatic life through biological programs coupled with a strong law enforcement program.

AGENCY: *Florida Department of Health and Rehabilitative Services*

RULE/PROGRAM: Swimming Pools and Bathing Places: Public Bathing Places - Applications, Permits, and Requirements; Standards for On-site Sewage Disposal Systems

KEYWORD(S): FDHRS, HRS, septic tanks

DESCRIPTION: The Department issues permits for development and operation of public bathing places on any waters of the state. The Department also provides rules and regulations regarding installation, function, and maintenance of on-site sewage disposal systems such as septic tanks.

AGENCY: *St. Johns River Water Management District*

RULE/PROGRAM: Permitting of Consumptive Uses of Water, Water Well Permitting, Management and Storage of Surface Waters, Artificial Recharge, Works of the District, Water Management Land Acquisition Procedures, General Surface Water Permits, Regulation of Stormwater Management Systems

KEYWORD(S): SJRWMD, stormwater, wells, recharge, land acquisition

DESCRIPTION: The SJRWMD is charged with managing the surface and groundwaters within the District's boundaries that encompass the northeast part of the state. Section 40C of the Florida

Administrative Code addresses activities that require permits or licenses and include:

- 1) A consumptive use permit prior to diversion or withdrawal of water
- 2) A well construction permit prior to construction, repair or abandonment of a water well
- 3) A water well contractor's license by contractors engaged in the business of water wells
- 4) A management and storage of surface waters individual or general permit prior to construction, alteration, operation, maintenance, removal, or abandonment of any dam, impoundment, reservoir, or appurtenant work or works
- 5) A management and storage of surface water conceptual approval permit for any proposed surface water management systems
- 6) A permit prior to construction of any well involving artificial recharge or intentional introduction of water containing sewage wastes into any underground formation
- 7) A work of the District permit prior to connecting works to, making use of, altering, removing works from, or placing works, on or across a work of the District
- 8) A stormwater management system permit prior to construction or modification of a new stormwater management system or modification to an existing stormwater system
- 9) A permit for discharge of stormwater into wetlands
- 10) A general permit after notice prior to construction, operation, maintenance, alteration, abandonment or removal of a minor silviculture surface water management system
- 11) A dredge and fill permit as delegated to the District by the FDER, prior to dredging and filling

- 12) An agricultural surface water management system permit for the operation and maintenance of existing agricultural surface water management systems and for the construction of new agricultural surface water management systems in order to discharge wastes into waters of the state from such a system

The District has policies and procedures regarding a five year plan for the selection of land, and provides procedures for the acquisition and management of land for preservation.

| | |
|----------------------|---|
| AGENCY: | <i>South Florida Water Management District</i> |
| RULE/PROGRAM: | Consumptive Use, Water Wells, Surface Water Management, Artificial Recharge, Works or Lands of the District, Water Management Lands Trust Fund, Real Property Acquisition and Disposal, General Surface Water Management Permits |
| KEYWORD(S): | SFWMD, stormwater, groundwater, recharge, land management, permits |
| DESCRIPTION: | <p>The South Florida Water Management District (SFWMD) is charged with managing the surface and groundwaters within the District's boundaries that encompass the southeast part of the state. Section 40E of the Florida Administrative Code addresses activities that require permits or licenses and include:</p> <ol style="list-style-type: none">1) A water use permit prior to use or withdrawal of water2) A water well permit prior to construction, repair or abandonment of any well within the District3) A surface water management permit prior to construction, alteration, operation, or abandonment of any dam, impoundment, reservoir, appurtenant work or works4) An artificial recharge permit prior to construction of any project involving artificial recharge or the intentional introduction of water into any underground formation |

- 5) A works of the district permit prior to connecting with, placing structures in or across, discharging into or making use of works of the District

The District has policies and procedures regarding a five year plan for the selection of land, and provides procedures for the acquisition and management of land for preservation.

Appendix B

APPENDIX B
FEDERAL AND STATE/REGIONAL REGULATORY PROGRAMS

AGENCY: *National Aeronautics and Space Administration*

RULE/PROGRAM: Kennedy Space Center, Environmental Resource Document, KSC-DF-3080, March 1992

KEYWORD(S): NASA, KSC, conservation, habitat management, land management

DESCRIPTION: The National Aeronautics and Space Administration (NASA) owns 139,490 acres as part of the John F. Kennedy Space Center, including approximately 56,000 acres of state-owned lands that were dedicated to the exclusive rights of the United States by the State of Florida. In accordance with the National Environmental Policy Act (NEPA) of 1969, NASA initiates environmental reviews in the conceptual study of any proposed actions. An Environmental Analysis has been prepared for the center which is periodically updated and is sufficiently detailed to determine whether a proposed action will require an Environmental Impact Statement (EIS), an Environmental Assessment (EA), or is categorically excluded from further environmental review. All Federal actions subject to NEPA and the Federal Coastal Zone Management Act are also subject to review through the State Intergovernmental Coordination and Review (ICR) process.

AGENCY: *National Marine Fisheries Service (NMFS) & National Oceanic and Atmospheric Administration (NOAA)*

RULE/PROGRAM: Habitat Conservation Program, Interagency Agreements, Fishery Management Councils and Plans, Fish and Wildlife Coordination Act

KEYWORD(S): NOAA, NMFS, intergovernmental coordination

DESCRIPTION: NMFS is the branch of NOAA most heavily involved in activities affecting IRL. The Fish and Wildlife Coordination Act authorizes NMFS to evaluate developments proposed by the U.S. Army Corps of Engineers or other Federal Agencies that might affect the nation's marine waters. Under this Act and other laws (i.e., Section 404 of the Clean Water Act, and the Fishery Conservation and Management Act of 1976), the Habitat Conservation Program annually reviews permit applications for dredge and fill, energy exploration, wastewater discharge and other pollution sources. Habitat conservation efforts are carried out principally by the

Habitat Conservation Division (HCD), in close cooperation with the habitat research component of the Southeast Fisheries Center.

NOAA and the ACOE signed a Memorandum of Agreement (MOA) that established a Federal program for creating and restoring coastal habitats. HCD personnel participated in the development and implementation of this MOA.

Other programs supported by NMFS and NOAA include the Habitat Research effort, the Subcommittee on Managed Marshes, National Estuary Program, Region Oil Spill Response Teams, Minerals Management Service Regional Technical Working Groups, Superfund, implementation of the Wetlands Planning, Protection and Restoration Act, and the Coastal America Initiative.

AGENCY: *National Oceanographic and Atmospheric Administration*

RULE/PROGRAM: National Sea Grant College Program, National Estuarine Sanctuary Program

KEYWORD(S): NOAA, U.S. Department of Commerce, interagency cooperation, estuarine research reserves, funding, intergovernmental coordination

DESCRIPTION: The National Sea Grant College program is designed to increase the understanding, assessment, development, utilization and conservation of the nation's ocean and coastal resources by promoting research, education, training, and advisory service activities in field related to ocean and coastal resources. The Secretary of the U.S. Department of Commerce may designate any institution of higher learning as a "sea grant college" if it provides a balanced program of research, education, training and advisory services in fields relating to ocean and coastal resources.

The National Estuarine Sanctuary Program establishes and manages a national system of estuarine sanctuaries representative of various regions and estuarine types in the U.S. NOAA may provide financial assistance to coastal states, up to 50% of actual costs, to assist in the designation and operation of national estuarine sanctuaries.

AGENCY: *National Park Service*

RULE/PROGRAM: Canaveral National Seashore (CANA)

KEYWORD(S): Sea turtle, beach mouse, water quality monitoring, shellfish harvesting, mosquito control

DESCRIPTION: The National Park Service administers the Canaveral National Seashore that was created to preserve and protect the outstanding natural, scenic, scientific, ecological and historic values of certain lands, shorelines, and waters of the State of Florida, and to provide the public outdoor recreation use and enjoyment of the same. The CANA's Sea Turtle Recovery Plan calls for 50% nesting success for sea turtles within the park. The first phase of a three year water quality inventory and monitoring study for Mosquito Lagoon was completed in 1991. CANA is currently studying the impacts of shellfish harvesting in the Mosquito Lagoon as well as mosquito control methods used by the East Volusia Mosquito Control District.

AGENCY: *U.S. Soil Conservation Service*

RULE/PROGRAM: SCS National Estuary Initiative

KEYWORD(S): SCS, USDA, SWIM, hydrologic modeling

DESCRIPTION: The Soil Conservation Service (SCS) state office in Gainesville is coordinating the preparation of a series of studies relating to the Indian River Lagoon in support of the IRLNEP and SWIM projects. Since agriculture accounts for 45 percent of the land use in the IRL basin, the SCS is developing an inventory and analysis of agricultural activities in the basin in order to predict the agricultural contribution to nutrient loading. The SCS and the Florida Department of Environmental Regulation have recently developed an approved standard and specifications for new Best Management Practices for agriculture and golf course operations.

The SCS is in the process of establishing two Mobile Irrigation Laboratories to evaluate private irrigation systems within the IRL watershed.

AGENCY: *U.S. Air Force*

RULE/PROGRAM: Overview and Mission, Fish and Wildlife Management Plan, Spill Response, Wetlands Restoration in the Integral Transfer Launch Area, Hazardous Waste/Materials Program

KEYWORD(S): DOD, USAF, CCAFS, PAFB, listed species, HAZMAT, critical habitat, hazardous materials, impoundment, monitoring

DESCRIPTION: Cape Canaveral Air Force Station (CCAFS) is located on 15,804 acres and provides the launch site, facilities, hardware, and support required to assemble, process, checkout, test and launch all types of government and commercial space boosters, upper stages, satellites and other payloads. CCAFS also provides the facilities, infrastructure, and ground support for the Eastern Test Range's launch base instrumentation requirements.

The CCAFS has written a Fish and Wildlife Management Plan that identified critical habitats and their associated species. The CCAFS conducts active management of these areas to enhance their value as habitat and to minimize impacts from launch activities. The CCAFS has also implemented programs to respond to hazardous waste spills, remove underground storage tanks, restore impounded wetlands, remediate old waste disposal sites, improve sewage treatment plants, reduce stormwater pollution, enhance wildlife habitat, assist in the recovery of the threatened Florida scrub jay and the conservation and preservation of marine sea turtles.

Patrick Air Force Base (PAFB) is located on 2,108 acres south of Cocoa Beach. Its mission includes responsibility for safety, planning, engineering, support services, scheduling, test operations, launch and range operations, directing or supporting operations, test results evaluation for activities at CCAFS. PAFB is proceeding with the construction project that will eliminate two 1 MGD wastewater treatment plant discharges to the Banana River. The PAFB is also developing methods to reduce stormwater pollution, soil erosion, prevent petroleum fuel spills, remediate old waste disposal sites and replace underground storage tanks.

AGENCY: *U.S. Geological Survey*

RULE/PROGRAM: Water Resources Data Report, Water Resources Monitoring Network, Freshwater Inflow to the Indian River Lagoon, Modeling the Hydrodynamics and Salinity of the Sebastian Creek Influence

KEYWORD(S): USGS, hydrology, water levels, stage, water quantity, water chemistry, groundwater, surface water, stream flow, water quality, monitoring, intergovernmental cooperation

DESCRIPTION: The U.S. Geological Survey (USGS) publishes the Water Resources Data Report annually for many sites throughout Florida, including the IRL basin. Beginning with the 1975 water year, the report provides data on quantities of surface water, quality of surface and ground water, and groundwater levels.

The USGS has proposed a four year data collection effort to establish a network of gauging stations on all possible tributaries, in addition to collecting rainfall information, to calculate the effects of freshwater inflows on the lagoon. The USGS is also working with the St. Johns River Water Management District on a project to study the hydraulics and salinity of the Sebastian Creek confluence with the Indian River Lagoon.

AGENCY: *U.S. Fish and Wildlife Service*

RULE/PROGRAM: Merritt Island National Wildlife Refuge, Endangered Species Management, Pelican Island National Wildlife Refuge, Vero Beach Field Office, Hobe Sound National Wildlife Refuge.

KEYWORD(S): USDOJ, USFWS, conservation, recreation, MINWR, NASA, FDNR, FGFWFC, HSNWR, listed species, habitat management, controlled burn, PINWR, biological assessment, intergovernmental coordination

DESCRIPTION: The U.S. Fish and Wildlife Service (USFWS) manages the Merritt Island (MINWR), Hobe Sound (HSNWR) and the Pelican Island (PINWR) National Wildlife Refuges. The MINWR was established in order to provide habitat for migratory birds, in addition to other objectives including restoring and enhancing all species that are endangered or threatened, perpetuating migratory bird resources, preserving the diversity of both flora and fauna,

and providing an understanding of fish and wildlife, including providing recreational opportunities.

The 4,760 acre Pelican Island National Wildlife Refuge was established as a sanctuary for brown pelicans. The refuge's management plan calls for entering into an agreement with the Florida Department of Natural Resources to expand the refuge boundary to 20,000 acres. The primary object of the refuge is to provide suitable nesting habitat and protection for all colonial nesting birds that use the island.

Hobe Sound National Wildlife Refuge encompasses parts of Jupiter Island, Hobe Sound, and the Mainland between St. Lucie Inlet and the town of Hobe Sound. The refuge offers protection for sea turtle and colonial bird nesting, as well as for coastal and estuarine habitats. A visitor and education center is operated in conjunction with the Hobe Sound Nature Center Volunteer Organization.

The Vero Beach Field Office carries out the USFWS's Ecological Services, Endangered Species and Environmental Contaminants activities under authority of the Fish and Wildlife Coordination Act and the Endangered Species Act. The primary work of the Vero office is to conduct on-site ecological surveys at proposed development sites to determine the potential effects on fish and wildlife resources, including threatened and endangered species.

AGENCY: *Florida Department of Community Affairs*

RULE/PROGRAM: Florida Coastal Management Program; Florida Coastal Action Plan; Coastal Infrastructure Policy Update

KEYWORD(S): FDCA, CZM, NOAA, OCRM, FCMP

DESCRIPTION: The Florida Coastal Management Program (FCMP) was created to better protect, maintain and develop Florida's coastal resources through a coordinated, interagency network. The Florida Coastal Action Plan spells out the priorities of the State's Coastal Resources Interagency Management Committee for expenditure of Federal CZM funds and also addresses shortfalls in the FCMP.

The Coastal Infrastructure Policy Update is an annual report prepared by FDCA to assess the effectiveness of the State's coastal infrastructure policies.

- AGENCY:** *Florida Department of Environmental Regulation*
(now part of Florida Department of Environmental Protection)
- RULE/PROGRAM:** Water Quality Assessment for the State of Florida, Surface Water Ambient Monitoring Program, Pollution Recovery Trust Fund, St. Lucie Estuary SWAMP Studies
- KEYWORD(S):** FDER, Clean Water Act, surface water, water quality, monitoring biological assessment, funding, pollution
- DESCRIPTION:** The Florida Department of Environmental Regulation was the lead state agency in implementing and enforcing the major environmental regulations in Florida. It was merged into the FDEP in July 1993, and final reorganization of functions will continue for several months. Meanwhile, those FDEP functions which were performed by FDER are listed separately in this section. These functions are still being performed under the new FDEP. The FDER administered numerous Florida Statutes dealing with such issues as sewage treatment, wetlands, hazardous waste, industrial and electric plan siting, stormwater discharge, underground storage tanks, and surface and groundwater. The major environmental laws which FDER administered are listed above. Most, if not all the rules and regulations promulgated by the FDER affect the Indian River Lagoon in some way or another, especially those relating to waste water and stormwater discharges into the Lagoon and dredging and filling along its shores and tributaries.
- The Water Quality Assessment for the State of Florida is prepared for the U.S. EPA in response to the Clean Water Act. The assessment includes an inventory of the water quality conditions of all navigable waters and an assessment of whether the quality of the waters is adequate for meeting their intended use. The Surface Water Ambient Monitoring Program (SWAMP) is a program for providing current information on 455 sampling sites throughout the state on the status of surface water quality, water quality trends, compliance results, assimilative capacities, etc. The St. Lucie Estuary SWAMP Study is to characterize the water chemistry and biology of the St. Lucie estuary in the Bessey

Creek area and its effects on the greater St. Lucie estuary through monitoring of five to eight sites.

The Pollution Recovery Trust Fund provides funds for environmental restoration and enhancement projects throughout the state. Funds come from cash penalties paid by environmental polluters.

AGENCY: *Florida Department of Natural Resources*

RULE/PROGRAM: Shellfish Environmental Assessment Section, Aquatic Preserve Program, Bureau of Sanctuaries and Research Reserves, Marine Resources Geographic Information System Endangered Species Program -Manatee, Conservation and Recreational Lands Program

KEYWORD(S): FDNR, shellfish, aquatic preserve, NOAA, MRGIS, recreation and parks, manatee, CARL, land acquisition, license tag

DESCRIPTION: The Florida Department of Natural Resources (FDNR) was the lead state agency in managing state lands and natural resources in Florida. It was merged into the FDEP in July 1993, and final reorganization of functions will continue for several months. Meanwhile, those FDEP functions which were performed by FDNR are listed separately in this section. These functions are still being performed under the new FDEP.

FDNR's Shellfish Environmental Assessment Section monitors water sampling stations in the Indian River Lagoon to classify and manage shellfish harvesting waters. The Melbourne and Ft. Pierce offices of FDNR manage the five Aquatic Preserves in the Indian River Lagoon system: Mosquito Lagoon Aquatic Preserve, Banana River Aquatic Preserve, and three Indian River Aquatic Preserve segments. Management plans have been adopted for all the Aquatic Preserves, spelling out the appropriate uses in and around the Aquatic Preserve, as well as serving as the basis for evaluating permits and leases reviewed by FDNR Aquatic Preserve personnel.

The Bureau of Sanctuaries and Research Reserves handles the National Marine Sanctuary and National Estuarine Research Reserve (NERR) programs in cooperation with NOAA. The Marine Resource Geographic Information System maintains digital map data in ARC/INFO format that include: 1) administrative

boundaries, 2) aids to navigation, 3) artificial reefs, 4) bird habitats, 5) commercial fisheries, 6) land use/land cover, 7) National Wetlands Inventory maps, 8) coastal public access points, and 9) roads.

The Division of Recreation and Parks manages several state parks and recreation areas in the Indian River Lagoon watershed, including Fort Pierce Inlet State Recreation Area, Jonathan Dickinson State Park, St. Lucie Inlet State Park, and Sebastian Inlet State Park. FDNR's manatee program is funded primarily by the Save the Manatee Trust Fund, which receives revenues from a special manatee license tag. Additional support is provided by the USFWS, the Save the Manatee Club, and the Marine Mammal Commission.

The FDNR's Division of State Lands provides primary staff support for the acquisition of the Conservation and Recreational Lands (CARL) projects, with additional assistance provided by staff representatives from the Land Acquisition Advisory Council and from the Florida Natural Areas Inventory. The CARL program was established in 1979 by the Florida Legislature to acquire environmentally significant lands. The following projects (and their rankings) from the 1992 CARL Priority List occur in or near the Indian River Lagoon watershed: Archie Carr Sea Turtle Refuge - Brevard/Indian River Counties (7), Sebastian Creek, Brevard/Indian River Counties (14), Avalon Tract, St. Lucie County (30), South Savanna, St. Lucie/Martin counties (33), Enchanted Forest, Brevard County (45), Pal-Mar, Martin/Palm Beach counties (48), Jupiter Ridge, Palm Beach County (49), Hutchinson Island, St. Lucie County (78), North Fork St. Lucie River, St. Lucie County (81).

AGENCY: *Florida Inland Navigation District*

RULE/PROGRAM: Long Range Dredge Material Management Program, manatee regulatory signage program, grants program, cooperative assistance program

KEYWORD(S): FIND, Intracoastal Waterway (ICW), channel, spoil islands, spoil disposal, funding, grants, research

DESCRIPTION: The Florida Inland Navigation District (FIND) is the State sponsor of the Atlantic Intracoastal Waterway Project in Florida. In this role, the District has a responsibility to provide, free of cost to the Federal Government, all lands necessary for the construction, operation and maintenance of the ICW. The District is currently involved with the Long Range Dredge Material Management Program, a 15 year effort to evaluate and update its existing inventory of lands for the management of dredged materials.

Since 1990 the District has had responsibility for installing and maintaining all manatee regulatory signage for the waters within its jurisdiction. Manatee signage is complete in Brevard and Martin counties and Indian River County is scheduled to be completed next.

The FIND also provides funding to local, regional and state governments for the purpose of waterway improvements.

AGENCY: *Florida Game and Fresh Water Fish Commission*

RULE/PROGRAM: Nongame Wildlife Program, Endangered Species Program

KEYWORD(S): FGFWFC, NGWP, non-game, research, management, DRI review, listed species, USFWS

DESCRIPTION: The Nongame Wildlife Program is responsible for establishing a comprehensive survey and monitoring program for nongame wildlife to track changes in the abundance and distribution of nongame species, and to identify species in decline that need protection or management to avoid placement on the threatened and endangered species.

The FGFWFC is responsible for coordinating the endangered species program in Florida, except for sea turtles and manatees, which are the responsibility of FDNR. Seventy-five percent (75%) of the funding for the FGFWFC's coordination effort is derived in part from the U.S. Fish and Wildlife Service pursuant to Section 6 of the Endangered Species Act of 1973; the remaining 25% is derived from the Nongame Wildlife Trust Fund.

AGENCY: *East Central Florida Regional Planning Council*

RULE/PROGRAM: Comprehensive Regional Policy Plan: Protection of Water Resources, Protection of Natural Systems, Protection of Coastal Resources, Protection of Marine Resources, Public Safety and Access in Coastal Areas, Protection of Endangered Species, Parks and Recreation, Reducing Hazardous Waste and Materials, Wastewater and Solid Waste Treatment and Disposal

KEYWORD(S): ECFRPC, stormwater, retrofit, development, wetlands, Floodplains, surface waters, marinas, mosquito impoundments, manatees, sea turtles, habitat preservation, fresh water inflows, buffers, water quality, endangered species, wildlife and habitat protection, mitigation, hazardous waste and materials, wastewater collection, solid waste

DESCRIPTION: The East Central Florida Regional Planning Council (ECFRPC) provides guidance and direction to local governments and DRI applicants regarding water and natural resources through various Regional Issues within its Comprehensive Regional Policy Plan. Guidance is provided in the areas of wetland protection, threatened and endangered species management, water and wastewater disposal, stormwater runoff, marina siting and other areas. Its region of coverage within the IRL watershed includes Volusia, Brevard, and Indian River Counties.

AGENCY: *Treasure Coast Regional Planning Council*

RULE/PROGRAM: Regional Comprehensive Policy Plan: Protection of Water Resources, Protection of Natural Systems, Protection of Coastal Resources, Protection of Marine Resources, Land Management and Use, Parks and Recreation, Protection of Natural Resources

KEYWORD(S): TCRPC, stormwater, retrofit, development, wetlands, Floodplains, surface waters, marinas, mosquito impoundments, manatees, sea turtles, habitat preservation, fresh water inflows, buffers, water quality, endangered species, wildlife and habitat protection, mitigation, hazardous waste and materials, wastewater collection, solid waste

DESCRIPTION: The Treasure Coast Regional Planning Council (TCRPC) also provides guidance and direction to local governments and DRI applicants regarding water and natural resources through various Regional Issues within its Comprehensive Regional Policy Plan. Guidance is provided in the areas of wetland protection, threatened and endangered species management, water and wastewater disposal, stormwater runoff, marina siting and other areas. Its region of coverage within the IRL watershed includes St. Lucie, Martin, and Palm Beach Counties.

AGENCY: *St. Johns River Water Management District*

RULE/PROGRAM: Save Our Rivers, Preservation 2000, Indian River Lagoon Surface Water Improvement and Management Program (SWIM) for the SJRWMD: Water Quality Monitoring, Turkey Creek Projects, Sebastian River, Muck Projects, Stormwater Management, On-site Sewage Disposal, Land cover and Mapping, Impounded Saltmarsh Rehabilitation, Saltmarsh Habitat Enhancement and Rehabilitation, Land Acquisition, Seagrass Preservation and Rehabilitation, Enforcement, Rule Development, Public Awareness, Administration, Planning and Coordination.

KEYWORD(S): SJRWMD, SWIM, Save Our Rivers, SOR, water quality, monitoring, freshwater inflow, muck, sewage, land use, saltmarsh, seagrass, education, public outreach, land acquisition

DESCRIPTION: The St. Johns River Water Management District (SJRWMD) and the South Florida Water Management District (SFWMD) administer part of the Save Our Rivers (SOR) and Preservation 2000 land acquisition programs. The SJRWMD and the SFWMD can use up to 10% of SOR and 30% of Preservation 2000 funds for identifying, prioritizing and purchasing lands under these programs.

The SJRWMD and the SFWMD are responsible for the Surface Water Improvement and Management Program (SWIM) within the

IRL. State funding is split 70% for the SJRWMD and 30% for the SFWMD. The Indian River Lagoon SWIM plan established three principal goals: 1) to attain and maintain water and sediment of sufficient quality in order to support a healthy, macrophyte-based, estuarine lagoon system, 2) to attain and maintain a functioning macrophyte-based ecosystem that supports endangered and threatened species, fisheries, and recreation, and 3) to achieve heightened public awareness and coordinated interagency management of the Indian River Lagoon ecosystem that results in the aforementioned goals.

AGENCY: *South Florida Water Management District*

RULE/PROGRAM: Indian River Lagoon Surface Water Improvement and Management Program (SWIM) for the SFWMD: Evaluation of Turbidity Standards, Manatee Pocket Stormwater Retrofit, Virginia Avenue Stormwater Retrofit, Manatee Pocket Monitoring Program, Moore's Creek Stormwater Retrofit, Aerial Photographs of the IRL, Martin County Mosquito Impoundment Restoration, North St. Lucie Estuary Basin Assessment, St. Lucie Mosquito Impoundment Restoration, Water Quality and Photosynthetically Active Radiation, Environmental Education.

KEYWORD(S): SFWMD, SWIM, Save Our Rivers, SOR, water quality, monitoring, freshwater inflow, muck, sewage, land use, saltmarsh, seagrass, education, public outreach, land acquisition

DESCRIPTION: The St. Johns River Water Management District (SJRWMD) and the South Florida Water Management District (SFWMD) are administer part of the Save Our Rivers (SOR) and Preservation 2000 land acquisition programs. The SJRWMD and the SFWMD can use up to 10% of SOR and 30% of Preservation 2000 funds for identifying, prioritizing and purchasing lands under these programs.

The SJRWMD and the SFWMD are responsible for the Surface Water Improvement and Management Program (SWIM) within the IRL. State funding is split 70% for the SJRWMD and 30% for the SFWMD. The Indian River Lagoon SWIM plan established three principal goals: 1) to attain and maintain water and sediment of sufficient quality in order to support a healthy, macrophyte-based, estuarine lagoon system, 2) to attain and maintain a functioning macrophyte-based ecosystem that supports

endangered and threatened species, fisheries, and recreation, and 3) to achieve heightened public awareness and coordinated interagency management of the Indian River Lagoon ecosystem that results in the two aforementioned goals.

Appendix C

APPENDIX C
NON-GOVERNMENTAL PROGRAMS

ORGANIZATION: *1000 Friends of Florida*

IRS STATUS: 501 (c)(3); Incorporated in Florida

KEYWORD(S): Growth management, citizen enforcement, land use planning, affordable housing, greenways

PURPOSE: Their mission is to advocate, through education, negotiation and litigation, the implementation of growth management principals which successfully balance the social, economic and environmental values which make up Florida's quality of life.

ORGANIZATION: *Ag Institute of Florida, Inc.*

IRS STATUS: 501 (c)(6); Incorporated

KEYWORD(S): Water quality/quantity, food safety beyond the farm, urban encroachment, devaluation of rural lands, wildlife of rural lands, wildlife species protection, foreign imports, labor standards, wetlands preservation

PURPOSE: It is the mission of the Ag Institute of Florida to serve as a united voice for Florida agriculture and to be a trusted resource for information concerning immediate and long range agricultural issues. It has identified three primary audiences in need of such a resource. These audiences that it serves are the media, the legislature and the general public.

ORGANIZATION: *American Littoral Society*

IRS STATUS: 501 (c)(3);non-profit

KEYWORD(S): Marine conservation, marine education, marine awareness, coastal wetlands preservation, marine habitat preservation

PURPOSE: The purpose of the American Littoral Society is to enhance awareness of the coastal marine environment and to promote marine life and habitat conservation. Major chapter activities include: lectures, field trips, newsletter, conservation work (such as water quality monitoring, shoreline flora restoration), and support of specific conservation initiatives.

ORGANIZATION: *Conservation Alliance of Martin County*
IRS STATUS: Not known; not incorporated
KEYWORD(S): Conservation, quality of life, Martin County
PURPOSE: Improvement of the quality of life in Martin County

ORGANIZATION: *Environet of Indian River County*
IRS STATUS: Not an organization; just a forum
KEYWORD(S): Communication, environmental protection
PURPOSE: The purpose of this organization is to provide a forum for communication and cooperation between individuals and groups that are concerned with the environment.

ORGANIZATION: *Environmental Learning Center*
IRS STATUS: 501 (c)(3); Incorporated
KEYWORD(S): Education, environmental education, natural resources
PURPOSE: This is a private not-for-profit organization whose mission is to educate youth through adults about our natural resources through hands-on learning programs for school children and adults, teaching all aspects of our natural resources. In school year 1992-93 all the 1st, 3rd, & 5th grade students in Indian River County participated in the program. Guided nature walks and monthly canoe excursions are available for adult and families. In-the-field work shops are also provided for adults.

ORGANIZATION: *Florida Academy of Sciences*

IRS STATUS: 501 (C)(3); Non-profit Corp.

KEYWORD(S): Education, science, environment, agriculture, engineering, biology, chemistry, students, journals

PURPOSE: This non-profit organization is the only Florida organization that represents all branches of science including: agricultural sciences, anthropological sciences, atmospheric and oceanographic sciences, biological, computer/math, engineering, and chemical/chemistry. It publishes Florida Scientist, supports the activities and annual meeting of the Junior Academy, prepares for and conducts annual meetings, makes awards to students, and an medal to the outstanding Florida Scientist, and organizes and carries out a campaign to increase its membership.

It also supports and provides a forum for working groups such as the Florida Committee for Rare and Endangered Plants and Animals.

ORGANIZATION: *Florida Advisory Council on Environmental Education*

IRS STATUS: Not Applicable

KEYWORD(S): Education, environmental education

PURPOSE: This is a governmental entity whose function is to facilitate a comprehensive, coordinated environmental education program in Florida.

ORGANIZATION: *Florida Audubon Society*

IRS STATUS: 501 (C)(3); Incorporated

KEYWORD(S): Preservation 2000, Everglades, protection and restoration, growth management, endangered/threatened plants and animals, conservation, and environmental education

PURPOSE: The Florida Audubon Society promotes land acquisition to provide long term protection of land, water and wildlife resources, as well as growth management and comprehensive plan policies that provide long term protection of land, water and wildlife resources. Concern for protection and prudent management of endangered and otherwise "listed" species and for wildlife populations associated with the Indian River Lagoon is an important issue for this group.

ORGANIZATION: *Florida Association of Soil and Water Conservation Districts*

IRS STATUS: 501(C)(3); Incorporated

KEYWORD(S): Conservation, Education, natural resources, Envirothon

PURPOSE: This group's mission is to provide leadership and coordination for soil and water conservation districts in natural resource endeavors. One major activity and accomplishment is to keep the Soil Conservation Service USDA (SCS) active in Florida and to provide the state with an almost complete soil survey. Toward this end it works closely with SCS and the Florida Department of Agriculture and Consumer Services.

ORGANIZATION: *Florida Native Plant Society*

IRS STATUS: 501(3)(C); 509(A); 170; Incorporated

KEYWORD(S): Native plants, education, conservation, restoration, information, protection

PURPOSE: The purpose of the Florida Native Plant Society is the preservation, conservation, and restoration of the native plants and native plant communities of Florida. The Society provides information to government officials, businessmen, educators, and the public at large on the protection, management, and restoration of native plant ecosystems through ongoing distribution of knowledge by means of periodic publications, conferences, symposia, workshops, and a statewide membership organized by local Chapters. It is a state-wide volunteer organization formed to educate and to provide a forum for scientific research regarding native plants and native plant communities of Florida. It maintains a speakers bureau,

monitors and informs on current state legislation, holds an annual 3 day conference, sponsors an annual environmental awards program, and publishes and distributes native plant books and booklets.

FNPS would be very interested in community projects to improve drainage basin, shoreline, littoral, and aquatic plants of the Indian River Lagoon.

ORGANIZATION: *Florida Natural Areas Inventory*

IRS STATUS: 501(C)(3); Incorporation Incorporated

KEYWORD(S): Natural communities, rare and endangered species, conservation surveys, land acquisition, and data base inventory

PURPOSE: The Florida Natural Areas Inventory (FNAI) provides a continuous process for identifying important natural areas and making data available to decision makers involved in resource management. Information on the status and distribution of natural communities, rare and endangered species of plants and animals, bird rookeries, geological and other natural features is collected, processed and analyzed through an integrated data management system.

ORGANIZATION: *Florida Oceanographic Society*

IRS STATUS: 501(C)(3); Incorporated

KEYWORD(S): Oceanography, marine science, reefs, research, education

This is a state-wide organization with the mission to increase the knowledge and understanding of Florida's marine resources through education, public awareness, and the support of scientific research.

ORGANIZATION: *Florida Solar Energy Center; C/O East Central Florida Environmental Education Service Project*

IRS STATUS: Not Applicable

KEYWORD(S): Environmental education, water habitat, human impact, and wetlands

PURPOSE: The purpose of this organization is to help teachers learn and teach about the environment. Our Regional Service Project is one of five in the state of Florida and is administered under a grant by the Department of Education Office of Environmental Education. The center interfaces with governmental and state agencies with an interest in the environment and education. It also enlists the help of business partners who are also concerned about the environment.

ORGANIZATION: *Florida Trail Association, Inc.*

IRS STATUS: 501(C)(3); Incorporated

KEYWORD(S): Trails, wilderness, primitive camps, recreation, construction

PURPOSE: The purpose of the Association is to develop, build, and maintain hiking trails throughout the state of Florida.

The Association has worked with almost all of the Florida Water Management Districts in developing low impact recreational use of their lands. Projects have included construction of hiking trails in wilderness areas and development of primitive camp sites for backpackers, as well as loop trails for urban or day users. A major goal of the group is to establish a major trail in the Indian River Lagoon area before intense development pressure makes suitable land areas unavailable.

ORGANIZATION: *Friends of the Sebastian River*
IRS STATUS: IRC 501(C)(3); Incorporated
KEYWORD(S): Conservation, protection, education

This group support the Sebastian Creek CARL state land purchase, works for manatee protection, seeks ways to improve water quality, and support designation of the Sebastian River as "An Outstanding Florida Water," and reviews and comments on city and county plans that affect the river. It also promotes expansion of Pelican Island National Wildlife Refuge to include the Indian River itself. It is a cooperator on shoreline re-vegetation and similar projects through the SWIM program, and continues to "adopt" the river shore and keep it clean. Another goal is to raise public awareness of the river and encourage an attitude of conservation.

ORGANIZATION: *Hobe Sound Nature Center*
IRS STATUS: 501(C)(3); Incorporated
KEYWORD(S): Environmental education, camps

PURPOSE: The Hobe Sound Nature Center is a private, non-profit organization and a cooperating association with the USFWS, which conducts a variety of programs, on and off site, for pre-K students through high school. Adult lectures on environmental topics and field trips to natural areas, sea turtle walks, summer nature camp for students 6-12, a quarterly newsletter and an interpretive/exhibit room on-site are activities and services provided by the center.

ORGANIZATION: *Marine Resources Council of East Central Florida*
IRS STATUS: Not Applicable
KEYWORD(S): Recreation, environment, education, management, research, monitoring

PURPOSE:

MRC is pledged to maintain and enhance the quality of marine systems for economic, recreational, aesthetic, and environmental use. MRC members, as well as private and public citizens meet every two years in an "American Assembly" to build consensus for action to wisely manage barrier islands, beaches, and estuarine watersheds. Focus is on freshwater flow from land drainage and its negative impact on estuarine productivity; loss of seagrasses and mangroves; the absence of coordinated local, state, or federal programs for the lagoon; and the need for public education as a means to incorporate science into the decision-making process.

MRC has been a model for international, national and state consensus and research based estuarine planning. It's ECO-Neighborhoods Program has been instrumental in bringing together experts on resource management to improve the environment and save energy, neighborhood by neighborhood, and to monitor water quality.

ORGANIZATION:

Pelican Island Audubon Society, Inc.

IRS STATUS:

501(C)(3)

KEYWORD(S):

Environmental education, field trips, advocacy, natural resources, wildlife

PURPOSE:

The purpose is environmental education, building consensus, advocacy, and specific education on the lagoon via lectures/boat trips. They work with Florida Audubon Society, The Natural Conservancy, Land Trusts, Friends of the Sebastian River, Marine Resources Council.

They provide beach cleanup, monthly lecture programs on the environment, natural history field trips, speakers' bureau, adult and children's environmental education, boat trips on the lagoon with lecturer, lobbying local, state and federal legislators.

ORGANIZATION: *Save the Manatee Club*

IRS STATUS: 501(C)(3)

KEYWORD(S): Manatee Preservation and education

PURPOSE: The purpose of this organization is to save the West Indian Manatee from extinction. This is accomplished through four areas of concentration: education, public awareness, research and lobbying.

ORGANIZATION: *Sierra Club-The Florida Chapter*

IRS STATUS: 501(C)(3)

KEYWORD(S): Wetlands, manatees, coastal protection, bio-diversity, stormwater, wildlife corridors, general environmental protection

PURPOSE: The Sierra Club was formed to explore, enjoy and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; to educate and enlist humanity to protect and restore the quality of the natural and human environment; and to use all lawful means to carry out these objectives.

ORGANIZATION: *St. Lucie River Initiative, Inc.*

IRS STATUS: 501(C)(3); Incorporated

KEYWORD(S): Ooze removal, canal management, stormwater management, water quality standards, salinity, habitat loss, eco-systems approach to resource management, economic benefits of environmental protection, private sector involvement in solutions, cost-effective solutions, multiple beneficiaries of government goals, consensus-building; conflict resolution; community support; community education; environmental education

PURPOSE: The purpose is restoration and proper long-term management of the river through both private and public action. Participation is through the governmental process to change

management practices; promotion of community education and support; and involvement of the private sector in creating cost-effective solutions that meet the needs of many groups. Its aim is to improve protection and management of the Indian River Lagoon's southern end, the St. Lucie River basin.

ORGANIZATION: *The Nature Conservancy*

IRS STATUS: 501(C)(3); Incorporated

KEYWORD(S): Conservation, preservation, endangered, wetlands, restoration

PURPOSE: The mission of the Nature Conservancy is to preserve the plants, animals, and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. They have been instrumental in protecting over 477,666 acres in the state of Florida. They work with the Department of Natural Resources and the Department of Environmental Regulation as well as various Water Management Districts, U.S. Fish and Wildlife Service, Florida Game and Fresh Water Fish Commission, Archibald Biological Station, National Oceanic and Atmospheric Administration and the Marine Sanctuary in the Keys, among others. Several tracts of land along Indian River Lagoon have been preserved through the auspices of the Nature Conservancy.

ORGANIZATION: *United Association Used Oil Services*

IRS STATUS: 501(C)(6); Incorporated

KEYWORD(S): Used oil, transportation, environment, oil spill, drinking water, recycling

PURPOSE: Used Oil Transporters, provide a vital public service, protect the environment, educate businesses and the Public. Used oil transporters help cities, states and counties save countless barrels of oil for recycling purposes each year. Without such efforts, oil would end up dumped into the environment, polluting drinking water. Transporters haul away "waste" oil gathered at special collection centers. A number of the centers

accept used oil across Florida and the southeast. The industry promotes the re-refining, reclaiming and recycling of used oil.

ORGANIZATION: *Institute of Food and Agricultural Sciences; c/o University of Florida*

IRS STATUS: Not Applicable

KEYWORD(S): Research, extension and training, information services, degree programs, research

PURPOSE: The center was directed to develop environmentally sound techniques for the management of aquatic weed species and to coordinate aquatic plant research activities within the state of Florida. The center has developed multidisciplinary research, teaching, and extension programs in aquatic plant ecology and management by utilizing expertise from many departments within IFAS and its Agricultural Research and Education Centers throughout Florida. Research coordinated by the Center is directed toward all species of aquatic plants that are potentially harmful to the aquatic environment and the relationships between these plants and their lake and river habitats. Services offered include aquatic plant management training courses, certified aquatic pesticide applicator training and testing, control recommendations, plant identification, and problem identification and assessment.