

Land Stewardship Division

*3301 Gun Club Road MSC 7320
West Palm Beach, Florida 33406*



Trail Ridge
Five-Year
Conceptual Management Plan
2007-2012
September 2007



Trail Ridge Five-Year Conceptual Management Plan (2007 – 2012)

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Land Stewardship Division
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

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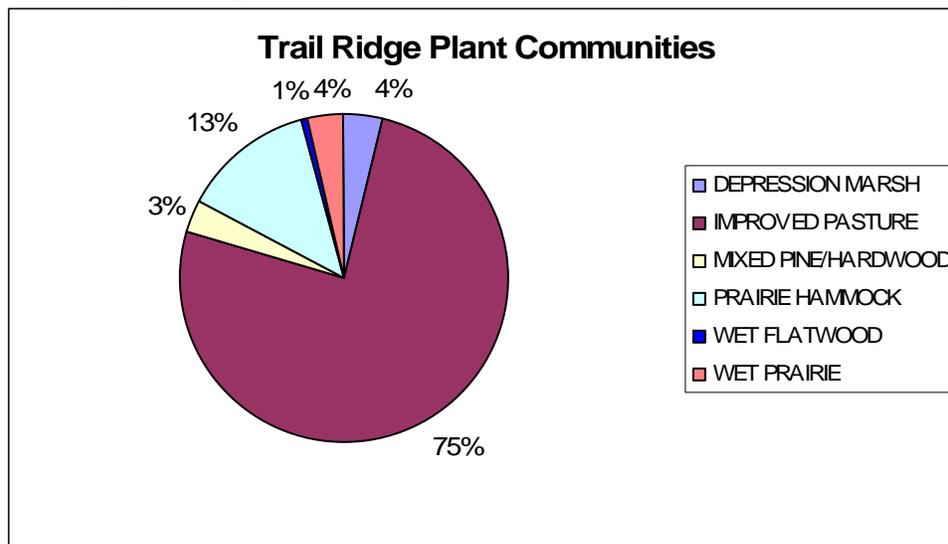
1. Executive Summary

The South Florida Water Management District (District) is mandated to acquire and manage lands which are vital to the restoration of the Everglades. Under the Comprehensive Everglades Restoration Plan's Indian River Lagoon Project, the District targeted the Cypress Creek / Trail Ridge Natural Storage and Treatment Area (approximately 30,000 acres) for acquisition. This plan addresses management for the 1,233 acres that have been acquired by the District within the project area.

This Conceptual Land Management Plan describes the historical, ecological, and managerial aspects of the area as a means to coordinate effective management programs. The plan guides District land management personnel toward logical and consistent land management practices. It also informs the public of operational procedures and organizational structures within the District and of management activities and objectives for the management areas.

NATURAL SETTING

The natural character of the management areas is defined by 4 distinct soil categories as defined by the Natural Soil Landscape Positions soil classification system: flatwood soils, flats soils, sand depression soils, and urban or man-made lands. Living on these soils are 6 distinct plant communities, 5 of which are defined by criteria established by the Florida Natural Areas Inventory; with the following coverage:



RESOURCE MANAGEMENT

Resource Management programs for the management areas consist of:

- Prescribed fire to mimic the natural fire frequency in the fire-dependent natural communities.
- Forestry and vegetation management such as shredding or mowing overgrown understories where they are too dense.
- Wildlife management, including surveys, habitat management, and hunting programs.
- Exotic vegetation treatment.
- Monitoring the health of the natural communities and the impact of management practices on them.
- Restoring sites that had previously been altered by drainage and/or agriculture.

RESTORATION PROJECTS

Since hydrologic restoration can not adversely impact the adjacent landowner's drainage, potential restoration will be limited to that which can be contained on District property such as plugging the smaller arterial ditches that are wholly contained on site.

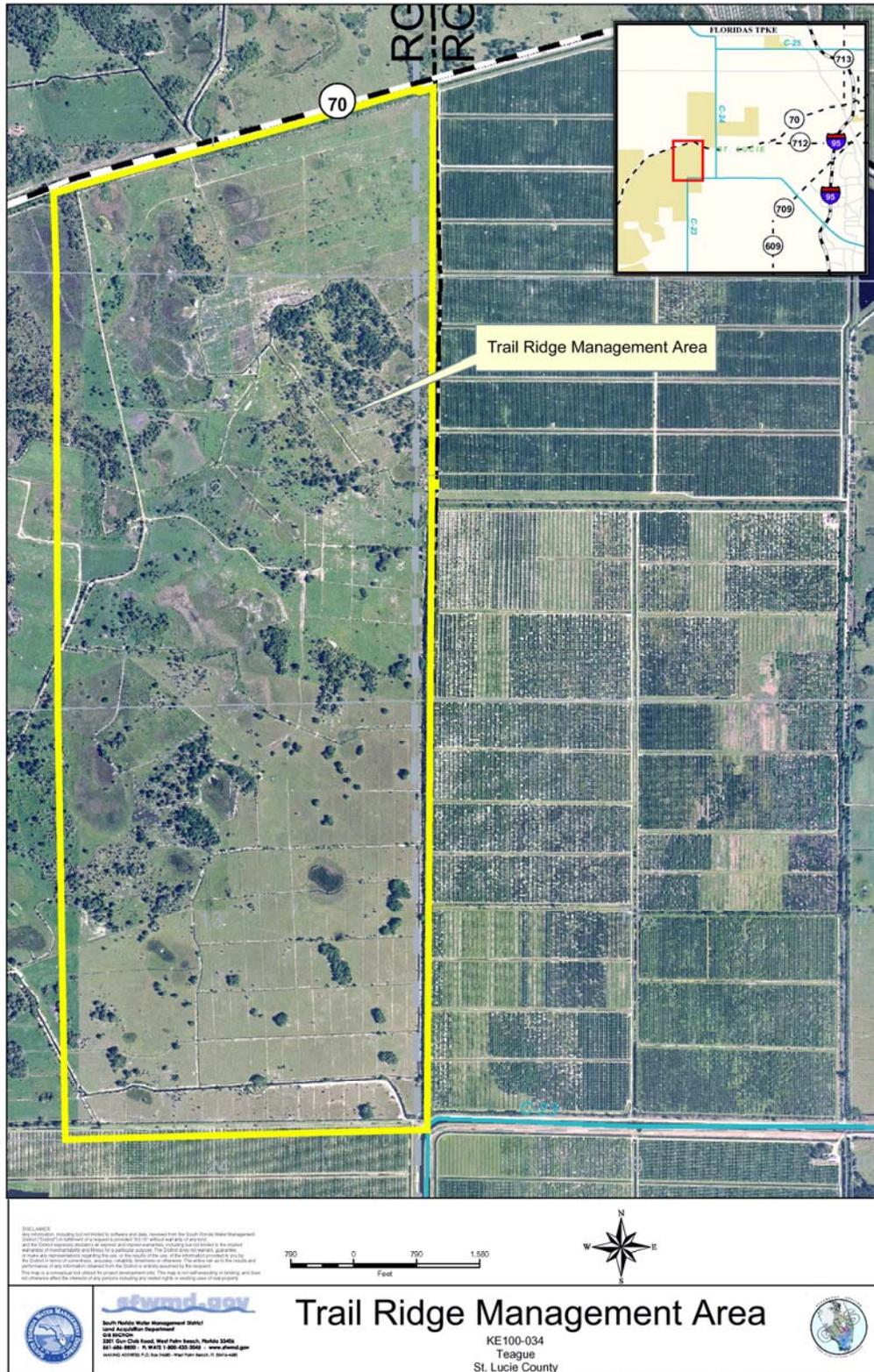
MONITORING

The District performs vegetative community monitoring. As part of this effort, the District will install 360 degree photomonitoring points in the Management Areas as needed in areas that will be undergoing intensive land management activities or restoration.

PUBLIC USE

Since this land falls under the "Vacant Land" category under 40E-7, Florida Administrative Code, it is open to for hiking, bicycling, horseback riding, and fishing from sunrise to sunset. However, there are currently no developed facilities onsite to accommodate public use. During the period of this conceptual management plan the site will be evaluated for potential recreational uses and the required infrastructure improvements that will be necessary to accommodate public use.

Map 1. Trail Ridge Management Area



2. Introduction and Management Plan Purpose

This Conceptual Management Plan consolidates relevant information about the Trail Ridge Management Area including land management goals and objectives, past and present land uses, resource data, restoration and management needs, public use programs, and administrative duties to guide management actions for the period 2007 to 2012. Management activities described in this plan are based on requirements and directives of Florida Statutes and established District policies. District Policy 140-21 requires that general management plans be developed for each designated Save Our Rivers project.

District policy further states that the Land Stewardship Program's mission is to provide natural resource protection and management while allowing compatible multiple uses on designated public lands. This mission statement and requirements set forth in Florida Statutes provide three primary goals for the Land Stewardship Program:

- Conserve and protect water resources
- Protect and/or restore land to its natural state and condition
- Provide appropriate public use

To accomplish these goals, the Land Stewardship Program performs six major functions:

- Strategic, project, and management planning
- Operation and maintenance of land resources
- Development of public use programs
- Development of restoration projects
- Evaluation of management activities
- Administration of land management service contracts

A Conceptual Management Plan is produced for partially acquired conservation lands to serve as a collective information source for management staff, partners, and the general public on an interim basis until more of the project property is acquired and a final ownership configuration is established. The plan consolidates current site information and general guidelines for management of the area.

2.1 Trail Ridge Management Area Goals and Objectives

The Land Stewardship Program's functions are incorporated in the specific management area goals and objectives for the period of this management plan 2007-2012:

Goal 1: Manage natural communities and modified habitats to protect and enhance water, floral, and faunal resources.

Objectives:

- Shred the overgrown understory vegetation in the flatwoods in the northwest corner of the site
- Burn the 8 acres of flatwoods and the 47 acres of wet prairie during the term of this plan
- Continue an aggressive, integrated exotic plant management program to eliminate and control infestations of all invasive exotic plant species. Treatments will be documented and coordinated with other management activities

Goal 2: Provide resource-based public use opportunities.

Objectives:

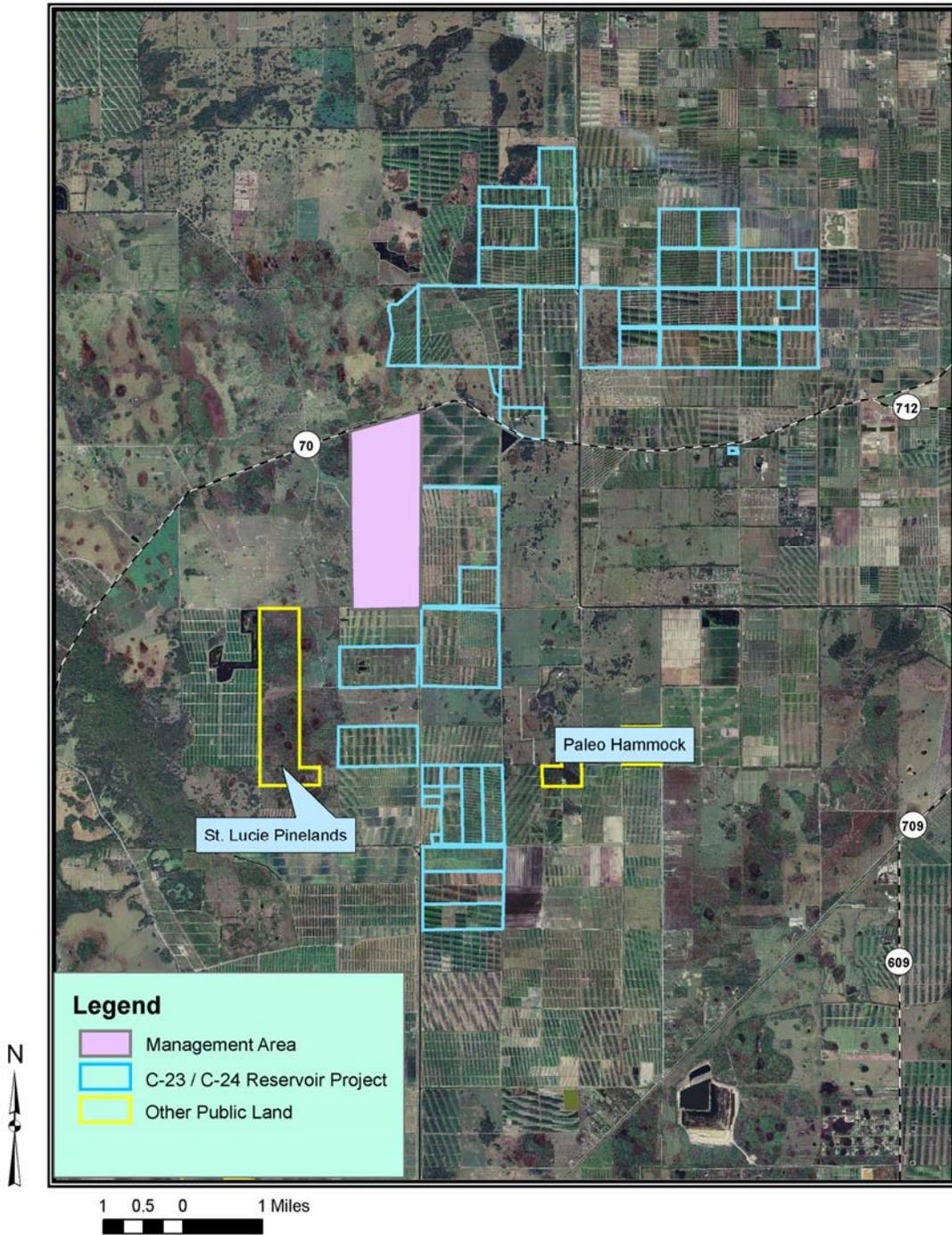
- Plan and design adequate public access facilities to accommodate compatible recreational use of the property

Goal 3: Implement hydrologic restoration projects

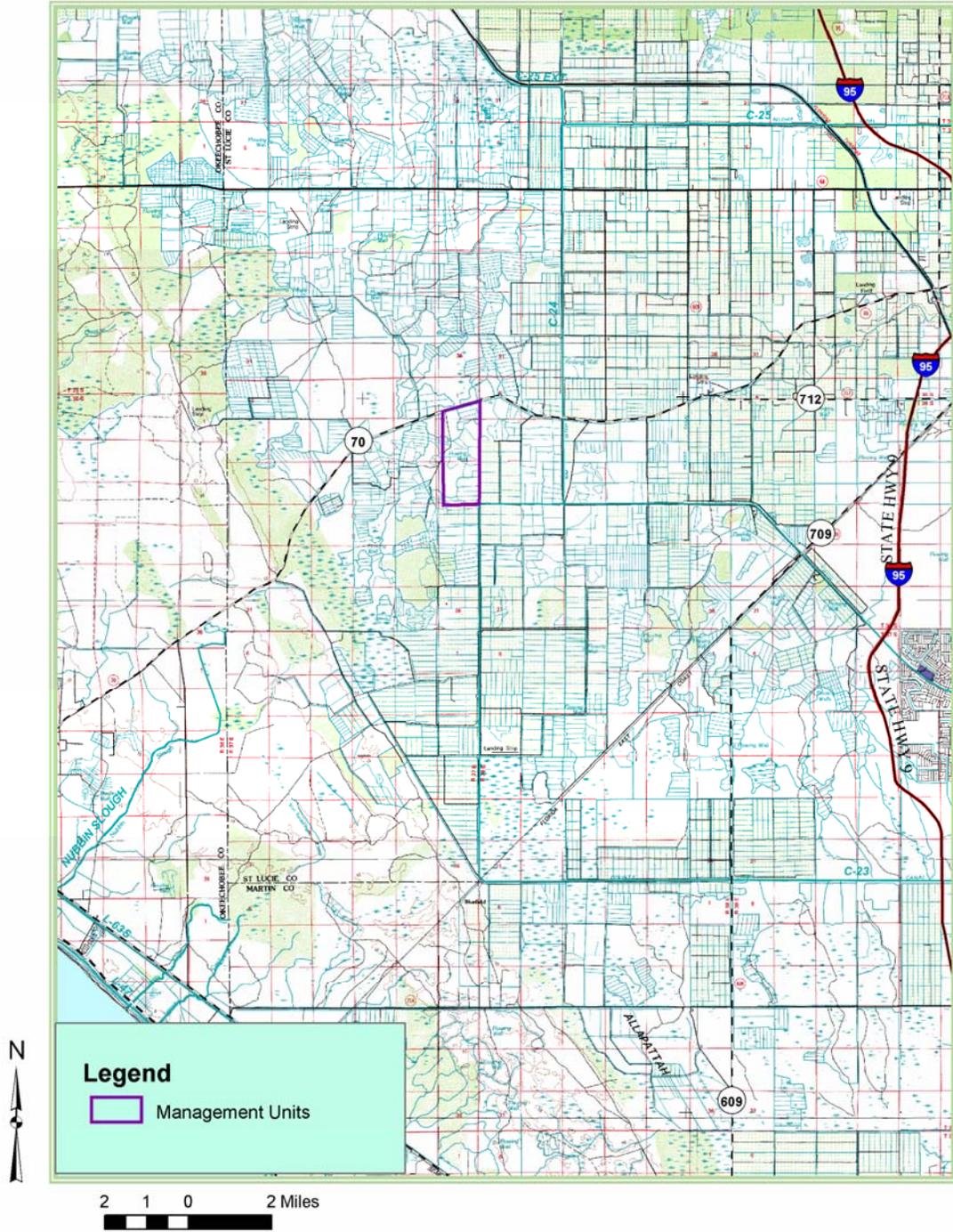
Objectives:

- Plan and design hydrologic restoration projects that can be accommodated onsite without negatively impacting the drainage of adjacent property owners

MAP 2. Trail Ridge and other public lands



**Map 3. Trail Ridge Management Area: U.S. Geological Survey
1:100,000 Quadrangle Map**



3. Site History

The site was part of the land given to the State of Florida by Act of Congress as sovereign territorial land in 1830. It remained in State hands until 1885 when it was divested to the Florida Southern Railroad Company and the Silver Springs, Ocala, and Gulf Railroad Company. Prior to the Acquisition by the District in 2005, the Joseph Teague family had owned the property and operated a cattle for many year. Map 4 shows the land had already been drained with a network of ditches for the Cattle Operation by 1944.

4. Resource Inventory

Policy 140-25(3)(e) Inventories of natural and historic resources shall be performed to provide information for effective land management planning, natural community maintenance and ecological restoration.

Floral and faunal species have not been inventoried. However, the natural communities have been mapped by Land Stewardship personnel. Land Stewardship shares natural areas and species data with the Florida Natural Areas Inventory through a Memorandum of Understanding.

4.1 Hydrology

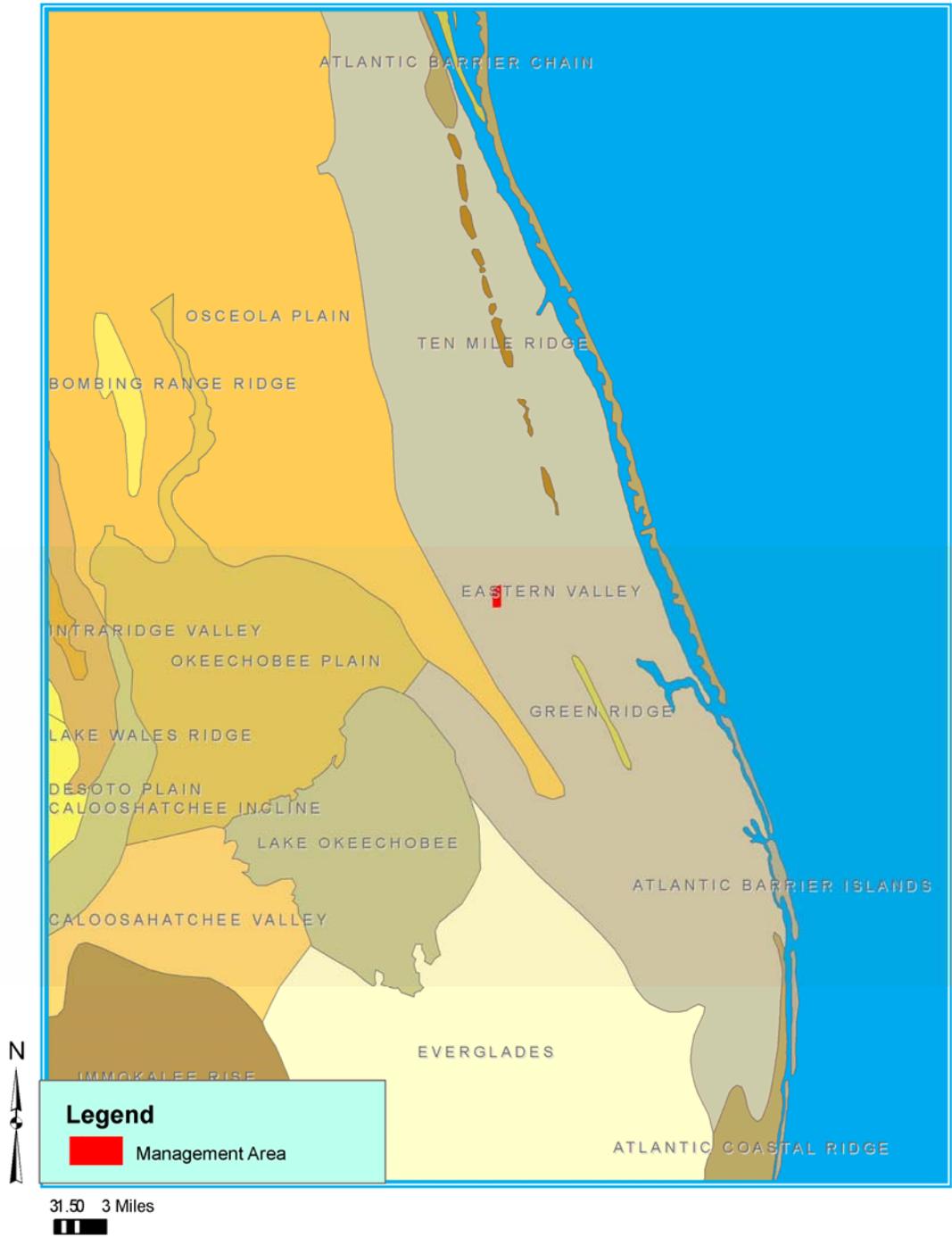
Policy 140-25(1) The basis for the Land Stewardship Program is the protection and management of natural hydrologic resources.

The major geomorphic features which affect area hydrology are the Osceola Plain and the Eastern Valley (Map 5). The Osceola Plain is a generally broad terrace bounded by the Lake Wales Ridge to the west and the Eastern Valley to the east, both of which are marine scarps. The Osceola Plain has little relief locally, and generally has an elevation of 60 to 70 feet above the National Geodetic Vertical Datum. It rises from a marine scarp from the Eastern Valley that has an average elevation of 25 feet. Prior to extensive drainage for agricultural purposes in the early to mid 20th century, this region of the Eastern Valley, known as the Allapattah Flats, would have been characterized as a poorly drained series of subparallel, slough-like, shallow lakes and marshes. This area would have been drained by 10-mile creek, the headwaters of the North Fork of the St. Lucie River, which flows to the north east through the flats and through a break in the ten mile ridge that bounds the Flats on the East. The property is currently drained by the C-23 canal that abuts the property on the Southeast corner (Map 10).

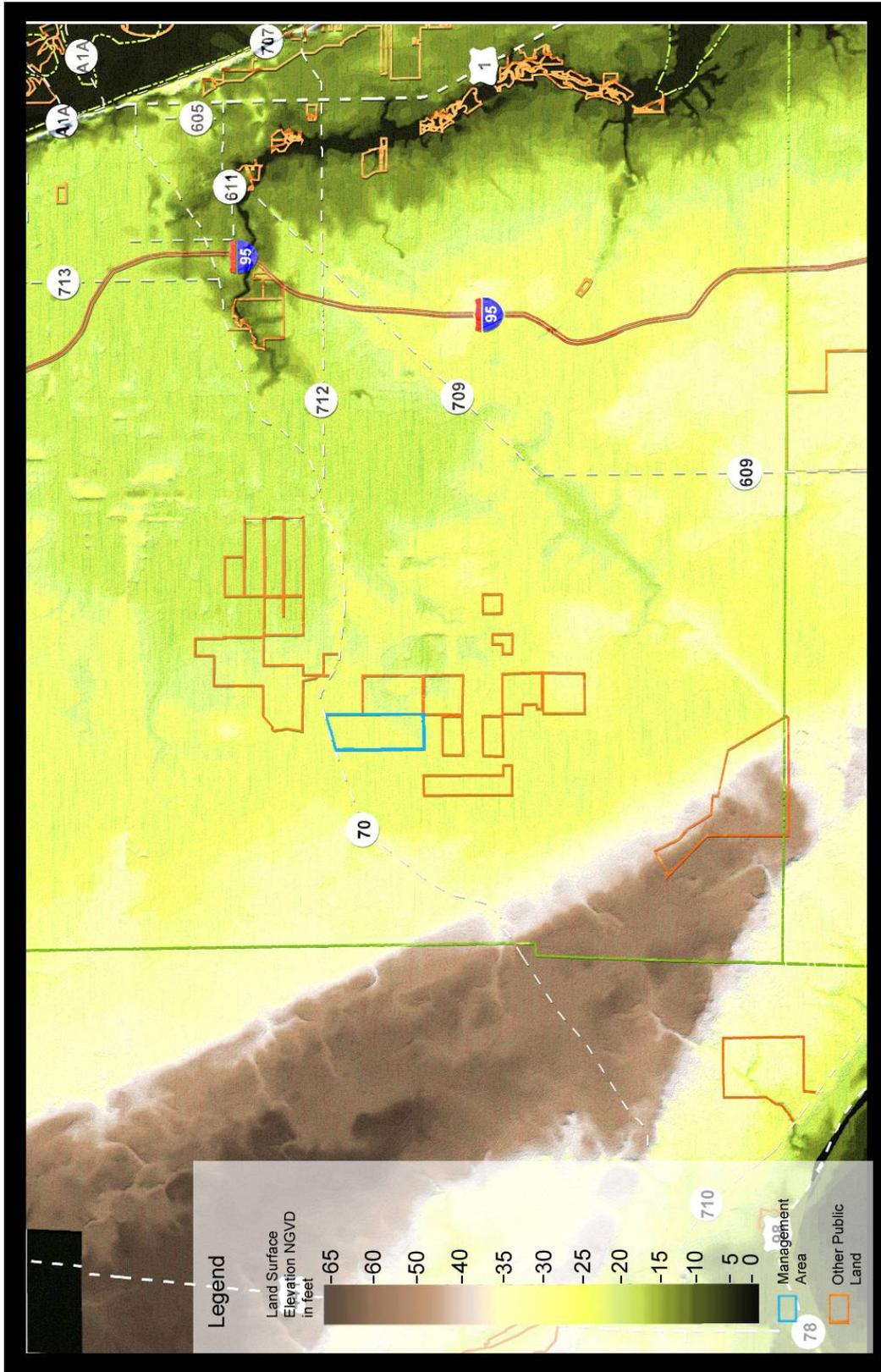
Map 4. The Management Area in 1944



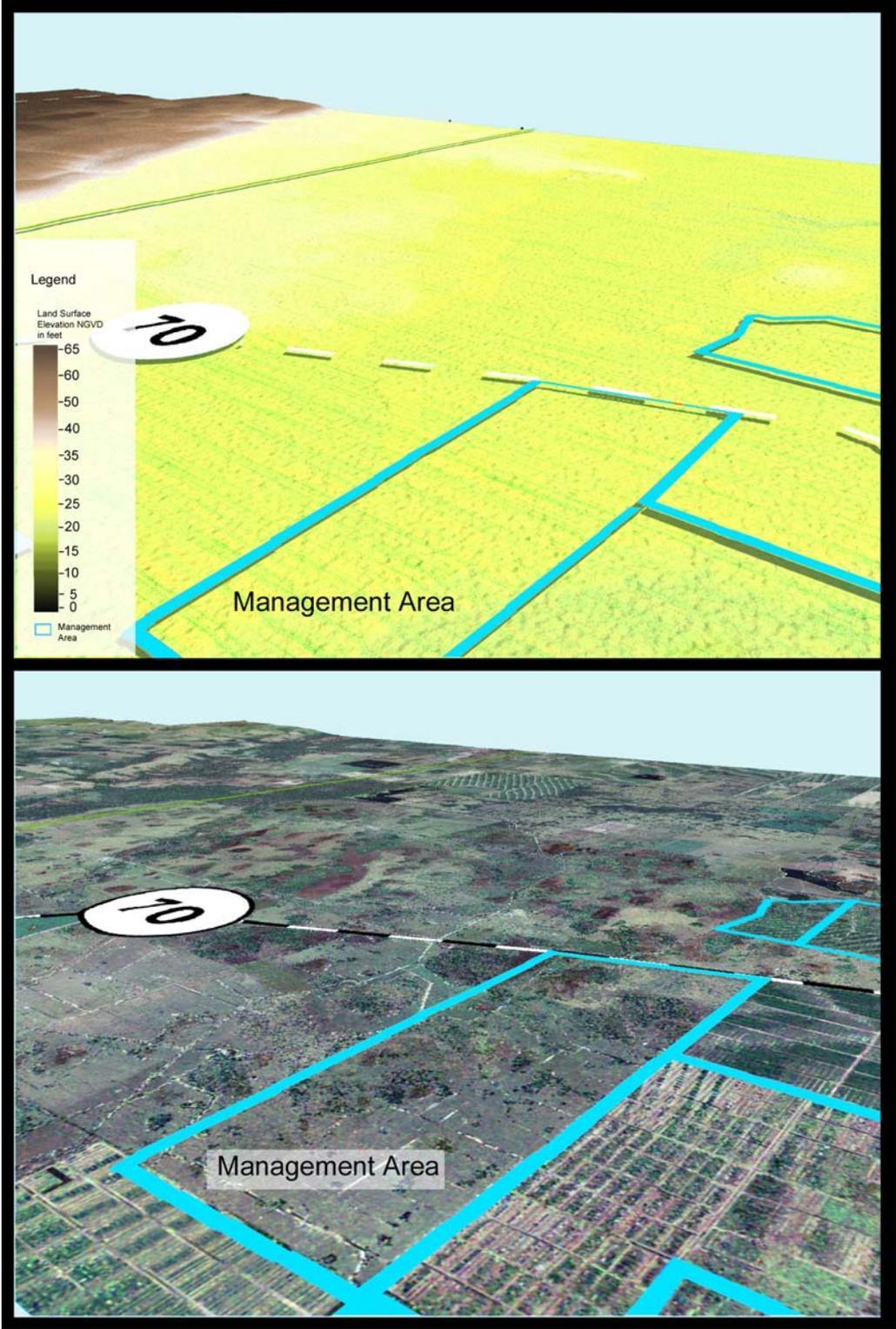
Map 5. Regional Geomorphic Features



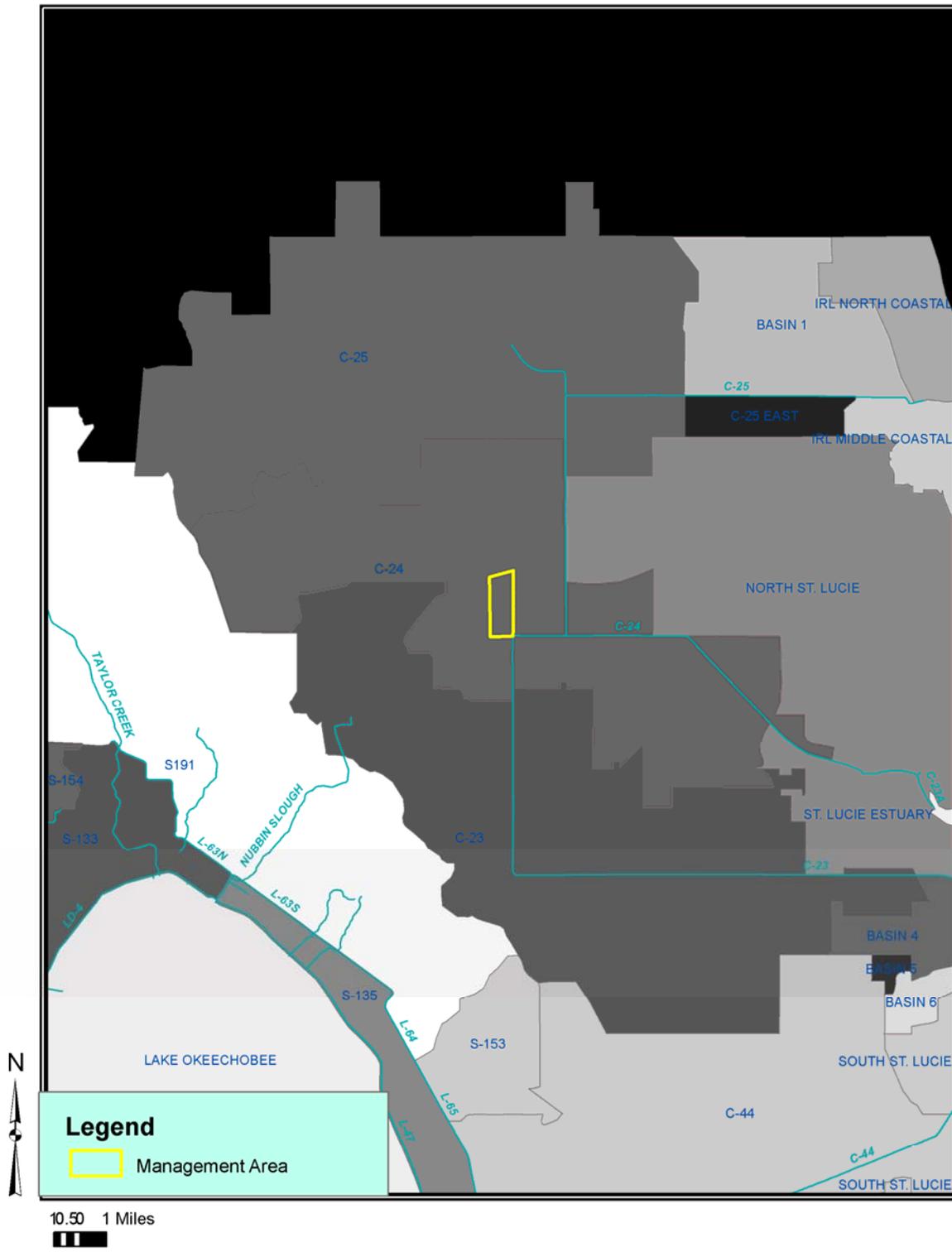
Map 6. Regional Topographic Relief



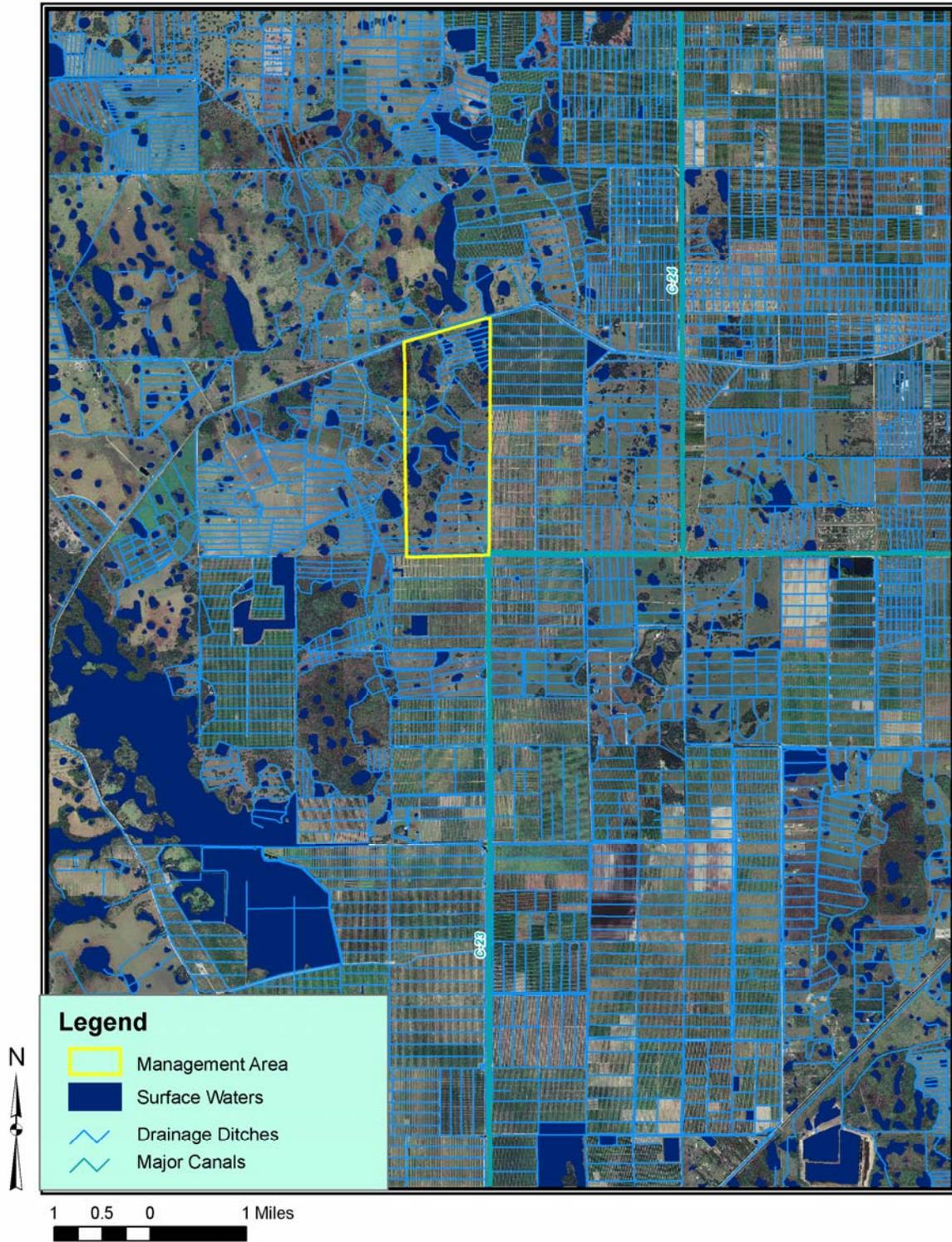
Map 7. Local Topographic Relief Profile



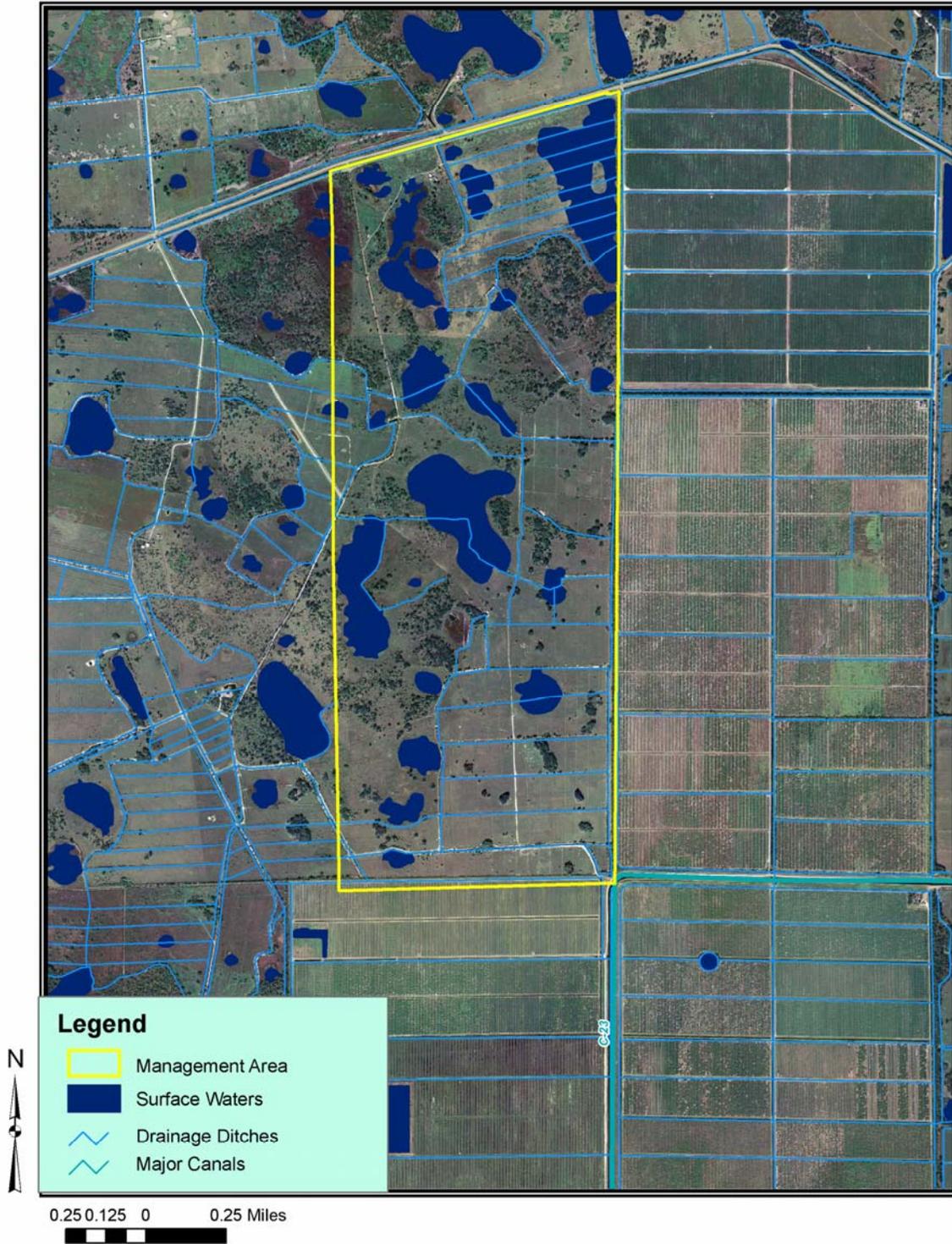
Map 8. Hydrologic Basins



Map 9. Surface Waters 1:80,000 Scale



Map 10. Surface Waters 1:24,000 Scale



4.2 Soils

There are three distinct soil categories within the Kissimmee River management areas as defined by the Natural Soil Landscape Positions soil classification system: flatwood soils, flats soils, and sand depression soils. This classification system groups South Florida soils into 12 categories based on hydrology and soil morphology that reflect the local relative topography, hydrology, and vegetation of the area.

Flatwood Soils

Flatwood soils are poorly drained non-hydric, upland soils with sandy marine sediments throughout the profile. The seasonal high water table can range from six to 18 inches below the soil surface for three to six months annually.

Flats Soils

Flats (previously referred to as slough) soils are poorly drained hydric soils with sandy marine sediments throughout the profile. Flats are located between the flatwoods and topographic depressions and are generally regarded as transition areas, e.g. a wet prairie or a slough. However within the Trail Ridge Management Area, Flats soils are the dominant soil type. There is a close correlation between the Flats Soils and the land within the Management Area that has been converted to improved pasture. Generally, the seasonal high water table begins in June and ends from September or thereafter with inundation periods dependent upon seasonal rainfall or large storm events.

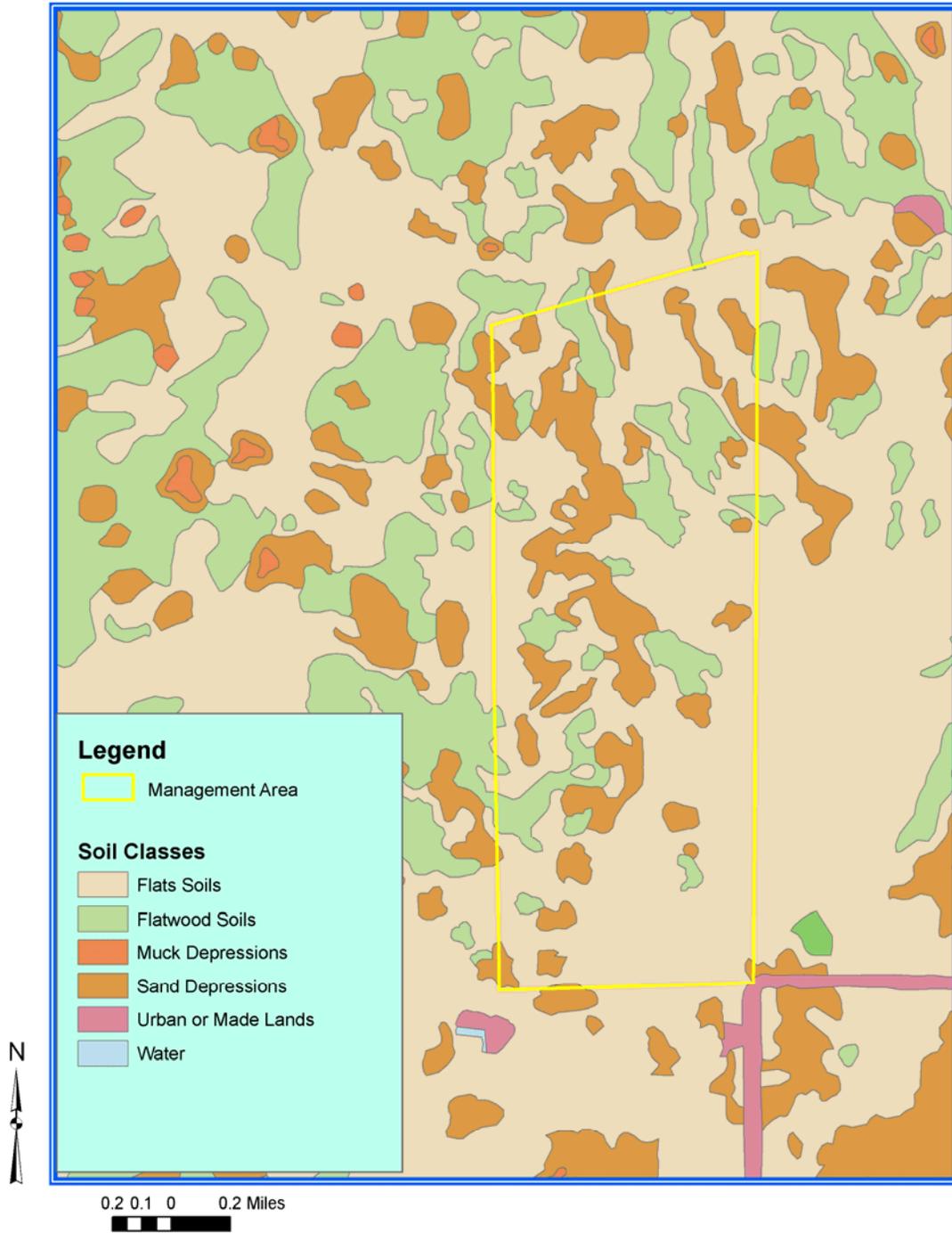
Sand Depression Soils

Sand depression soils are very poorly drained hydric soils that typically have sandy marine sediments throughout the profile. Often, these areas are depressions adjacent to flatwoods. The seasonal high water table can range from one foot below to two feet above the soil surface for seven to 10 months annually. Wetland communities dominate this landscape position. Within the Management Area, most of the depression marshes and wet prairies represent this soil class.

Soil Contamination and Excavation Sites

Domestic wastewater residuals (solids and liquids) have also been applied site-wide for soil enhancement. A set of cattle pens supports the cattle grazing operation. There is also an abandoned cattle dipping vat (circa 1940), which is a remnant of the tick eradication program. There was a shooting range in the northwest portion of the property, septic tanks in association with the mobile home residences, and an above ground petroleum storage tank. A phase 1 and 2 environmental audit was conducted in 2005 as part of the acquisition that identified remedial actions to be taken to reduce the risks associated with on-site contamination. These remedial actions are ongoing and include septic tank removals, debris clean-up, asbestos abatement and, and soil cleanup.

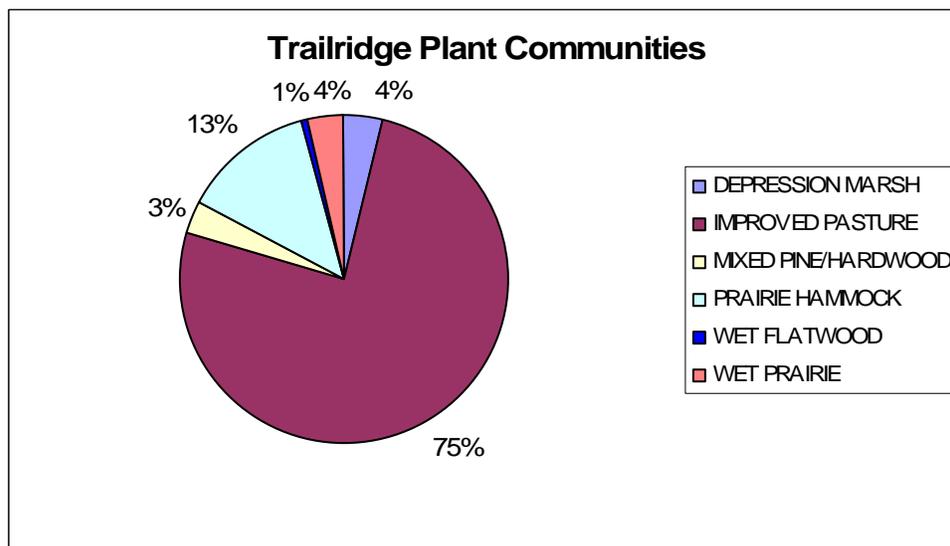
Map 11. Soils



4.3 Natural Communities

Five natural community types, as classified by the Florida Natural Areas Inventory, and improved pasture comprise the Management Area. The Land Stewardship Program classifies natural community types by the Florida Natural Areas Inventory Classification system. Community condition varies widely, depending on previous and current land use, hydrologic alteration, exotic infestation, and the return frequency of fire.

Figure 1. Plant Community Types



Prairie Hammock (171 acres)

Prairie hammock is characterized as a clump of tall cabbage palms and live oaks in the midst of prairie or marsh communities (Florida Natural Areas Inventory, 1990). Prairie hammocks establish on elevated soils surrounded by lower topography. These islands are generally flooded only for a short duration during the highest water levels. Naturally occurring fires are rare in these hammocks, due mainly to a lack of under-story fuel.

Canopy species in the Management Area are live oak and cabbage palm, with occasional laurel oak in lower elevations. An abundance of epiphytes, including listed species, are found in mature canopy trees. As in most prairie hammocks, those of the Management Area have a sparse under-story due to over-story shading, but cover is also reduced by cattle grazing and trampling of shrub and ground layer vegetation. Many species common to undisturbed hammocks are sparse or lacking, replaced by disturbance species such as broomweed (*Sida sp.*), tropical soda apple (*Solanum viarum*), and caesarweed (*Urena lobata*). Typical under-story plants of pristine prairie hammocks include wax myrtle, water oak,

stoppers (*Eugenia sp.*), marlberry (*Ardisia escallonioides*), beautyberry (*Callicarpa americana*), and saw palmetto.

Florida Natural Areas Inventory ranks prairie hammocks as “G4” and “S4” both statewide and globally secure, Land Stewardship management strives to minimize soil disturbance, restrict fire where appropriate and eradicate non-native invasive species within hammock areas.

Wet Flatwoods (8 acres)

Wet flatwoods are characterized as relatively open-canopy forests of scattered pine trees or cabbage palms with either a thick shrubby under-story and very sparse ground cover, or a sparse under-story and a dense ground cover of hydrophytic herbs and shrubs, with variations between these extremes (Florida Natural Areas Inventory, 1990). Other plants associated with this habitat type in the Management Area include wax myrtle, saw palmetto, beakrush (*Rhynchospora sp.*), St. John’s-wort (*Hypericum sp.*), and blue maidencane (*Amphicarpum muhlenburgianum*).

Wet flatwoods develop on poorly drained acidic, low nutrient sands underlain by hardpan. Surface water appears a minimum of one month per year. Natural fire frequency is considered to be three to 10 years. Frequent fire postpones hardwood succession and thins canopy trees, while promoting under-story growth and fire-adapted species.

State ranking is “S4”, apparently secure in the state, although it may be rare in some parts of its state range. Global ranking requires further research. Most wet flatwoods are extremely vulnerable to hydrologic manipulation and exotic invasion.

Wet Prairie (47 acres)

Wet prairie is characterized as a treeless plain with a sparse to dense ground cover of grasses, sedges, rushes, and herbs; including wiregrass, toothache grass (*Ctenium aromaticum*), maidencane (*Panicum hemotomon*), spikerush (*Eleocharis sp.*), and beakrush (*Rhynchospora sp.*). Other typical plants include hatpins (*Lachnocaulon sp.*), marsh pinks (*Rhexia sp.*), crownbeard (*Verbesina chapmanii*), sundews (*Drosera sp.*), tickseed (*Bidens sp.*), wax myrtle, St. John’s-wort (*Hypericum sp.*), and Panicums (Florida Natural Areas Inventory, 1990).

Wet prairies occur on low, flat, poorly drained terrain and are inundated from 50 to 100 days per year. Wet prairie species have adapted to long periods of drought conditions due to rainfall seasonality. Soils typically are sands with a major organic component. Fire plays an integral role in wet prairie ecology, and with sufficient fuel build-up, burns every two to four years. If deprived of fire, these grass-dominated flatlands succumb to shrub encroachment, and are especially vulnerable to wax myrtle infestations.

Wet prairie has a state ranking of “S4”, apparently secure in the state, although it may be rare in some parts of its state range. Global ranking requires further research.

Depression Marsh (51 acres)

Depression marsh, also known as a flatwoods pond, is characterized as a shallow, usually rounded depression in sand substrate with herbaceous vegetation often occurring in concentric bands (Florida Natural Areas Inventory, 1990). Typical plants include St. John’s-wort, spikerush (*Eleocharis sp.*), yellow-eyed grass, chain fern, primrose willow (*Ludwigia peruviana*), maidencane (*Panicum hemitomon*), wax myrtle, buttonbush, pickerelweed, arrowhead, and bladderwort.

Where marshes occur, one of three geological conditions is present: surficial deposits are impermeable, the water table emerges through the permeable substrate, or the marsh is hydrologically connected to a river (Kushlan, 1991). Depression marshes are typically small in size and hydrologically isolated from other surface water bodies. Water is received by runoff, seepage or direct rainfall. Hydroperiods range widely from as few as 50 days or less to more than 200 days per year (Florida Natural Areas Inventory, 1990). Bottom soils are generally acidic peat, resulting from accumulation of decayed plant material. This community frequently grades into wet or mesic flatwoods.

Natural fire occurs in depression marshes every one to five years, depending on a combination of weather conditions and fuel build-up. Fire preserves the open canopy by limiting invasion of woody vegetation, promoting herbaceous growth, and slowing succession by deepening the marsh with an occasional peat fire. The Land Stewardship Program coordinates fire schedules to insure depression marshes burn at natural frequencies and during periods of adequate ground moisture.

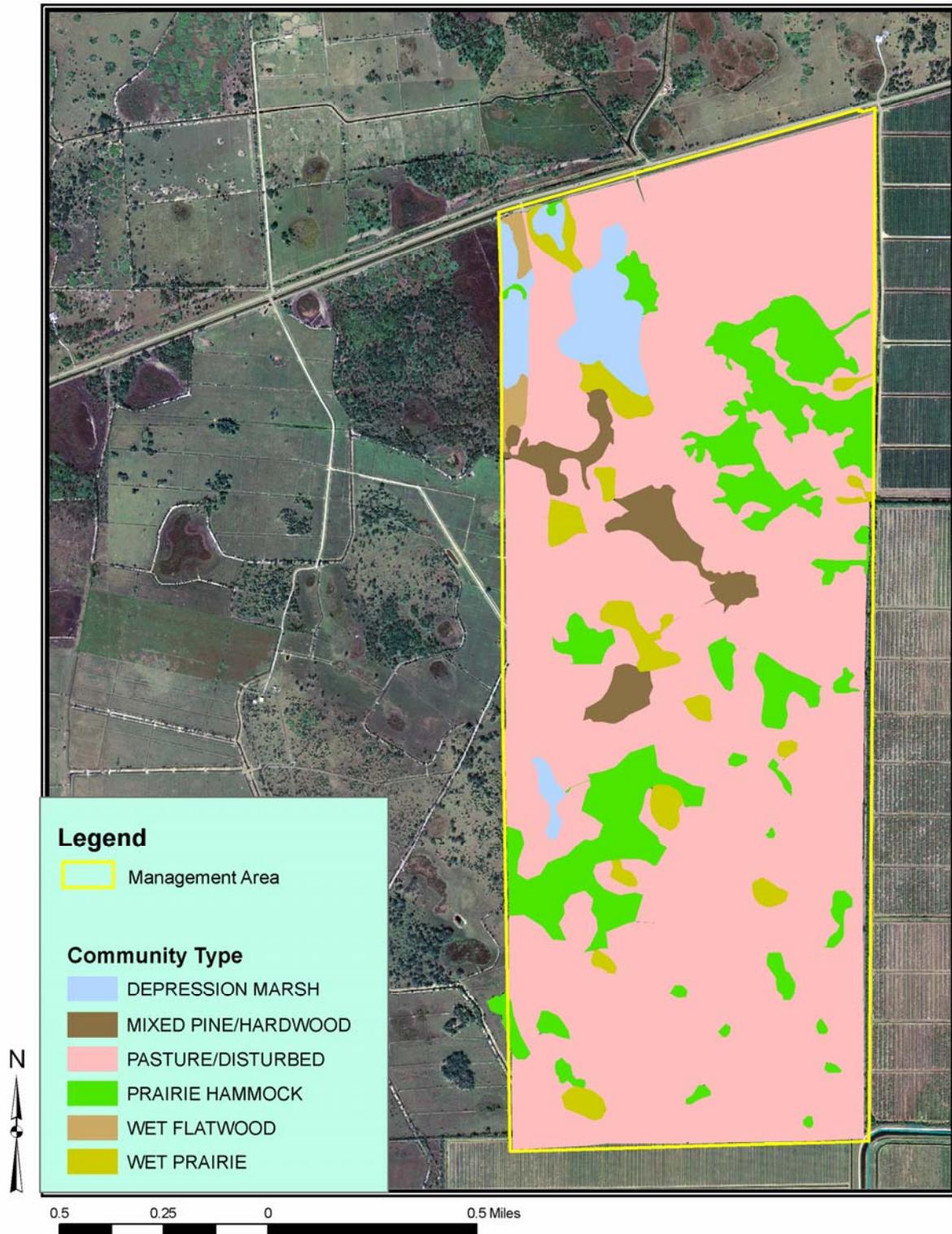
Depression marshes provide critical breeding and foraging habitat for a wide assemblage of amphibians and reptiles not found in larger, more permanent systems. Cyclic surface water availability promotes foraging by numerous listed wading bird species such as the wood stork, white ibis, snowy egret, and sandhill crane.

Depression marsh is ranked statewide as “S”, either very rare throughout its range; or found locally, even abundantly at some of its locations in a restricted range; or because of other factors making it vulnerable to extinction throughout its range. Global ranking indicates it is apparently secure, though it may be quite rare in parts of its range, especially at the periphery. Further research is required for a definitive global classification.

Mixed Pine / Hardwood Forest (41 acres)

This community type is characterized as a flatwood that is well on its way to succeeding to a hardwood hammock due to fire suppression. Within the Management Area these areas are probably more characteristic of prairie hammock, albeit with a few pines scattered throughout.

Map 12. Natural Communities.



4.4 Wildlife

The natural communities within the project provide habitat for numerous bird, fish, amphibian, reptile, and mammal species, several of which are listed federally or by the state. At least 16 species considered rare, endangered, threatened, or of special concern have been noted. Confirmed listed wildlife include the woodstork, crested caracara, American alligator, gopher tortoise, eastern indigo snake, red rat snake, Sherman's Fox squirrel, swallow-tailed kite, sandhill crane, peregrine falcon, and osprey.

The management area serves as wintering and breeding grounds for waterfowl, home territory for indigenous mammals, amphibians and reptiles, and a key stronghold for protected species. Many of the bird species considered imperiled statewide depend on shallow wetlands to feed and nest. Areas identified as strategic habitat conservation areas for sandhill cranes and wading birds have been identified by the Florida Fish and Wildlife Conservation Commission in and around the wetland areas in the northwest corner and the center of the site.

Favorable climate and hydrologic conditions provide habitat for numerous species of reptiles and amphibians in the Management Area. There are also at least two non-native species; the brown anole and Cuban tree frog.

4.5 Cultural Resources

Policy 140-25(3)(j) Archaeological and historic resources are protected by site identification and inter-agency coordination with the Florida Division of Historical Resources. Land Stewardship planning shall include an analysis of archaeological data accompanied by appropriate public education opportunities.

No known cultural resources exist on the site. However, other lands in this physiographic region, such as the Allapattah Flats Management Area a few miles south, have evidence of Native American settlements in the oak hammocks.

5. Natural Resource Management

Policy 140-23 The Land Stewardship Program mission is to provide natural resource protection and management while allowing compatible multiple uses on designated public lands.

Resource management includes all applied programs wherein activities manipulate, modify, and control natural features within the Management Area. All lands that were acquired for conservation purposes are managed and maintained in an environmentally acceptable manner and, to the extent practicable, restored and protected in their natural state and condition. Management responsibilities are defined by statute, and directed by Best

Management Practices. Goals and objectives for the Management Area clarify resource management guidelines necessary to fulfill the District's land stewardship responsibilities. Land Stewardship resource management activities include cattle grazing, a hydrologic restoration, understory shredding, prescribed fire, and exotic plant and animal control.

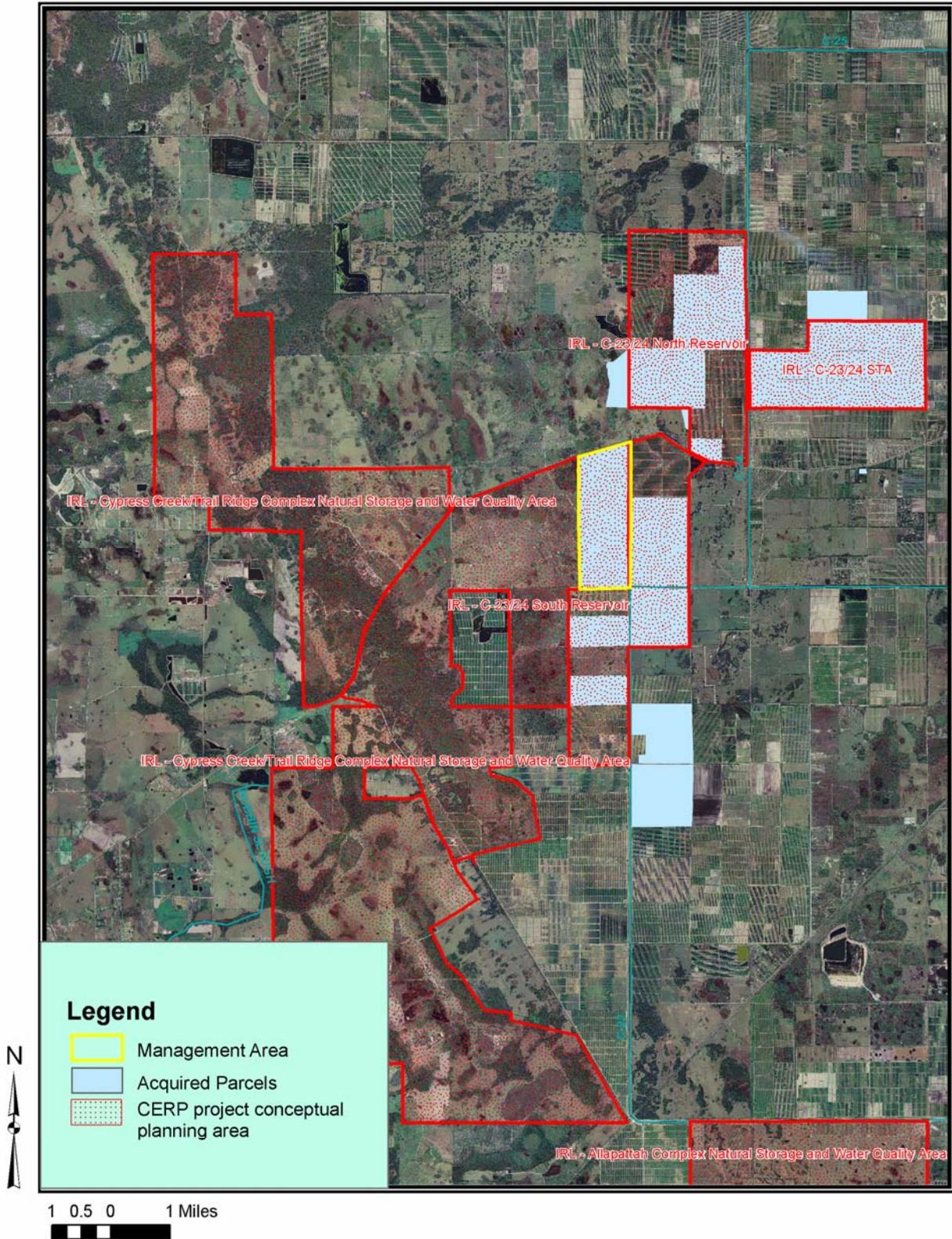
5.1 Restoration Projects

Policy 140-25(1) The basis for the Land Stewardship Program is the protection and management of natural hydrologic resources.

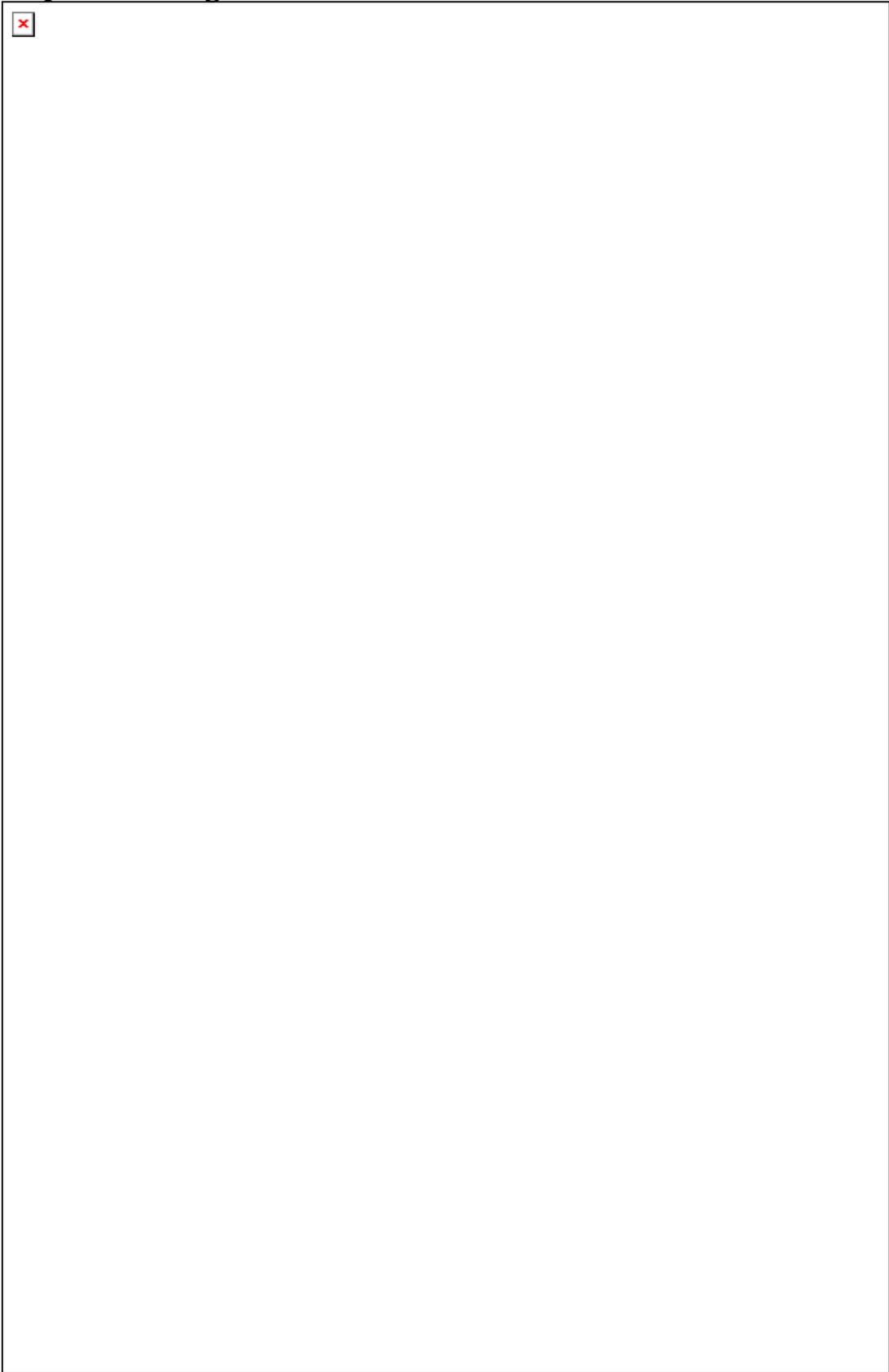
Policy 140-25(1)(c) Where feasible, an attempt shall be made to restore a more natural hydroperiod on tracts where the drainage patterns have been altered.

The original plan for the Indian River Lagoon South CERP project anticipated up to 30,000 acres of rangeland to be acquired and rehydrated through drainage abatement within the Cypress Creek / Trail Ridge Natural Storage and Treatment Areas. The anticipated benefits of rehydrating these ranchlands included storage and water quality benefits as well as aiding the re-establishment of native wetland vegetation. It would provide direct habitat enhancement benefits for fish and wildlife and compliment the reservoirs and Stormwater Treatment Areas in attenuating harmful runoff to the estuary. It would retain nutrients and contaminants that would otherwise degrade the estuary. Substantial hydrologic restoration will not be possible until more land is acquired to the west. These lands have drainage easements and large ditches that pass through the Trail Ridge Management Area (Map 14.). Hydrologic restoration can not adversely impact the adjacent landowner's drainage. Potential restoration will be limited to that which can be contained on District property such as plugging the smaller arterial ditches that are wholly contained on site.

Map 13. The C-23 / C-24 Project



Map 14. Drainage Easements



5.1.1 Monitoring

Policy 140-25(3)(f)(2) Monitoring shall be conducted to identify landscape changes resulting from management activities.

Tracking environmental response to restoration projects provides valuable information on progress toward restoration objectives. Information obtained by monitoring specific sites assists land managers in making sound ecological choices for each unique parcel.

Using geographic information systems and global positioning technology, the District tracks the location of exotic plants throughout the Management Areas. This helps Land Stewardship monitor the effectiveness of the exotics control program and track the extent and severity of infestations.

The Land Stewardship Program uses permanent 360 degree photomonitoring points that are installed as needed to provide baseline information for future studies and help determine the effects of future restoration projects. Panoramic photos will be taken from these points at least annually, and usually after significant management actions such as prescribed fire or mechanical vegetation management.

5.2 Vegetation Management

Policy 140-25(2)(d) Where practicable, an attempt shall be made to restore and maintain desirable vegetation to promote habitat diversity in areas where invasive exotic vegetation, grazing practices, or improved land uses have substantially altered the historic landscape.

Policy 140-25(3)(l) Mechanical equipment may be used in conjunction with prescribed burning and other management tools to control vegetation and restore habitat structure.

Vegetation management is a program component where the composition and/or structure of a vegetative community is being physically altered to meet a management objective. The techniques used in vegetation management include mowing, disking, shredding, roller-chopping, timber thinning, and planting. These techniques are applied to one or more management objectives that may include:

- A step towards restoring a degraded vegetative community
- Improving an area's suitability as wildlife habitat, or for game management
- Exotic species control or weed management
- Fuel management in relation to prescribed or wildfires

- Clearing for maintenance or project management purposes

Vegetation maintenance practices are detailed in activity plans produced by the region's acting land steward. These plans are available at the regional office or the Land Stewardship main office in West Palm Beach. Vegetation control and maintenance is executed by District field personnel or through contracts. The Pasture areas are mowed by the cattle lessees. Vegetation Shredding will be an important tool in the restoration of the pine flatwood areas in the northwest corner of the site where fire has been excluded and woody trees and shrubs have established in the understory.

5.2.1 Exotic/Invasive Plants

Policy 140-25(2)(c) Management practices will strive to identify existing infestations and implement appropriate control or eradication measures.

Policy 140-25(3)(b) Exotic plant control in all management areas shall strive to attain a level of success where periodic maintenance eliminates the infestation or reduces the coverage of exotic plants.

South Florida's subtropical climate provides an excellent growth environment for the rapid spread of exotic plants that can cause extensive alterations to natural ecosystems. Environmental changes caused by extensive hydroperiod alterations have been an important factor in exotic plant invasion. Exotic plant invasion can result in partial or total displacement of native plants, loss of wildlife habitat, and the degradation of public use areas.

Land Stewardship targets Category I and II non-native plant species as identified on the Exotic Pest Plant Council's biennially updated list of *Florida's Most Invasive Species* (<http://www.fleppc.org/>). Category I species include non-native plants that invade and disrupt Florida native plant communities. Category II plants have the potential to invade and disrupt natural successional processes. Both Category I and II exotics are considered invasive and a threat to the function and ecological stability of Florida's natural communities.

The primary exotic species on the site are Old World climbing fern (*Lygodium microphyllum*), Brazilian pepper (*Schinus terebinthifolius*), and tropical soda apple (*Solanum viarum*). Invasive exotic plant control measures include a combination of herbicide application, prescribed fire, roller chopping, mowing, cattle grazing and physical removal. When restoration projects are complete the District will also be able to use inundation as a means of exotic control. In addition Tropical Soda Apple leaf beetles have been released in the area. Nearly every soda apple plant in the management area has beetles present and they are showing significant mortality from beetle damage. Selection of control measures is dependent upon species type, environmental factors, and natural communities

impacted. Private contractors conduct exotic plant control activities in cooperation with the District's Vegetation Management Division.

5.2.2 Rare, Threatened and Endangered Species

Policy 140-25(2)(b) Particular emphasis shall be placed on the identification, protection and management of rare, threatened and endangered species.

Listed species are those plants and animals considered rare within a specific geographic area by the U.S. Fish and Wildlife Service, the Florida Fish and Wildlife Conservation Commission, Florida Natural Areas Inventory, and the Florida Department of Agriculture and Consumer Services. A plant list of the Management Area will be created prior to the initiation of restoration projects to determine the potential impact of the projects on species of concern.

Land Stewardship establishes appropriate fire and hydrologic regimes, and controls invasive exotics in natural communities with the intent of perpetuating listed plant species. District Public Use Rules aid in the protection of native habitat and specifically prohibit destroying, defacing, or removing any natural feature or native plant on District lands. In this manner, listed plants are given lawful protection and environmental conditions suitable for their growth and reproduction.

Several listed bromeliad species occurring in the Management Areas may be threatened by the exotic Mexican weevil (*Metamasius callizona*) that has caused destruction of native bromeliads in other south Florida locations. Two species of once abundant bromeliads, *Tillandsia utriculata* and *Tillandsia fasciculata*, have been placed on the state's list of endangered plant species as a direct result of this weevil. Land Stewardship staff will conduct periodic surveillance of areas of potential infestations to assess management needs.



Mexican weevil (*Metamasius callizona*)

5.2.3 Forest Resources

Policy 140-25(3)(h) Sustainable use of forest resources shall be conducted where these activities adhere to a series of environmental criteria (see 1999 Forest Management Plan) that meet Land Stewardship Program goals. Timber contractors will be required to meet silvicultural Best Management Practices (BMP) developed for Florida forests.

Policy 140-25(5)(b)(3) Timber sales will be conducted to improve forest health or to support specific forest management goals.

District policy designates its properties as multiple-use resources, which include timber harvesting. However, such activity must be compatible with Land Stewardship goals and objectives and meet strict environmental criteria:

- The area planned for silvicultural rotation is currently in an “improved” or disturbed state (i.e. bahia pasture, existing pine plantation)
- The site to be planted is not scheduled for future hydrologic restoration, or the site to be harvested is scheduled for hydrologic restoration and existing timber will be lost as a result of flooding
- The area does not contain any valuable resources (e.g. endangered species) that may be harmed by changes in land use
- Forest operations would not require major road construction or improvement for accessing and processing timber, particularly within or across wetlands or other sensitive plant communities
- The area to be managed currently requires maintenance (i.e., burning, mowing)
- District costs would be reduced as a result of inclusion in the forest management plan
- The area contains timber that requires salvage following fire and/or insect or disease damage, and could be subject to a sanitation harvest with minimal environmental impact
- The area provides special needs for endangered species (e.g., red-cockaded woodpecker) management that requires timber stand improvement
- Harvest or planting will not create an aesthetically unpleasant scene or an impediment to public use
- Timber harvests will return forests to a more natural structure and improve forest health

There may be an opportunity to harvest cabbage palms from fire-excluded areas of the site where they have become too dense and are crowding out a diverse understory.

5.2.4 Range Resources

Policy 140-25(3)i Range management and grazing will be considered on improved or native ranges when the introduction of cattle will not conflict with other natural resource management and public use goals.

Livestock grazing has occurred over the last century within south Florida and continues to be an important land use today. The Kissimmee River Valley has been grazed for over four centuries since the early Spaniards stocked the Florida Peninsula with cattle. Cattle grazing is employed by the District and other land management agencies as a management tool, particularly for the reduction of fire fuel loads and maintenance of open habitat for the benefit of native wildlife. The revenue producing lease program provides many benefits, such as:

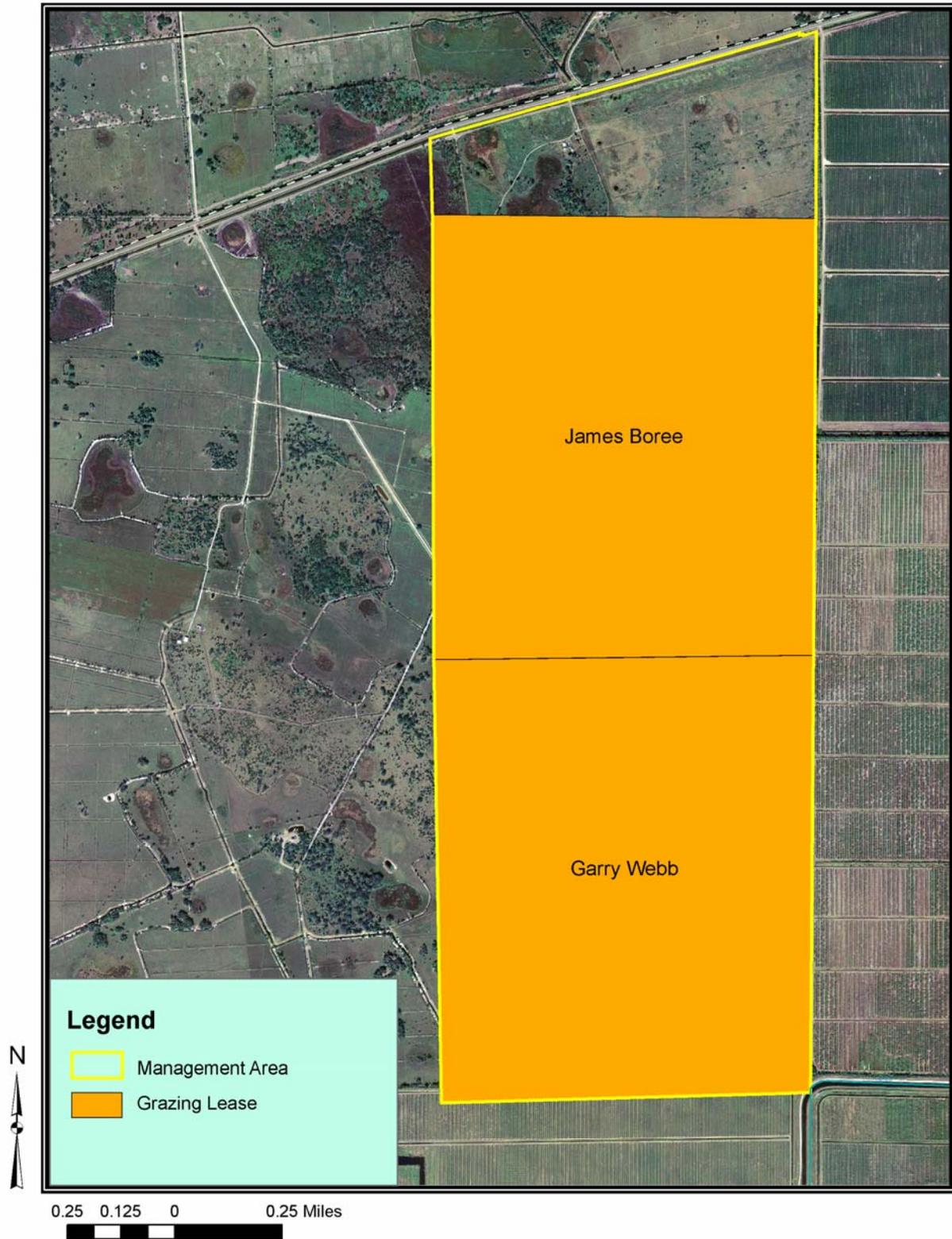
- On-site management and security for District-owned lands at a minimal cost to the District
- Minimizing District expenses by increasing revenue from non-governmental sources to off-set District management, maintenance and resource protection costs
- Minimizing impacts to the local agricultural economy by keeping viable agricultural lands in active production for as long as possible
- Minimizing fiscal impacts of public land ownership to the local government by keeping lands on the tax roll

There are currently two cattle grazing leases on the property (Map 15) with the possibility of a third being executed on the northern 70 acres of the property. These leases are scheduled to expire in 2010.

The District often exercises the option to lease grazing rights to the public when a property is acquired. Lease terms are based on carrying capacity and agreement to certain management responsibilities by the lessee that may include non-native and nuisance plant control and/or fence construction and repair. The District limits certain activities deemed detrimental to the environmental integrity of each parcel leased, with each lease customized to ensure best management practices. Leased lands are on the county property tax rolls, and these tax payments become the responsibility of the lessee.

The District has instituted a procedure to seek recommendations from the U.S. Department of Agriculture, Natural Resource Conservation Service prior to the establishment or renewal of cattle leases. These recommendations include appropriate stocking rates for the site to avoid degradation from over grazing, as well as any identifying sensitive areas that should be excluded from grazing. There are currently 19 active grazing leases within the Kissimmee River Management Areas.

Map 15. Grazing Leases



5.3 Fire

Policy 140-25(5)(c)(3) Prescribed fire will be a primary management tool on District lands and will be applied within fire-maintained communities at appropriate intervals.

The majority of natural communities on District lands rely on frequent fire to maintain their vegetative characteristics and biodiversity. Wildfires no longer occur with historical frequency or extent, and this has altered natural community structure and function. Prescribed fire attempts to mimic the benefits of natural wildfires that historically reduced fuel loads, recycled soil nutrients, and maintained natural communities by inhibiting hardwood encroachment and stimulating fire-adapted plant growth and reproduction. The Land Stewardship Program recognizes the benefits of fire and has integrated prescribed fire planning and application into its land management strategy.

5.3.1 Fire History

Fire appears to have been excluded from the property for at least the last 15 years.

5.3.2 Prescribed Fire Planning

A fire management plan is developed for each management area. Each plan includes a description of location and natural community types, fire history, fire management objectives and constraints, and a burn prescription. The Land Stewardship Program bases all fire management plans on ecological research and professional experience. Fire frequency schedules for each natural community consider recommendations provided in *The Natural Communities of Florida* (Florida Natural Areas Inventory, 1990). To mimic historic fire conditions, Land Stewardship emphasizes growing or lightning season burns (March-June) where practical. Natural firebreaks are utilized where possible to promote historic fire patterns, avoid soil disturbance, and reduce hydrologic flow disruption created by fire lines. Listed species life requirements are elements of prescribed fire planning. Application of fire, with appropriately timed herbicide treatments, is used as a tool for control of invasive and nuisance plants.

Burns are executed using proven methods as defined by the Prescribed Burning Act of 1990, Chapter 590.026 Florida Statutes. This legislation and associated administrative rules outline accepted forestry burn practices and are administered through the Division of Forestry. Land Stewardship has a five-person prescribed fire crew in the Okeechobee Service Center and utilizes other cooperating agency staff—Division of Forestry, the Florida Park Service, and the Florida Fish and Wildlife Conservation Commission to conduct burns. All Land Stewardship staff have completed the state certified burn course to ensure safety and proper technique.

Prescribed fire is applied within the Management Area at appropriate fire intervals for each natural community. The District concentrates on applying fire to each area of the property, reducing accumulated fuel loads, improving habitat, and providing a safer basis for future burns of increased frequency and lower intensity. Planning will emphasize yearly burn acreage to attain a 5 year rotation at minimum for the flatwoods and prairie communities. The flatwoods within the management area will need to have the overgrown understory shredded prior to burning to reduce the number of pines killed in a fire or by subsequent ips beetle attacks.

5.3.3 Wildfire Suppression

Policy 140-25(3)(d) The Division of Forestry will be notified of all wildfires on District lands. Land Stewardship will provide initial suppression when commensurate personnel and equipment are available.

Wildfires ignited by lightning are a common occurrence throughout Florida, and the Management Areas receive numerous lightning strikes as indicated by past wildfires. It is District policy, and state law, that the Division of Forestry is notified when a wildfire occurs on Land Stewardship-managed properties. The Land Stewardship staff assigned to the area will respond to and, if appropriate, begin suppression of area wildfires when detected. The Division of Forestry will be called immediately while a fire assessment is made.

5.4 Wildlife Management

A primary objective in the stewardship of the Management Areas is to maintain healthy fish and wildlife populations. Land Stewardship accomplishes this in several ways:

- Perform land management activities that maintain and/or improve native wildlife habitat
- Conducting specific management beneficial to protected species
- Conducting wildlife inventories through the Florida Fish and Wildlife Conservation Commission where management operations may negatively impact listed species
- Following management guidelines for listed species protection as determined by the *Multi-species Recovery Plan for the Threatened and Endangered Species of South Florida, Volume 1*, (U.S. Fish and Wildlife Service. 1998)
- Reducing non-native pest species populations where appropriate
- Maintaining a master file of confirmed and potential wildlife species
- Cooperating with the Commission on wildlife management issues

Wildlife management in the Management Area is directed toward production of natural species diversity consistent with the biological community types present.

5.4.1 Exotic/Invasive Species

Wildlife pest species are those non-native species that are harmful to native wildlife, that negatively impact native vegetation and wildlife or seriously interfere with management objectives. The Land Stewardship's goal for wildlife pest management is to reduce populations to attain an acceptable level of impact to natural plant and animal communities. The District Land Steward uses personal knowledge of the problem and consultation with the Commission to define the acceptable level of impact. When population control measures are warranted, land managers consult with the Commission to determine an appropriate control technique that is humane and cognizant of public safety. The effects of pest population control efforts are monitored by periodic site evaluations.

The feral hog is a pest species within the Management Area. Disturbance caused by this species negatively impacts natural communities and interferes with land management operations. Their high fecundity, adaptability, rooting behavior, and omnivorous diet make them a potent destructive force and environmental concern. Their disruption of soil and vegetation alter natural communities and can be especially damaging in sensitive habitats that are slow to recover. Land management objectives are affected when rooting disturbance disrupts prescribed burns by preventing the spread of fire. Areas of disturbed soil are also more susceptible to exotic plant invasion. Soil rooting can create perilous conditions on hiking trails, and hog foraging can have a detrimental impact on small animal populations, ground-nesting birds, and infrastructure. A hog trapping contractor is utilized when hog rooting reaches unacceptable levels.

5.4.2 Rare, Threatened and Endangered Species

Policy 140-25(2)(b) Particular emphasis shall be placed on the identification, protection and management of rare, threatened and endangered species.

Several species listed as endangered, threatened, or of special concern by state and federal agencies occur within the Management Areas, including gopher tortoise (*Gopherus polyphemus*), wood stork (*Mycteria americana*), bald eagle (*Haliaeetus leucocephalus*), and the Sherman's fox squirrel (*Sciurus niger shermani*), (**Table 2**).

Impacts to these species from planned land management and recreational activities are of special concern. Activities that might jeopardize the well-being of these species may be altered or disallowed. District land management activities including prescribed burning, hydrologic restoration, exotic vegetation eradication, understory control, and selective forest thinning improve natural environmental characteristics that benefit listed species as well as a variety of other indigenous wildlife.

Table 2. Listed Animal Species: (T) Threatened, (E) Endangered, (SSC) Species of Special Concern

| Scientific Name | Common Name | Status | |
|-----------------------------------|-------------------------------|--------|-------|
| | | Fed | State |
| <i>Alligator mississippiensis</i> | American alligator | T | SSC |
| <i>Aramus guarauna</i> | Limpkin | | SSC |
| <i>Caracara cheriway</i> | Crested caracara | T | T |
| <i>Egretta caerulea</i> | Little blue heron | | SSC |
| <i>Egretta thula</i> | Snowy egret | | SSC |
| <i>Egretta tricolor</i> | Tri-colored heron | | SSC |
| <i>Eudocimus albus</i> | White ibis | | SSC |
| <i>Falco sparverius paulus</i> | Southeastern American kestrel | | T |
| <i>Gopherus polyphemus</i> | Gopher tortoise | | SSC |
| <i>Grus canadensis pratensis</i> | Florida sandhill crane | | T |
| <i>Haliaeetus leucocephalus</i> | Bald eagle | T | T |
| <i>Mycteria americana</i> | Wood stork | E | E |
| <i>Pandion haliaetus</i> | Osprey | | SSC |
| <i>Sciurus niger shermani</i> | Sherman's fox squirrel | | SSC |

6. Public Use

Policy 140-23 The Land Stewardship Program mission is to provide natural resource protection and management while allowing compatible multiple uses on designated public lands.

Section 373.1391 (1)(a) Florida statute states that wherever practical, lands acquired by the Land Stewardship Program shall be open to the general public for recreational uses. The District encourages public use of management areas for appropriate natural resource-based activities. Most District lands are available for public use, except in rare instances where there is no legal public access or where lease restrictions prohibit public entry.

The determination of compatible public uses will be based on the following criteria:

- Consistency with the reason the lands were acquired
- Restrictions and/or prohibitions imposed by easements, leases, reservations, adjacent land ownership, and other conditions of the purchase agreement
- Infrastructure and support facility requirements, such as fences, gates, signage, entry design, stabilized off-road parking, trails, campsites, maintenance, and other operational and budgetary impacts
- Opportunities for persons with disabilities
- Limitations on use resulting from endangered species, other sensitive natural resources, archeological resources, or land management practices

- Public health, safety and welfare
- Environmental education program opportunities

Since this land falls under the “Vacant Land” category under 40E-7, Florida Administrative Code, it is open to for hiking, bicycling, horseback riding, and fishing from sunrise to sunset. However, there are currently no developed facilities onsite to accommodate public use. During the period of this conceptual management plan the site will be evaluated for potential recreational uses and the required infrastructure improvements that will be necessary to accommodate public use.

6.1 Resource Protection

Policy 140-25(1)(d) Public use shall not result in detrimental impacts to water resources. When a public use activity produces detrimental effects on water resources, it shall be discontinued until an evaluation determines that such use is compatible.

Policy 140-25(3)(g) Resource protection shall be provided by professional law enforcement services through funded and unfunded contractual agreements to safeguard the public and protect natural and cultural resources on District-managed natural areas.

Policy 140-25(4)(b)(1) Public use regulations are set forth in 40E-7.511, Florida Administrative Code, to implement Section 373.1391(1)(b), Florida Statutes. Accordingly, the District shall publish and make available to the public a "Recreational Guide" for designated land management areas.

The Land Stewardship Program emphasizes the enforcement of pertinent rules and regulations to protect natural resources. The resource protection program integrates contractual law enforcement to protect the natural resources and District assets. As part of the District’s enhanced patrol contract with the Commission, law enforcement officers conduct regular patrols throughout the year. Law enforcement surveillance protects natural and cultural resources, deters illegal activity, and safeguards the public. Patrols are conducted with 4-wheel drive vehicles, boats, all terrain vehicles, aircraft, and on foot. The District’s resource protection coordinator and the regional land steward review biweekly reports and meet with officers to structure patrols based on resource needs.

Resource protection is also greatly enhanced by the establishment and maintenance posted fence lines that delineate property boundaries. Fencing needs and maintenance are addressed as necessary.

7. Administration

Administration of Land Stewardship Program lands is directed through the Land Stewardship Division. Policy decisions, planning and budgeting, procurement of personnel and equipment, contract administration, and issues of program development are administrative tasks coordinated through the Division. Input is provided from the public and regional land stewards located at District Service Centers over the 16-county area. Public input into the management of the area is solicited at quarterly stakeholder meetings. Regional land stewards handle regular administrative duties from their field locations to assure quick response to local concerns and management issues. Administrative activities for the Management Areas are handled through the Okeechobee Service Center and the Allapattah Flats field office.

7.1 Planning and Budgeting

Planning is a major function of the Land Stewardship Program mission and is critical to maintain proper program focus, direction, and coordination with other agencies. Planning is accomplished by division planning staff in coordination with land stewards. Division level planning develops land acquisition strategies and project evaluations, produces the Land Stewardship Activity Report for the Florida Forever Workplan, and coordinates acquisition planning with other District and outside agency personnel.

Policy 140-25(6)(b) General Management Plan: Provides a description of recommended management and is required for each Land Stewardship Management Area. The GMP follows a designated format and is updated every five years.

General or Conceptual Management Plans are developed that detail strategies to guide management activities on individual project areas. These plans define goals and objectives, identify major management issues, and describe management activities. Each plan is subject to a draft revision period where public comment and professional review is requested prior to plan approval. Each plan is revised on a five-year cycle by planning team staff.

Policy 140-25(6)(d) Annual Work Plan: Summarizes activities corresponding with annual budget development and is prepared by the Operations Section of the Land Stewardship Program.

Annual work plans are developed each fiscal year for budget preparation and to address activities and projects targeted for completion within the upcoming fiscal year on individual properties. The Annual Work Plan includes performance objectives for exotic plant control, vegetation management, prescribed burning, fencing, infrastructure maintenance, forest management, resource protection, public use development, environmental monitoring, and contract administration.

For the Trail Ridge Management Areas the Annual Work Plans and budget are developed in concert with program-wide operational priorities and the budgetary cycle. Current year annual plans are available at the District headquarters in West Palm Beach.

Policy 140-25(6)(e) Summaries of management activities for each management area will be reported quarterly within the District and annually as part of the Florida Forever Work Plan.

Each month land managers submit regional management reports to document progress toward achieving annual work plan objectives. The monthly reports are kept on file at District headquarters. Land Stewardship semiannual meetings address management problems and plan for future management operations.

Policy 140-25(5) The District will secure dedicated funding sources, personnel and other resources to support program goals and objectives. Project funding needs and sources for cooperative management agreements with government and non-government entities will be identified during acquisition. A cooperative management agreement will designate a lead manager and identify whether District funding is required.

The principal source of funding for the Land Stewardship Program is the Water Management Lands Trust Fund, administered by the Florida Department of Environmental Protection. Money for this dedicated fund is generated from the sale of state documentary tax stamps and is used for property acquisition and management. Additional funding and support may be obtained from grants, mitigation, the Everglades Restoration Program, the harvest of renewable resources, land use leases, in-kind management services from cooperating management partners, or no-cost services from user groups and volunteers.

Budget planning begins in February during the work planning process for the following fiscal year (October-September). Overall funding availability generally determines management activities. Budget distribution among the District's five land management regions is based on a programmatic prioritization of management activities. Operational funds are distributed to most effectively accomplish the management objectives of each management area.

7.2 Infrastructure

Policy 140-25(3)(k) Infrastructure support shall be developed and maintained to provide safe access for responsible management and public use on District lands. Such infrastructure may include access points, roads, trails, signs, utilities, and minimal public facilities.

The development of adequate infrastructure for public use and management activities has received support from the Commission, and the Kissimmee Division of the District. Current infrastructure which requires regular maintenance includes interior roadways, perimeter posting and fencing, drainage infrastructure, and a pre-existing metal building.

7.3 Personnel and Equipment

The Land Stewardship Program is separated into five geographic regions, each staffed with professional land stewards directed by the supervising land manager. Highly trained land management technicians are based at the DuPuis Management Area, the West Coast Field Office, and at the Orlando, Okeechobee, and Miami Service Centers. The Land Stewardship Division director and additional planning staff are headquartered at the main West Palm Beach office.

Stewardship of the Management Area is the primary responsibility of the District's East Coast regional land manager. Additional management input and support comes from District planning and Field Station personnel, as well as the Everglades Restoration Program project managers and planners. Staff has access to tools, supplies, four-wheel drive vehicles, fire suppression trucks, all terrain vehicles, swamp buggies, bull dozers, tractors, and other heavy equipment.

7.4 Volunteers and Alternative Work Force

Policy 140-25(5)(d)(1) Volunteers, interns and alternative work forces will be used when possible to supplement existing staff and services.

Since public recreational opportunities have not yet been developed on the property, a volunteer program has not yet been established.

7.5 Management Review

Policy 140-22(j) Section 373.591, Florida Statutes, mandates the District to solicit input on current management programs through professional peer reviews.

Each District project area has a land management review team comprised of state, county, and private entities that periodically reviews management activities to assure they are consistent with acquisition intent and program objectives. Management assessments are conducted in light of the goals and objectives defined in the area's general management plan. If the review team determines that management is not in accordance with the management plan, the lead management agency provides a written explanation to the review team. A management review will be conducted on Trail Ridge in 2012 with the expiration of this initial Conceptual Management Plan.

Appendix A

Land Stewardship Program Goals and Policies

ARTICLE II. LAND STEWARDSHIP

Sec. 140-21. Scope.

This policy shall apply to all lands managed by the Land Stewardship Program, including property acquired with Save Our Rivers, Preservation 2000 or mitigation funding. Nothing in this policy shall negate any statute, administrative rule, or other policy requirement. This policy may be reviewed and approved by the District Governing Board at five-year intervals or earlier and updated as required. Public comment may be solicited as part of the review process.

(R.M. No. 139)

Sec. 140-22. Purpose.

(a) This policy establishes a commitment to the responsible management of District lands in a manner consistent with legislative directives and the District's mission.

(b) In 1981, the Florida Legislature established the "Save Our Rivers" program (SOR) for the five water management Districts to acquire water resource lands. This legislation (Section 373.59, Florida Statutes) produced the Water Management Lands Trust Fund, empowering the water management Districts to acquire lands needed to protect, manage, and conserve the state's water resources. Preservation 2000 (P2000), enacted by the Legislature in 1990, also added land acquisition funds to the Save Our Rivers program. The 1999 Florida Forever Act consolidated the legislative directives of SOR/P2000 and expanded the funding to take over when P2000 terminates. The 1999 legislation authorized funds to be appropriated for acquisition, management, maintenance and capital improvements, including perimeter fencing, signs, control of invasive exotic species, controlled burning, habitat inventory and restoration, law enforcement, access roads and trails, and minimum public accommodations.

(c) Land acquired by the District's Save Our Rivers program and managed by the Land Stewardship program must satisfy several requirements set forth in Sections 373.139 and 373.1391, Florida Statutes. Section 373.139, Florida Statutes, declares it necessary for the public health and welfare that water and water-related resources be conserved and protected. The acquisition of real property for this objective shall constitute a public purpose for which public funds may be budgeted.

(d) Section 373.1391(1)(a), Florida Statutes, states that lands titled to the water management districts shall be managed and maintained to the extent practicable to ensure a balance between public access, general public recreational purposes, and restoration and protection of their natural state and condition.

(e) Section 373.1391(1)(b), Florida Statutes, states, in part, that "Whenever practicable, such lands shall be open to the general public for recreational uses. General public recreational uses shall include, but not be limited to, fishing,

hunting, horseback riding, swimming, camping, hiking, canoeing, boating, diving, birding, sailing, jogging, and other related outdoor activities to the maximum extent possible considering the environmental sensitivity and suitability of those lands."

(f) Section 373.1391(1)(d), Florida Statutes, states that the District shall first consider using soil and water conservation Districts to administer agricultural leases.

(g) Section 373.1391(3), Florida Statutes, encourages each District to use volunteers to provide land management and other services.

(h) Section 373.1391(4), Florida Statutes, encourages each District to enter into cooperative land management agreements with state agencies or local governments to provide the coordinated and cost-effective management of lands.

(i) Section 373.1391(5), Florida Statutes, authorizes water resource and supply projects, stormwater management projects, linear facilities, and sustainable agriculture and forestry where it is compatible with the natural resource values and the public interest and is consistent with the project management plan, the proposed use is appropriately located on the property and other lands have been considered, and the titleholder of the property has been properly compensated.

(j) Section 373.591, Florida Statutes, mandates the District to solicit input on current management programs through professional peer reviews.

(R.M. No. 139)

Sec. 140-23. Statements of Policy.

The Land Stewardship Program mission is to provide natural resource protection and management while allowing compatible multiple uses on designated public lands. The mission statement, together with requirements set forth in the Florida Statutes, provide three primary goals for the District Land Stewardship Program, each of which is linked to sections in this Land Stewardship Policy document:

- (1) Conservation and protection of water resources (section 140-25(1)).
- (2) Protection and/or restoration of land to its natural state and condition:
 - a. Restoration and Protection of Natural Communities (section 140-25(2)); and
 - b. Resource Operations and Maintenance (section 140-25(3)).
- (3) Provide public use (section 140-25(4)).

(R.M. No. 139)

Sec. 140-24. Definitions.

For the purpose of this article, the following words and terms shall have the meanings respectively ascribed:

Archaeological/Historic Resources means any prehistoric or historic district site, building, object, or property of historic, architectural, or archaeological value relating to the history, government, and culture of a historic or pre-historic people.

Best Management Practice (BMP) means the best available technology or process that is practical and achieves the desired goal or objective.

Capital Improvement means activities relating to the restoration, public access, recreational uses and necessary services for land and water areas, including the

initial removal of invasive plants, and the construction, improvement, enlargement or extension of facilities' signs, fire lines, access roads, and trails. Such activities shall be identified prior to the acquisition of a parcel or the approval of a project.

Cooperating Agencies means two or more agencies working together to operate a specific management area.

Cooperative Management Agreement means an agreement between two or more agencies outlining the respective duties and responsibilities of each agency in the management of a specific tract of land.

Critical Habitat means areas designated for the survival and recovery of state/federally listed rare, threatened, endangered or other sensitive species.

Desirable Vegetation means native plant species that are appropriate for a specific community type and provide benefits to wildlife in the form of food, cover and nesting.

Habitat Diversity means richness and variety of native plant communities within a particular area of the landscape.

Hydroperiod means flooding duration, depth, and timing that influences species composition, ecosystem structure and function.

Interim Land Management means management of non-natural areas that provides revenue without impacting long-term water-development projects.

Invasive/Exotic Vegetation means certain plants that displace native species and adversely affect wildlife habitat, water quality, recreation, and biological diversity.

Lead Manager means the prime managing entity designated for a given tract of land; generally provides the on-site staff.

Management Area means a single tract or combination of tracts under one management program.

Mitigation means, for purposes of this policy, the actual acquisition, restoration, creation, or enhancement of wetlands to compensate for permitted wetland impacts.

Mitigation Banking means wetland acquisition, restoration, creation or enhancement undertaken expressly to provide compensation in advance of wetland losses from development activities.

Multiple-Use means the management of renewable resources for a variety of purposes such as recreation, range, timber, wildlife habitat, and water resource development.

Prescribed Fire means burning of vegetative fuels using controlled application of fire within specified environmental conditions.

Primary Resource Lands means lands having high water resource, fish, wildlife, and recreational values requiring acquisition or protection.

Regional Mitigation Area means, for purposes of this policy, permitted wetland impacts offset through payment for the acquisition, restoration and perpetual management of a Save Our Rivers identified and duly noticed project.

Responsible Management means level of management described in the General Management Plan.

Sustainable Use means to provide continued use of a natural resource without degradation or loss of that resource.

Water Resource Buffer means that portion of a Preservation 2000 or Save Our Rivers project necessary to protect the aquatic environment.

Wildlife Corridor means a connection between natural areas that allows the safe movement of wildlife.

(R.M. No. 139)

Cross references: Definitions and rules of construction, § 100-2.

Sec. 140-25. Responsibilities.

The Land Stewardship Program is responsible for:

(1) Water Resource Protection. The basis for the Land Stewardship Program is the protection and management of natural hydrologic resources. The following policies guide implementation of this objective:

a. Acquired lands shall be managed to provide water resource-related benefits.

b. Land uses or activities that significantly or permanently alter or degrade the quality, quantity and/or natural movement of ground or surface water are not allowed unless they are a part of a regional water management system.

c. Where feasible, an attempt shall be made to restore a more natural hydroperiod on tracts where the drainage patterns have been altered.

d. Public use shall not result in detrimental impacts to water resources. When a public use activity produces detrimental effects on water resources, it shall be discontinued until an evaluation determines that such use is compatible.

e. Water resource lands designated as necessary to implement the Central and Southern Florida "Restudy" Project shall, upon acquisition, become the responsibility of the (Interim) Land Management Program, and follow the guidelines set forth under Section 373.1391(5), Florida Statutes.

(2) Restoration and Protection of Natural Communities:

a. The Land Stewardship Program will encourage the acquisition of large or regionally significant areas that protect important natural resources and provide wildlife corridors.

b. Particular emphasis shall be placed on the identification, protection and management of rare, threatened and endangered species.

c. The planting of invasive exotic plant species shall be prohibited in all management areas. Management practices will strive to identify existing infestations and implement appropriate control or eradication measures.

d. Where practicable, an attempt shall be made to restore and maintain desirable vegetation to promote habitat diversity in areas where invasive exotic vegetation, grazing practices, or improved land uses have substantially altered the historic landscape.

(3) Resource Operations and Maintenance:

a. Lands acquired for natural and/or hydrologic resource benefits shall be managed to conserve and protect those resources.

b. Exotic plant control in all management areas shall strive to attain a level of success where periodic maintenance eliminates the infestation or reduces the coverage of exotic plants.

c. Prescribed fire will be a primary management tool on District lands and will be applied within fire-maintained communities at appropriate intervals.

d. The Division of Forestry will be notified of all wildfires on District lands. Land Stewardship will provide initial suppression when commensurate personnel and equipment are available.

e. Inventories of natural and historic resources shall be performed to provide information for effective land management planning, natural community maintenance and ecological restoration.

f. Evaluation and monitoring of management activities shall be conducted to improve program effectiveness and efficiency.

1. Research shall evaluate the environmental response of certain management activities to assist staff in making appropriate management decisions.

2. Monitoring shall be conducted to identify landscape changes resulting from management activities.

3. Legislative-mandated management reviews will provide input from professional peers.

g. Resource protection shall be provided by professional law enforcement services through funded and unfunded contractual agreements to safeguard the public and protect natural and cultural resources on District-managed natural areas.

h. Sustainable use of forest resources shall be conducted where these activities adhere to a series of environmental criteria (see 1999 Forest Management Plan) that meet Land Stewardship Program goals. Timber contractors will be required to meet silvicultural Best Management Practices (BMP) developed for Florida forests.

i. Range management (grazing) will be considered on improved or native ranges when the introduction of cattle will not conflict with other natural resource management and public use goals.

j. Archaeological and historic resources are protected by site identification and inter-agency coordination with the Florida Division of Historical Resources. Land stewardship planning shall include an analysis of archeological data accompanied by appropriate public education opportunities.

k. Infrastructure support shall be developed and maintained to provide safe access for responsible management and public use on District lands. Such infrastructure may include access points, roads, trails, signs, utilities, and minimal public facilities.

l. Mechanical equipment may be used in conjunction with prescribed burning and other management tools to control vegetation and restore habitat structure.

m. Agricultural developments previously existing on acquired natural areas may be maintained if management of these developments is consistent with other land stewardship goals.

(4) Public Use and Environmental Education:

a. Public use of management areas that is consistent with other management goals shall be encouraged. Public use that may have detrimental impacts on sensitive environmental resources shall be restricted until an evaluation determines such use is compatible. A public use compatibility assessment will be included in the General Management Plan completed for each management area and will be based on the following criteria:

1. Consistency with the reason the lands were acquired.
2. Restrictions and/or prohibitions imposed by easements, leases, reservations, adjacent land ownership, conditions of the purchase agreement, and any other agreements concerning the property.
3. Infrastructure and support facility requirements, such as fences, gates, signage, entry design, stabilized off-road parking, trails, campsites, maintenance, and other operational and budgetary impacts.
4. Opportunities for persons with disabilities.
5. Limitations resulting from endangered species, other sensitive natural resources, archaeological resources, or land management practices.
6. Public health, safety and welfare.
7. Environmental education program opportunities.

b. Public Use Regulation:

1. Public use regulations are set forth in 40E-7.511, Florida Administrative Code, to implement Section 373.1391(1)(b), Florida Statutes. Accordingly, the District shall publish and make available to the public a "Public Use Guide" for designated land management areas. The Public Use Guide will be adopted by the Governing Board at a public meeting advertised in accordance with Chapter 120, Florida Statutes.

2. Rules and regulations governing the public use of each management area shall be enforced by agencies with appropriate law enforcement jurisdiction.

3. Pursuant to Section 373.609, Florida Statutes, the District shall seek the cooperation of every state and county attorney, sheriff, police officer, and appropriate city and county official in the enforcement of the provisions set forth according to 40E-7.511, Florida Administrative Code.

4. Florida Fish and Wildlife Conservation Commission regulations shall govern hunting in areas opened for such use.

(5) Implementation Strategies. The District will secure dedicated funding sources, personnel and other resources to support program goals and objectives. Project funding needs and sources for cooperative management agreements with government and non-government entities will be identified during acquisition. A cooperative management agreement will designate a lead Manager and identify whether District funding is required.

a. The private sector may be solicited to furnish certain management-related facilities and services through the execution of leases and agreements. These leases/agreements will assure mutual benefits to both the District and private parties and be consistent with the program management objectives.

- b. Mitigation:
 - 1. Mitigation Banking: Mitigation banking provides an opportunity to accomplish large-scale restoration that may otherwise go unfunded. Pursuant to Section 373.4135, Florida Statutes, the District is encouraged to develop mitigation banks. Land managers will evaluate opportunities in their regions to implement mitigation banks that are consistent with the guidelines established in the Joint State and Federal Mitigation Bank Review Team Process for Florida.
 - 2. Regional Mitigation Areas: The acquisition, restoration and management of District lands as mitigation shall be consistent with Chapter 2000-133, amending Sections 373.414 and 373.4135, Florida Statutes. This includes the establishment of Memorandums of Agreement (MOA) that include restoration plans, success criteria, and monitoring requirements. The MOAs will be used to implement mitigation using full-cost accounting, public noticing, and approval by the Governing Board for use as a mitigation area. The mitigation shall meet restoration objectives as provided in the General Management Plan.
 - c. Revenue Generation:
 - 1. Private concessions and/or agreements with non-profit organizations will be considered to implement needed services through concession contracts.
 - 2. Entrance and user fees, permits, licenses and/or advance reservations may be required where considered necessary by the managing agency.
 - 3. Timber sales will be conducted to improve forest health or to support specific forest management goals.
 - 4. Grazing leases will be encouraged on selected rangeland to generate revenue or to provide services that offset program management costs.
 - d. Volunteers and Interns:
 - 1. Volunteers, interns and alternative work forces will be used when possible to supplement existing staff and services.
 - 2. Any volunteer services must meet the standards and procedures prescribed by the District (Risk Management Manual, Volume 1).
- (6) Program Components:**
- a. Management Assessment: A brief summary of the management issues completed when the site is identified for acquisition.
 - b. General Management Plan (GMP): Provides a description of recommended management and is required for each Land Stewardship Management Area. The GMP follows a designated format and is updated every five years.
 - c. Activity Plan (AP): Provides a detailed implementation strategy for specific activities such as prescribed burning, exotic removal and restoration. The plan shall be developed by the lead Manager in consultation with the cooperating agencies for each major tract of land (or group of tracts) to be operated as a single

management unit. The AP may be included in the GMP and is updated when necessary.

d. **Annual Work Plan (AWP):** Summarizes activities corresponding with annual budget development and is prepared by the Operations Section of the Land Stewardship Program.

e. **Reporting:** Summaries of management activities for each management area will be reported quarterly within the District and annually as part of the Florida Forever Work Plan.

(R.M. No. 139)

Secs. 140-26--140-40. Reserved.