



# 2005

Land  
Stewardship  
ANNUAL  
REPORT



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### *The Changing Face of the Land Stewardship Program*

The District owns and, with its partners, manages 585,491 acres of Save Our Rivers and interim project lands from Orlando to Biscayne Bay. The Save Our Rivers projects are lands that were purchased for their conservation values—high quality floodplains, wetlands, and uplands that will continue providing recreation, water resource protection, and wildlife habitat for future generations. The interim lands are those properties that will be transformed into engineered reservoirs and stormwater treatment areas as part of the District's massive ecosystem scale restoration initiatives. The management of both the interim lands and the natural lands are now a part of the Land Stewardship Program. Both areas have their inherent land management challenges--habitat restoration, prescribed burning, and exotic treatment on SOR lands; exotic animals, illegal dumping, and abandoned structures on interim lands.

Many District owned properties include upland areas that are disturbed and dominated by undesirable non-native plants. Restoring such areas with diverse native understory is challenging but the rewards for wildlife habitat are great. The Land Stewardship Program is attacking this problem on two fronts by working with some of the most experienced ecological restoration experts in the state and also by supporting scientists through a Request for Proposals that will be released in FY2006 to evaluate more effective and less expensive understory restoration techniques. The District is recognized as a world leader in wetland restoration yet in order to accomplish its mission of managing and protecting water resources, the District will also push ahead on restoration of critical upland parts of Florida's natural system.

Great strides have been taken to enhance and expand the recreational use program on District lands. Over the past year a series of workshops were held to gather input for public access and use rules; the comprehensive rule is scheduled to be in effect in Spring 2006. In addition to creating a new recreational guide, website, and recreation hotline, we are also developing a comprehensive recreation plan to meet the needs for public recreation over the next five years. In the upcoming year look forward to new public access and improved amenities at such sites as the Allapattah Flats and Hickory Hammock Management Areas, Bird Rookery Swamp, and Taylor Creek STA.







# Land Stewardship

## Background & History

The Save Our Rivers (SOR) program began in 1981 with the legislative enactment of the Water Management Lands Trust Fund, Chapter 373.59, F.S., which enabled the five water management districts to buy lands needed for water management, water supply, and the conservation and protection of water resources, and to make them available for appropriate public use. Since that time the South Florida Water Management District and its acquisition partners have purchased 378,382 acres of environmentally sensitive land (not including 800,000 acres in the three water conservation areas). Water resource projects, or those lands associated with the Comprehensive Everglades Restoration Project consisting largely of impacted agricultural lands, have added another 206,109 acres.

## Land Stewardship Program Operational Structure

The Land Stewardship Program is responsible for the planning and management of SOR lands and the implementation and administration of mitigation banks and regional offsite mitigation areas. The program has direct management responsibility for 186,544 acres in 11 projects. For the 191,838 acres of non-District-managed lands, contracts, agreements or leases have been entered into with other agencies, local governments or private entities.

The major goals of the program are to restore the lands to their natural state and condition, manage them in an environmentally acceptable manner, and to provide public recreational opportunities that are compatible with natural resources protection. The program is implemented by a professional and technical staff of 26 based in five service centers and at District headquarters in West Palm Beach.

### Program Objectives

- Complete/update management plans for all projects
- Control invasive exotics
- Restore natural fire regime
- Restore native communities
- Employ multiple use practices
- Open lands for appropriate public use
- Implement two mitigation banks and offsite mitigation per permit conditions

## Program Finances

Since its inception in the early 1980s, the Land Stewardship Program has been funded by a variety of sources. District ad valorem taxes have not been utilized for management since 1989. The principal source of management funding has been the Water Management Lands Trust Fund, which utilizes a portion of the state's documentary tax revenue to pay for land management activities. The fund reimburses actual expenditures based on quarterly invoices to the Florida Department of Environmental Protection, which administers the fund. Appropriate expenditures are identified in the District's annual budget and approved by the Governing Board by a resolution to DEP. Since 2000, use of these funds has been limited to land management costs or to retire the District's land acquisition bonds.

Other funding sources include off-site mitigation, lease revenues, and grants. Off-site mitigation funds are collected as a result of conditions placed on Environmental Resource Permits approved by the Governing Board for authorized mitigation activities. These funds must be spent strictly in accordance with the permit requirements for land acquisition, restoration, and general maintenance of the mitigation lands. This form of mitigation allows the District to direct mitigation dollars where they benefit the south Florida ecosystem. Land Stewardship Program staff obtained several grants to fund specific restoration projects on District lands. Low intensity cattle leases generate modest lease revenues, but may also require substantial in-kind services from the lessee. Additional in-kind services are provided by state and local governments, as well as numerous recreational groups and individual volunteers.

Management activities for FY2006 are anticipated to occur on 325,464 acres of land at an estimated total cost of \$10.13 million, or unit cost of \$31/acre.







## Operation and Maintenance of Land Resources

Chapter 373.59, the originating legislation of the Save Our Rivers program, states that lands acquired through this program “shall be managed and maintained in an environmentally acceptable manner and, to the extent practicable, in such a way as to restore and protect their natural state and condition.” Major components of the Land Stewardship Program include:

### Hydrologic/Habitat Restoration

A major thrust of the Land Stewardship Program is to protect and restore the flowways, watersheds, and wetlands, all of which are critical to the water resources of the District. Hydrologic restoration has been accomplished on numerous SOR projects, which range from installing earthen ditch plugs to rehydrate isolated wetlands, to constructing at-grade road crossings to restore sheetflow, to constructing levees and water control structures to reflood former Everglades marsh. Upland restoration efforts include timber thinning and chopping for the planned reintroduction of endangered red-cockaded woodpeckers, pine plantings to return pasture to pine flatwoods, and the creation of hardwood hammock and forested wetlands in the southern Everglades.

### Exotic Plant Control

The District is committed to reducing the proliferation of exotic plant infestations and eradicating the problem where possible. Exotic control consists of the proper application of various environmentally acceptable chemical herbicides combined with mechanical techniques performed by staff or private contractors. Cooperators who manage District lands under contract or lease are strongly encouraged to apply a similarly aggressive approach to exotic plant control. Exotic control is consistently the single largest item in the Land Stewardship Program annual budget.



*Shredding overgrown palmettos*



*Lake Marion Creek following debris removal*



*39,077 acres of exotics treated in FY 2005*



*Prescribed fire Crew and Equipment*





## Prescribed Burning

Periodic fire is a natural element of native Florida ecosystems. The District uses prescribed burning to reduce hazardous buildup of vegetative fuel loads, enhance wildlife habitat, and encourage restoration of native plant communities. The District burns its lands to simulate natural fire cycles which benefits native plant communities. Our goal is to conduct at least 50% of our prescribed burns during the growing season to mimic the natural occurrence of lightning season fires. The fire management program is based on ecological research and proven safety standards and requires trained and experienced staff familiar with the diverse and unique fire management needs of the Florida landscape.

## Public Use & Environmental Education

The District encourages use of its lands for appropriate outdoor recreational activities. All SOR lands are available for public use, except in rare instances where there is no legal public access or where contract or lease restrictions prohibit the public. The vast majority are managed as semi-wilderness areas, with very limited vehicular access other than off-road parking. Opportunities include hiking, primitive camping, canoeing, fishing, and horseback riding, with volunteers from various user groups maintaining the trails and wilderness campsites. Cooperative agreements with the Florida Fish and Wildlife Conservation Commission (FWC) enable high quality, low impact hunting on nearly 170,000 acres. Acquisition and management partners from several counties have constructed environmental education centers, boardwalks, and interpretive trails, all at no cost to the District, that are used by thousands of school children and adults annually.

## Mitigation

Under Chapter 373, (F.S.), the District is authorized to participate in and encourage the development of private and public mitigation banks and regional offsite mitigation areas. Furthermore, the state's mitigation banking rule, Chapter 62-342, encourages each water management district to establish two mitigation banks. The use of mitigation and mitigation banking offers opportunities to generate revenue that will supplement funding of the District's land acquisition, restoration, and management programs.

SFWMD's mitigation bank sites include the Loxahatchee Mitigation Bank in Palm Beach County



*18,704 acres were burned in FY 2005*



*District lands support multiple recreation*



*Bald Eagle visiting the Loxahatchee Mitigation Bank*

and the Corkscrew Regional Mitigation Bank in Lee County. The District is developing each bank in a public-private contractual agreement. Private bankers obtain permits, restore the land, reimburse the District for its land acquisition and staff costs, and then generate a revenue stream for future projects.



## Interim Property Management and Land Stewardship

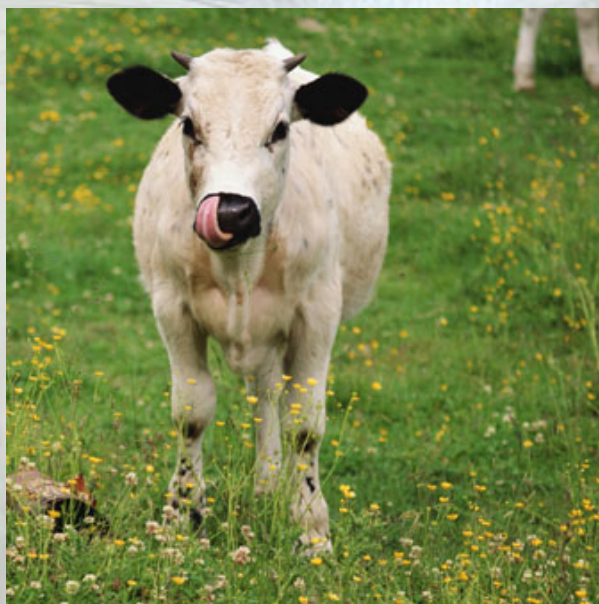
The Interim Property Management Program is responsible for managing those properties acquired by the District for future Comprehensive Everglades Restoration Program (CERP) and other projects until such time as the land is needed for construction. These lands will ultimately be used as stormwater treatment areas, surface water reservoirs, groundwater recharge areas, and/or buffer lands between the Everglades and other sensitive areas and urban development. These lands are not specifically acquired or designated for environmental enhancement, restoration or preservation purposes, and generally, they are not proposed for recreational or other public uses except on a limited basis that is consistent with their future use.

The Interim Property Management program was initially developed in 1997 to manage the Stormwater Treatment Area (STA), Water Preserve/Management Area (WPA/WMA), and East Coast Buffer (ECB) lands during the interim period while acquisition, planning, design, and construction for these projects was taking place. It has since evolved to include other lands acquired by the District for future CERP and other similar construction projects throughout the District.

Where appropriate, historical uses, such as grazing, sod, vegetable, and sugar cane farming, and nurseries and tree farms, are allowed to continue through the use of reservations, leases or similar agreements. Generally, a competitive bid process is used to solicit proposals and award contracts, which include the appropriate cancellation clauses so the land can be quickly made available when it is needed. In some cases, short term leases (5 years or less) are negotiated as part of the acquisition package. Lessees are typically required to actively manage the property, control exotics, provide security for the property, implement applicable best management practices (BMPs), keep the property and facilities in good repair and condition, obtain all required permits and approvals for their activities, maintain required insurance coverage, etc. In all cases, lessees are required to pay applicable local property taxes.

The Interim Property Management Program has developed a multi-faceted management approach that:

- protects the natural resource;
- provides on-site management and security for District-owned lands at a minimal cost to the District;
- minimizes District expenses by increasing revenue from non-governmental sources to off-set District management, maintenance and resource protection costs;
- generates additional funding for future acquisition;
- minimizes impacts to the local agricultural economy by keeping viable agricultural lands in active production for as long as possible; and minimizes fiscal impacts to the local government by keeping lands on the tax roll until they are actually needed for construction.



*Cows grazing on interim project lands*





For those lands that are in their natural state and/or where some type of active interim use is inappropriate due to the environmental sensitivity of the land and/or the projected construction timetable for the project for which the land has been acquired, Interim Property Management either manages these lands themselves or contracts with another governmental entity. Interim Property Management conducts an ongoing property management program and oversees exotic control, cleanup, security and any other activities necessary to maintain the lands in good condition.

During FY2005, the Interim Property Management program was responsible for over 150,000 acres of land, of which approximately 90,000 acres were managed under 71 different leases or management agreements.

The Interim Property Management program is currently staffed by a group of 5 professionals with expertise in real estate, finance, business administration, and property management. They are responsible for managing these lands through the development of land management plans, implementation and management of leases, regular property inspections, and appropriate follow-up activities, including exotic control, fencing, clean-up, security, etc. on non-leased lands.

The FY2005 budget for Interim Property Management was \$3,144,102. This includes personnel costs, contractual expenses for activities such as exotic control, cleanup, security, etc., and general administrative costs. Revenue generated from leases, sale of products, and other alternative sources for the year was in excess of \$3 million. This was in addition to the \$2,250,000 in management costs avoided (calculated at an average cost of \$25 per acre) due to the 71 leases and management agreements in place for the 90,000 acres under contract. By keeping the leased properties on the local tax rolls, the lessees paid \$2.5 million in property taxes for a total contribution by the Interim Property Management program of over \$8 million.



*Asphalt plant removal in the East Coast Buffer*



*Honey bees kept on interim project lands*



*Property inspections with portable GPS/GIS*



*Road damage from hurricane Wilma*



*The District has a contract with the Florida Fish and Wildlife Conservation Commission for enhanced patrols of District land*





# Save Our Rivers Projects

## Summaries

This section briefly describes each Save Our Rivers project, organized by land management region. Maps of the five regions include the SOR projects and interim management lands.

## UPPER LAKES LAND MANAGEMENT REGION

Orlando Service Center

### Kissimmee Chain of Lakes

(District managed)

**County:** Osceola/Polk

**Project size:** 36,763 acres

**District ownership:** 35,563 acres

**Acquisition partners:** None

Acquisition of the Kissimmee Chain of Lakes project was designed to provide the capacity to store and flow water up to the 54 foot National Geodetic Vertical Datum (NGVD) contour line. Public access to most of the land is by boat. There are several cattle leases and grazing reservations within the KCOL Management Area. Resource management goals for the Chain of Lakes are to maintain and, where possible, restore natural communities, provide cost effective resource protection, and provide opportunities for compatible public use. In FY2005 approximately 20,000 acres were treated for exotic plants. Staff also mowed 3,000 acres of semi-improved pasture to reduce nuisance native and exotic plants and to improve the conditions of the altered wet prairie communities on Gardner-Cobb Marsh, Lightsey Units, Catfish Creek, and East Shoreline. Approximately 2,000 acres were burned utilizing prescribed fire. In FY 2006 20,000 acres are planned to be treated for exotics, and 5,000 acres are planned to be burned. There are three Natural Resource Conservation Service restoration projects planned for FY2006.

### Lake Marion Creek (District managed)

**County:** Polk

**Project size:** 17,300 acres

**District ownership:** 7,067 acres

**Acquisition partners:** Polk County, SWFWMD, USFWS

Lake Marion Creek is in Polk County and flows from Lake Marion to Lake Hatchineha. Contained within the project are scrub, sand hills, pine flatwoods, and riverine swamp forests. Lands in this

project have been acquired with the assistance from Polk County, the Southwest Florida Water Management District, and the U.S. Fish and Wildlife Service. Primary stewardship activities include prescribed burning, exotic plant control, resource protection, and public use.

FL Fish and Wildlife Conservation Commission (FWC) participates as a cooperative management partner by conducting a hunt program and security patrols. The area is managed as a Type 1 Wildlife Management Area. In 2005, approximately 28 tons of garbage from 300 acres of scrub were removed to improve sand skink and scrub jay habitat. Additional scrub may be acquired in 2006. During 2005, approximately 1,090 acres were burned. Exotic treatment of approximately 100 acres of lygodium and cogon grass occurred in 2005. In FY 2006 250 acres are planned to be treated for exotics, and 320 acres are planned to be burned. Scrub jay and sand skink surveys were completed in 2005 by private contractors. The majority of the property is open for hiking year-round and camping is available by Special Use License. The management plan was completed in 2005. SFWMD may enter into a cooperative agreement with the USFWS to manage 137 acres of adjoining scrub.

### SUMICA, formerly known as Lake Walk-in-Water (managed by Polk County)

**County:** Polk

**Project size:** 4,009 acres

**District ownership:** 4,009 acres

**Acquisition partners:** Polk County

Polk County participated as a 50% acquisition partner under its Environmental Lands Program, and the County is also lead manager. A five-year management plan was prepared by the County and approved by SFWMD. SUMICA, formerly known as Lake Walk-in-Water, is named after the historic logging town that existed on the site in the 1920s. During 2005, two special opportunity hog hunts were conducted. Current public uses include hiking, hunting, camping, and horseback riding. There is an elevated walking trail to access the old elevated railroad tram and observation area.

Lake Marion Creek







*Reedy Creek: Lake Russell Shoreline*

### **Reedy Creek** (District managed)

**County:** Osceola

**Project size:** 30,000 acres

**District ownership:** 5,483 acres

**Acquisition partners:** None

For management purposes the project is divided into Upper and Lower Reedy Creek. The Upper Reedy Creek Management Area includes those lands north of Pleasant Hill Road and is approximately 4,800 acres. The Lower Reedy Creek Management Area encompasses approximately seven miles of creek corridor and totals 5,483 acres under District ownership. Management goals for both areas are to conserve and protect water resources and supplies, protect and restore the land in its natural state and condition, and provide compatible public use opportunities. The Lake Russell Management Unit in Poinciana is jointly managed by Osceola County Schools as an environmental education facility. A center with classrooms and displays provides interpretation to the scrub, Lake Russell, and the floodplain swamp communities that exist on site. An interpretive hiking trail describes the unique plant communities and wildlife that exist in the scrub habitat of the site. District staff treated approximately 3,000 acres of exotic vegetation in FY2005. In FY 2006 50 acres are planned to be treated for exotics, and 80 acres are planned to be burned. FWC has identified the area of Lower Reedy Creek as a "Strategic Habitat Conservation Area," a "Biodiversity Hotspot," and a "Priority Wetland for Listed Species." These designations make the area a priority for preservation based on known occurrences of rare or listed species. There are two cattle leases and grazing reservations within the Reedy Creek Management Area.

### **Shingle Creek** (District managed)

**County:** Orange/Osceola

**Project size:** 7,655 acres

**District ownership:** 1,628 acres (includes conservation easement of 124 acres)

**Acquisition partners:** Mitigation

The District has undertaken several successful restoration projects within Shingle Creek Swamp

funded as mitigation to offset wetland impacts associated with construction of the Orlando Beltway. In 2005, 125 acres were prescribe burned, and the entire 1,700 acres were surveyed and spot treated for exotic vegetation. In FY 2006 1,450 acres are planned to be treated for exotics, and 100 acres are planned to be burned. The Marriott development in the northwest corner of the project has constructed a parking area and boardwalk/trail that leads to the north swamp. In 2005, SFWMD staff secured two separate public access points that make the property available to the public. Construction of a boardwalk and bridge across the creek from Hunter's Creek Middle School to the Shingle Creek management area was dedicated in late 2005. Signage at the three parking area access points should also be completed by FY2006.



*Shingle Creek*

### **Tibet Butler Preserve**

(managed by Orange County)

**County:** Orange

**Project size:** 439 acres

**District ownership:** 439

**Acquisition partners:** None

The Preserve covers 439 acres along the southwest shore of Lake Tibet Butler in Orange County. Vegetative communities include bay swamp, pine flatwoods, cypress swamp, and smaller areas of xeric oak and freshwater marsh. Tibet Butler Preserve includes approximately 4,000 feet of shoreline on Lake Tibet. Orange County Parks and Recreation Department manages the preserve as an environmental education facility. A large enclosed education center with classrooms was constructed in 1994. It has a full-time staff, which conducts programs for thousands of students each year. County land managers also treat exotic vegetation and maintain the system of hiking trails and boardwalks that lead to the many community types on the property.



## Kissimmee Prairie Ecosystem

(managed by DEP)

**County:** Okeechobee

**Project size:** 38,282 acres

**District ownership:** 38,282 acres

**Acquisition partners:** CARL

The project is managed by DEP Division of Recreation and Parks under lease from the District and State and is known as Kissimmee Prairie Preserve State Park. A State-approved management plan is in place that addresses prescribed burning, exotic control, and public use. Recreational uses include hiking, bicycling, camping, and horseback riding. Exotic treatments and prescribed burning are ongoing.

## Kissimmee River

(managed by District/FWC)

**County:** Osceola/Polk/Highlands/Okeechobee

**Project size:** 68,332 acres

**District ownership:** 53,985 acres

**Acquisition partners:** None

The Kissimmee River is cooperatively managed by the SFWMD and the Florida Fish and Wildlife Conservation Commission (FWC). The five-year plan includes prescribed burning, exotic plant control, upland shrub control, wildlife management, and forest management. In 2005 approximately 3,000 acres were burned, 2000 acres were chemically treated for exotic plants, and 550 acres of overgrown shrub vegetation were mechanically shredded. In FY 2006 2000 acres are planned to be treated for exotics, and 2500 acres are planned to be burned. A campground for equestrian use at Hickory Hammock and was dedicated in the fall of 2005. An extensive public use program on the river attracted hundreds of visitors to the area and included hunting, fishing, horseback riding, nature appreciation, hiking, camping, and education programs through the Riverwoods Field Lab.



*Kissimmee Prairie*

## Paradise Run (District managed)

**County:** Glades

**Project size:** 4,265 acres

**District ownership:** 3,328 acres

**Acquisition partners:** None

The project lies west of Canal-38, between Structure-65E and Lake Okeechobee. Unlike the other pools of the Kissimmee River, Level II backfilling (river restoration) will not reflood Paradise Run, since it is controlled by the stage in Lake Okeechobee. Remnant river oxbows are still present, although the surrounding land has been drained and is now improved pasture. Paradise Run is open for public use, including hunting, under FWC's Public Use Area concept. There are two cattle leases in Paradise Run. In the past year approximately 50 acres were treated for exotic plant control. This property is slated for hydrologic restoration under the Lake Okeechobee Program.



*Kissimmee Prairie*



*Kissimmee River floodplain*





## EAST COAST LAND MANAGEMENT REGION

West Palm Beach/DuPuis

### Allapattah Flats (District managed/FWC)

**County:** Martin

**Project size:** 42,348 acres

**District ownership:** 21,407 acres

**Acquisition partners:** Martin County, Federal Government

Allapattah was purchased as part of the Indian River Lagoon South Project Implementation Report Recommended Plan of the Comprehensive Everglades Restoration Project (CERP), with funding assistance from Martin County and the federal government. It is proposed that the ditches and swales that were excavated to drain and improve the property for cattle grazing will be plugged and filled, that a low berm will be constructed at strategic locations to protect roadways and that water control structures will be replaced to effect greater control of the site's water resources, allowing rehydration of the property's extensive wetland systems. Restoration will be partially funded through the Natural Resources Conservation Service's Wetland Reserve Program. Flood attenuation and water quality improvement are the expected outcomes from the project, to provide a reduction in discharges to the C-23 canal and eventually the Indian River Lagoon.

The Management Plan was adopted at the August 10, 2005 District Governing Board. Management activities included continued treatment of exotic vegetation in 2005. In FY 2006 2000 acres are planned to be treated for exotics, and 600 acres are planned to be burned. Upland restoration activities continued with 315 acres of pasture in Parcel A and 185 acres in parcel B planted with slash pine. Wetland restoration activities were initiated on Parcel A, with over 17 miles of ditches plugged or filled to the benefit of over 2,500 acres. Discussions were held with Florida Fish and Wildlife Conservation Commission to have them take over as lead managers following completion of restoration activities. The August 10, 2005 District Governing Board approved the FWC assumption of a limited public use program, retroactive to July 1, 2005, that will include hiking, bicycling, equestrian use, and hunting & fishing.

### *Bella Moth Caterpillar: Atlantic Ridge Ecosystem*



### Atlantic Ridge Ecosystem

(managed by Department of Environmental Protection)

**County:** Martin

**Project size:** 13,122 acres

**District ownership:** 6,094 acres

**Acquisition partners:** CARL

Atlantic Ridge is being managed by DEP, Division of Recreation and Parks, under a joint management lease from SFWMD and the Division of State Lands. The area will be known as Atlantic Ridge Preserve State Park. A management plan has been completed that outlines the goals and objectives for the park. The plan describes hydrologic restoration and staffing needs, plans for exotic control and prescribed burning, and a public use program. It is proposed that initial public facilities will include an interpretive kiosk, trailhead and hiking trails, and equestrian trails. Public access to the property is anticipated in mid-2006 through a new residential development off Cove Road.



*Allapattah Flats: Wood Storks and a Spoonbill congregating*



## Cypress Creek/Loxahatchee

(managed by District/Palm Beach County)

**County:** Palm Beach/Martin

**Project size:** 4,347 acres

**District ownership:** 3,547 acres

**Acquisition partners:** Martin/Palm Beach counties

The project is divided between Martin and Palm Beach counties and forms connections with Pal-Mar and District-owned lands in Jonathan Dickinson State Park. Nearly 3,000 acres are high quality natural area, containing a mixture of pine flatwoods, cypress swamps, and freshwater marshes. The area is the headwaters to Cypress Creek, a major tributary to the Northwest Fork of the Loxahatchee River. The remainder of the site has been cleared and used for intensive agriculture for many years. In 2004, a FWC Officer was moved onsite to provide security, and a feral hog control program began. In 2005, 400 acres were mechanically shredded, cattle pens demolished, and the entry road graded and cleared. Intense herbicide treatments for the exotic plant downy rose myrtle are underway and prescribed burns are planned. In FY 2006 2000 acres are planned to be treated for exotics, and 200 acres are planned to be burned. Restoration plans are underway to enhance the impacted natural areas and convert the agricultural lands to reservoirs or treatment marshes as a component of the Comprehensive Everglades

Restoration Program. The Management Plan was adopted in 2005 by the District Governing Board.

## DuPuis Management Area

(managed by District/FWC)

**County:** Palm Beach/Martin

**Project size:** 21,875 acres

**District ownership:** 21,875 acres

**Acquisition partners:** None

The DuPuis Management Area is cooperatively managed by the SFWMD and the Florida Fish and Wildlife Conservation Commission (FWC). The DuPuis five-year plan includes prescribed burning, exotic plant control, upland shrub control, wildlife management, and forest management. In 2005, approximately 5,000 acres were burned, 2200 acres were chemically treated for exotic plants, and 750 acres of overgrown shrub vegetation were mechanically shredded. In FY 2006 3000 acres are planned to be treated for exotics, and 7000 acres are planned to be burned. Select areas of over-dense stands of cabbage palms and pine trees were thinned to improve habitat quality. In addition, an extensive public use program at DuPuis attracted thousands of visitors to the area and included hunting, fishing, horseback riding, nature watching, hiking, camping, and education programs through the DuPuis Visitor's Center.

*Fresh, clean water, filtered through the vast wetlands of DuPuis discharging into the L8 canal*





## Halpatiokee Park

(managed by Martin County)

**County:** Martin

**Project size:** 347 acres

**District ownership:** 347 acres

**Acquisition partners:** None

Halpatiokee is the portion of the Atlantic Ridge Ecosystem project that lies west of the South Fork St. Lucie River (163 acres) and the 100 acres previously acquired by the District as the South Fork SOR project. Martin County manages the natural area in conjunction with Halpatiokee Regional Park. The property consists of pine flatwoods that surround a series of lakes that were originally excavated to provide fill for the construction of Interstate-95. The South Fork property is a mixture of river floodplain, pine flatwoods, and scrub. In 2005, the County treated for Category I & II exotic vegetation and provided approximately 15 acres of prescribed burning. In conjunction with FWC, approximately 50 acres of hydrilla and cattail control in the north and south lakes were treated for 95% control. Re-vegetation occurred along the north lake shoreline with approximately 43,000 plants of scirpus harvested from other areas. Understory shredding was also performed on approximately 200 acres to reduce fuel loads and open the property for increased public use. In addition, there were workdays for the Native Plant Society Trail, the Florida Trail Association, South Fork High School - ROTC (interpretive programming), the International Mountain Bike Association (exotic control) and the Campfire USA (installation of an interpretive kiosk and a screened 35'X50' Interpretive Pavilion with electric/water adjacent to kiosk).

## Indian River Lagoon

(managed by St. Lucie County)

**County:** St. Lucie/Martin

**Project size:** 1,550 acres

**District ownership:** 653 acres

**Acquisition partners:** St. Lucie County, CARL, Federal Government

Indian River Lagoon is managed by St. Lucie County under a lease from SFWMD and the Division of State Lands. IRL property is incorporated into the County's mosquito control program where mosquitoes are controlled by non-chemical means. This method results in greatly improved water quality and wildlife and fisheries habitat in the lagoon. Mosquito impoundment berms are accessible to the

public and provide excellent opportunities for fishing, crabbing, and bird watching. The Blind Creek property includes ocean beachfront access, including a dune crossover. During 2005, approximately 100 acres of Blind Creek and Queens Island were retreated for exotics.



*Kayaking on the Loxahatchee River*

## Loxahatchee River

(managed by Palm Beach County/DEP)

**County:** Palm Beach

**Project size:** 1,936 acres

**District ownership:** 1,547 acres

**Acquisition partners:** Palm Beach County

District-owned lands along the river are managed by DEP Division of Recreation and Parks and Palm Beach County Parks and Recreation Department. DEP manages the area north of SR- 706 (Indiantown Road) as part of Jonathan Dickinson State Park. The County manages the lands south of the road as Riverbend County Park. Both managers have done extensive treatment of exotics. Palm Beach County, in conjunction with the District, has completed hydrologic restoration of its management area in an attempt to restore the Eastern Slough, an historic tributary to the Loxahatchee River. The restoration project will enable water to be delivered to the river through a more natural flow way. DEP manages its lands under the Jonathan Dickinson State Park plan. The county has a development plan for Riverbend Park. A management plan will be developed as park development progresses.



## Loxahatchee Slough

(managed by Palm Beach County)

**County:** Palm Beach

**Project size:** 15,200 acres

**District ownership:** 1,488 acres

**Acquisition partners:** None

In FY 2005 the District was managing the Sandhill Crane portion of the project--the 1,425 acre tract purchased by the District, but a transfer of ownership early in FY 2006 to Palm Beach County transferred the management to their Department of Environmental Resources Management. The County owns more than 10,000 acres in the Loxahatchee Slough Natural Area, which adjoins the Sandhill tract. In 2005 more than 1,000 acres of exotic vegetation were treated. The 800 acres of remaining pine flatwoods were shredded to reduce heavy saw palmetto cover in the understory. Shredding was followed by timber thinning which reduced the number of trees by approximately 50%. The combined shredding and timber thinning will result in a much healthier forest, a more diverse understory plant community due to more light reaching the forest floor, improved wildlife habitat, and a more aesthetically pleasing landscape.



*Oxbow Eco-Center on the North Fork of the St. Lucie*



## North Fork St. Lucie River

(managed by St. Lucie County/DEP)

**County:** St. Lucie

**Project size:** 3,800 acres

**District ownership:** 482 acres

**Acquisition partners:** St. Lucie County, CARL

State, County, and District-owned lands along the North Fork are being managed by St. Lucie County and DEP, as part of the North Fork Aquatic Preserve. Both agencies are treating exotics and conducting limited prescribed burns. Burning is extremely difficult due to the surrounding urban development. St. Lucie County constructed and operates the Oxbow Eco-center, an environmental education facility along the river in Port St. Lucie that incorporates indoor displays with outdoor programming that utilizes interpretive trails, towers, and boardwalks. Approximately 16,000 students and adults participated in classes, workshops and special events.

## Pal-Mar

(managed by FWC/Palm Beach County)

**County:** Palm Beach/Martin

**Project size:** 36,745 acres

**District ownership:** 13,136 acres

**Acquisition partners:** CARL/Palm Beach County

State and District-owned lands are under management lease to FWC using an approved management plan. Resource inventories are being conducted by FWC and exotic infestations have been mapped. Exotic treatments and prescribed burning are ongoing. The property is open for public use that includes hiking, primitive camping, hunting, fishing, bicycling and horseback riding. FWC is managing the Martin County lands as the John C. and Mariana Jones/ Hungryland Wildlife and Environmental Area. Palm Beach County will continue to manage their lands south of Indiantown Road as the Pal-Mar Natural Area.



*Pal-Mar: the John C. and Mariana Jones/ Hungryland Wildlife and Environmental Area*



## EVERGLADES LAND MANAGEMENT REGION

Miami Service Center and West Palm Beach

### Loxahatchee Mitigation Bank

(managed by TetraTech FW, Inc.)

**County:** Palm Beach

**Project size:** 1,256 acres

**District ownership:** 1,256 acres

**Acquisition partners:** None

The Loxahatchee Mitigation Bank site lies adjacent to the Loxahatchee National Wildlife Refuge. The location of this site will provide habitat connectivity that augments existing Everglades wetland systems. Brazilian pepper and other exotics have degraded the area, adversely impacting native wildlife habitat, including a number of threatened and endangered species. The goal of the bank is to restore habitat values and provide enhancement of a degraded Everglades ecosystem through hydroperiod restoration, exotic vegetation removal, re-vegetation with desired species, and prescribed burning. Through an open and competitive solicitation process Tetra Tech ECI was selected to establish the Loxahatchee Mitigation Bank. Permitting and construction have been completed; exotic enhancements are ongoing. As of late 2005, the Loxahatchee Mitigation Bank is completing its third year of monitoring towards attainment of the success criteria and in May 2005 the second revenue disbursement, amounting to \$205,000, was provided by TetraTech, ECI to SFWMD. This will be utilized to offset previous land acquisition costs associated with the project.

### Model Lands (District managed)

**County:** Miami-Dade

**Project size:** 42,402 acres

**District ownership:** 6,840 acres

**Acquisition partners:** Miami-Dade County

The Model Lands project will play a vital role in conveyance and treatment of sheet flow from the south Dade area to the downstream estuaries into Biscayne Bay and Biscayne National Park. It is a combination of fresh and saltwater wetlands, portions of which are heavily infested with exotic vegetation. Although more than 14,000 acres are in public ownership there is no public use program due to lack of legal access and patchy ownership. The major management activities have been treating exotic vegetation and restricting detrimental activities, such as ORV use which can cause long-term ecological impacts, poaching, and dumping. Hydrologic restoration is necessary and is planned under the

Comprehensive Everglades Restoration Plan. In 2005, over 265 acres of exotics were treated for the first time and follow-up was completed on more than 1,130 acres. With the help of Miami-Dade County, facilitated through a Memorandum of Agreement approved by the District Governing Board in May 2005 between Miami-Dade and the SFWMD, the area also received the benefit of more than 100 acres of mechanical exotic removal and hydrologic restoration to former short hydroperiod wetland. Additionally, 600 acres were burned as a result of the Model Lands first prescribed burn. In FY 2006 800 acres are planned to be treated for exotics, and 1200 acres are planned to be burned.

### Southern Glades (managed by FWC)

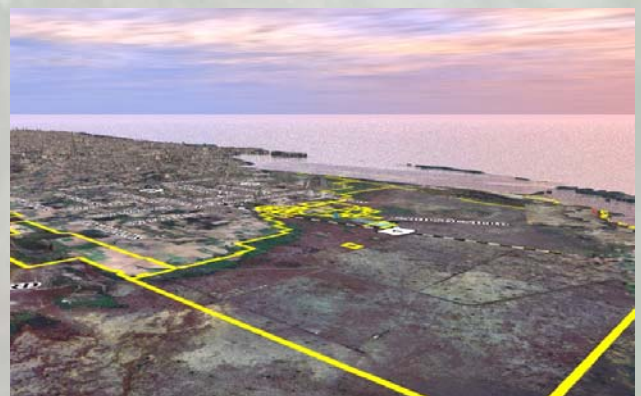
**County:** Miami-Dade

**Project size:** 37,620 acres

**District ownership:** 32,499 acres

**Acquisition partners:** None

Southern Glades is cooperatively managed by FWC, under a lease agreement, as the Southern Glades Wildlife and Environmental Area. It is open to hiking, wildlife viewing, fishing, hunting, airboating, bicycling, and horseback riding. The District is directing mitigation funds for habitat restoration that includes exotic removal and re-vegetation with native species. The large, mature hammock known as Lucky Hammock was planted with supplemental shrubs. In 2005 the District, through a zero dollar contract, was able to restore ecological and hydrologic connectivity and function, by removing more than a mile of road and three fill pads within the WEA. In cooperation with FWC, the District has chemically treated 250 acres of invasive exotic species. Additionally, the District received a \$400K grant through Miami-Dade County's Special Areas Management Plan for habitat restoration to begin in FY 2006. Approximately 1,100 acres were burned, including a several acre pine rockland which also has since been replanted with 100 pine tublings as part of the ongoing restoration efforts in the area.



*Southern Glades and Model Lands: Looking NE towards homestead*





## WEST COAST LAND MANAGEMENT REGION Ft. Myers Service Center

### Corkscrew Regional Mitigation Bank

(managed by Mariner Properties Development, Inc.)

**County:** Lee

**Project size:** 633 acres

**District ownership:** 633 acres

**Acquisition partners:** None

The Corkscrew Regional Mitigation Bank is located in southern Lee County, along Corkscrew Road (SR 850). It is adjacent to the Imperial Marsh/Stairstep mitigation area, which has been established to offset impacts associated with the Southwest Florida Regional Airport. The goal of the bank is to improve habitat values and restore the historic function of the upland/wetland mosaic through hydroperiod restoration, exotic vegetation removal, and prescribed burning. The Corkscrew bank site contributes to corridor building and the green infrastructure within the regional context. Mariner Properties Development, selected through an open and competitive solicitation process, is establishing the Corkscrew Regional Mitigation Bank. During 2005, the Corkscrew Regional Mitigation Bank initiated construction by removing pasture grasses and conducting exotic treatment.

### Corkscrew Regional Ecosystem

**Watershed (CREW)** (managed by District/FWC)

**County:** Lee, Collier

**Project size:** 64,103 acres

**District ownership:** 25,821 acres

**Acquisition partners:** Lee County, CARL, USFWS

The SFWMD and FWC jointly manage CREW. The public use and environmental education program is directed by the CREW Land and Water Trust. The management plan was updated in 2002 and describes plans for exotic control, prescribed burning, upland restoration opportunities, and public use. Property boundaries are posted and FWC wildlife officers patrol the property. In 2005 1,971 acres were prescribe burned and 6,738 acres of exotics were treated. In FY 2006 18,491 acres are planned to be surveyed and treated for exotics, and 1,440 acres are planned to be burned. Restoration work continued at the CREW Management Center (288 acres), East Corkscrew Marsh (80 acres), E Bird Rookery Swamp

(70 acres) and Tree Wizard (10 acres) with mechanical shrub control and exotic plant control. A new 5400 square ft. maintenance building was completed in August. There is one grazing lease on the CREW Management Area.

### Nicodemus Slough

(managed by Aim Engineering, Inc.)

**County:** Glades

**Project size:** 2,231 acres

**District ownership:** 2,231 acres

**Acquisition partners:** None

Aside from the two mitigation banks, Nicodemus Slough is the only SOR tract under management by a private entity. The District contracts with Aim Engineering, Inc. for management services that include exotic control, prescribed burning, and maintaining the public use facilities. A hydrologic restoration project that was undertaken by the District many years ago has been disappointing and has caused much dissatisfaction with the adjoining property owner. The District has been attempting to reach a suitable agreement with the adjoining landowner in which the property would be sold to them and a conservation easement would be retained by the District.

*Black bears at CREW*







*Florida Panther in Okaloacoochee Slough*

## Okaloacoochee Slough

(managed by Division of Forestry/FWC)

**County:** Hendry, Collier

**Project size:** 37,210 acres

**District ownership:** 34,982 acres

**Acquisition partners:** CARL, FWC, DOF

The Division of Forestry (DOF) and FWC purchased additional lands in the project that expand the original District/State purchase. The project is managed as Okaloacoochee Slough State Forest with DOF as the lead manager, and FWC responsible for wildlife management under a 4-party lease agreement with the Division of State Lands and the District. FWC manages the project as a Type 1 wildlife management area and conducts a public hunt program. An approved management plan is in place. In 2005, approximately 2,800 acres were prescribed burned and 4,000 acres of exotic vegetation were surveyed and/or chemically treated. Additionally, 238 acres were drum chopped and planted with 144,000 south Florida slash pine trees. Two camping areas -Panther Pond Campground and Wild Cow Island Primitive Camp Area, were installed. Three miles of trails were marked, along with 2.2 miles of road upgrades, and 96 miles of road maintenance.

*Red Headed Woodpecker*



## Six Mile Cypress (managed by Lee County)

**County:** Lee

**Project size:** 1,741 acres

**District ownership:** 842 acres

**Acquisition partners:** Lee County

The property is jointly owned by Lee County and the District and has been managed by Lee County Parks and Recreation since acquisition began. The management plan was updated in 2002. The County built and maintains a boardwalk and outdoor classroom facility that is used by 35,000 Lee County students and citizens each year. Six Mile Cypress likely has the highest rate of public visitation of any SOR project.

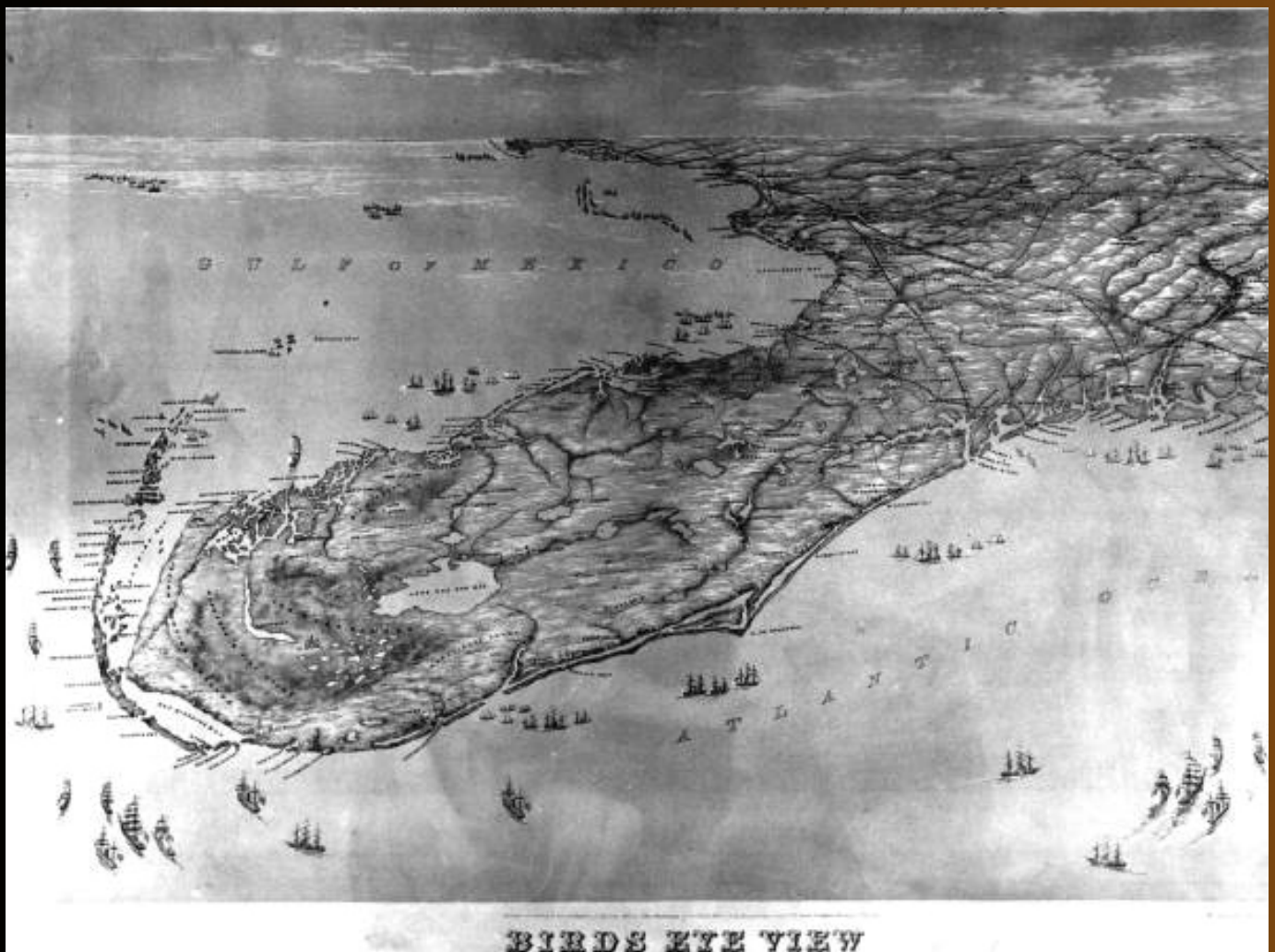


*Six Mile Cypress Slough Boardwalk*

Management activities conducted during 2005 include working with SFWMD, FDOT and consultants on design and permitting for two large mitigation projects involving exotic plant removal and replanting with native vegetation-- one in the northern and the other in the southern portion of the slough. It is anticipated that these projects will begin in early 2006. Monitoring surveys of selected ponds were also conducted to determine wildlife presence, percent cover by exotic vegetation and other related parameters. Seasonal wildlife surveys were begun in the spring of 2005 along the boardwalk; yielding 43 species of birds, 3 species of mammals, and 9 species of herps. A combination of patrols by county rangers and posting of regulatory signage was employed to decrease off road vehicle trespassing in the preserve. Maintenance work on several existing mitigation areas was performed, which included exotic and nuisance plant control. Maintenance exotic plant control work was also done along the east and west sides of the preserve. Wetland exotics were removed from ponds along the boardwalk. Prescribed burning is difficult due to the surrounding urban development.

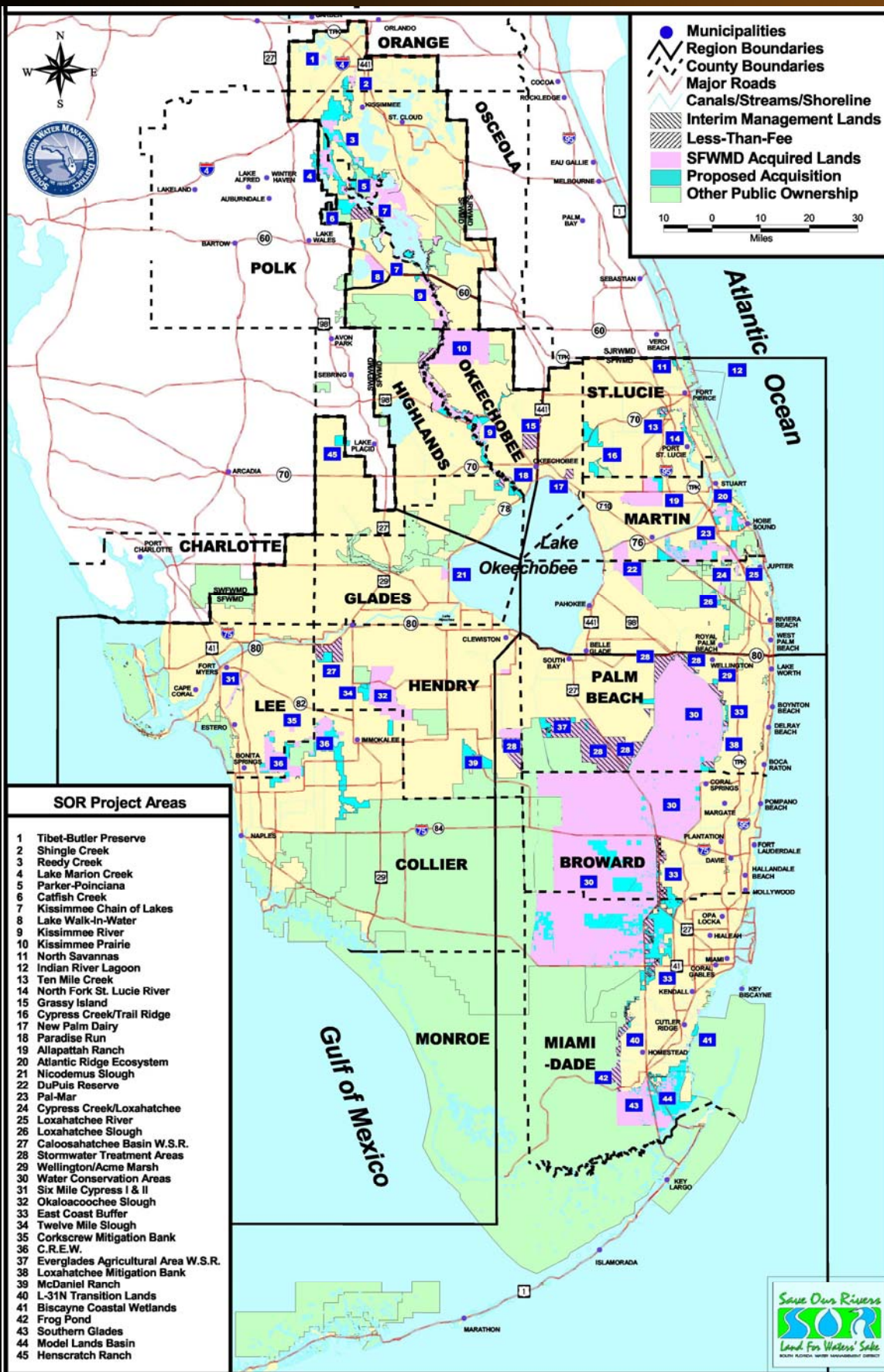


# Project Maps



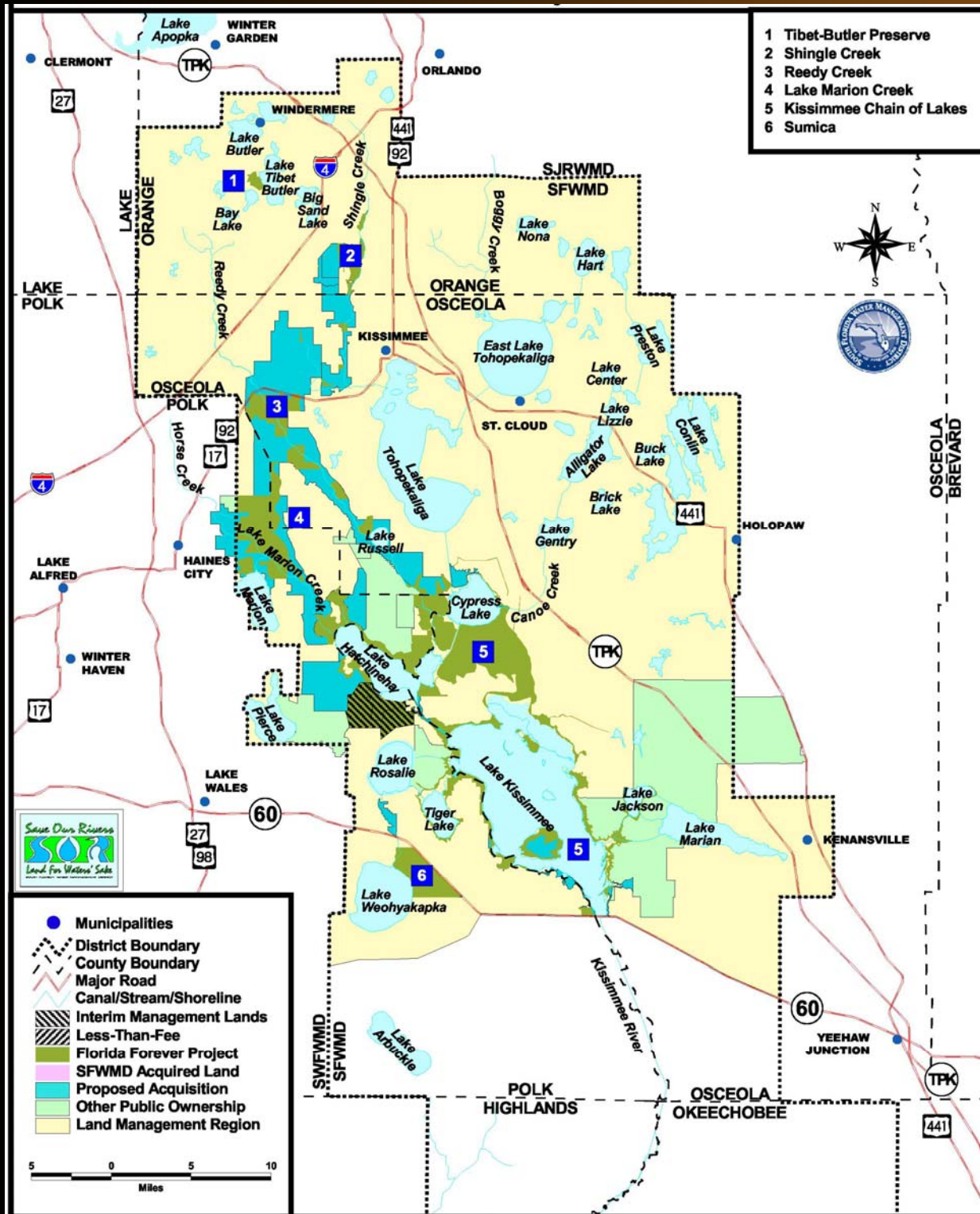


# 2005 Land Acquisition Status



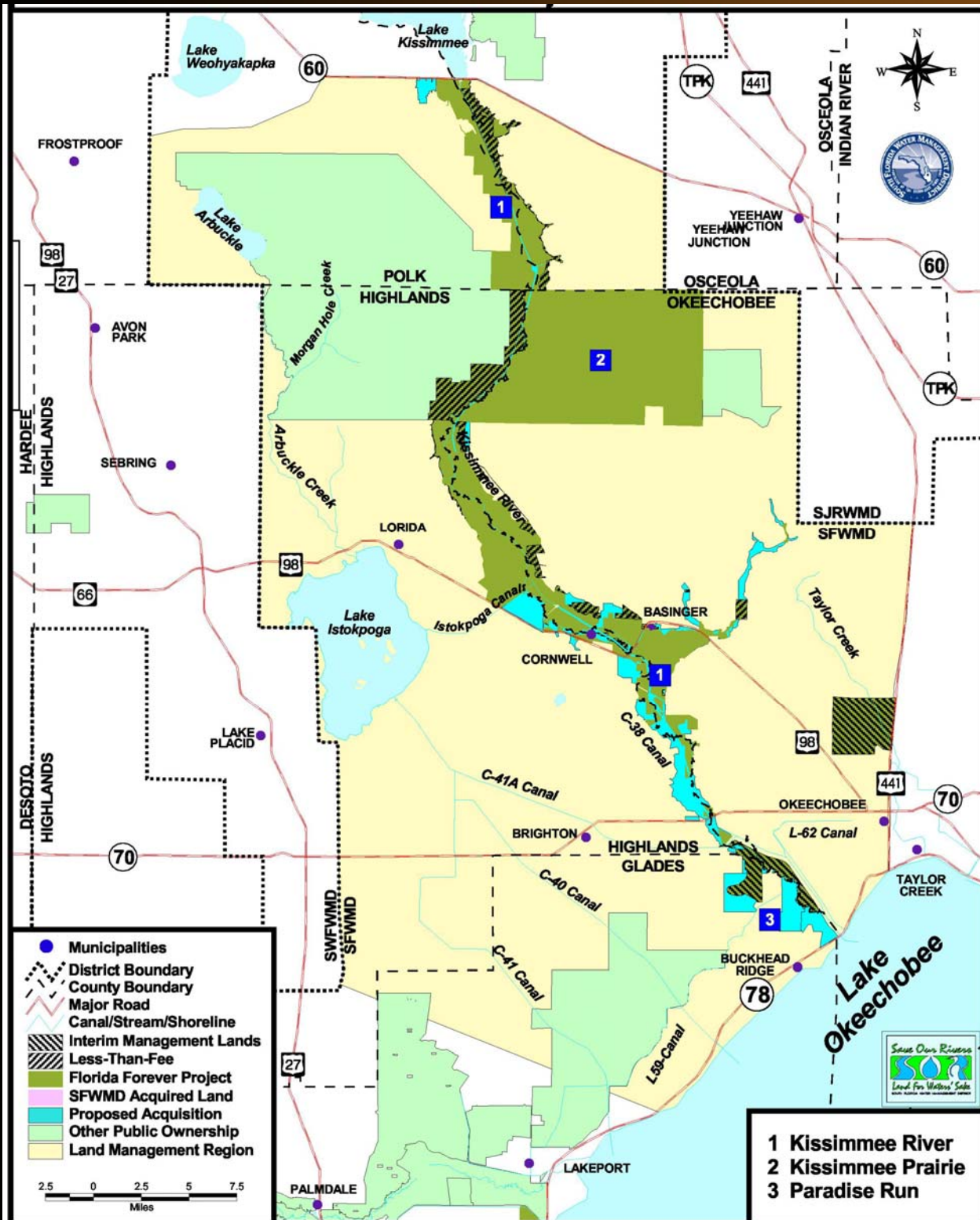


# Upper Lakes Land Management Region



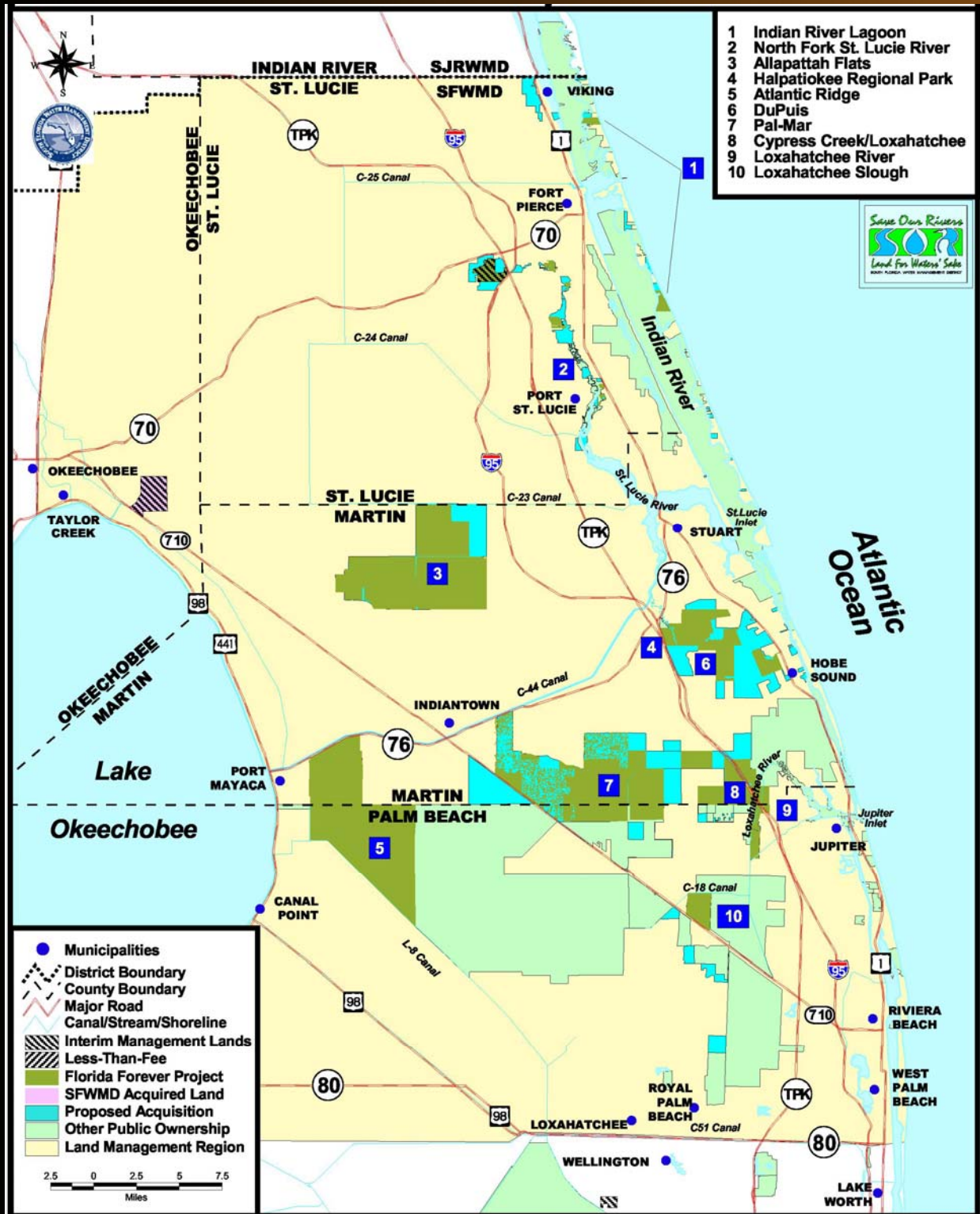


# Kissimmee/Okeechobee Land Management Region



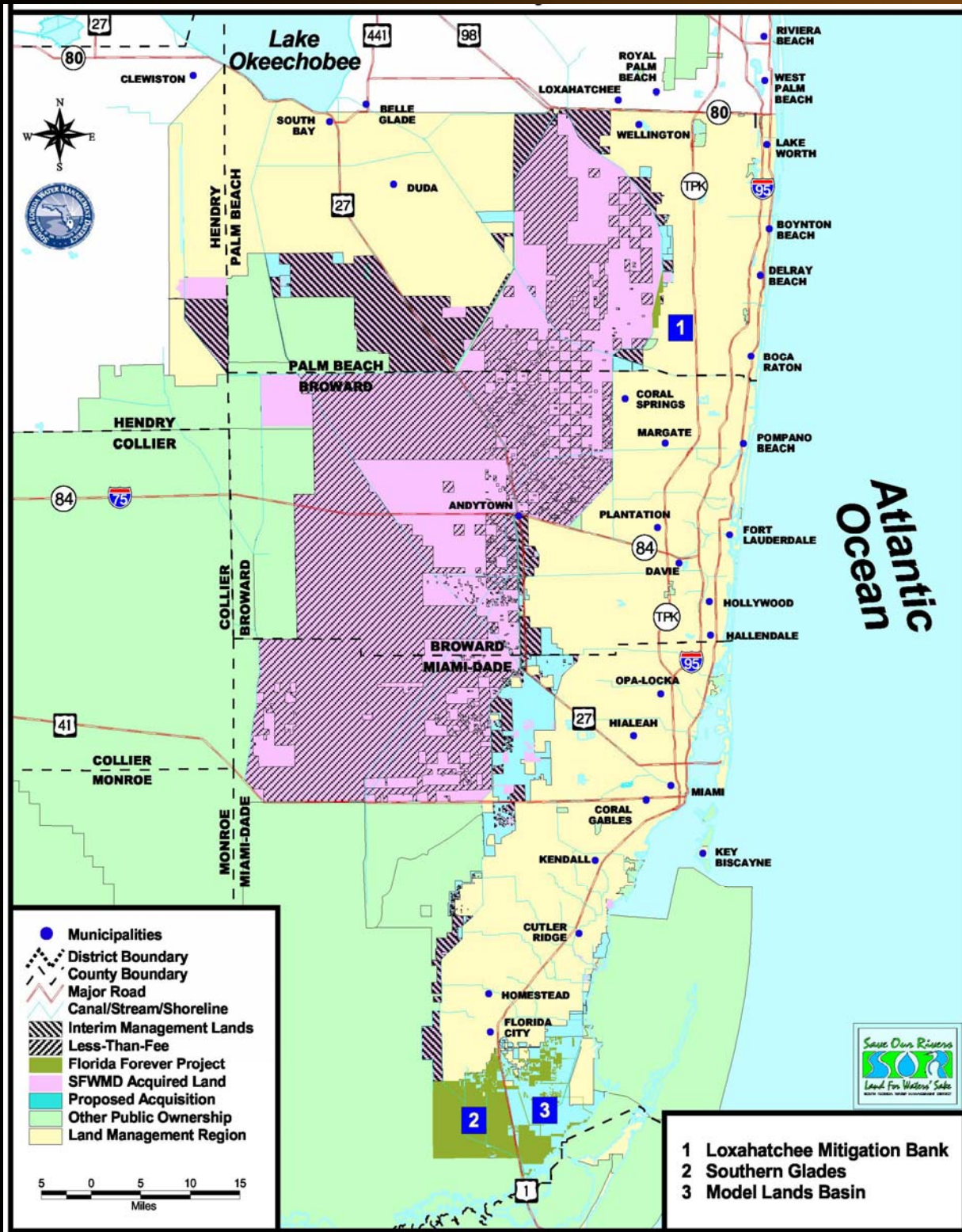


# East Coast Land Management Region



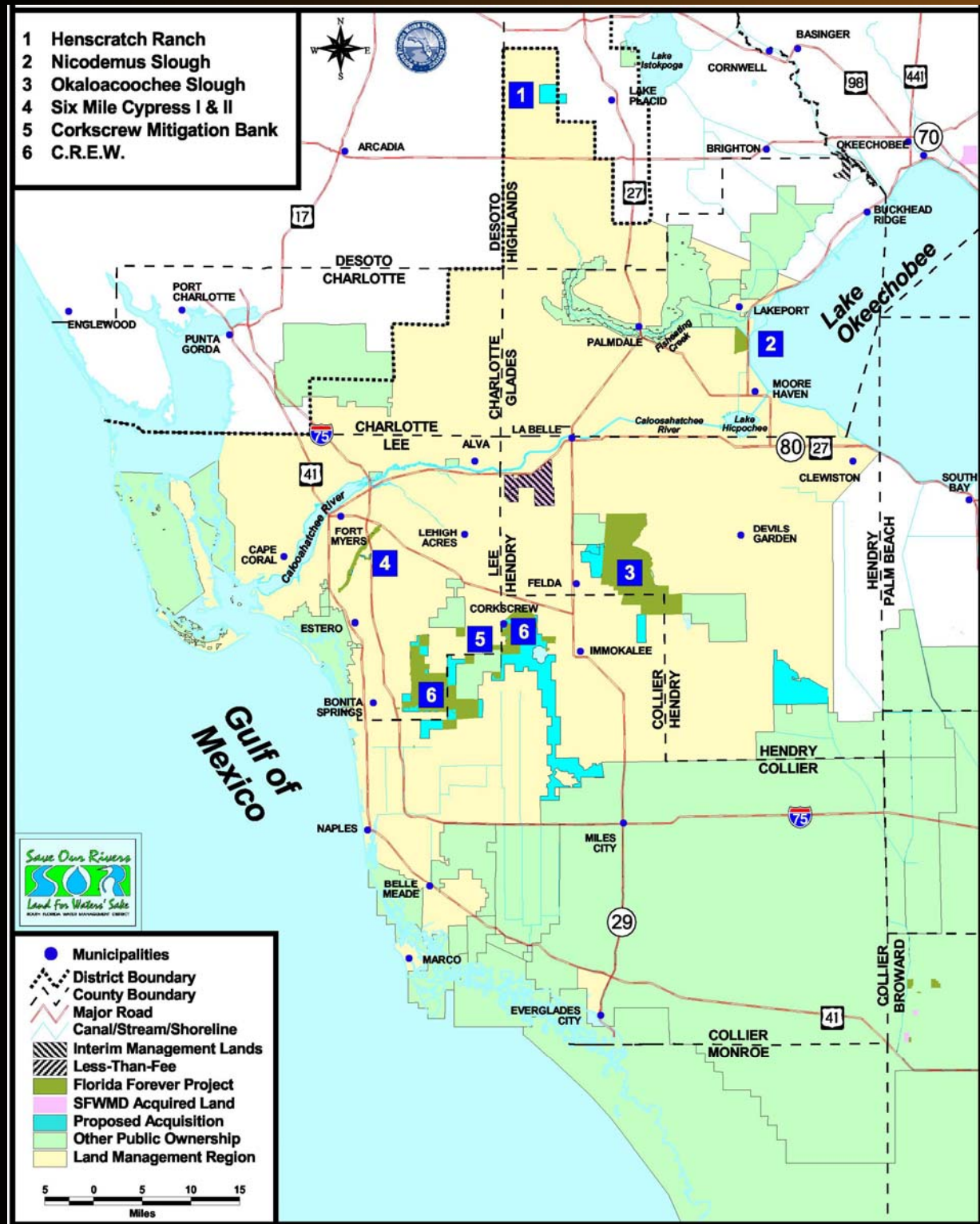


# Everglades Land Management Region





# West Coast Management Region





# Land Stewardship Program

## Acquisition Summary - 2005

Project Name	County	Size (Ac.)	Acquired (ac.)	Acquisition Partners
Allapattah Flats	Martin	22,560	21,407	Martin County/Federal
Atlantic Ridge Ecosystem	Martin	13,122	6,094	CARL
Corkscrew Mitigation Bank	Lee	633	633	None
CREW	Lee/Collier	64,103	25,821	CARL/Lee County
Cypress Creek	Martin/Palm Beach County	4,347	3,547	Martin County / Palm Beach County
DuPuis	PB/Martin	21,875	21,875	None
Halpatiokee Park	Martin	347	347	None
Indian River Lagoon	Martin/St. Lucie	1,550	653	St. Lucie County/ CARL/Federal
Kissimmee Chain of Lakes	Polk/Osceola	36,763	35,563	None
Kissimmee Prairie	Okeechobee	38,282	38,282	CARL
Kissimmee River	Highlands/Okee/Polk/Osceola	68,332	53,985	None
Lake Marion Creek	Polk	17,300	7,067	Polk County
Loxahatchee Mitigation Bank	Palm Beach	1,256	1,256	None
Loxahatchee River	PB/Martin	1,936	1,547	Palm Beach County
Loxahatchee Slough	Palm Beach	15,200	1,488	None
Model Lands	Miami-Dade	42,402	6,840	Miami-Dade County
Nicodemus Slough	Glades	2,231	2,231	None
N. Fork St. Lucie River	St. Lucie	3,800	482	St. Lucie County/ CARL
Okaloacoochee Slough	Hendry/Collier	37,210	34,982	CARL/DOF/FWC
Pal-Mar	PB/Martin	36,745	13,136	CARL/Martin County/ Palm Beach County
Paradise Run	Glades	4,265	3,328	None
Reedy Creek	Osceola	30,000	5,483	None
Shingle Creek	Orange	7,655	1,628	None
Six Mile Cypress	Lee	1,741	842	Lee County
Southern Glades	Miami-Dade	37,620	32,499	None
SUMICA	Polk	4,009	4,009	Polk County
Tibet-Butler Preserve	Orange	439	439	None
Water Conservation Areas (Post 1981)	PB/Brow/Dade	105,047	52,918	None
<b>Totals</b>		<b>556,731</b>	<b>378,382</b>	



# Public Use Opportunities

Public Use Opportunities											
Unit	Lead Manager	Airboating	Bicycling	Canoeing	Camping	Education / Visitor Center	Equestrian	Fishing	Hiking	Hunting	Picnic Tables
<b>Upper Lakes Management Region</b>											
Shingle Creek	SFWMD		•	•				•	•		
Tibet-Butler Preserve (Vera Carter Environmental Education Center)	Orange County					•			•		
Lake Marion Creek Wildlife Management Area	SFWMD		•		•			•	•	•	•
Reedy Creek	SFWMD					•		•	•		
Kissimmee Chain of Lakes	SFWMD	•	•	•	•		•	•	•	•	•
SUMICA	Polk County		•		•		•	•	•		•
<b>Kissimmee / Okeechobee Management Region</b>											
Kissimmee Prairie Preserve State Park	DEP		•		•	•	•	•	•		•
Kissimmee River	SFWMD	•	•	•	•		•	•	•	•	•
Paradise Run	SFWMD		•	•				•	•	•	
<b>East Coast Management Region</b>											
North Fork St. Lucie River	DEP					•		•	•		
DuPuis Management Area	SFWMD		•	•	•	•	•	•	•	•	•
Halpatiokee Regional Park	Martin county		•	•	•			•	•	•	•
Pal-Mar	FWC			•	•			•	•	•	
Loxahatchee Slough	Palm Beach County								•		
Riverbend Park	Palm Beach County		•	•		•		•	•		•
Indian River Lagoon	St. Lucie County			•					•		
Loxahatchee River	DEP										
Ten Mile Creek	St. Lucie County		•	•			•	•	•		•
<b>Everglades Management Region</b>											
Arthur R. Marshall Loxahatchee National Wildlife Refuge (Water Conservation Area 1)	USFWS		•	•		•		•	•	•	
Everglades and Francis S. Taylor Wildlife Management Area (Water Conservation Areas 2 and 3)	FWC	•	•	•				•	•	•	
Everglades Buffer Strip	SFWMD							•	•		
Southern Glades	FWC	•	•	•			•	•	•	•	•
Model Lands / Frog Pond	SFWMD								•	•	
Stormwater Treatment Areas 1W	SFWMD									•	
<b>West Coast Management Region</b>											
CREW	SFWMD			•	•				•	•	
Nicodemus Slough	Aim Engineering Inc.	•		•				•	•		
Okaloachoochee Slough	DOF		•		•		•	•	•	•	
Six Mile Cypress Slough	Lee County					•			•		•







## LAND RESOURCES

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John Dunnuck, *Department Director, Land Management & Operations*

## SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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