Chapter 6B: Land Stewardship Annual Report

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SUMMARY

In accordance with South Florida Water Management District (SFWMD or District) policy, lands acquired 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. The District is responsible for the management of agency-owned lands, including Save Our Rivers (SOR) and other conservation/natural lands and water resource project lands. In addition, the District is responsible for the implementation and administration of mitigation banks and regional off-site mitigation areas as well as the management of recreational areas on District lands. The interim lands component of land stewardship is responsible for managing those properties acquired by the District for implementation of the Comprehensive Everglades Restoration Plan and other water resource projects until the land is needed for construction. Major functions of the natural lands component of land stewardship include hydrologic and habitat restoration, exotic plant and animal control, prescribed burning, public use, environmental education, and mitigation.

Land Stewardship's principal source of management funding has been the Water Management Lands Trust Fund, which uses a portion of the state's documentary tax revenue to pay for land management activities. However, beginning in Fiscal Year 2010 (FY2010) (October 1, 2009–September 30, 2010), and continuing through FY2011 (October 1, 2010–September 30, 2011), funding has primarily come from *ad valorem* tax revenue due to a statewide reduction in the Water Management Lands Trust Fund. Other funding sources include (1) off-site mitigation, (2) mitigation banking revenue (3) lease revenues, (4) grants for wetland restoration and exotic control projects, and (5) the Everglades Restoration Trust Fund.

The FY2010 budget for land stewardship efforts was $14.1 million, or a unit cost of $28.77 per acre. Revenue generated from agricultural leases, sale of products, mitigation banks, and other alternative sources for FY2010 was in excess of $7.7 million. The total cost for FY2011 management activities is anticipated to be an estimated $15.9 million, which includes a one-time $4.6 million capital restoration project of the 8.5 Square Mile Area (Phase I and II) using rock mining mitigation funds. Excluding this one-time capital expense, land management activities for FY2011 are anticipated to occur on 490,106 acres of land at a unit cost of $23.06 per acre for an estimated total of $11.3 million.

BACKGROUND

The South Florida Water Management District owns a wide variety of land assets that reflect its many programs, functions, and responsibilities. These lands all have a relationship to water resources, but otherwise have very different functions. The Save Our Rivers (SOR) Program began in 1981 with the legislative enactment of the Water Management Lands Trust Fund [Chapter 373.59, Florida Statutes (F.S.)], which enabled the state's 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. Other funding for land acquisition has come from the Florida Forever Trust Fund (Chapter 259.1051, F.S.), Preservation 2000 (Chapter 259.101, F.S.), and the Save Our Everglades Trust Fund (Chapter 373.472, F.S.). In addition, the District has leveraged these funds with federal grants, including special appropriations within the Water Resources Development Act and the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Wetland Reserve Program. The District has also been able to share acquisition costs with partners, including local governments, the Trustees of the Internal Improvement Trust Fund, and the Florida Communities Trust.

Over the course of its history, the District has acquired a real interest in 1,387,511 acres of land for conservation or the development of water resource improvement projects. Of that, 729,393 acres have been acquired in fee-simple and 658,118 acres have been acquired in less-than-fee conservation and flowage easements. Any particular tract or parcel will have a diverse set of physical, legal, and policy attributes that define the use of the land, as well as management needs; however, most of the tracts fall into one of five broad categories:

- Natural lands held in fee-simple that have the District as the lead manager with partners in a supporting role (188,788 acres)
- Natural lands held in fee-simple that have a partner as the lead manager with the District in a supporting role (367,190 acres)
- Project lands with a commercial/agricultural lease (55,096 acres)
- Vacant project lands (33,017 acres)
- Project lands that are under construction or completed (85,312 acres)

The stewardship of each of these broad land categories involves a unique management approach and a set of ongoing management activities. Each category presents unique challenges and opportunities for the District and its management partners.

The District also owns land along its canal rights of way and around its structures and facilities; it owns dredge-spoil sites and staging areas adjacent to major canals; and it owns lands on the fringe of and islands inside of the Herbert Hoover Dike at Lake Okeechobee. The District's responsibilities for these lands are primarily limited to planning and administering public use programs.

NATURAL LANDS: DISTRICT AS LEAD MANAGER

188,788 acres, 22 management areas

District natural lands (**Figure 6B-1**) were acquired to protect and enhance water resources. This is achieved by buffering critical flow-ways from urban development and by maintaining large areas for aquifer recharge and surface water storage in wetlands. The District's primary focus for these lands is to restore and maintain their ecological function so they are able to provide the benefits for which they were acquired. Natural conditions may no longer be present due to historic and ongoing alterations to the landscape. To maintain these lands in their natural state and preserve their ecological function, the District's land managers take actions to compensate for the loss of natural processes. These processes and conditions are essential to keep native plant communities in a healthy and productive condition in order to support a diversity of plant and animal life and provide the greatest benefit to the District's water resources. Standard land management practices include:

- Burning fire-dependent plant communities with a fire return interval that mimics a natural fire regime
- Restoring hydrologic alterations to bring back a more natural hydroperiod
- Controlling nonnative or invasive vegetation through the selective use of herbicides
- Restoring the physical structure of plant communities through vegetation management

Some of the District's natural lands are former ranch lands that have a mixture of native range and improved pasture. Cattle grazing has been allowed to continue on many of these properties and is used as a land management tool. The District maintains an active role in managing resources, managing public use, and controlling exotic species. Additional leases on natural lands include communication towers and apiary operations. At the end of Fiscal Year 2010 (FY2010) (October 1, 2009–September 30, 2010). The District maintained 38 leases on natural lands covering 55,973 acres.

NATURAL LANDS: PARTNER AS LEAD MANAGER

367,190 acres, 24 management areas

The District is fortunate to have partners willing to serve as the lead manager on many of its natural lands. Entities such as the Florida Fish and Wildlife Conservation Commission (FWC), the Florida Department of Environmental Protection (FDEP) Florida Park Service, the Florida Department of Agriculture and Consumer Services (FDACS) Division of Forestry, local land preservation programs, and private mitigation bankers have missions that are compatible with the District's, making these entities valuable management partners.

By having other entities designated as lead managers, the District's involvement is significantly less, but it is still an active partner. The legal instruments that grant the lead manager designation (leases, contracts, management agreements, Memoranda of Understanding, etc.) define the relationship between the District and its partners. The District retains a supporting resource management role as needed and makes an ongoing commitment to provide the necessary administrative services that accompany these agreements.

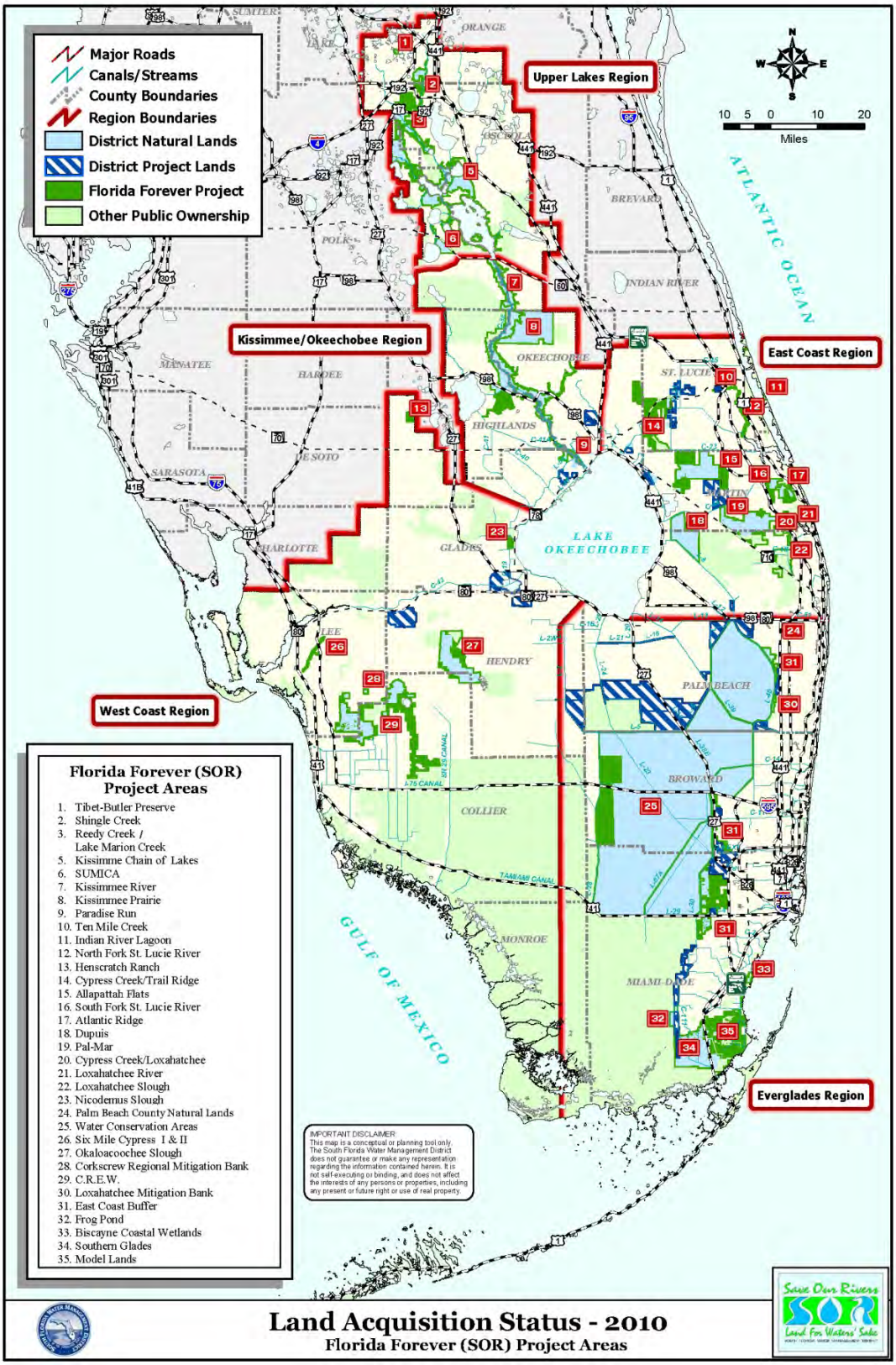

Figure 6B-1. Natural lands acquisition status in 2010.

PROJECT LANDS: COMMERCIAL/AGRICULTURAL LEASES

55,096 acres, 41 leases

The District administers agricultural leases or commercial reservations on a large portion of its water resource project lands. The leases are an important source of revenue for the District and keep the properties in productive use and on the tax rolls until they are ready to be turned over to a project development team for construction. The lessee takes on most of the management responsibilities for these lands. However, the District devotes significant time and resources on compliance inspections as well as the administration and financial management of the leases.

PROJECT LANDS: VACANT LANDS

34,660 acres

Project lands unable to accommodate or attract an agricultural lessee during the interim period prior to construction are managed by the District with the goal of site security and general maintenance. This means ensuring that access to these lands is secured, environmental hazards are remediated, proper signage is installed, and any necessary law enforcement issues are addressed.

These lands are to be properly managed and maintained in an acceptable condition until construction on the property begins. Many of these lands are on the fringe of urban areas and experience illegal uses such as dumping and the operation of off-road vehicles. These lands are physically inspected at least twice a year to monitor their condition and, if necessary, take corrective actions.

PROJECT LANDS: UNDER CONSTRUCTION OR COMPLETED PROJECTS

85,312 acres

In FY2010, 49 percent of District water resource project lands were either under construction or completed, with the majority of these properties being Stormwater Treatment Areas (STAs).

STAs are large, constructed wetlands designed to remove phosphorus from surrounding agricultural areas before the runoff reaches the Everglades. The STAs are divided into several cells, each with varying degrees of water quality treatment to maximize the cleanup. Reservoirs, which are designed to store large quantities of water during wet periods and enable some sediment and pollutants to settle out of suspension, provide timed releases to address water supply needs later in the year during dry periods. District public use planners work with project managers during project development to incorporate public use facilities and to administer public use programs and law enforcement coordination following the completion of the project.

LAND STEWARDSHIP GOALS

The SFWMD is responsible for the management of its lands including natural lands and project lands, the implementation and administration of mitigation banks and regional off-site mitigation areas, and the management of recreation on District lands and canal rights of way. Many District-owned properties include upland areas that are disturbed and dominated by undesirable nonnative plants. Restoring areas with such a diverse native understory is challenging, but the rewards for wildlife habitat are great. In order to accomplish its mission of managing and protecting water resources, the District is moving forward to restore critical natural lands across South Florida.

The major goals of Land Stewardship are to restore the natural lands to their original state and condition, to manage them in an environmentally acceptable manner, and to provide public recreational opportunities compatible with the resource. Additionally, land stewardship includes management of properties acquired by the District for future water resource projects until the lands are needed for construction. Additional background information about the District's land stewardship activities can be found on the District's website at www.sfwmd.gov/land.

Land Stewardship Objectives

- Complete/update management plans for all projects
- Control invasive exotics
- Restore natural fire regime
- Restore and maintain native plant communities and wildlife populations
- Employ multiple-use practices
- Manage interim agricultural uses as appropriate through reservations, lease agreements, or license agreements
- Provide resource-based recreational opportunities compatible with the resource
- Implement mitigation banks and off-site mitigation per permit conditions

Land Stewardship Finances

Since its inception in the early 1980s, land stewardship has been funded by a variety of sources. The principal source of management funding has been the Water Management Lands Trust Fund, which uses 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 FDEP, which administers the fund. Appropriate expenditures are identified in the District's annual budget and approved by the District's Governing Board by a resolution to the FDEP. Since 2000, use of these funds has been limited to land management costs, the payment in lieu of taxes program, capital programs, Surface Water Improvement and Management, and the retirement of the District's land acquisition bonds.

However, in FY2011, funding will primarily come from *ad valorem* tax revenue due to a statewide reduction in the Water Management Lands Trust Fund. Other funding sources include (1) off-site mitigation, (2) mitigation banking, (3) grants for wetland restoration and exotic control projects. Off-site mitigation funds are collected as a result of site-specific conditions placed on Environmental Resource Permits. These permits are approved by the District's Governing Board for authorized impacts to wetlands. Funds must be spent in strict 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 funds where they most benefit the South Florida ecosystem. As part of land stewardship activities, several grants have been obtained to fund specific restoration projects on District lands. Additionally, substantial in-kind services are provided by lessees, state and local governments, as well as numerous recreational groups and individual volunteers.

The FY2010 budget for land stewardship efforts was $14.1 million. This included personnel costs and contractual expenses for land management activities such as exotic plant control, cleanup, security, capital improvements, and general administrative costs. Revenue generated from agricultural leases, sale of products, mitigation banks, and other alternative sources for the year was in excess of $7.7 million. The total cost for FY2011 management activities is estimated to be $15.9 million, which includes a one-time $4.6 million capital restoration project of the 8.5 Square Mile Area using rock mining mitigation funds. Excluding this one-time capital expense,

land management activities for FY2010 are anticipated to occur on 490,106 acres of land at a unit cost of $23.06 per acre for an estimated total of $11.3 million.

LAND STEWARDSHIP ACTIVITIES

Hydrologic/Habitat Restoration

In addition to routine land management activities, land stewardship involves restoring altered land to its natural condition. Intensive measures are often required to restore lands that have been altered for agriculture, transportation, housing, or other intensive purposes. This work may involve reestablishing hydrology, removal of debris and altered soil, treating exotic vegetation, reestablishing native plant species, applying specific burn regimes, or other specialized techniques. Experimentation is often required to find a cost-effective way to restore a particular kind of disturbed land.

Fiscal Year 2010 Restoration Highlights

Kissimmee Chain of Lakes Management Area

Four large restoration projects are under way in the Kissimmee Chain of Lakes (KCOL) Management Area on lands that have been drained through a series of small agricultural drainage ditches. The disturbed wetlands include small interior depression marshes and littoral zones along the shorelines. In FY2010, hydrologic restoration was completed on the 2,000-acre Gardner-Cobb Marsh. In FY2009, hydrologic restoration was completed on Oasis Marsh, Johnson Island, and Rough Island.

Starvation Slough Ground Cover Restoration (Kissimmee River)

The District is attempting to restore the native dry prairie ground cover on what had been improved pasture using sod removal, native seeding, and natural recruitment. In FY2010, all 160 acres received follow-up spot treatments with herbicide to remove invasive exotic plant species. Recruitment of desirable native species continues to increase each year. This year, the palmettos (*Serenoa repens*) have become noticeably more abundant after being essentially absent during the first two years of restoration.

DuPuis Ground Cover Restoration

The ground cover restoration plot was in a monitoring phase this year, following two glyphosate treatments in FY2006. The treatments have significantly diminished the Bahia grass (*Paspalum notatum*), while native grass and ground cover are increasing, and more ground birds, such as bobwhite quail (*Colinus virginianus*), have been observed.

Nine Gems Restoration (Pal-Mar)

Over 600 acres of the pineland/wet prairie mosaic in the westernmost section was burned in FY2010. The site underwent a follow up treatment for exotic species that were originally treated in FY2009. In addition, nearly 120 ditch plugs were installed in FY2009 to significantly increase water levels on this formerly drained 2,800-acre site in Martin County. The water table through most of the restored parts of the site is 3–3.5 feet higher than in previous dry seasons.

Williamson Ranch Restoration (Allapattah Flats)

Williamson Ranch is within the Allapattah Flats Management Area in Martin County. In FY2011, the U.S. Department of Agriculture through the Wetland Reserve Program is expected to complete the design to restore approximately 500 acres of this newly acquired ranch, with

construction slated to begin in FY2012. The project will likely include plugging agricultural drainage ditches and removing nonnative vegetation.

8.5 Square Mile Area Restoration

Work efforts on the 8.5 Square Mile Area in Miami-Dade County involve removing exotic vegetation and scraping down vacant agricultural lands to restore the marsh. This area is also expected to benefit from the improvements under way along the eastern Tamiami Trail to increase flows into Everglades National Park. In FY2010, design and engineering plans were finalized and federal permits obtained for a 398-acre restoration project at the 8.5 Square Mile Area.

Vegetation Management

Vegetation management physically alters the composition or structure of a vegetative community to meet a management objective. In FY2010, vegetation management activities, such as mowing, disking, shredding, roller-chopping, timber thinning, and planting, occurred on 8,068 acres of District-managed lands to accomplish one or more of the following management objectives:

- Restore a degraded vegetative community
- Improve an area's suitability as wildlife habitat
- Exotic species control or weed management
- Fuel management in relation to prescribed fire or wildfires
- Clearing land for maintenance or project management purposes

Exotic Plant and Animal Control

The District is committed to reducing the proliferation of exotic plant infestations and controlling exotic vegetation. Exotic plant control consists of the application of environmentally acceptable chemical herbicides as well as mechanical removal and biologic control agents. Partners that manage District lands under contract or lease are strongly encouraged to apply a similarly aggressive approach to exotic plant control.

Exotic plant control is the single-largest item in the land stewardship annual budget. In FY2010, 38,019 acres were treated for exotics using chemical and mechanical means, which greatly exceeded the annual goal of 27,000 acres. In FY2010, widespread release of the *Lygodium* moth (*Austromusotima camptonozal*) continued the effort to control Old World climbing fern in the East Coast region, while the brown lygodium moth (*Neomusotima conspurcatalis*), was released to control Old World climbing fern at the Seaboard Marsh Unit of the Kissimmee River. To control the growth of tropical soda apple (*Solanum viarum*), tropical soda apple leaf beetles (*Gratiana boliviana*) have been widely released, resulting in significant mortality of these plants.

To monitor the success of the exotic control program on District lands, land stewardship uses a success indicator based on a principle of no-net-loss of natural lands to exotic species as measured from baseline infestation levels reported by land managers in the second quarter of FY2008. The success indicator divides District lands into either acceptable or unacceptable infestation levels based on exotic species presence. Infestation levels maintained at less than 10 percent dominance of exotic species are deemed acceptable, while levels greater than 10 percent dominance are considered unacceptable. Compared with the baseline of 73 percent in FY2008, acceptable infestation levels of District-managed natural lands were 77 percent in FY2010.

The District also controls the population and minimizes the impact of exotic animals, such as feral hogs, through hunting programs and contracted trappers. Burmese pythons (*Python molurus*

bivittatus) are also a growing threat, and the District assists the FWC and National Park Service in the effort to remove these reptiles from the Everglades.

Prescribed Burns

Periodic fire is a natural element of native Florida ecosystems. The District's fire management program is based on ecological research and proven safety standards. The District uses prescribed burning to reduce hazardous buildup of vegetative fuel loads, enhance wildlife habitat, and restore and maintain native plant communities. The District burns its lands to simulate natural fire cycles, which benefit native plant communities. Many of the early Save Our Rivers land acquisitions have now had a decade and a half of prescribed burns that have benefited native plant communities and improved the quality of wildlife habitat. In FY2010, 9,523 acres were burned through the application of prescribed fire, which fell short of the goal of 16,000 acres. Land managers were able to conduct 44 burns throughout the year, but a wet fire season reduced the size of these burns and consequently decreased the total acreage burned for the year.

The District's prescribed fire success indicator is for 95 percent of all burnable, fire-dependent plant communities on District-managed natural lands to meet their recommended return-intervals for fire. The percentage of plant communities that met their recommended return intervals remained at 100 percent for the second consecutive year in FY2010.

Wildlife Management

Wildlife management on District lands is directed toward the goal of achieving natural species diversity consistent with the plant community and habitat types that occur on District-owned property. In tandem with its prescribed fire and exotic species activities, land stewardship accomplishes this by:

- Performing land management activities that maintain and/or improve native wildlife habitat
- Conducting specific management activities that benefit protected species
- Following management guidelines for listed species protection as determined by the South Florida Multi-Species Recovery Plan, Volume 1 (USFWS, 1998[1])
- Reducing nonnative pest species populations where appropriate
- Maintaining a master file of confirmed and potential wildlife species
- Cooperating with the FWC on wildlife management issues
- Using Best Snag Management Practices; that is, removing snags only when they pose a safety hazard
- Enhancing wildlife habitat and populations through the use of specialized techniques such as the installation of nest boxes

In addition, the District partners with the FWC to address wildlife management issues in several District-managed lands that have been established as Wildlife Management Areas, Wildlife and Environmental Areas, and Public Use Areas. These designations allow the FWC to dedicate biological staff and resources to the well-being of wildlife on District lands and enforce stricter wildlife protection rules. Management actions that meet the needs of wildlife also further the District's objectives; therefore, the FWC has significantly enhanced the District's land

[1] USFWS. 1998. South Florida Multi-Species Recovery Plan, Volume I. 2172 pp. U.S. Fish and Wildlife Service, Atlanta, GA.

management efforts. In FY2010, the District continued to coordinate with FWC on the successful reintroduction of the red-cockaded woodpecker (*Picoides borealis*), a species of special concern, on the Dupuis Management Area with the release of an additional 10 juvenile birds that biologists secured from the Apalachicola National Forest in the Florida Panhandle. Currently, there are 16 red-cockaded woodpeckers in the DuPuis population, including two that fledged this year.

Public Use

The District manages its lands and provides for a variety of outdoor nature-based recreational opportunities. Public access and recreational use rules have been established for management areas, rights of way, STAs, impoundment areas, and vacant undesignated lands. Many of the properties managed as natural areas have extensive wetland systems throughout with limited roads and vehicular access. Common recreational opportunities include hiking, primitive camping, wildlife viewing, bicycling, canoeing, fishing, horseback riding, and hunting.

District lands are available for public use except in instances where a high-intensity agricultural lease, such as citrus or row crops, is temporarily in place until a site is needed for construction of a water resource project, or during the actual construction of these projects (mainly STAs and reservoirs). The District takes a lead role in the development of public use facilities and public access sites during the planning and design of water resource projects.

Fiscal Year 2010 Public Use Highlights

- Opened the Istokpoga Canal Boat Ramp and Public Use Area on March 25, 2010, providing the public with two additional power boat ramps, a dry launch airboat ramp, picnic areas, and restrooms adjacent to the Kissimmee River.
- Construction completed on the Lake Kissimmee boat ramp facility.
- Began construction on two airboat road crossings within Gardner Cobb Marsh in the Kissimmee Chain of Lakes.
- Obtained construction permit and solicited bids for a new trailhead and parking area within the Bird Rookery Swamp area of Corkscrew Regional Ecosystem Watershed (CREW). When completed, this site will provide access to an additional 12 miles of new trails through an extensive and scenic cypress swamp.
- Installed five picnic shelters at various sites for use in environmental education programs and by the general public.
- Completed design and engineering work for observation towers to be constructed at DuPuis Management Area and the Kissimmee River and for construction of a boardwalk at Taylor Creek Stormwater Treatment Area.
- Designed new large-format entrance signs to better identify District conservation lands open for public recreation and submitted design specifications to procurement for bidding in FY2011.
- In coordination with District staff from the Regulatory and Public Affairs resource area, developed the Legacy Program with local high schools to further land stewardship principles and environmental education opportunities on District lands.

Law Enforcement

The District is committed to protecting the natural and cultural resources of District lands. Primary problems encountered on District lands by law enforcement are:

- Unauthorized entry
- Dumping
- Illegal hunting
- All-terrain vehicle operation
- Vandalism

The District is in its tenth year of a contract with the FWC Division of Law Enforcement to provide law enforcement patrols on District lands. The District funds five full-time law enforcement positions within the FWC for officers to patrol District lands exclusively. Additionally, the District funds approximately 13,000 hours of overtime patrols performed annually by 85 officers throughout the District.

District staff coordinates with the FWC to determine patrol locations and the number of patrol hours for each area, advise the FWC on issues in each area and coordinate details to target problem areas, and serve as the liaison to convey information/issues from the land managers to law enforcement. In addition to working with the FWC, the District works with county law enforcement, National Park Service law enforcement rangers, Homeland Security, and FDEP law enforcement officers.

The District also administers a law enforcement housing program on its properties. Law enforcement officers from three different agencies reside on District lands in 12 locations to provide an additional law enforcement presence. The officers either reside in District-owned houses, at no cost to the officers, or in their own mobile homes on pads installed by the District. Officers living on District property have proven to be an effective deterrent to illegal activities. Additional properties are being identified due to the success of this program.

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 off-site mitigation areas. Chapter 62-342, Florida Administrative Code, also encourages each water management district to establish two mitigation banks. The use of mitigation and mitigation banking offers opportunities to generate supplemental revenue for the District's land acquisition, restoration, and management programs.

The District's mitigation bank sites include the Loxahatchee Mitigation Bank in Palm Beach County and the Corkscrew Regional Mitigation Bank in Lee County. The District has developed 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 provide a revenue stream to the District for future projects. During FY2010, revenue collected from the Loxahatchee Mitigation Bank totaled $150,000, and revenue collected from the Corkscrew Regional Mitigation Bank totaled $593,051. Chapter 7 of this volume details the status of mitigation funds at the CREW and Pennsuco Regional Mitigation areas.

Mitigation funds from the construction of the Western Beltway State Road 429 Project have benefited the Shingle Creek Management Area in Orange and Osceola counties. In FY2010, the beltway mitigation funds were used to fund $170,739 in management costs.

Infrastructure Management

The District not only has a wide variety of lands to manage, but also a wide variety of infrastructure on those lands, each with a unique set of management needs. District Policy 140-25(3)(k) states that "Infrastructure support shall be developed and maintained to provide safe access for responsible management and public use on District lands." The different types of infrastructure on District lands include:

- Roads
- Parking areas
- Officer housing
- Historic structures
- Recreational facilities
- Gates
- Fences
- Field offices and maintenance staging areas
- Water control structures

In addition, the District often acquires land with pre-existing structures that are incompatible with the purpose for which the land was acquired. Dealing effectively with this type of infrastructure has led to the development of an active demolition and environmental cleanup program.

Planning

Land management planning is an important first step along the path of effective stewardship of District land resources. Management plans are required by Florida Statutes to be written for all District conservation lands over 1,000 acres. These plans are to be reviewed by a multiparty review team when periodically updated. The District is committed to updating plans and having management reviews every five years. A management plan review team consists of one member representing each of the entities and groups listed below:

- SFWMD
- Private land managers
- Local soil and water conservation district board of supervisors
- FDACS Division of Forestry
- FWC
- FDEP
- Conservation organization
- Representative from the county where the property is located

District staff participates in the management review teams for conservation lands managed by a partner, and creates and updates management plans on conservation lands where the District is the lead manager. Management activities are designed for each site based on the specific mission for conservation lands: "to provide natural resource protection and management while allowing compatible multiple uses on designated public lands." Land stewardship's three primary goals for managing the District's conservation lands are to conserve and protect water resources, protect or restore land to its natural state and condition, and provide public use.

The general management plans include (1) goals and objectives, (2) past and present land uses, (3) resource data, (4) restoration and management needs, (5) public use programs, (6) compatible multiple uses, (7) monitoring programs, (8) site security, and (9) administrative duties to guide management actions for the five-year period. As such, general management plans serve as a collective information source for the District, agency partners, and the public. In FY2010, the general management plans were updated for the Lake Marion Creek/Reedy Creek Management Area and the Shingle Creek Management Area. In FY2011, a general management plan will be updated for the CREW Management Area.

Monitoring

The primary purpose of the land stewardship monitoring program is to evaluate and document the effects of land management activities. Fire is the most important tool used. Regularly conducted prescribed burns maintain a desirable structure in the forests and marshes by preventing shrubs and trees from becoming too dense and thereby reducing plant diversity. Monitoring vegetative responses to fire helps land managers understand the relationships between variables, such as weather, fuel accumulation, season, water levels, and how fire affects the vegetation.

In addition to gathering data on prescribed burning, land stewardship monitors the condition and structure of habitats to detect and document changes on District-managed lands. Such changes are often related to burning, but can also be caused by other factors such as changes in hydrology. Monitoring for habitat changes is done by taking panoramic photos at fixed locations across multiple years. The high-resolution digital photos show general size, density, and diversity of vegetation. Locations are permanently marked with iron pipes, and Global Positioning System (GPS) coordinates are recorded to ensure the coordinates can be accurately relocated over extended periods of time.

Restoration projects are more complex and uncertain in outcome than regular land management. Hence, more intensive monitoring is appropriate. Panoramic photos are effective in documenting restoration by showing step-by-step progress of the project and long-term changes in plant communities. Scientific methods for measuring vegetation are used to document initial conditions that require restoration and achievement of desired changes.

Wildlife species monitoring on District lands is normally performed by the FWC. Deer, hogs, and other game are counted, inspected, and measured as hunters harvest these species during established hunting seasons. Quail and general breeding bird populations are estimated by listening surveys. Eagles and wading birds are counted from airplanes.

Interim Managed Project Lands

The interim project lands component of land stewardship is responsible for managing those properties acquired by the District for future Everglades restoration and other projects until the land is needed for construction. Ultimately, these lands will be used for STAs, surface water reservoirs, groundwater recharge areas, and/or buffer lands between the Everglades and other sensitive areas and urban development. Many of these lands are leased to keep them in agricultural production until they are needed for project construction. Leasing these properties for agricultural use provides many benefits, such as:

- Providing on-site management and security for District-owned lands at no cost to the District
- Minimizing District expenses by increasing revenue from nongovernmental sources to offset management, maintenance, and resource protection costs
- Generating additional funding for future land acquisition

- Minimizing impacts to the local agricultural economy by keeping viable agricultural lands in active production for as long as possible
- Minimizing fiscal impacts to the local government by keeping lands on the tax roll until actually needed for construction

Historical property uses, such as grazing; sod, vegetable, and sugarcane farming; nurseries; and tree farms, are allowed to continue using reservations, leases, or similar agreements where appropriate. Generally, a competitive bid process is used to solicit proposals and award contracts, which include appropriate cancellation clauses to make the land quickly available when needed. In some cases, short-term leases (five years or less) are negotiated as part of the acquisition package. Lessees are typically required to (1) provide security for the property, (2) implement applicable Best Management Practices, (3) keep the property and facilities in good repair and condition, (4) obtain all required permits and approvals for their activities, 5) maintain required insurance coverage, and (6) pay applicable taxes.

PROJECT STATUS

The following project summary section provides a brief description of each SOR project, organized by the five land management regions: Upper Lakes, Kissimmee/Okeechobee, East Coast, Everglades, and West Coast. **Table 6B-1** summarizes the FY2010 land acquisition status for fee and less-than-fee acquisitions according to project for natural lands. **Table 6B-2** highlights current and recreational use opportunities for the public, according to land management region. This section also includes regional maps for each of these management areas (**Figures 6B-2** through **6B-6**).

Table 6B-1. Land stewardship natural lands acquisition status (fee-simple, and conservation and flowage easements) for Fiscal Year 2010 (FY2010) (October 1, 2009–September 30, 2010).

Project Name	County	Project Size (Acres)	District Fee and Easement Ownership (Acres)	Acquisition Partners
Allapattah Flats	Martin	40,363	21,865	Martin County/federal
Atlantic Ridge Ecosystem[1]	Martin	12,645	5,905	Martin County/Conservation and Recreation Lands (CARL)
Biscayne Coastal Wetlands	Miami-Dade	2,073	822	Miami-Dade County
Corkscrew Regional Mitigation Bank	Lee	633	633	None
Corkscrew Regional Ecosystem Watershed	Lee/Collier	63,063	27,119	CARL/Lee County
Cypress Creek/Loxahatchee	Martin/Palm Beach	4,374	2,948	Martin County/Palm Beach County
Cypress Creek/Trail Ridge	St. Lucie	32,639	1,233	None
DuPuis	Palm Beach/Martin	21,878	21,878	None
East Coast Buffer – Natural Lands[2]	Broward/Miami-Dade	46,808	16,064	Broward County/Miami-Dade County/federal
Frog Pond – Natural Lands[3]	Miami-Dade	2,484	1,914	None
Henscratch Ranch*	Highlands	3,296	1,308	None
Indian River Lagoon	Martin/St. Lucie	653	541	St. Lucie County/CARL/federal
Kissimmee Chain of Lakes	Polk/Osceola	38,591	38,087	None
Kissimmee Prairie	Okeechobee	38,316	38,316	CARL
Kissimmee River	Highlands/Okeechobee/ Polk/Osceola	75,617	72,008	None
Lake Marion Creek and Reedy Creek	Polk	39,323	12,907	Polk County/Southwest Florida Water Management District/U.S. Fish and Wildlife Service
Loxahatchee Mitigation Bank	Palm Beach	1,256	1,256	Palm Beach County
Loxahatchee River	Palm Beach	1,912	1,545	Palm Beach County
Loxahatchee Slough	Palm Beach	13,099	12,984	Palm Beach County
Model Lands	Miami-Dade	54,458	5,694	Miami-Dade County
Nicodemus Slough*	Glades	2,231	2,231	None

Table 6B-1. Continued.

Project Name	County	Project Size (Acres)	District Fee and Easement Ownership (Acres)	Acquisition Partners
North Fork St. Lucie River	St. Lucie	3,714	478	St. Lucie County/CARL
Okaloacoochee Slough	Hendry/Collier	35,201	22,255	CARL/Division of Forestry/Florida Fish and Wildlife Conservation Commission
Palm Beach County Natural Lands*	Palm Beach	1,442	1,442	Palm Beach County
Pal-Mar	Palm Beach/Martin	35,760	17,349	CARL/Palm Beach County/ Martin County/Florida Communities Trust/federal
Paradise Run	Glades	3,841	3,447	None
Shingle Creek	Orange/Osceola	7,702	2,698	City of Kissimmee/Osceola County/Florida Communities Trust
Six Mile Cypress	Lee	2,083	854	Lee County
Southern Glades[4]	Miami-Dade	34,093	31,333	None
South Fork St. Lucie River[1]	Martin	184	184	CARL
SUMICA	Polk	4,009	4,009	Polk County
Ten Mile Creek – Natural Lands[5]	St. Lucie	240	184	St. Lucie County
Tibet-Butler Preserve	Orange	439	439	None
Water Conservation Areas[6]	Broward/Palm Beach	846,186	846,186	None
Totals[7]		**1,470,606**	**1,218,113**	

* Conservation easement interest, only.
[1] Portions of the Atlantic Ridge Ecosystem (247 acres) and South Fork of the St. Lucie River (100 acres) projects form the 347-acre Halpatiokee Park.
[2] Approximately 22,547 acres of the East Coast Buffer/Water Preserve Areas are designated for construction projects and are not included in the Florida Forever SOR - Conservation Lands. External partners have acquired 1,734 acres within the natural lands boundary.
[3] Approximately 3,360 acres of the Frog Pond acquisitions are designated for construction of the C-111 Spreader Canal and C-111 Canal (C-111/L-31N) projects.
[4] Approximately 1,217 acres of the Southern Glades is designated for construction of the C-111 Spreader Canal Project. [5] Approximately 766 acres of the Ten Mile Creek Project are a constructed reservoir and acres are not included in the Florida Forever Save Our Rivers – Conservation Lands.
[6] Includes Water Conservation Areas 1, 2, and 3.
[7] State and local partners have acquired an additional 18,372 acres within the natural lands boundaries.

Table 6B-2. Public use opportunities for land management regions.

		Public Use Opportunities									
Land Management Region	**Lead Manager**	**Airboating**	**Bicycling**	**Canoeing**	**Camping**	**Education / Visitor Center**	**Equestrian**	**Fishing**	**Hiking**	**Hunting**	**Picnic Tables**
Upper Lakes Region											
Kissimmee Chain of Lakes	SFWMD	~	~	~	~		~	~	~	~	~
Lake Marion Creek	SFWMD		~		~			~	~	~	~
Reedy Creek	SFWMD	~		~	~	~		~	~	~	~
Shingle Creek	SFWMD		~	~				~	~		
SUMICA	Polk County		~		~		~	~	~	~	~
Tibet Butler Preserve	Orange County					~			~		
Kissimmee-Okeechobee Region											
Kissimmee Prairie	FDEP		~		~	~	~	~	~		~
Kissimmee River	SFWMD	~	~	~	~		~	~	~	~	~
Paradise Run	SFWMD		~	~				~	~	~	~
East Coast Region											
Allapattah Flats	SFWMD								~	~	
Atlantic Ridge	FDEP										
DuPuis	SFWMD		~	~	~	~	~	~	~	~	~
Halpatiokee Park	Martin County		~	~	~			~	~		~
Indian River Lagoon	St. Lucie County			~					~		
Loxahatchee River	FDEP		~	~	~		~	~	~		~
Loxahatchee Slough	Palm Beach County								~		
North Fork St. Lucie River	FDEP					~		~	~		
Pal-Mar	FWC			~	~			~	~	~	
Riverbend Park	Palm Beach County		~	~			~	~	~		~
Ten Mile Creek	St. Lucie County		~	~			~	~	~		~
Everglades Region											
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							~	~		
Model Lands	SFWMD								~	~	
Southern Glades	FWC	~	~	~			~	~	~	~	~
Stormwater Treatment Area 1E	SFWMD		~						~		
Stormwater Treatment Area 1W	SFWMD		~						~	~	
Stormwater Treatment Area 3/4	SFWMD		~						~	~	
Stormwater Treatment Area 5	SFWMD		~						~	~	
West Coast Region											
CREW	SFWMD				~				~	~	
Okaloacoochee Slough	DOF		~		~		~	~	~	~	
Six Mile Cypress Slough	Lee County					~			~		~

UPPER LAKES LAND MANAGEMENT REGION, ORLANDO SERVICE CENTER

This section presents an overview of the Upper Lakes Land Management Region, Orlando Service Center, comprising the Kissimmee Chain of Lakes (KCOL), Lake Marion Creek and Reedy Creek, SUMICA, Shingle Creek, and Tibet-Butler Preserve areas (**Figure 6B-2**).

KISSIMMEE CHAIN OF LAKES: MANAGED BY THE DISTRICT

- County: Osceola and Polk
- Project size: 38,591 acres
- District ownership (including easements): 38,087 acres
- Acquisition partners: None

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 1929 contour line in order to hold enough water to drive year-round flows through the restored Kissimmee River. Public access to most of the land is by boat, and several cattle leases and grazing reservations are within the KCOL area. Resource management goals for the management area are to (1) maintain and, where possible, restore native plant communities, (2) provide cost-effective resource protection, and (3) provide opportunities for compatible public use. In FY2010, the 2,000-acre Gardner-Cobb Marsh hydrologic restoration project was completed. Public use opportunities were enhanced through the construction of airboat crossings, and construction was completed on a new boat ramp facility on Lake Kissimmee in 2010. Ownership of the boat ramp will be transferred to Polk County for long term management as a county park.

In addition, 8,270 acres of semi-improved pasture were mowed to reduce nuisance native and exotic plants and to improve the conditions of the altered wet prairie communities on Gardner-Cobb Marsh, Lightsey Unit, Catfish Creek, Rough Island, Johnson Island, and Lake Kissimmee east shoreline. Approximately 1,353 acres were burned through the application of prescribed fire.

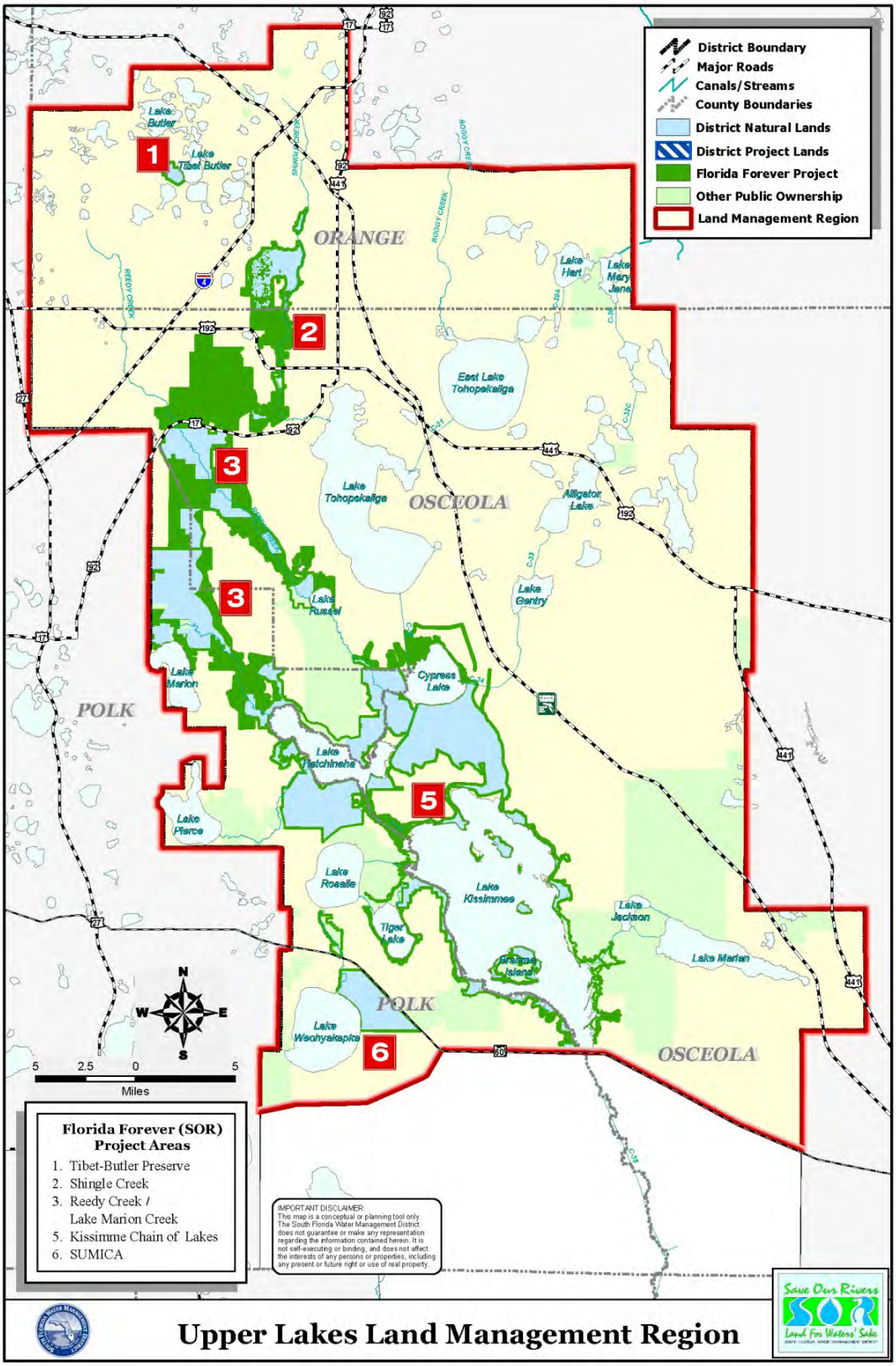

Figure 6B-2. Upper Lakes Land Management Region.

LAKE MARION CREEK AND REEDY CREEK: MANAGED BY THE DISTRICT

- County: Polk
- Project size: 39,323 acres
- District ownership (including easements): 12,907 acres
- Acquisition partners: Polk County, Southwest Florida Water Management District (SWFWMD), and U.S. Fish and Wildlife Service (USFWS)

Polk County's Lake Marion Creek flows from Lake Marion to Lake Hatchineha. Contained within the project area are scrub, sand hills, pine flatwoods, and riverine swamp forests. The majority of the property is open for year-round hiking; camping is available by special use license. Lands in this project have been acquired with the assistance of Polk County, the SWFWMD, and the USFWS. Primary stewardship activities include prescribed burns, exotic plant control, resource protection, and public use. The FWC participates as a cooperative management partner by conducting a hunt program and security patrols. The area is managed as a Wildlife Management Area. The District funds half of an FWC wildlife biologist position to assist with the management of the property.

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. The management plan for this management area was updated in FY2010 in conjunction with an interagency land management review that evaluated the success and adequacy of land management activities.

In FY2010, exotic treatment occurred on approximately 150 acres of Old World climbing fern, Caesar weed (*Urena lobata*), natal grass (*Rhynchelytrum repens*), and cogongrass (*Imperata cylindrica*). Cooperative management of exotics along Reedy Creek with the Nature Conservancy continues. Approximately 641 acres were burned through the application of prescribed fire. In FY2011, it is anticipated that 500 acres of exotics will be treated and 500 acres will be burned.

SUMICA: MANAGED BY POLK COUNTY

- County: Polk
- Project size: 4,009 acres
- District ownership (including easements): 4,009 acres
- Acquisition partner: Polk County

Polk County, which participated as a 50 percent acquisition partner under its Environmental Lands Program, is the lead manager for this property. A five-year management plan was prepared by Polk County and approved by the District. SUMICA, formerly known as Lake Walk-in-Water, is named after the historic logging town that existed on the site in the 1920s. 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.

SHINGLE CREEK: MANAGED BY THE DISTRICT AND OSCEOLA COUNTY

- County: Orange and Osceola
- Project size: 7,702 acres
- District ownership (including easements): 2,698 acres
- Acquisition partner: City of Kissimmee

The District has undertaken several successful restoration projects within the Shingle Creek swamp funded as mitigation sites to offset wetland impacts associated with the construction of the Orlando Beltway. In FY2010, 213 acres were surveyed and spot-treated for exotic vegetation, including Old World climbing fern, Para grass (*Urochloa mutica*), Caesar weed, and primrose willow (*Ludwigia peruviana*). In FY2011, it is anticipated that 300 acres of exotics will be treated and 50 acres will be burned. The five-year update to the management plan for this management area was completed in FY2010 in conjunction with an interagency land management review that evaluated the success and adequacy of land management activities. The project area boundary was amended in FY2010 to include the 2-acre Harbor Oaks marina acquisition, which will provide recreational access to the waterway when developed into a park by the City of Kissimmee and Osceola County.

TIBET-BUTLER PRESERVE: MANAGED BY ORANGE COUNTY

- County: Orange
- Project size: 439 acres
- District ownership (including easements): 439 acres
- Acquisition partners: None

The Tibet-Butler Preserve covers 439 acres along the southwest shore of Lake Tibet-Butler in Orange County. This site includes approximately 4,000 feet of shoreline on Lake Tibet. Vegetative communities include bay swamp, pine flatwoods, cypress swamp, and smaller areas of xeric oak and freshwater marsh.

The Orange County Parks and Recreation Department manages Tibet-Butler Preserve as an environmental education facility for public use. A museum with a classroom was constructed in 1994. It has a full-time staff that conducts programs for thousands of students each year. Land managers also treat exotic vegetation and maintain the hiking trails and boardwalks that lead to the many community types on the property. In FY2010, exotic plants were treated on 6 acres.

KISSIMMEE/OKEECHOBEE LAND MANAGEMENT REGION, OKEECHOBEE SERVICE CENTER

This section presents an overview of the Kissimmee/Okeechobee Land Management Region, Okeechobee Service Center, comprising the Kissimmee Prairie Ecosystem, Kissimmee River, and Paradise Run areas (**Figure 6B-3**).

KISSIMMEE PRAIRIE ECOSYSTEM: MANAGED BY THE FLORIDA PARK SERVICE

- County: Okeechobee
- Project size: 38,316 acres
- District ownership (including easements): 38,316 acres
- Acquisition partner: State of Florida – Conservation and Recreation Lands (CARL)

Known as the Kissimmee Prairie Preserve State Park, the project is managed by the Florida Park Service under lease from the District and State of Florida. Recreational uses include hiking, bicycling, camping, horseback riding, and astronomy. A state-approved management plan is in place that addresses prescribed burns, exotic control, and public use. Exotic treatments and prescribed burns are ongoing. In FY2010, 8,778 acres were burned through the application of prescribed fire and 95 acres were treated for exotic plants.

KISSIMMEE RIVER: MANAGED BY THE DISTRICT AND THE FWC

- County: Osceola, Polk, Highlands, and Okeechobee
- Project size: 75,617 acres
- District ownership (including easements): 72,008 acres
- Acquisition partners: None

The Kissimmee River is cooperatively managed by the District and the FWC. The District funds two FWC wildlife biologist positions to assist with management of the property. The five-year plan for both areas includes prescribed burns, exotic plant control, upland shrub control, wildlife management, and forest management. An extensive public use program on the river attracts hundreds of visitors to the area. A new boat ramp and airboat port facility opened on the Istokpoga Canal in FY2010. The public use program includes hunting, fishing, horseback riding, nature watching, hiking, camping, boating, and educational programs through the Riverwoods Field Lab. In FY2010, 1,613 acres were burned through the application of prescribed fire, 607 acres underwent mechanical vegetation management, and 13,725 acres were chemically treated for exotic plants. In FY2011, it is anticipated that 3,000 acres of exotics will be treated and 2,500 acres will be burned.

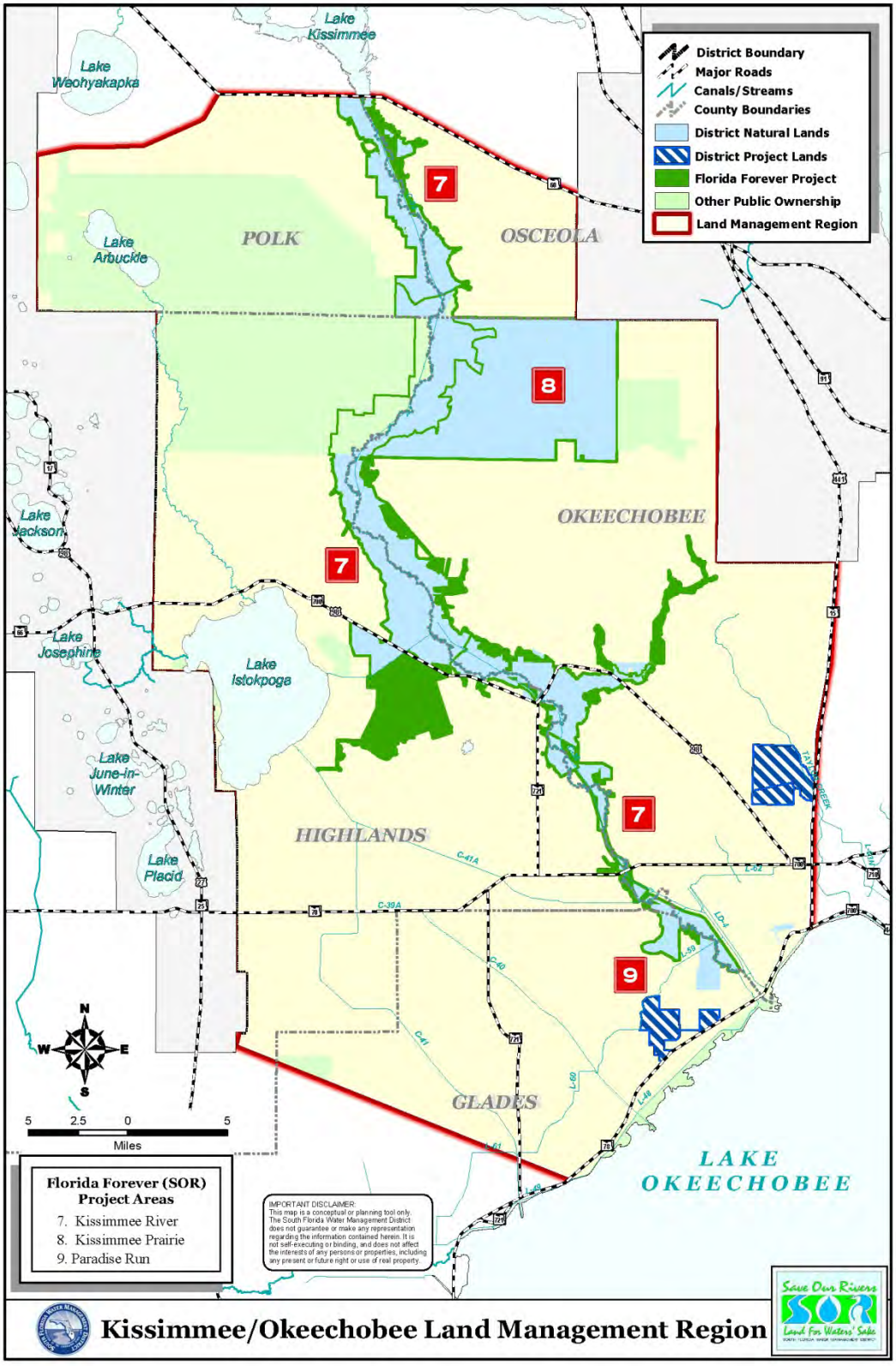

Figure 6B-3. Kissimmee/Okeechobee Land Management Region.

PARADISE RUN: MANAGED BY THE DISTRICT

- County: Glades
- Project size: 3,841 acres
- District ownership (including easements): 3,447 acres
- Acquisition partners: None

Paradise Run lies west of the C-38 canal, between structure S-65E and Lake Okeechobee, and is open for public use, including hunting, under the FWC's Public Use Area designation. There are also two cattle leases on the property. Along with Pool A of the C-38 canal, the Paradise Run area of the C-38 canal will not be backfilled. Remnant river oxbows are still present, although the surrounding land has been drained and is now improved pasture and spoil.

EAST COAST LAND MANAGEMENT REGION, WEST PALM BEACH/DUPUIS

This section presents an overview of the East Coast Land Management Region, West Palm Beach/DuPuis, comprising Allapattah Flats, Atlantic Ridge Ecosystem, Cypress Creek/Loxahatchee, Cypress Creek/Trail Ridge, DuPuis Management Area, Halpatiokee Regional Park, Indian River Lagoon, Loxahatchee River, Loxahatchee Slough, North Fork St. Lucie River, and Pal-Mar (**Figure 6B-4**).

ALLAPATTAH FLATS: MANAGED BY THE DISTRICT AND THE FWC

- County: Martin
- Project size: 40,363 acres
- District ownership (including easements): 21,865 acres
- Acquisition partners: Martin County and the federal government

With funding assistance from Martin County and the federal government, Allapattah was purchased as part of the CERP Indian River Lagoon – South, Project Implementation Report Recommended Plan. Allapattah Flats is also known as the Allapattah Complex Natural Water Storage and Treatment Area. The plan proposes to plug and fill the ditches and swales that were excavated to drain and improve the property for cattle grazing. Afterward, low berms will be constructed at strategic locations to protect roadways, and water control structures will be replaced, allowing greater control of the site's water resources and rehydration of the property's extensive wetland systems. Restoration will be partially funded through the Natural Resources Conservation Service Wetland Reserve Program. The project is expected to provide the benefits of flood attenuation, improved water quality, and reduction of discharge into the C-23 canal and, eventually, the Indian River Lagoon. The District funds an FWC wildlife biologist position to assist with the management of the property. The FWC implemented rules establishing the property as a Wildlife Management Area and has posted the property boundaries.

In FY2010, 1,004 acres were burned through the application of prescribed fire and 3,423 acres were chemically treated for exotic plants. Wetland restoration activities continued on Parcel A, and a new equestrian trailhead and 5 miles of trails were established in Parcel C. In FY2011, it is anticipated that 3,000 acres of exotics will be treated and 900 acres will be burned.

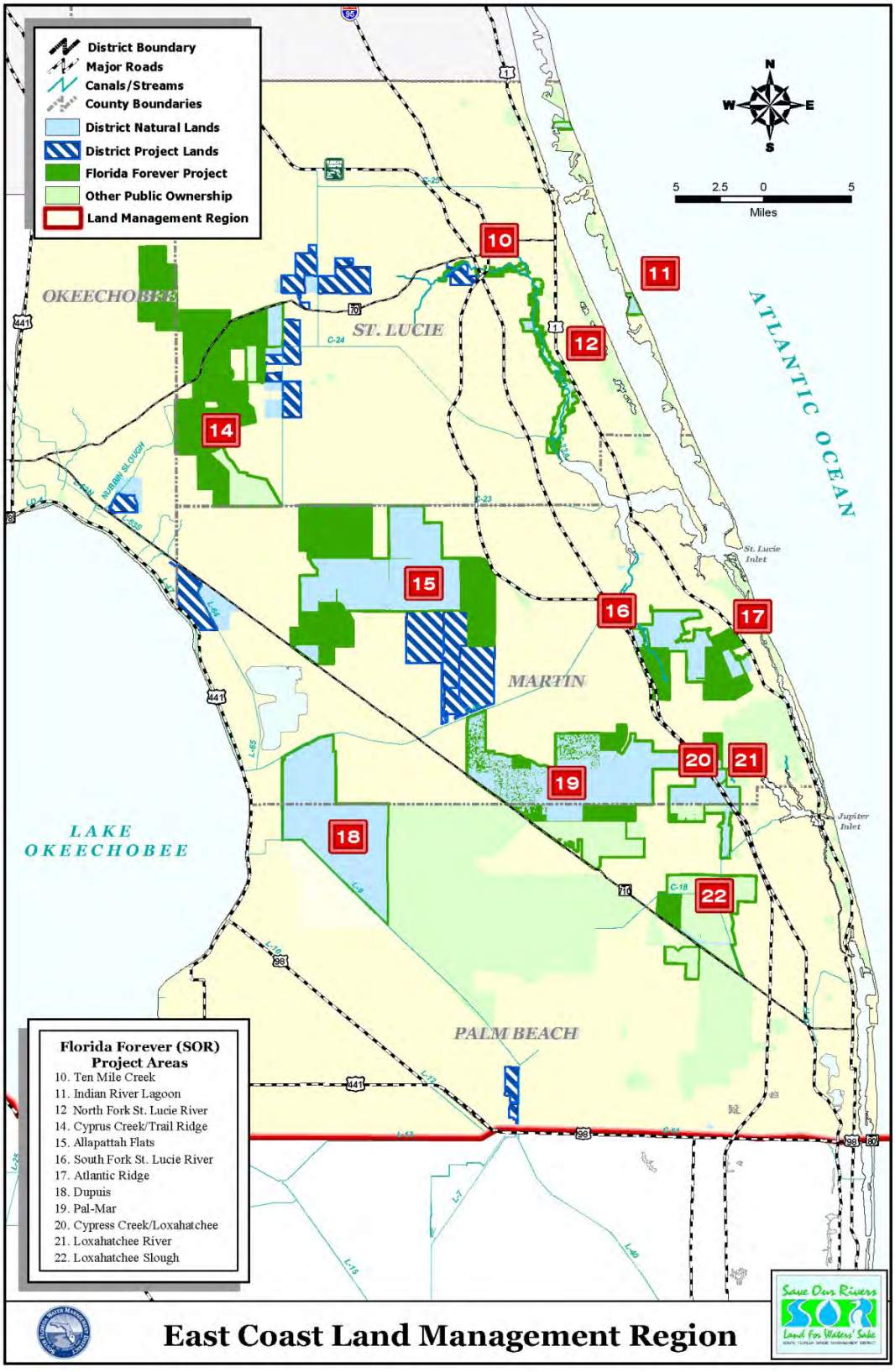

Figure 6B-4. East Coast Land Management Region.

ATLANTIC RIDGE ECOSYSTEM: MANAGED BY THE FLORIDA PARK SERVICE

- County: Martin
- Project size: 12,645 acres
- District ownership (including easements): 5,905 acres (247 of which are managed by Martin County as an addition to Halpatiokee Regional Park)
- Acquisition partners: State of Florida CARL and Martin County

Atlantic Ridge is managed by the Florida Park Service, under a joint management lease from the District and the FDEP Division of State Lands, and is designated as the Atlantic Ridge Preserve State Park. The management plan outlines the goals and objectives for the park. This plan describes hydrologic restoration and staffing needs, plans for exotic control and prescribed burns, and a public use program. The District manages 880 acres of Atlantic Ridge that lacks legal public access because it is completely surrounded by private property.

CYPRESS CREEK/LOXAHATCHEE: MANAGED BY THE DISTRICT AND PALM BEACH COUNTY

- County: Martin and Palm Beach
- Project size: 4,374 acres
- District ownership (including easements): 2,948 acres
- Acquisition partners: Martin and Palm Beach counties

This project is divided between Martin and Palm Beach counties and forms connections with Pal-Mar and District-owned lands in Jonathan Dickinson State Park. Almost 3,000 acres comprise a 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 FY2010, 1,200 acres of Old World climbing fern, guava (*Psidium littorale var. cattleianum*), downy rose myrtle (*Rhodomyrtus tomentosa*), Australian pine (*Casuarina equisetifolia*), Brazilian pepper (*Schinus terebinthifolius*), and melaleuca (*Melaleuca quinquenervia*) were chemically treated. In FY2011, the 1,400-acre natural area within the site will undergo follow-up treatment for exotics.

CYPRESS CREEK/TRAIL RIDGE: MANAGED BY THE DISTRICT

- County: St. Lucie
- Project size: 32,639 acres
- District ownership (including easements): 1,233 acres
- Acquisition partners: None

The Cypress Creek/Trail Ridge Complex is a component of the CERP Indian River Lagoon – South, Project Implementation Report Recommended Plan. It is also known as the Cypress Creek/Trail Ridge Natural Water Storage and Treatment Area. Some of the property identified within the Cypress Creek/Trail Ridge footprint includes the St. Lucie County-owned Bluefield Ranch property and Pinelands. The District acquired 1,233 acres along the eastern edge of the proposed project in late 2005. The plan proposes to plug and fill many of the ditches and swales excavated to drain and improve the property for cattle grazing in order to improve the property's wetland character and minimize flows to the canal system and, ultimately, to the St. Lucie and

Indian River Lagoon estuaries. In FY2010, 400 acres of Brazilian pepper were chemically treated. In FY2011, follow-up treatment is anticipated.

DUPUIS MANAGEMENT AREA: MANAGED BY THE DISTRICT AND THE FWC

- County: Palm Beach and Martin
- Project size: 21,878 acres
- District ownership (including easements): 21,878 acres
- Acquisition partners: None

The DuPuis Management Area is cooperatively managed by the District and the FWC. The District funds an FWC wildlife biologist position to assist with management of the property. The DuPuis five-year management plan includes prescribed burns, exotic plant control, upland shrub control, wildlife management, and forest management. In FY2010, approximately 1,880 acres were burned through the application of prescribed fire; 3,423 acres were chemically treated for exotic plants; and 1,257 acres of overgrown shrub vegetation were mechanically shredded, roller-chopped, or mowed. An additional 10 red-cockaded woodpeckers were introduced to the area in FY2010, and two juveniles fledged.

In addition, an extensive public use program at DuPuis attracts thousands of visitors to the area and includes activities such as hunting, fishing, horseback riding, nature watching, hiking, camping, and educational programs through the DuPuis Visitors Center. In FY2011, it is anticipated that 2,000 acres of exotics will be treated and 7,000 acres will be burned.

HALPATIOKEE REGIONAL PARK: MANAGED BY MARTIN COUNTY

- County: Martin
- Project size: 347 acres
- District ownership (including easements): 347 acres
- Acquisition partners: None

Halpatiokee Regional Park is composed of a portion of the Atlantic Ridge Ecosystem Project (247 acres) and a portion of the South Fork of the St. Lucie River Project (100 acres). Martin County manages the natural area in conjunction with Halpatiokee Regional Park. The property consists of pine flatwoods that surround a series of lakes 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.

INDIAN RIVER LAGOON: MANAGED BY ST. LUCIE COUNTY

- County: St. Lucie and Martin
- Project size: 653 acres
- District ownership (including easements): 541 acres
- Acquisition partners: St. Lucie County, State of Florida CARL, and the federal government.

Indian River Lagoon is managed by St. Lucie County under a lease from the District and the Florida Park Service. The Indian River Lagoon property has been part of the county's nonchemical mosquito control efforts, which have greatly improved water quality, 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 and a dune crossover. During FY2010, approximately 15 acres were treated for exotics. A new trail system is planned, which the county plans to construct in FY2011.

LOXAHATCHEE RIVER: MANAGED BY PALM BEACH COUNTY AND THE FLORIDA PARK SERVICE

- County: Palm Beach
- Project size: 1,912 acres
- District ownership (including easements): 1,545 acres
- Acquisition partner: Palm Beach County

District-owned lands along the river are managed by the Florida Park Service and Palm Beach County Parks and Recreation Department. The Florida Park Service manages the area north of S.R. 706 (Indiantown Road) as part of Jonathan Dickinson State Park, while Palm Beach County manages the lands south of the road as Riverbend County Park. Both land managers have extensively treated exotics. Palm Beach County, in cooperation with the District, completed the hydrologic restoration of its management area to restore the Eastern Slough, a historic tributary to the Loxahatchee River. The restoration project enables water to be delivered to the Loxahatchee River through a more natural flow-way and provides a scenic canoe/kayak experience.

LOXAHATCHEE SLOUGH: MANAGED BY PALM BEACH COUNTY

- County: Palm Beach
- Project size: 13,099 acres
- District ownership (including easements): 12,984 acres (easement interest only)
- Acquisition partners: None

Palm Beach County's Department of Environmental Resources Management is currently managing the project. The Loxahatchee Slough is a wide, shallow channel of water that flows approximately 250 days per year. It provides a deep drainageway through historical strand swamp and peat soil swale systems. The slough is a regionally significant wetland and the historic headwaters of the Loxahatchee National Wild and Scenic River. It is a mosaic of high-quality freshwater wetlands, such as cypress swamps, marshes, and wet prairies, interspersed with pine flatwoods and hammocks. In FY2008, the District transferred the bulk of its ownership to Palm

Beach County, and the county granted the District a conservation easement over its holdings. The District inspects this easement annually.

NORTH FORK ST. LUCIE RIVER: MANAGED BY ST. LUCIE COUNTY AND THE FLORIDA PARK SERVICE

- County: St. Lucie
- Project size: 3,714 acres
- District ownership (including easements): 478 acres
- Acquisition partners: St. Lucie County and State of Florida CARL

The State of Florida, St. Lucie County, and District-owned lands along the North Fork are being managed by St. Lucie County and the Florida Park Service as part of the North Fork Aquatic Preserve. Both agencies are treating exotics and conducting limited prescribed burns, which is extremely difficult due to the surrounding urbanized area. In FY2010, approximately 40 acres of exotics were treated. St. Lucie County constructed and operates the Oxbow Eco-Center, an environmental education facility along the North Fork of the St. Lucie River in Port St. Lucie.

PAL-MAR: MANAGED BY THE DISTRICT, THE FWC, PALM BEACH COUNTY AND MARTIN COUNTY

- County: Palm Beach and Martin
- Project size: 35,760 acres
- District ownership (including easements): 17,286 acres
- Acquisition partners: State of Florida CARL, Palm Beach County, Martin County, the Florida Communities Trust, and the federal government

State and District-owned lands are under lease to the FWC and are managed as part of the John C. and Mariana Jones/Hungryland Wildlife and Environmental Area. Palm Beach County manages its lands south of Indiantown Road as the Trail Glades Natural Area. The property is open for public use activities, including hiking, primitive camping, hunting, fishing, bicycling, and horseback riding. The FWC is conducting resource inventories and has mapped exotic infestations.

The Nine Gems property, or Pal-Mar East, is being managed cooperatively by the District, Martin County, and the FWC. The District is conducting resource management and restoration activities; Martin County is developing the recreational facilities; and the FWC is administering the hunt programs. Approximately 2,320 acres of Brazilian pepper, melaleuca, and Old World climbing fern were treated as a follow-up measure in FY2010. Approximately 432 acres of the pineland/wet prairie mosaic in the westernmost section was burned in FY2010.

EVERGLADES LAND MANAGEMENT REGION, MIAMI SERVICE CENTER / WEST PALM BEACH

This section presents an overview of the Everglades Land Management Region, Miami Service Center/West Palm Beach, comprising the Biscayne Coastal Wetlands, East Coast Buffer Natural Lands, Loxahatchee Mitigation Bank, Model Lands, and Southern Glades areas (**Figure 6B-5**).

BISCAYNE BAY COASTAL WETLANDS: MANAGED BY THE DISTRICT

- County: Miami-Dade
- Project size: 2,073 acres
- District ownership (including easements): 822 acres
- Acquisition partner: Miami-Dade County

The CERP Biscayne Bay Coastal Wetlands Project, a cooperative restoration project between the SFWMD and the U.S. Army Corps of Engineers, provides an opportunity to reestablish sheetflow through coastal wetlands and provide a buffer between Biscayne Bay and metropolitan Miami-Dade County. Most of the land within the Biscayne Bay Coastal Wetlands Project will be used for implementation of the CERP project. In FY2011, the first of the CERP spreader canals will be constructed.

EAST COAST BUFFER NATURAL LANDS: MANAGED BY THE DISTRICT

- County: Broward and Miami-Dade
- Project size: 46,808 acres
- District ownership (including easements): 16,064 acres
- Acquisition partners: Broward and Miami-Dade counties, and the federal government

The East Coast Buffer Project proposes to discharge excess waters into a series of storage areas that would be incorporated into a regional system of marshes, creating a continuous buffer between the Everglades and the urbanized areas in the Lower East Coast. The primary goal is to (1) raise water levels to minimize seepage from the Water Conservation Areas, (2) reestablish natural hydroperiod patterns, and (3) maintain flood protection for urban and agricultural areas. The project integrates the development of deep-water reservoirs located along the edge of the east coast urban service areas with a series of shallower, connected wetland marshes. The latter represents the natural lands component of the East Coast Buffer. These properties include the Strazulla Wetlands, the Everglades Buffer Strip, the Bird Drive Recharge Area, the Pennsuco Wetlands, and a few other parcels that lie outside of the proposed reservoir facilities. During FY2010, management activities primarily focused on treating 358 acres for exotics and providing law enforcement security to prevent illegal and environmentally destructive activities, such as ATV and off-road vehicle operation on the property. In FY2011, it is anticipated that exotic control treatments will occur on Strazulla, Bird Drive, the Everglades Buffer Strip, and the Pennsuco Wetlands.

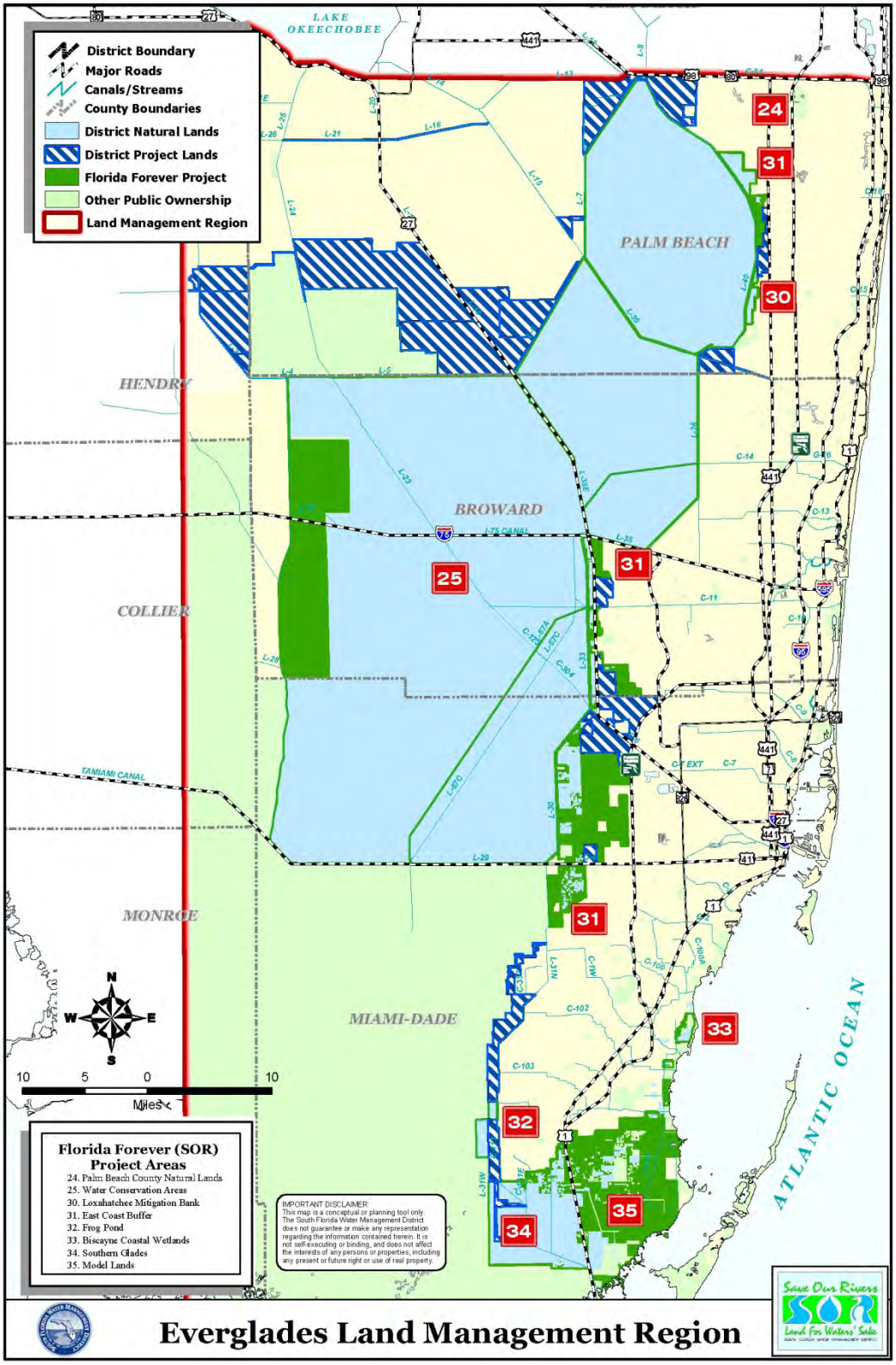

Figure 6B-5. Everglades Land Management Region.

LOXAHATCHEE MITIGATION BANK: MANAGED BY TETRA TECH EC, INC.

- County: Palm Beach
- Project size: 1,256 acres
- District ownership (including easements): 1,256 acres
- Acquisition partner: Palm Beach County

The Loxahatchee Mitigation Bank site lies adjacent to the Arthur R. Marshall Loxahatchee National Wildlife Refuge (Refuge). The goal of the bank is to restore habitat values and enhance a degraded Everglades ecosystem in accordance with the established success criteria covering hydroperiod restoration, prescribed fire, exotic vegetation removal, and establishment of desired species. Through an open and competitive solicitation process, Tetra Tech EC, Inc. (Tetra Tech) was selected to establish the Loxahatchee Mitigation Bank. Permitting and construction are complete, and exotic vegetation removal and native community enhancements are ongoing. As of November 2010, the Loxahatchee Mitigation Bank completed its eighth year of monitoring. In FY2010, the sixth revenue disbursement of $150,000 was provided by Tetra Tech to the District; the total received to date is $2,350,581. During FY2010, management activities primarily focused on control of exotics and planting of native wetland species. Exotics were treated on 521 acres.

MODEL LANDS: MANAGED BY THE DISTRICT

- County: Miami-Dade
- Project size: 54,458 acres
- District ownership (including easements): 5,694 acres
- Acquisition partner: Miami-Dade County

The project area is a combination of fresh water and saltwater wetlands, with portions of the land heavily infested with exotic vegetation. Although more than 15,500 acres are in public ownership, there is no public use program due to lack of legal access and contiguous ownership. Major management activities have included treating exotic vegetation and restricting detrimental activities, such as off-road vehicular use, which can cause long-term ecological impacts, poaching, and dumping. The primary management focus for the District and Miami-Dade County is the treatment of exotic species, including coral ardisia (*Ardisia crenata*), Brazilian pepper, melaleuca, Australian pine, and the increasingly observed patches of Japanese climbing fern (*Lygodium japonicum*). In FY2010, 60 acres of exotics were treated.

SOUTHERN GLADES: MANAGED BY THE DISTRICT, THE FWC, AND MIAMI-DADE COUNTY

- County: Miami-Dade
- Project size: 34,093 acres
- District ownership (including easements): 31,333 acres
- Acquisition partner: Miami-Dade County

Southern Glades is cooperatively managed by the 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. In FY2011, it is anticipated that 640 acres of exotics will be treated, and an additional 100 acres will be removed through shredding and treatments using Lake Belt rock mining mitigation funds.

WEST COAST LAND MANAGEMENT REGION, CORKSCREW REGIONAL ECOSYSTEM WATERSHED MANAGEMENT CENTER

This section presents an overview of the West Coast Land Management Region, Corkscrew Regional Ecosystem Watershed Management Center, comprising the Corkscrew Regional Mitigation Bank, CREW, Okaloacoochee Slough, and Six Mile Creek (**Figure 6B-6**).

CORKSCREW REGIONAL MITIGATION BANK: MANAGED BY EARTHMARK SOUTHWEST FLORIDA MITIGATION, LLC

- County: Lee
- Project size: 633 acres
- District ownership (including easements): 633 acres
- Acquisition partners: None

The Corkscrew Regional Mitigation Bank is located in southern Lee County along Corkscrew Road (S.R. 850). It is adjacent to the Imperial Marsh/Stairstep Mitigation Area, 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, revegetation, exotic vegetation removal, and prescribed burns. The bank site contributes to corridor building and the green infrastructure within the regional context. Earthmark Southwest Florida Mitigation, LLC, which purchased the site from Mariner Properties Development, Inc. and was selected through an open and competitive solicitation process, is developing the bank. During FY2010, 622 acres were treated for exotic species, and $593,051 in revenue was provided to the District. To date a total of $956,328 has been received by the District. In FY2011, restoration progress and monitoring will continue.

CORKSCREW REGIONAL ECOSYSTEM WATERSHED: MANAGED BY THE DISTRICT AND THE FWC

- County: Lee, Collier
- Project size: 63,063 acres
- District ownership (including easements): 27,119 acres (25,241 acres District-owned, 1,878 additional acres are leased from the Trustees of the Internal Improvement Trust Fund)
- Acquisition partners: Lee County and State of Florida (CARL)

The District and the FWC jointly manage CREW. The District funds an FWC wildlife biologist position to assist with management of the property. Property boundaries are posted, and the FWC's wildlife officers patrol the property. The public use and environmental education programs are directed by CREW Land and Water Trust under contract with the District. In FY2010, approximately 2,162 acres of exotics were treated. In FY2011, it is anticipated that 3,000 acres of exotics will be treated and 1,000 acres will be burned. The District obtained a construction permit and solicited bids for a new trailhead and parking area within the Bird Rookery Swamp area of CREW. When completed, this site will provide access to an additional 12 miles of new trails through an extensive and scenic cypress swamp.

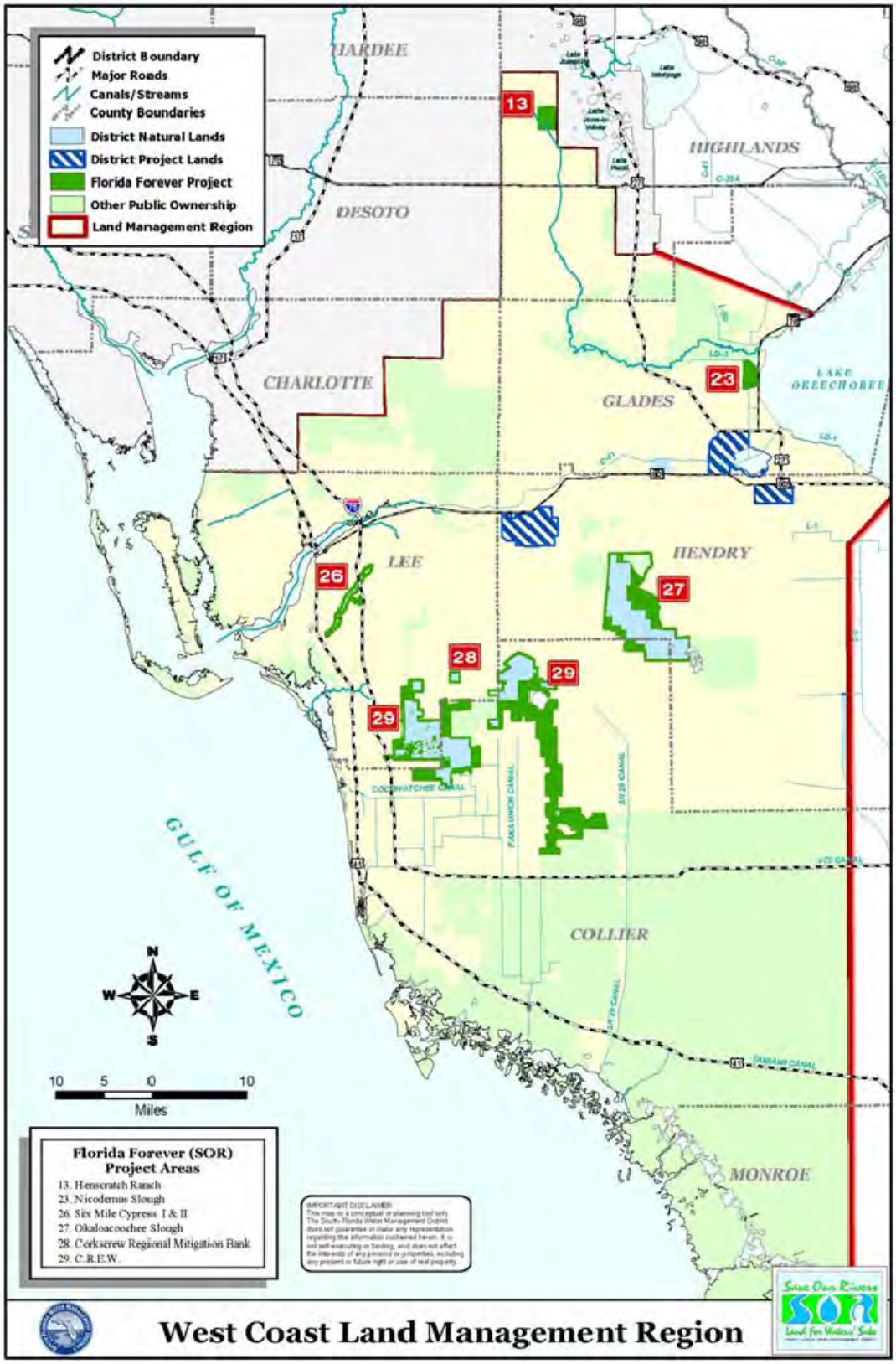

Figure 6B-6. West Coast Land Management Region.

OKALOACOOCHEE SLOUGH: MANAGED BY THE DIVISION OF FORESTRY AND THE FWC

- County: Hendry and Collier
- Project size: 35,201 acres
- District ownership (including easements): 22,255 acres
- Acquisition partners: State of Florida CARL, the FWC, and Division of Forestry

The Division of Forestry and the FWC purchased additional lands in the project, expanding the original purchase by the District and the State of Florida. The project is managed as Okaloacoochee Slough State Forest, with the Division of Forestry as lead manager and the FWC responsible for wildlife management under a four-party lease agreement with the FDEP Division of State Lands and the District. The FWC also manages the project as a Wildlife Management Area and conducts a public hunting program. An approved management plan is in place.

SIX MILE CYPRESS: MANAGED BY LEE COUNTY

- County: Lee
- Project size: 2,083 acres
- District ownership (including easements): 854 acres
- Acquisition partner: Lee County

Jointly owned by Lee County and the District, the Six Mile Cypress property has been managed by Lee County Parks and Recreation since its acquisition. The management plan was updated in 2008. Six Mile Cypress likely has the highest rate of public visitation of any District project. Each year approximately 50,000 Lee County students and visitors use the outdoor classroom facility, nature center, and boardwalk built and maintained by Lee County.