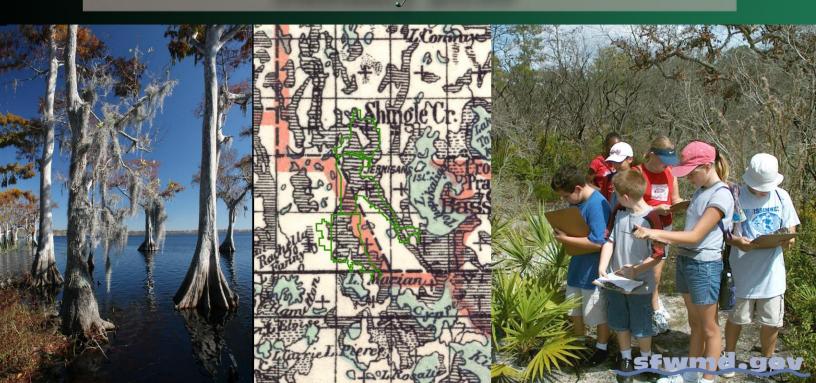
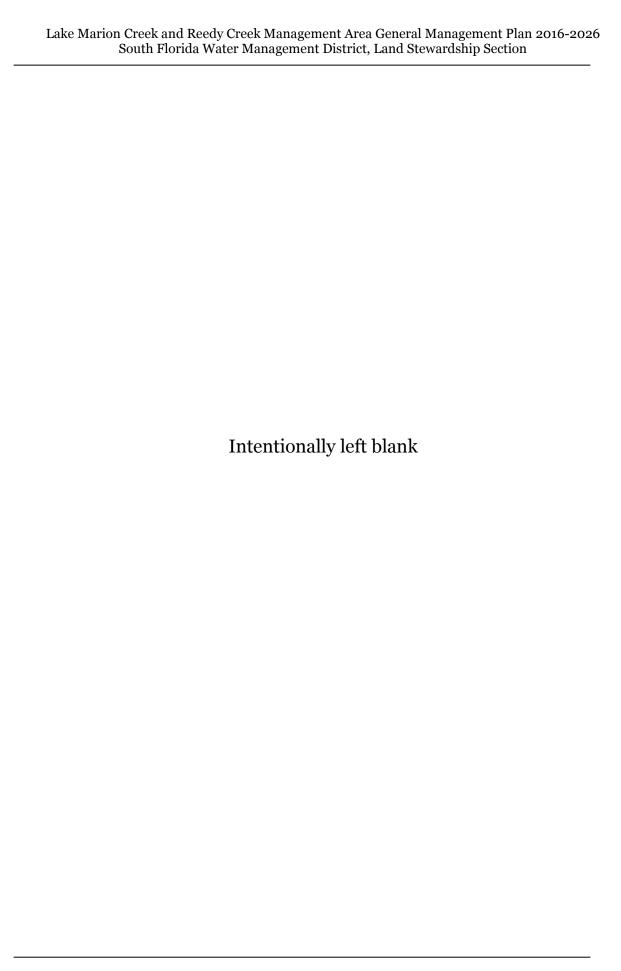
Land Stewardship Section 3301 Gun Club Road MSC 5250 West Palm Beach, Florida 33406



Lake Marion Creek and Reedy Creek
Management Area
Ten-Year
General Management Plan
2016-2026
January 2016





Lake Marion Creek and Reedy Creek Management Area Ten-Year General Management Plan (2016-2026)

January 2016

Land Stewardship Section South Florida Water Management District 3301 Gun Club Road West Palm Beach, Florida 33416-4680

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1. Executive Summary

The South Florida Water Management District (District) began purchasing lands within the Lake Marion Creek Project Area and Upper Reedy Creek Project Area in 1994 through the Save Our Rivers program. These lands were acquired to protect their unique groundwater recharge and hydrologic functions and to protect the headwaters of the Kissimmee Chain of Lakes and Kissimmee River. The majority of land was acquired from July 1994 to May 1997. This plan addresses management for the 12,915 acres that have been acquired by the District within the project area known as the Lake Marion Creek and Reedy Creek Management Area (Management Area).

The District has taken a lead role in the acquisition and management of the project, while seeking assistance from other governmental agencies. This General Management Plan describes the historical, ecological, and managerial aspects of the area as a means to coordinate effective management programs. This plan is a compilation of assessments, research reports, and an earlier conceptual management plan combined with new information and proposals. The plan guides the District land management personnel toward ecological, beneficial, and consistent land management practices.

NATURAL SETTING

The natural character of the management area is defined by six distinct soil categories as defined by the Natural Soil Landscape Positions soil classification system: flats soils, flatwood soils, knolls, central ridges and dunes, muck depression soils, and sand depression soils. These soils support 17 distinct plant communities that are defined by criteria established by the Florida Natural Areas Inventory.

Wetlands comprise approximately fifty percent of the Management Area, and most are within the 100-year flood plain of Lake Marion Creek, Snell Creek, Horse Creek, and Reedy Creek. Wet and mesic flatwoods, surrounded by forested wetlands within the listed flood plains, are the primary upland communities found throughout the Management Area. To a lesser extent, other uplands communities include scrub, seepage slopes, sandhill, and scrubby flatwoods.

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 and restoration of forested ecosystems.
- 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.

RESTORATION PROJECTS

Prior to District acquisition, logging removed most of the mature longleaf and slash pines from many of the flatwoods throughout the Management Area. This practice created open saw palmetto/gallberry flats with little canopy cover. In order to restore the historic pine cover to these sites, the District is conducting reforestation to establish an uneven-age stand structure that sustains natural pine regeneration.

Mechanical vegetation treatments in conjunction with prescribed fire are being applied to restore portions of scrub and scrubby flatwoods in Lake Marion Creek. Fire suppression had allowed the vegetation to become over grown making the habitat less desirable for many imperiled species such as the Florida scrub-jay. The District has utilized mechanical vegetation treatments and prescribed fire in these plant communities to improve habitat conditions for area wildlife.

MONITORING

A baseline vegetation study was completed by a field botanist from the Fairchild Tropical Gardens in Miami-Dade County in 1995-1996. The District contracted the same botanist 10 years later in 2005 to re-survey the site. Subsequent to the baseline and follow-up vegetation studies, the District contracted several species specific surveys in the past to provide basic information such as relative abundance and presence. Current monitoring efforts are devoted to evaluating management actions in scrub and scrubby flatwoods to improve habitat for the Florida scrub-jay. This work is done in conjunction with Jay Watch.

PUBLIC USE

Several recreational activities are provided for and encouraged in the Management Areas including hunting, camping, hiking, birding, frogging, environmental education, and nature appreciation. Fishing and canoeing opportunities are limited due to lack of reasonable access to open water. The Management Area also includes a variety of public use facilities including several recreational trailheads and a primitive camping area.

2. Introduction and Management Plan Purpose

This General Management Plan consolidates relevant information about the Lake Marion Creek and Reedy Creek Management Area (**Maps 1 and 2**) 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 2016-2026. The Management Plan was developed in accordance with Section 373.1391, and Section 373.591, Florida Statutes.

State statutes direct the District to provide natural resource protection and management while allowing compatible multiple uses on public lands. This directive and requirements set forth in Florida Statutes provide three primary goals for the Land Stewardship Section:

- 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
- The operation and maintenance of land resources
- Development of public use programs
- Development of restoration projects
- Evaluation of management activities
- Administration of land management contracts and leases

The plan consolidates current site information and general guidelines for management of the area. It also updates and replaces the 2010-2015 General Management Plan for the area. As such, it serves as a collective information source for management staff, partners, and the general public.

2.1 Management Area Goals and Objectives

The Land Stewardship Section's primary functions and management priorities for 2016-2026 are contained in the following Goals and Objectives:

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

Objectives:

• Continue the regular application of fire through a well-planned and documented prescribed burning program.

- Continue an aggressive, integrated exotic plant management program. Treatments will be documented and coordinated with other management activities. The entire project area will be surveyed every year and exotics treated as necessary.
- Continue to restore degraded upland habitat with supplemental tree plantings, prescribed fire and mechanical treatments.. Cooperate with the Florida Fish and Wildlife Conservation Commission to manage area wildlife.
- Continue to monitor the results of ongoing habitat restoration.
- Provide resource protection through partnership with the Florida Fish and Wildlife Conservation Commission. Review enhanced patrol activities biweekly and review program annually.
- Protect sensitive cultural resources through cooperative law enforcement activities.
- Minimize adverse ecological impacts associated with feral hogs through the use of licensed trappers and public hunts.
- Provide annual operational and capital improvement budgets sufficient for staff, equipment, and supply resources which are necessary to attain a level of responsible management as outlined in the General Management Plan.
- Utilize mitigation programs associated with the Management Area to preserve, restore, enhance, and manage natural resources.
- Provide the staff necessary to successfully attain management goals and objectives as outlined in the General Management Plan, activity plans, and annual work plans for the Management Area. Utilize volunteer and alternative work force opportunities within the Management Area.
- Provide a long-term planning document that fulfills statutory, lease, and policy requirements and provides a framework for management implementation and public oversight.
- Plan management activities on an annual basis to meet program objectives detailed in the general management plan for the Management Area.
- Track and report progress in attaining management goals monthly, quarterly, and annually.
- Improve management efficiency and effectiveness of the Management Area through cooperation with other land management entities and interested parties.

Goal 2: Provide resource-based public use opportunities

Objectives:

- Continue to provide compatible uses such as:
 - Fishing
 - Hunting
 - Camping
 - Hiking
 - Canoeing
 - Nature appreciation

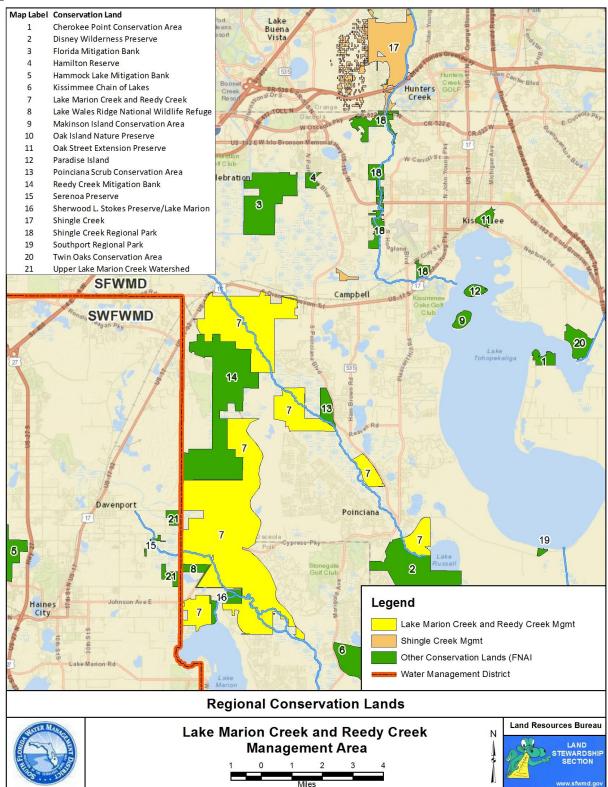
- Maintain and improve the public use program in the Management Area through compatible facility and infrastructure development.
- Expand public use opportunities in the Management Area through the issuance of Special Use Licenses.
- Identify potential new access points for increased pedestrian access opportunities while improving the road infrastructure for permitted and authorized vehicle access. Provide environmental education through maintenance and installation of kiosks at public access points, and signage.
- Provide public outreach through area brochures and attending recreational user club meetings.
- Maintain existing public-use improvements (roads, signs, entrances, and structures) using a combination of in-house maintenance, contracts, and user group involvement.
- Delineate boundaries of the Management Area with appropriate signage.
- Continue to provide a public use program in the Management Area compatible with the environmental and/or ecological characteristics of the area.
- Improve use of the Management Area by providing picnic shelters, connecting the existing Reedy Creek Tract trail with Osceola County Schools Education Center trails and boardwalks, and improve the canoe launch access to Reedy Creek.
- Convert existing borrow ponds at Lake Marion Creek into an accessible fishing pond. Work in cooperation with the Florida Fish and Wildlife Conservation Commission to enhance opportunities for fishing programs.

Goal 3: Maintain area infrastructure

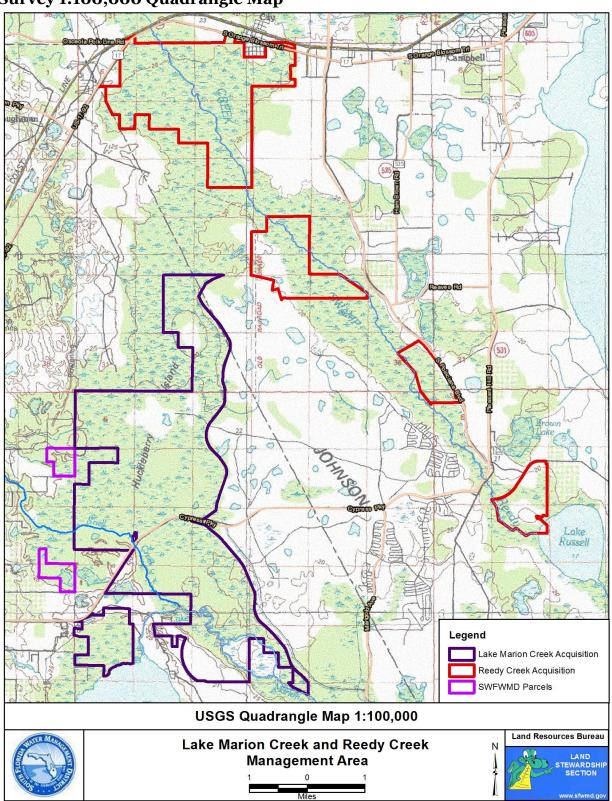
Objectives:

- Continue to maintain and manage the management area boundaries through posting, fencing, and fireline maintenance.
- Continue to maintain public access point facilities and information kiosks.
- Complete annual inspection reports of recreation facilities and repair or replace amenities as needed.

Map 1. Lake Marion Creek and Reedy Creek Management Area and other public lands

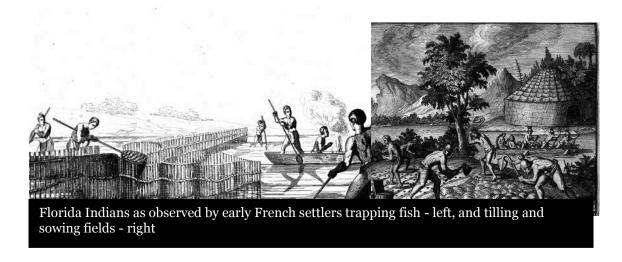


Map 2. Lake Marion and Reedy Creek Management Area, U.S. Geological Survey 1:100,000 Quadrangle Map



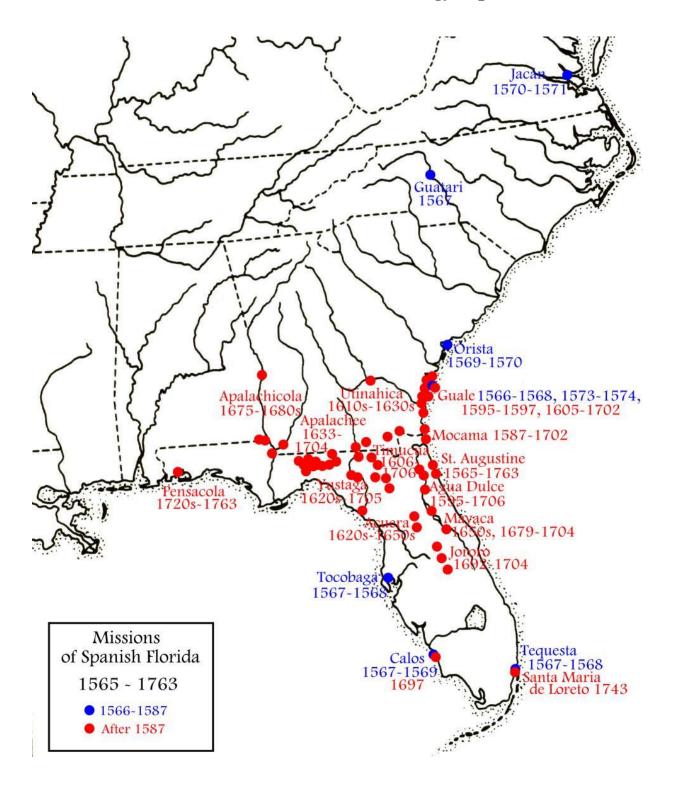
3. Site History

The Management Area has been inhabited by humans for at least 2000 and possibly up to 10,000 years. During the Spanish colonial period the area was regarded as wilderness, was seldom visited, and was not mapped or surveyed during their entire 300 year rule of Florida. The Spaniards apparently had difficulty penetrating the interior south of Orlando. The nearest Franciscan mission was likely the San Joseph de Jororo, occurring near present-day Orlando from 1692 to 1704 (**Map 3**). This frontier outpost had problems with several missionaries being killed by the local population, and was subsequently abandoned. The local population was a powerful tribe called the Jororo with a large cultural center at the present day Brahma Island in Lake Kissimmee. The Spanish were unable to maintain a mission south of San Joseph de Jororo that lasted more than a year.



The Jororo were hunter-gatherers who also tended small plots of maize and a few other vegetables. They were particularly known for raising coontie for its starch and remarkable baking flour. It likely remained a relatively unmolested stronghold for the early Native American culture until the Creek raids in the early to mid-1700s, although the impact of the Creek raids isn't certain in this area since nearly all accounts are from the northern Florida tribes and from the coastal areas. It is clear, though, that the raids were the start of massive declines in the tribes that were endemic to Florida. The Jororo, and most of the surrounding tribes, migrated to St. Augustine for protection and collectively became known as Costas, or Spanish Indians.

Map 3. Spanish Missions in Florida [long-term Spanish missions were not established in southern Florida (UWF-Archaeology Dept.)]



British Period 1763-1783

During the British period beginning in 1763, the region experienced migration from the Creek and Yamasee. Many of the surviving members of the coastal tribes evacuated to Cuba with the Spanish when the British took over. In 1765 the Treaty of Picolata (today Palatka) recognized all of the interior of Florida belonging to the Lower Creek Indians (the Seminoles), a territory that would have followed a line from the west bank of the St. John's River following it to its source then south to the edge of the Everglades and along the edge south to Cape Sabal on the southern tip of the Florida Peninsula. The coastal areas were specifically ceded by the Creeks to the British, with British law recognizing that the lands of Florida were the legal possessions of the Creeks.

Second Spanish Period (retrocession) 1783-1821

Throughout the Second Spanish Period the surviving Costas from the interior, and some who moved back from Cuba, worked for Spanish fishing villages. The second Spanish period (1783-1821) was more active in the region. The Spanish Monarchy felt their hold on the territory was tenuous following the departure of the British with unregulated migration from the north, so they began granting generous land grants to encourage settlement and economic development by immigrants who would swear loyalty to Spain. The interior land that had been recognized as being Seminole land by the British had also been guaranteed to remain with the Seminoles by the Treaty of Pensacola in 1784, and again by the Treaty of Walnut Hills in 1793.

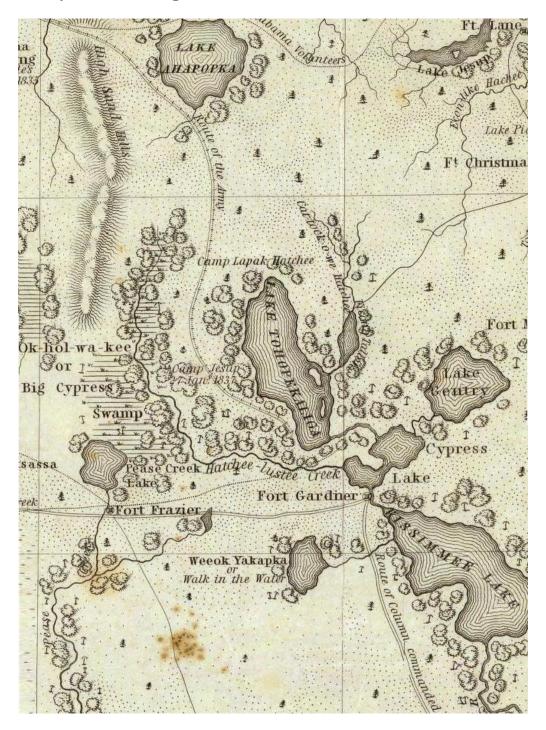
The Seminole Wars

In the years leading up to the Second Seminole War (1835-1842), there was a significant in-migration of Seminole Indians into the area. These were both Seminoles who had been living in Florida for many years as well as new arrivals following the Creek War of 1813-1814 in southern Georgia and Alabama. So when a large military column made its way down the center of the peninsula under the command of General Jessup in 1837, there were many Seminoles living on the pinelands between Reedy Creek and Lake Toho.

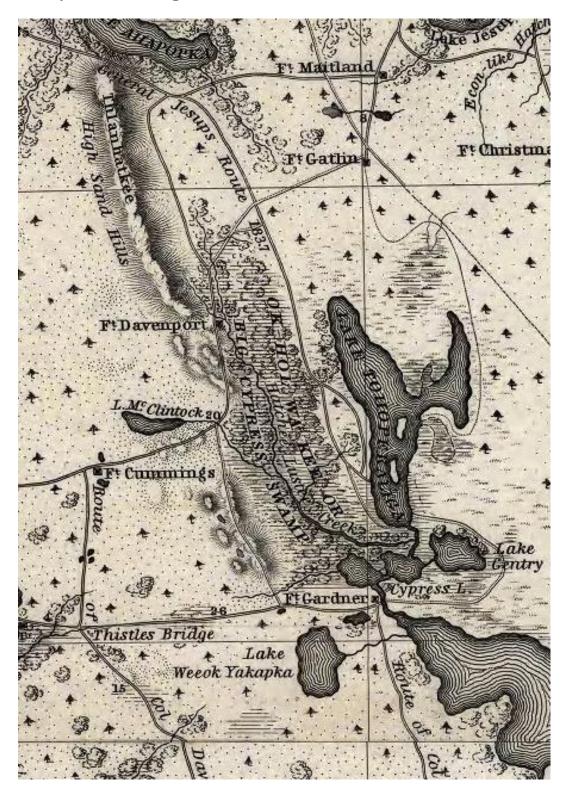
The large basin swamp that is the defining feature of the management area was called Ok-hol-wa-kee or "Big Cypress Swamp" by the Seminoles, and Reedy Creek was known as Hatchee-Lustee Creek. A significant skirmish took place near the banks of Reedy Creek on January 27, 1837 between General Jessup's column and the Seminole Warriors under the command of Chief Osuchee, whom the column was pursuing from an earlier skirmish near Lake Apopka. The brief battle in the swamp left 30 soldiers dead and 15 wounded, while the army took two Seminole women and three children prisoner. The army could only confirm a single Seminole warrior killed in the battle.

Following the battle on the Hatchee-Lustee, the military established the frontier outpost, Ft. Davenport, to the northwest of the Intercession City unit of the Management Area (**Maps 4a, 4b, and 5**).

Map 4a. 1838 Military Map of the area around the Lake Marion Creek and Reedy Creek Management Area

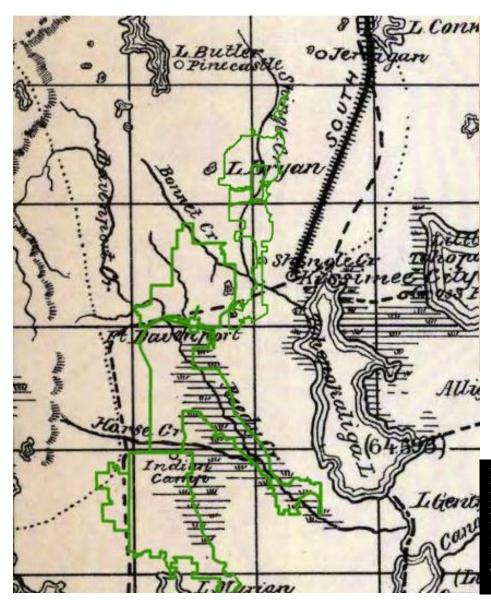


Map 4b. 1839 Military Map of the area around the Lake Marion Creek and Reedy Creek Management Area

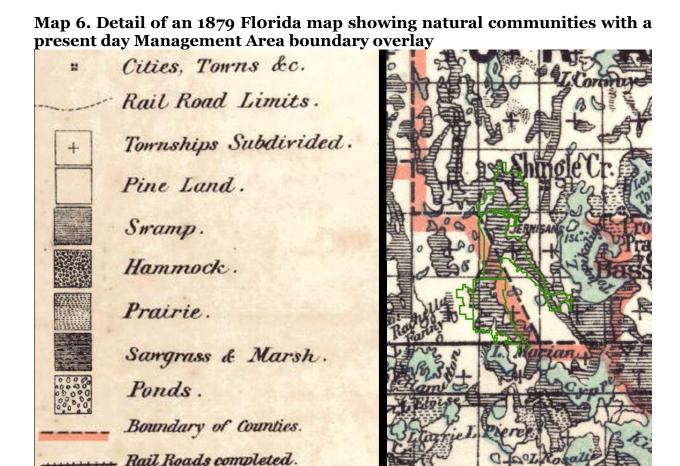


1840s-1860s

English speaking settlers began moving in to present day Polk and Osceola Counties during the 1840s and 1850s and were for the most part cattlemen and homesteaders who lived mainly off the land and had their own small vegetable plots. The government would routinely grant 160 acre tracts to single men or heads of households through successive acts of Congress, such as the Armed Occupation Act of 1842. This act granted 160 acres to anyone who submitted a permit to the regional land office to build and live in a house on the parcel and cultivate at least 5 acres of it for at least 5 years. Many settlers were veterans of the Second Seminole War who had familiarized themselves with choice parcels during their routine patrols. These early settlers were few and far between, the Armed Occupation Act of 1842 only authorized 1,250 homesteads for the entire peninsula south of Palatka.



Map 5: The Shingle Creek and Lake Marion and Reedy Creek management areas in 1882, with the location of an Indian Camp and Ft. Davenport shown. The present-day management areas are overlaid in green.



1870-1900

The land around the Management Area had been essentially depopulated for 40 years, since the first part of the Second Seminole War in the mid-1830s. A remarkably precise natural communities map completed in 1879 (**Map 6**), shows the pre-logging, pre-ranching, and pre-drainage detail of the ecology prior to extensive settlement. The map shows the historic extent of the basin swamp and the surrounding pinelands within the current boundaries of the Management Area. Pioneer settlement increased in the 1880s and 1890s following the construction of a rail line from Tampa to Sanford and the establishment of the Town of Kissimmee.

20th Century

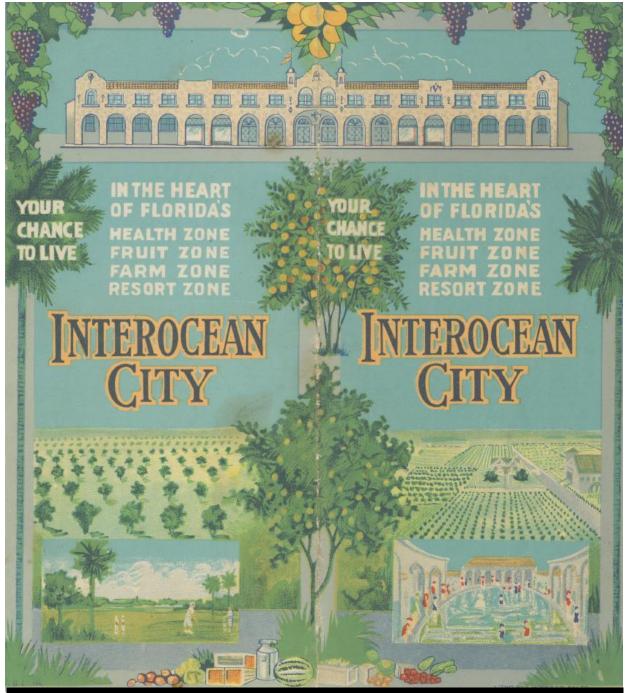
The 20th century brought alterations to the natural communities including logging, cattle grazing, fire suppression, and both urban and rural development in the surrounding landscape. The first major development in the area included much of the land within the Intercession City unit of the Management Area. A major city was planned and platted in the real estate boom of the twenties. This speculation driven community was called Interocean City since it was located half-way between the

Atlantic Ocean and the Gulf of Mexico. The developers anticipated the planned Cross-Florida Barge Canal would pass through their city, so they were intent on making it a central feature of the community. They built a water-plant and several other buildings and advertised all over the country, arranging tours of their several thousand acres. The city was never developed leaving the speculators broke and the buildings empty.



Photos from Interocean City, the 80 room hotel (top left), a boarding house for potential buyers (top right), apartment buildings (bottom left) and a tour bus bringing in visitors from Kissimmee (bottom right).

The buildings and surrounding 5,000 acres were given, during the Great Depression, as a philanthropic gift to a group of 50 orphans whose caretaker had moved them to Florida without a plan and who were desperate for a place to live. The caretaker originally rented a camp near Lake Apopka but found herself with 70 cents in her pocket and 50 children looking to be fed. The orphans had it rough, and resorted to eating the wild huckleberries growing in the woods and whatever fruits and vegetables would happen to fall off passing farm trucks. In the 1940's the site became the "Intercession City Bible College", then renamed to "Intercession Institute" in 1949. The school finally closed in 1953.



A cover to advertisement booklet for home sites in Interocean City.

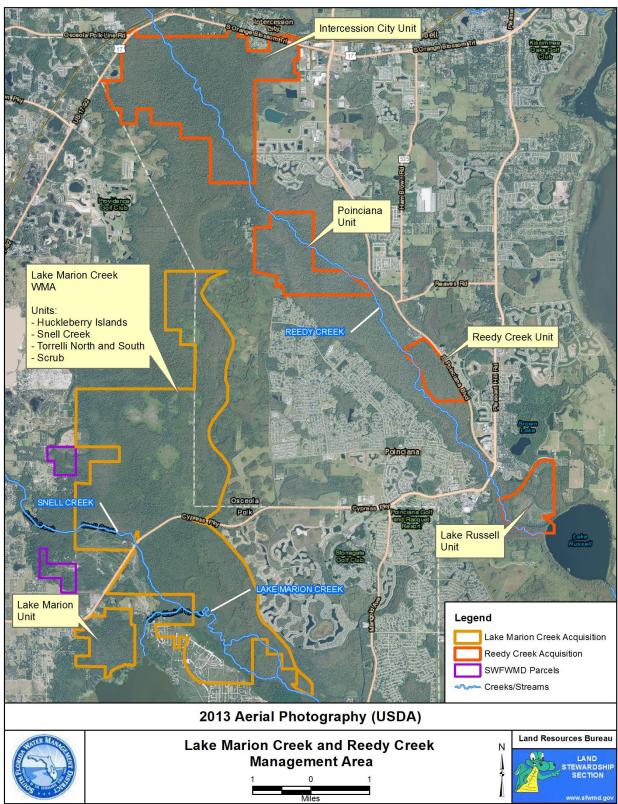


Photo of the Intercession Institute founded on the former speculative development of Interocean City

In 1981, the Florida Legislature established the Save Our Rivers program for the five water management districts to acquire environmentally sensitive land. Prior legislation produced the Water Management Lands Trust Fund and empowered the water management districts to acquire lands needed to manage, protect, and conserve the state's water resources. Acquired lands are to be managed and restored to their natural state and are to be made available to the public for appropriate levels of public use.

The District began purchasing lands within the Lake Marion Creek Project Area and Upper Reedy Creek Project Area in 1994 through the Save Our Rivers program. The majority of land was acquired from July 1994 to May 1997. The Management Area is comprised of approximately 12,915 acres located in eastern Polk and western Osceola counties (**Map** 7).

Map 7. 2013 aerial photo



4. Resource Inventory

<u>Policy 140-25(3)(e)</u> 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 are inventoried, and natural communities are mapped by Land Stewardship personnel, volunteers, or private contractors. The data helps District land managers with resource management planning.

Inventory data is on file with the Land Stewardship Section. Land Stewardship shares natural areas and species data with the Florida Natural Areas Inventory through a Memorandum of Understanding.

Floral and faunal inventories of the Management Area were included in the environmental assessment initiated shortly after acquisition to determine the presence of listed species. Additional surveys have been completed with species' lists being updated regularly by volunteers, contractors, and District staff (**Appendix E**). Archeological inventories were conducted by the Department of State, Division of Historical Resources and are described in Section 4.5.

4.1 Hydrology

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

White (1970) divided the state of Florida into three major hydrogeologic divisions. The Management Area lies within the central zone defined by discontinuous highlands in the form of sub-parallel ridges and valleys. The major geomorphic feature that affects area hydrology is the Osceola Plain, a 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 locally little relief and a general elevation of 60 to 70 feet National Geodetic Vertical Datum. The Management Area is located in the western edge of the Osceola Plain, with the eastern edge of the Lake Wales Ridge to the west (Maps 8a and 8b).

For management purposes, the Management Area is located in the Upper Kissimmee River Basin (**Map 9**) and includes two hydrologic basins (**Map 10**): the Reedy Creek and Lake Hatchineha. Intercession City Unit, Poinciana Unit, Reedy Creek Unit and the northern portion of the Lake Marion Creek WMA (the area within the Upper Reedy Creek Management Area) lie within the Reedy Creek basin. The remaining portion of Lake Marion Creek Wildlife Management area, including the Torelli South Unit, lie within the Lake Hatchineha basin. The Reedy Creek basin area is approximately 269 square miles and the Lake Hatchineha basin area is approximately 128 square miles.

Wetlands comprise approximately fifty percent of the Lake Marion Creek and Reedy Creek Management Area, and most are within the 100-year flood plain. The area is of critical importance to the recharge of the Floridan Aquifer because the deep sands of the Lake Wales Ridge allow water to infiltrate, rather than run off. Lake Marion serves as the headwaters for Lake Marion Creek, which combines with Snell and Horse Creeks to provide a constant supply of high quality water to Lake Hatchineha, which in turn discharges to Lake Kissimmee, the Kissimmee River and Lake Okeechobee. All three lakes are priority water bodies under South Florida Water Management District's Surface Water Improvement & Management Plan program (SFWMD 1997).

Three aquifer systems underlay the two management units: the Surficial, Intermediate and Floridan. The water table aquifer is contained within the Surficial Aquifer System (Powell 1991). The Intermediate Aquifer acts as a confining layer for the Floridan Aquifer, which supplies much of the water used in Polk County and is a source of both potable and non-potable water for a substantial portion of south Florida. The highly permeable Lake Wales Ridge has been identified as an area of high recharge, providing from 10 to 20 inches of groundwater recharge per year to the Floridan Aquifer (David 1992). The adjacent Osceola Floridan Aquifer to the east, provides base flows via spring-fed creeks to the headwaters of the Kissimmee River (South Florida Water Management District 1992).

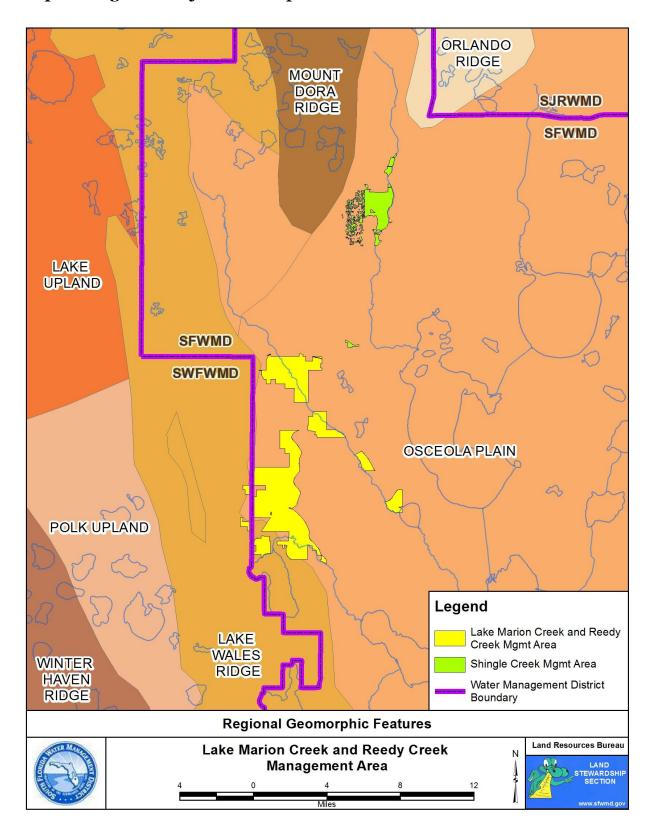
Surface waters within or associated with the Lake Marion Creek Management Area include Lake Marion, Lake Marion Creek, Snell Creek and a portion of Horse Creek According to the Polk County Water Atlas, Lake Marion covers 3,006 acres at elevation 67.0 feet (National Geodetic Vertical Datum). It drains an area in excess of 22,500 acres and is fed by springs. Lake Marion Creek is the primary outlet for Lake Marion. It originates at the north end of the lake and flows north, east, and then southeasterly for about 10 miles to Lake Hatchineha. Snell Creek originates approximately 4.5 miles north of Lake Marion, near the edge of the Lake Wales Ridge, and meanders southeasterly for five miles before intersecting Lake Marion Creek about 0.5 miles downstream of the Lake Marion Creek Road Bridge. Horse Creek forms in the Lake Wales Ridge approximately 10 miles northwest of Lake Marion. It flows into the Huckleberry Islands Swamp, east of Davenport and then discharges into Lake Marion Creek via Snell Creek. Its upper reaches are extensively channeled (SFWMD 1992).

Base flow in the creeks results from year round discharges from the Floridan Aquifer and are of critical importance in maintaining flows to the headwaters of the Kissimmee River. During droughts, Floridan Aquifer discharge is usually the only visible flows in the creeks. Stormwater runoff is associated with high discharge events and constitutes that portion of rainfall that does not seep into the ground or evaporate. Base flow measurements by South Florida Water Management District staff on March 6, 1991, for Lake Marion Creek, Snell Creek and Horse Creek are listed in **Table 1** (SFWMD 1992).

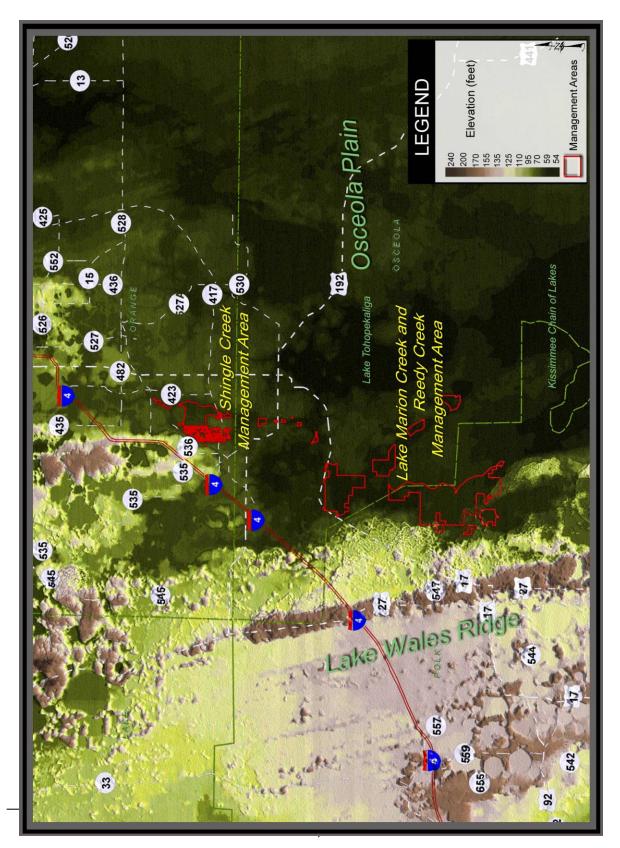
Table 1: Base Flow Measurements

LOCATION	DISCHARGE (cfs)
Horse Creek at Horse Creek Road	7.47
Lake Marion Creek at Lake Marion Creek Rd.	17.87
Snell Creek at County Road 580	15.60
TOTAL	40.94

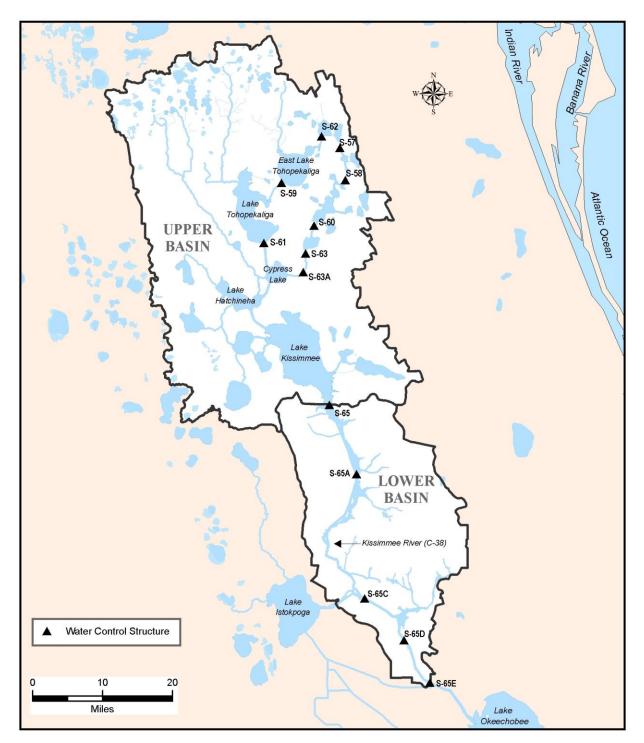
Map 8a. Regional Major Geomorphic Features



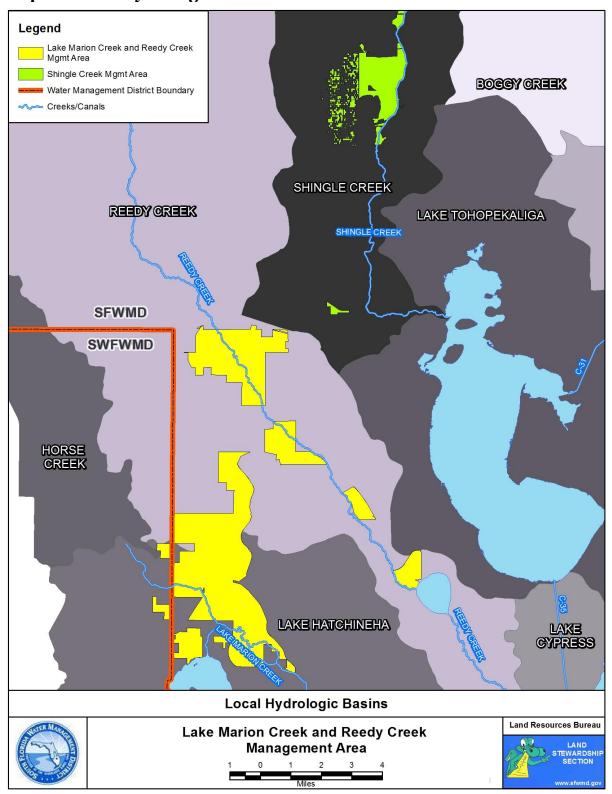
Map 8b. Regional Topography



Map 9. The Regional Upper and Lower Kissimmee River Basins



Map 10. Local Hydrologic Basins



4.2 Soils

There are six distinct soil categories within the Management Area as defined by the Natural Soil Landscape Positions soil classification system: flats soils, flatwood soils, knolls, central ridge and dunes, muck depression soils and sand depression soils (**Map 11**). 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. Classification descriptions are included as **Appendix B**.

Soil Contamination and Excavation Sites

Throughout the acquisition process, District Environmental Assessments have revealed no known areas of soil contamination (i.e. cattle dipping vats, chemical dumping) or excavation within the Management Area.

4.3 Natural Communities

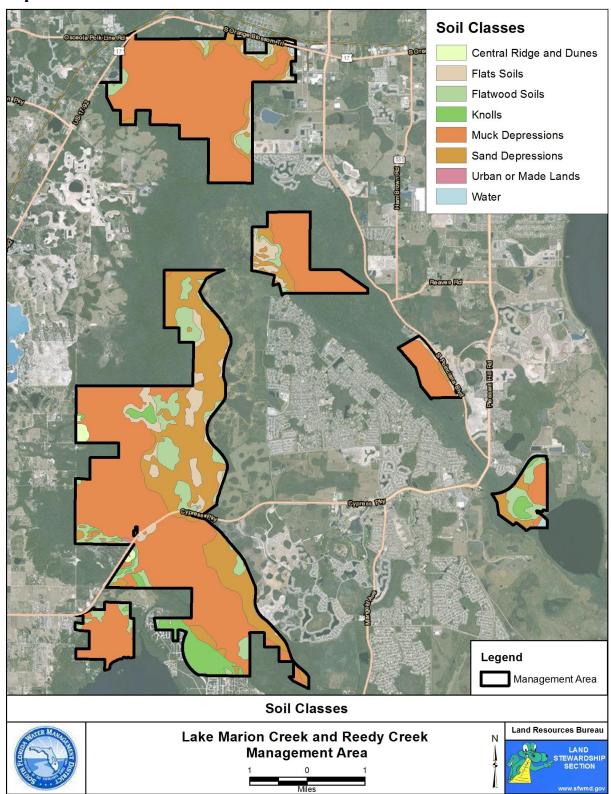
Seventeen natural community types, as classified by the Florida Natural Areas Inventory, are present in the Management Area. Descriptions are included in **Appendix C.** Habitat condition varies widely depending on current management activities and exotic plant infestation. Wetlands are identified for the Management Area in the National Wetlands Inventory Map produced by the U.S. Fish and Wildlife Service. The natural communities for each management unit are shown in **Map 12**. A summary of natural community types found in the Lake Marion Creek and Reedy Creek management units are shown in **Table 2**. Plant inventories were completed by District staff, contractors, Polk County, and the Audubon Society within the Management Area.

Table 2. Ecological Community Type Summary by Management Unit

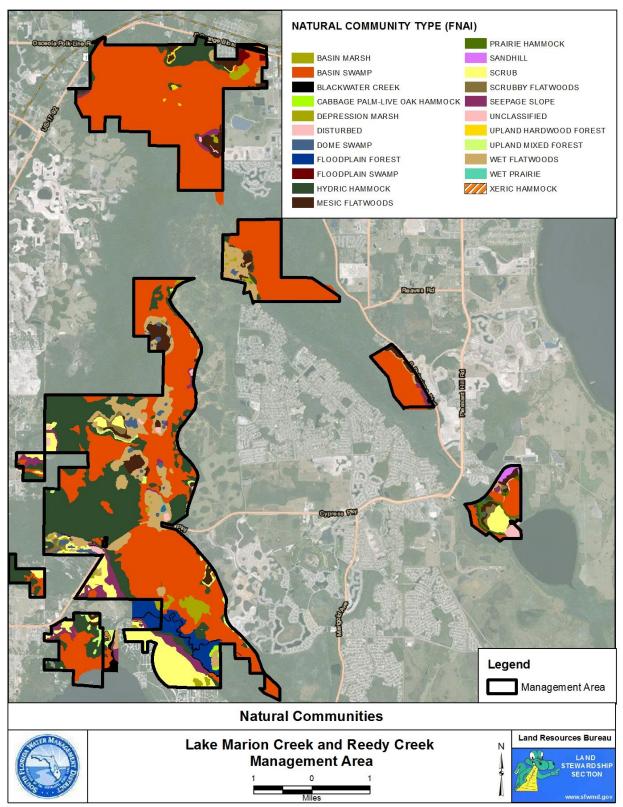
Table 2. Ecological Community Type Summary by Management Cint							
FNAI	Lake Marion	Intercession	Poinciana	Reedy Creek	Lake Russell		
Community	Creek WMA	City Unit	Unit	Unit	Unit		
Type							
Basin Marsh	X						
Basin Swamp	X	X	X	X	X		
Blackwater Stream	X						
Depression Marsh	X	X	X				
Dome Swamp	X	X	X		X		
Floodplain Forest	X						
Hydric Hammock	X	X	X	X	X		
Mesic Flatwoods	X	X	X	X	X		
Prairie Hammock					X		
Sandhill					X		
Scrub	X				X		
Scrubby Flatwood	X				X		
Seepage Slope	X						
Upland Mixed	X	X					
Forest							
Wet Flatwoods	X	X	X	X	X		
Wet Prairie	X						
Xeric Hammock	X						

X = documented

Map. 11. Soils



Map 12. Natural Communities: Florida Natural Areas Inventory classification



4.4 Wildlife

Inventories have documented 341 animal species within the Management Area. (**Appendix D**). Wildlife species observed utilizing the property include 214 bird, 45 mammal, 58 reptile, and 24 amphibian species. Over 30 species considered rare, endangered, threatened, or of special concern have been noted. Further documentation of mammals, amphibian, reptiles, and fishes are needed at Intercession City Unit, Poinciana Unit, and Reedy Creek Unit; however, at least 19 species considered rare, endangered, threatened, or of special concern have been noted in these units.

4.5 Cultural Resources

<u>Policy 140-25(3)(j)</u> 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.

In 1997 the Florida Division of Historical Resources conducted a search of the Florida Master Site File for archaeological and historical sites known to exist in the Lake Marion Creek/Reedy Creek Management Area. Eleven such sites existed. In 2003, another site was located and placed on file. However, the Florida Division of Historical Resources personnel emphasized that because the Lake Marion Creek area has not been completely surveyed, it may contain unrecorded archaeological sites or historical structures. The listing of these archaeological sites does not indicate whether any of the sites are significant. Further research will consequently be required to determine if there are additional sensitive historical and/or cultural resources, which need protection within the Management Area. Land management activities that could include ground disturbance are planned to avoid impacting areas known to contain archaeological or historical sites.

5. Natural Resource Management

<u>Policy 140-23</u> 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 activities that manipulate, modify, and control natural features within the Management Area. All lands that were acquired through the Save Our Rivers program 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 are 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 the application of vegetation control activities to restore natural forest structure and composition, the continuation of an aggressive exotic plant control program, the application of a prescribed burn program for fire dependent plant communities, and the implementation of reforestation activities where necessary to restore upland forest communities.

5.1 Restoration Projects

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

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

Pine Reforestation

Long leaf-slash pine reforestation is the primary restoration activity taking place on the Management Area. Prior to public ownership, parts of the Management Area experienced intensive logging that had nearly eliminated the pine overstory in many of the historic pine flatwoods habitats. Very little natural pine regeneration has occurred on these sites despite the successful implementation of prescribe fire. The groundcover in many of the cutover flatwoods communities is in excellent condition. Planting of longleaf pine and southern slash pine has been initiated on select flatwoods areas to reestablish forest structure and function that support the natural ecological processes that occurs in healthy pine forests.

Lake Marion Creek Scrub Restoration

Vegetation monitoring has shown that many parts of the scrub parcel do not provide optimal habitat for the Florida scrub-jay. The vegetation is too dense and tall (some places > 2 meters) creating overgrown conditions that requires special management. District staff is using an integrated management approach of mechanical treatments and prescribed fire to reach ideal condition. These activities are scheduled outside of the Florida scrub-jay nesting season which is usually from mid-March through June. Care is also taken to minimize habitat alterations of occupied habitat to prevent total displacement of scrub-jay territories.

5.1.1 Mitigation

The District received Central Florida Beltway Mitigation Funding through prior legislation. As directed by the legislation, the District developed conceptual mitigation plans that outline various restoration projects and acquisitions within the Lake Marion Creek and Reedy Creek basins. The mitigation funding annually supports a variety of land management activities performed within the Management Area.

5.1.2 Monitoring

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

Tracking environmental response to management and restoration activities 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.

Monitoring has also focused on documenting vegetative changes following the acquisition of the property by the District and the implementation of a regular prescribed fire program. Baseline inventories have been established, and two permanent photo monitoring stations were installed that will enable panoramic photos to be taken to document changes over time. The baseline vegetation study was completed by a field botanist from the Fairchild Tropical Gardens in Miami-Dade County in 1995-1996. The District contracted the same botanist 10 years later in 2005 to re-survey the site.

5.2 Vegetation Management

<u>Policy 140-25(3)(l)</u> 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 physically altered to meet a management objective. The techniques used in vegetation management include mowing, shredding, roller-chopping, timber thinning, and planting. These techniques are applied to one or more management objectives that may include:

- Restoring a degraded vegetative community
- Improving an area's suitability as wildlife habitat
- Exotic species control or weed management
- Fuel management in relation to prescribed burning or minimizing wildfires
- Clearing for maintenance or project management purposes
- Public access and trail maintenance

Vegetation management needs are identified annually by the regional land manager. The control and maintenance of vegetation is completed by District staff or through contractual agreements.

5.2.1 Exotic/Invasive Plants

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

<u>Policy 140-25(3)(b)</u> 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 and central Florida's subtropical climate provides an excellent growth environment for the rapid spread of exotic plants that can cause extensive alterations to natural ecosystems. Hydrologic alterations, contaminated equipment, and site soil disturbances are just a few factors that have influenced the expansion of exotic plants throughout the Management Area. Exotic plant infestations 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 in the Florida 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.

Invasive and exotic plant control measures include a combination of herbicide application, biological control, prescribed fire, roller chopping, mowing and physical removal. Selection of control measures is dependent upon species type, environmental factors, and natural communities impacted. Private contractors conduct exotic plant control activities in coordination with the District's Vegetation Management Section.

Exotic plant control within the Management Area is conducted primarily by a contracted crew of applicators. District staff also provides supplemental control treatments especially on small or sporadically distributed infestations. Generally, treatments are scheduled so that each unit is covered annually; however schedules are adjusted based on current conditions and available funding. Areas of treatment are scheduled based on hydrologic conditions, time since last treatment, virulence of infestation, and funding. All treatments follow herbicide best management practices and use the best available science. Treatment dates, locations, and herbicide are noted and recorded in a GIS database.

Plant inventories have documented 33 exotic species within the Management Area. Species denoted with an "*" are not identified as Category I or II exotics on the Exotic Pest Plant Council list.

• Alligator Weed (*Alternanthera philoxeriodes*)

- Paper mulberry (Broussonetia papyrifera)*
- Sour Orange (Citrus aurantium)*
- Low Flatsedge (Cyperus pumilus)*
- West Indian Chickweed (Drymaria cordata)*
- Water Hyacinth (Eichhornia crassipes)
- Indian Goosegrass (Eleisune indica)*
- Thalia lovegrass (*Eragrostis atrovirens*)*
- Air Potato (Dioscorea bulbifera)
- Hydrilla (Hydrilla verticillata)
- Cogon Grass (Imperata cylindrica)
- Pineland Elder (Iva microcephala)*
- Primrose Willow (Ludwigia peruviana)
- Old World Climbing Fern (Lygodium microphyllum)
- Japanese Climbing Fern (Lygodium japonicum)
- Wild Bushbean (Macroptilium lathyroides)
- Chinaberry (*Melia azedarach*)
- Natal grass (Melinis repens)
- Torpedo Grass (Panicum repens)
- Sour Paspalum Paspalum conjugatum)*
- Bahia Grass (Paspalum notatum)*
- Vasey Grass (Paspalum urvillei)*
- Watter Lettuce (*Pistia stratiotes*)
- Indian Cupscale Grass (Sacciolepis indica)*
- Water Spangles (Salvinia minima)
- Wright's Nutrush (*Scleria lacustris*)
- Tropical Soda Apple (Solanum viarum)
- Giant Smutgrass (Sporobolus indicus var. pyramidalis)
- Small Smutgras (Sporobolus indicus)*
- Chinese tallow (*Triadica sebifera*)
- Caesar Weed (*Urena lobata*)
- Paragrass (*Urochloa mutica*)
- Oriental False Hawksbead (Youngia japonica)*

5.2.2 Rare, Threatened and Endangered Species

<u>Policy 140-25(2)(b)</u> 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, or the Florida Department of Agriculture and Consumer Services. The plant list of the Management Area (**Appendix D**) contains several listed species (reproduced in **Table 3**).

Table 3: Listed Floral Species

Common Name	Scientific Name	State/Federal Listing		
Curtiss's milkweed	Asclepias curtissii	LE		
Chapman's sedge	Carex chapmanii	LT		
Scrub mint	Dicerandra frutescens	LE		
Scrub buckwheat	Eriogonum longifolium var. gnaphalifolium	LE		
Star ainse	Illicium parviflorum	LE		
Pine pinweed	Lechea divaricata	LE		
Celestial lily	Nemastylis floridana	LE		
Britton's beargrass	Nolina brittoniana	LE		
Paper-like nailwort	Paronychia chartacea	LE		
Plume polypody	Pecluma plumula	LE		
Swamp plume polypody	Pecluma ptilodon	LE		
Lewton's polygala	Polygala lewtonii	LE		
Scrub plum	Prunus geniculata	LE		
Giant orchid	Pteroglossaspis ecristata	LT		
Florida willow	Salix floridana	LE		

(LE) - Listed Endangered (LT) - Listed Threatened

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 Area may be threatened by the exotic Mexican weevil (*Metamasius callizona*) that have 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 conduct periodic surveillance of areas of potential infestations to assess management needs.

5.2.3 Forest Resources

<u>Policy 140-25(3)(h)</u> 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.

<u>Policy 140-25(5)(b)(3)</u> 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 are currently no sites within the Management Area that meet District criteria for a profitable timber harvest, although it is a goal for the Land Stewardship Program to re-establish healthy longleaf and slash pine forests on previous logged sites to encourage natural regeneration and forest sustainability. These sites could potentially offer limited harvest opportunities in the future.

5.2.4 Range Resources

<u>Policy 140-25(3)(i)</u> 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.

The District does not anticipate utilizing the property for grazing or agricultural activities due to the limited grazing potential and high quality wetlands that occur on the Management Area.

5.3 Fire

<u>Policy 140-25(3)(c)</u> 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

The District began its prescribed fire planning for the Management Area in 1999 when sufficient property was acquired to develop feasible burn units. Fire data (prescribed and wild) is maintained in GIS to produce historical burn maps of the property (**Map** 13).

5.3.2 Prescribed Fire Planning

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, 2010). To mimic historic fire conditions, Land Stewardship emphasizes growing season burns (April-September) 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. Mechanical vegetation treatments, such as mulch mowing, are sometimes used to prepare sites for prescribed fire by reducing the height of woody shrubs to augment fire ignition in areas lacking low growing fine fuels and to manage the intensity of prescribed burns in areas with high fuel loads.

Burns are executed using proven methods as defined by the Prescribed Burning Act of 1990, Section 590.026, Florida Statutes. This legislation and associated administrative rules outline accepted forestry burn practices and are administered through the Florida Forest Service. Land Stewardship has a three person prescribed fire crew in the Upper Lakes Land Management Region and utilizes other cooperating agency staff to conduct burns. All Land Stewardship staff on the fire crew have completed the state certified burn course to ensure safety and proper technique.

Fuel reduction and ecological restoration are the primary objectives for utilizing prescribed fire. Each fire-dependent natural community is burned within specific intervals as determined by Land Stewardship staff. Prescribed fire plans will emphasize yearly burn acreage to attain a 2-3 year rotation for mesic and wet flatwoods; and 5-8 year rotation for scrub and scrubby flatwoods. During times when site conditions are not conducive for prescribed fire, it may be necessary to implement mechanical treatments to achieve restoration and vegetation maintenance goals.

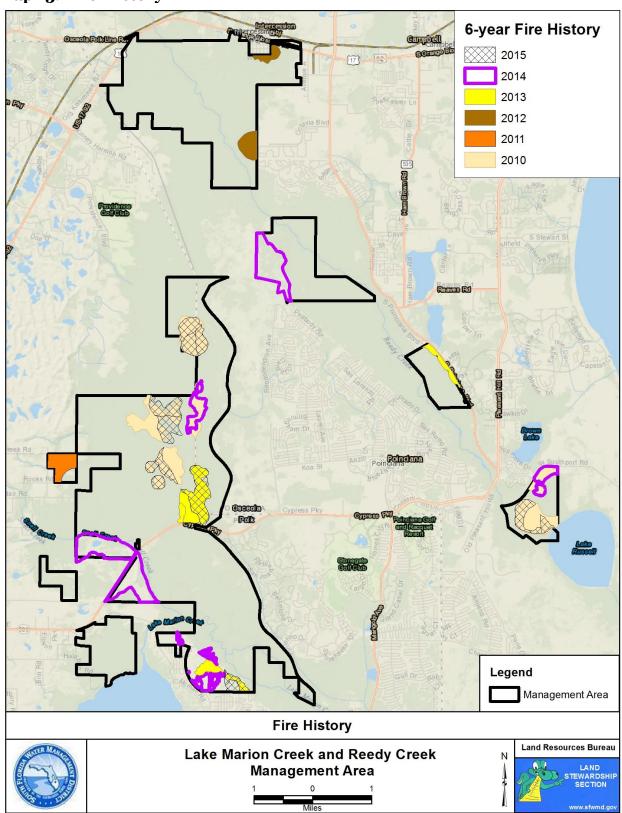
Prescribed Fire and Carbon Sequestration

Carbon is stored on District lands in vegetation and organic soils. Each year, the amount of carbon increases as young forests grow and marshes steadily fix carbon into peat. This is also known as carbon sequestration. It is important to manage the District's land resources in a manner to maximize the amount of carbon that is sequestered, while minimizing carbon dioxide and other greenhouse gas emissions. Prescribed fire is a tool that if used under the right conditions and with the right frequency can increase the rate at which a fire-dependent natural community can grow and store carbon. Following a burn, there is a subsequent spike in primary productivity caused by a release of nutrients and exposure of more surface area to sunlight, as well as a post-burn swelling of both above and below ground carbon stores.

Some prescribed fire guidelines for maximizing carbon storage that the District follows include:

- Burning at a return interval of 3 to 5 years when possible.
- Implementing a proper mop-up phase of the prescribed fire to extinguish smoldering fuels and reduce unnecessary carbon and nitrous oxide releases.
- Keep fuel density low to avoid the possibility of massive carbon releases in the event of a wildfire.
- Avoiding muck fires and conditions that lead to muck fires as they release large quantities of carbon and nitrous oxide.

Map 13. Fire History



5.3.3 Wildfire Suppression

<u>Policy 140-25(3)(d)</u> The Florida Forest Service 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 Area receives numerous lightning strikes as indicated by past wildfires. It is District policy, and state law, that the Florida Forest Service 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 Florida Forest Service will be called immediately and a fire assessment made.

If District manpower is available and other conditions are favorable, a permit will be requested from the Florida Forest Service to incorporate the wildfire into a controlled burn. Although infrequent, allowing these wildfires to burn may help achieve burn objectives and will prevent counterproductive and unnecessary suppression efforts. It is recognized that the best wildfire mitigation for the Management Area is to maintain the area with frequent prescribed fire promoting a healthy open forest with light fuel loads.

5.4 Wildlife Management

A primary objective in the stewardship of the Management Area is to maintain healthy fish and wildlife populations. Wildlife management in the Management Area is directed toward production of native species diversity consistent with the biological community types present. Land Stewardship accomplishes this in several ways:

- Performing 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 wildlife species populations where appropriate.
- Maintaining a master file of confirmed and potential wildlife species.
- Cooperating with the Florida Fish and Wildlife Conservation Commission on wildlife management issues, including wildlife inventories and evaluating management actions.

Management occurs through the actions mentioned above, primarily through the application of regular prescribed fire and the control of exotic species. Additionally, the District conducts various plant and animal inventories through volunteers, staff, and private contractors to evaluate the health and dynamics of the Management Area's natural communities.

5.4.1 Game Management

<u>Policy 140-25(4)(b)(4)</u> Florida Fish and Wildlife Conservation Commission regulations shall govern hunting in areas opened for such use.

The Management Area supports a number of game species. The three most common game species are white-tailed deer, feral hog, and wild turkey. Small game includes quail, dove, rabbit, snipe, and gray squirrel. The Lake Marion Creek portion of the Management Area has been established as a Wildlife Management Area by the Florida Fish and Wildlife Conservation Commission. The Commission administers a variety of hunting seasons during the fall and winter months as well as a turkey season during the spring. Management activities directed towards game management include establishing bag limits for game species, regulating hunting pressure, and burning, chopping and shredding vegetation. The hunting program is detailed in **Appendix E.**

5.4.2 Exotic/Invasive Fauna

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

The feral hog is an exotic pest species that occur within the Management Area. Disturbance caused by this species negatively impacts natural communities and interferes with land management operations. Although valued by some people as a game species, feral hogs present a serious environmental concern with their ability to quickly colonize areas due to their high fecundity, adaptability, and omnivorous diet. Their rooting behavior disrupt soil and vegetation altering natural communities and can cause long-term damage in sensitive habitats that are slow to recover. Hog disturbance is evident throughout the Management Area and mostly found within the margins of wetlands but is considered to be at an acceptable level. 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.

Feral hogs are harvested through recreational hunting on the Lake Marion Creek Wildlife Management Area (WMA) portion of the property in accordance with rules and regulations established by the Florida Fish and Wildlife Conservation Commission. Public quota hunts conducted in the fall and non-quota hunts during the small game and hog hunt seasons are the primary method of hog population control at this time. The number of permitted hog hunters has been increased over the years by adding additional hog hunts and removing quotas that limited the number of hunt participants. The increase in hunting pressure has helped to further control hog numbers and provide additional hunting opportunities. Public hog hunting will continue to be an important use of the area and will be looked upon as the preferred hog population control method. The District will also continue to use no-cost hog control agents, as necessary, in cooperation with the Florida Fish and Wildlife Conservation Commission to remove feral hogs from the Lake Marion Creek WMA and Reedy Creek portions of the Management Area. From July 1, 2014 through June 30, 2015, a total of 234 hogs were removed from the property using hog control agents in addition to the hogs that were harvested during established hunting seasons.

Other exotic wildlife have been identified on the management area including the armadillo, brown anole, Cuban tree frog, and coyote. No control programs have been implemented for these species, as such actions have not been determined to be necessary.

5.4.3 Rare, Threatened and Endangered Species

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

Wildlife inventories have documented federal and state-listed species (endangered, threatened, and species of special concern) occurring within the Management Area (**Appendix D**). The distribution of listed species is summarized in **Table 4**. Impacts to these species from planned land management and recreational activities are taken into account when planning and performing land management functions. 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 4. Number of Documented Listed Species for Management Area

Species	Endangered	Threatened		State Listed	
		Fed	State	Species Of Special Concern	
Birds	2	3	3	10	
Mammals	2	0	0	3	
Amphibians	0	0	0	1	
Reptiles	0	4	2	1	

Management emphasis concerning rare and/or listed wildlife species within the Lake Marion Creek Wildlife Management Area has been centered on scrub jays, gopher tortoise, Florida mouse, and sand skinks.

Florida Scrub-jay

Florida scrub-jay surveys are conducted annually by volunteers at Lake Marion Creek WMA. These volunteers are provided by Audubon of Florida as part of the Jay Watch program. District staff coordinate the surveys with volunteers to gather information including the number of birds observed (juvenile and adult), leg band features, and location in vicinity to established survey points. The volunteers also conduct biannual vegetation sampling. Survey methodologies for Jay Watch were developed by the Nature Conservancy and Archbold Biological Station.

District staff compiles the survey data collected by the volunteers. The findings are submitted to Audubon of Florida for inclusion in the Jay Watch statewide annual report. Information from the surveys aid the District in determining population trends overtime and overall success of habitat restoration efforts.

Management Objective

- Protect nesting and foraging Florida scrub-jays and habitat
- Improve condition of overgrown scrub and scrubby flatwoods

Management Action

• Continue scrub and scrubby flatwoods management practices that are beneficial to scrub-jays such as prescribed burning, and/or mechanical treatments

Florida Mouse

A small mammal trapping survey was conducted by Quest Ecology for the Florida Fish and Wildlife Conservation Commission in 2005 from mid-March to mid-May to determine the presence of Florida mouse at five scrub sites at Lake Marion Creek Wildlife Management Area. At total of 200 traps were set for the five sites. There were

eighteen captures during the trapping period, sixteen were Florida mouse and two were cotton mice. The traps were placed at or near the entrance to gopher tortoise burrows.

Florida Sand Skink

The District contracted with Glatting Jackson Kercher Anglin Lopez Rinehart, Inc. to perform a sand skink survey on the Torelli South unit in the spring of 2004 with the report submitted to the District in July 2004. A total of 607 coverboards were placed for the presence of sand skinks. Sand skink swim trails were found under a total of 107 coverboards. Sand skink activity appeared to be primarily concentrated on the edges of field roads that have large amounts of open sand and low scattered vegetation that provides suitable habitat. Evidence of sand skink presence was noted at the Horse Creek scrub site during the Small Mammal Trapping Survey conducted in 2003.

Gopher Tortoise

A small mammal trapping survey was conducted by Quest Ecology for the Florida Fish and Wildlife Conservation Commission in 2005 from mid-March to mid-May to determine the presence of Florida mouse at five scrub sites at the Lake Marion Creek Wildlife Management Area, and to locate, measure, and assess gopher tortoise burrow activity. The study did not study the population or habitat of the gopher tortoise only the location of the burrows and whether the burrows are active, inactive, or abandoned. In the five scrub sites where the survey was conducted, one hundred burrows were located. Of the one hundred burrows; thirty-seven were active, thirty-two were inactive, and thirty-one were abandoned.

6. Public Use

<u>Policy 140-23</u> 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 Statutes 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. All District lands are available for public use, except in rare instances where there is no legal public access or where lease restrictions or construction activities prohibit public entry.

Public input into the management of the area is solicited at the quarterly Water Resource Advisory Commission Recreational Issues Meetings. In coordination with partnering agencies, adjustments to public use opportunities are made on an ongoing basis through the Recreational Issues Meetings and by rulemaking through the 40E-7, F.A.C. Public Use Rule. This plan addresses public use matters only to describe the

scope of public use opportunities available or planned as of the date of the plan, and is not intended to set public use policies through the plan period.

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

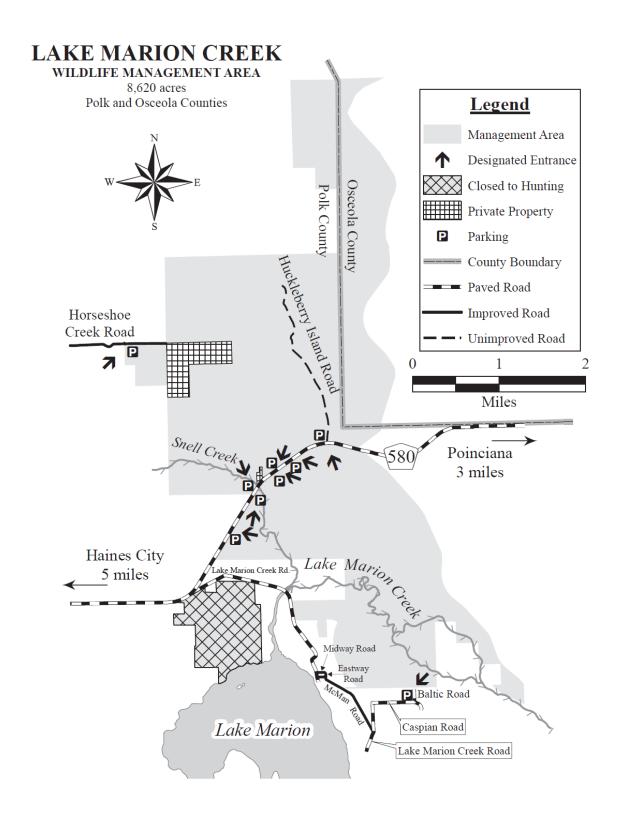
A wide variety of compatible public use activities that are allowed for the Management Area include, but are not limited to, fishing, hunting, camping, hiking, canoeing, birding, frogging, environmental education, and nature appreciation. **Table 5** summarizes current recreational opportunities in the Management Area (**Map 14**). User information concerning recreational activities is located at the District's regional service centers and West Palm Beach offices, and at each entrance to the Management Area. Information may also be obtained at: www.sfwmd.gov and selecting Recreation.

The District is exploring the creation of a designated canoe launch site on Lake Marion Creek. While canoeing is allowed on the creek, there is no canoe launch or take-out platform within the Management Area. Proper facilities would enhance creek access and provide a better opportunity to enjoy the creek system. Additional proposed improvements include two picnic shelters, overlook tower, and three new kiosks.

Table 5. Recreational Opportunities on Lake Marion Creek/Reedy Creek
Management Area

Management Unit	Fishing Frogging	Hunting	Hiking	Biking	Camping	Canoeing	Nature Study
Lake Marion Creek	X	X	X	X	X	X	X
Torelli South	21	21	X	71	71	71	X
Intercession City			X				X
Poinciana			X				X
Reedy Creek	X		X			X	X
Lake Russell			X				X

Map 14. Lake Marion Creek Wildlife Management Area



6.1 Resource Protection

<u>Policy 140-25(1)(d)</u> 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.

<u>Policy 140-25(3)(g)</u> 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.

<u>Policy 140-25(4)(b)(1)</u> 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.

Regulations that govern activities within the Management Area are in the District's 40E-7 rule and the Florida Fish and Wildlife Conservation Commission's Wildlife Management Area regulations. The 40E-7 rules are available online and at agency headquarters in West Palm Beach. Allowed activities include hiking, fishing, boating, canoeing, camping, hunting, equestrian use, biking, and nature study. The Florida Fish and Wildlife Conservation Commission is responsible for enforcing laws, rules, and regulations applicable to the Management Area, along with the local county sheriffs' offices.

Management of public activities on District lands requires a commitment to resource protection while simultaneously promoting all appropriate public uses. The District emphasizes the enforcement of pertinent rules and regulations to protect natural resources and also provide a safe recreational opportunity. Law enforcement officers conduct regular patrols throughout the year, increasing their presence during hunting seasons and at other times when public use is high. In addition, the District provides funding to pay for additional patrols and off-duty details through a law enforcement services contract administered with the Florida Fish and Wildlife Conservation Commission. Law enforcement surveillance protects natural and cultural resources, deters illegal activity, and safeguards the public. Patrols are conducted with 4-wheel drive vehicles, all-terrain vehicles, aircraft, and on foot. The District's law enforcement coordinator and the regional land manager review biweekly reports and meet with officers to structure patrols based on resource needs.

Resource protection is also greatly enhanced by the presence and continual maintenance of posted boundary signs. All exterior boundaries within the Management Area are posted. However, monitoring of boundaries must be done at least semi-annually (once immediately prior to the hunting season in August or September). Much of the perimeter boundary is fenced. In perimeter boundary areas that abut public waterways and private lands, or where vegetation may obscure posting or fences, the District will mow the boundary periodically.

6.2 Environmental Education

Educational programs are developed and implemented on select management areas by cooperators interested in promoting increased visitor awareness and appreciation of natural areas and cultural resources. A central theme to these programs is the vital role of water management in maintaining high quality and biologically productive natural areas. The Land Stewardship Program encourages educational partnerships through memorandums of understanding, lease, and contract agreements.

The District entered into a cooperative agreement (Contract #C-7947) in 1996 with the Osceola County School Board for the development and management of environmental education and public use programs at the Lake Russell Unit through 2021. The contract authorizes the School Board to create and operate an educational facility on the management unit in conjunction with the School Board's existing Reedy Creek Environmental Education Facility. The School Board subsequently submitted (and received approval for) a development and implementation plan to the District, which is filed at the District's Orlando Service Center. The School Board teaches environmental education programs to grade school, middle school, and high school students out of mobile education classrooms. Administrative buildings, a storage area, and an interpretive trail have also been established under the agreement. The public is allowed access to the facility when School Board staff is present.

7. Administration

Administration of Land Stewardship Program lands is directed through the Land Stewardship Section. Policy decisions, planning and budgeting, procurement of personnel and equipment, contract administration, and issues of program development are administrative tasks coordinated through the Section. Input is provided from the public and regional land managers located at District Service Centers over the 16-county area. Regional land managers handle regular administrative duties from their field locations to assure quick response to local concerns and management issues. Administrative activities for the Management Area are handled through the St. Cloud Field Station and through the District's headquarters in West Palm Beach.

7.1 Planning and Budgeting

Planning is a major component of the Land Stewardship Program mission and is critical to maintain proper program focus, direction, and coordination with other agencies. Planning is accomplished by section planning staff in coordination with land management staff.

<u>Policy 140-25(6)(b)</u> 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 ten years.

General 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 ten-year cycle by planning team and land management staff.

<u>Policy 140-25(5)</u> 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 nongovernment 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 land management operations on the Management Area has been derived from mitigation funds and ad valorem tax revenue. More recently, funding and support have been provided by the legislature through the appropriation of Land Acquisition Trust Fund monies and no-cost services from user groups and volunteers.

Budget planning begins in October 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.

The continued operation and maintenance of the Management Area includes costs to cover staffing, ongoing operational and land management expenses, and capital refurbishment/replacement of aging infrastructure. Capital infrastructure needs are determined by its condition and the anticipated continued serviceability over the next fiscal year. Priorities for capital refurbishment/replacement are made on a District-wide basis.

The operational and land management budget for FY 2016 are included in **Table 6**, below. Utilities and operational expenses include supplies, electric service, business travel, and safety equipment. Public use costs are generally the maintenance costs of public use facilities. Base level funding needs may increase in the future in response to increasing operational expenses including fuel costs, contracted exotic plant control needs, and equipment and infrastructure repair needs.

Table 6. Operational and Land Management Funds Budgeted for Fiscal Year 2016.

	2016		
Lake Marion Creek MA	Budget		
Contracted LM Svcs	\$	0	
Utilities and Operational Expenses	\$	9,180	
Equipment and Infrastructure			
Maintenance	\$	8,000	
Exotic Species Control			
(non-capital)	\$	40,000	
Vegetation Management		40,000	
Public Use	\$	2,110	
Site Security	\$	27,600	
Total	\$	126,890	

7.2 Infrastructure

<u>Policy 140-25(3)(k)</u> 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.

Current Management Area infrastructure includes eight entrances, perimeter posting and fencing, firelines, hiking trails and roads, a bridge and culvert crossings, picnic tables and fire rings, a hunting check-station, and kiosks; all of which require regular maintenance. Future plans include improvements to existing roads and culverts to increase stability during wet and high-use periods.

7.3 Personnel and Equipment

The Land Stewardship Section is separated into five geographic regions, each assigned a Senior Scientist (Land Manager), and one to three land management technicians, and some areas based on needs, a Scientist III position. A Section Leader provides direct oversight and supervision for the land managers. Additional leadership and assistance come from the Land Stewardship Section Administrator, Wildlife and Public Use Section, and other support personnel at District headquarters in West Palm Beach, FL.

Stewardship of the Management Area is the primary responsibility of the District's Upper Lakes Region staff which currently consists of 3.5 full time employees officed at the St. Cloud Field Station. The Upper Lakes staff manages an additional 26,398 acres of land throughout the management region including Kissimmee Chain of Lakes Management Area, Shingle Creek Management Areas, and mitigation properties such

as London Creek. District staff outside of Land Stewardship provide supplemental management input and resources required to accomplish program objectives.

Staff has access to tools, supplies, equipment, four-wheel drive vehicles, vessels, fire suppression trucks, all-terrain vehicles, swamp buggies, an airboat, a dump truck, tractors, a road grader, a backhoe, and a large plow. The St. Cloud Field Station's Canal/Levee maintenance crew and equipment, as well as leased equipment, are also available to assist in the Management Area on a limited basis.

7.4 Volunteers and Alternative Work Force

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

Section 373.1391(3) F.S. encourages the District to use volunteers for land stewardship and other services. The District recognizes the merits of volunteerism and welcomes participation in activities appropriate for public involvement. In Fiscal Year 2015, District lands benefited from 15,131 volunteer hours, or \$326,981 worth of volunteer services (using a \$21.61/hour Florida average for the value of volunteer service). On the Lake Marion Creek and Reedy Creek Management Area, volunteers have conducted public use facility and trail maintenance services.

Land management objectives are also occasionally met by alternative work forces. When available, alternative work forces can be used for projects that demand manual labor and have low technical skill requirements. Under the cooperative agreement with the Osceola County School Board, numerous volunteers donated time and materials toward the development and operation of the environmental education facility at the Lake Russell Unit. These volunteers are recruited and coordinated by the Osceola County School Board. School Board use of volunteers is an essential component of the program and expected to continue throughout the duration of the contract.

7.5 Contractual Management

<u>Policy 140-25(5)(a)</u>. 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.

Effective operation and management of District properties requires the services and cooperation of private organizations, other governmental agencies, and volunteers. Contractual management is authorized through a management agreement signed by both the District and contracting entity with the document defining responsibilities of each party.

The District has established contractual management agreements to assist with management of the Lake Marion Creek and Reedy Creek Save Our Rivers project:

Contract#C-9804: Southwest Florida Water Management District

The Southwest Florida Water Management District acquired 300 acres of land within the Lake Marion Creek and Reedy Creek Project Area in 1997. Other lands, totaling approximately 2,600 acres, within the Southwest Florida Water Management District are targeted for future acquisition. Because these lands are in close proximity to the South Florida Water Management District / Southwest Florida Water Management District boundary, and because the South Florida Water Management District has a large Management Area adjacent to the Southwest Florida Water Management District parcels, the districts have agreed to enter into a management agreement for the property. Under the agreement, the South Florida Water Management District manages Southwest Florida Water Management District's property since it lies within the Lake Marion Creek and Reedy Creek Management area.

Contract#360000000-A12: Enhanced Patrols

The District contracted with the Florida Fish and Wildlife Conservation Commission for enhanced law enforcement services. These services cover areas throughout the District and include supplemental patrols on the Management Area. The District's resource protection coordinator schedules patrols with input from the Management Area's land manager and the Commission.

Contract #4600000961

A cooperative agreement with the Florida Fish and Wildlife Conservation Commission that establishes Lake Marion Creek as a Wildlife Management Area and authorizes the commission to establish rules and regulate public recreation opportunities such as hunting.

Contract#C-7947: Osceola County School Board – 1996-2021

The District has developed a partnership with Osceola County School Board to develop an environmental education center on the Lake Russell Unit. This center provides summer camps and several other ongoing programs for county students.

7.6 Management Review

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

A land management review team is identified for each project area with a General Management Plan. The composition of the review teams are defined by statute (§ 373.591, Fla. Stat.) and include state and private entities that are charged with reviewing management activities to assure they are consistent with acquisition intent and program objectives. Management assessments are conducted based on of the goals and objectives defined in the area's general management plan and are scored on a scale of 1 to 5 with a 1 meaning the management is insufficient and a 5 meaning the management is extremely effective. If the review team determines that management is insufficient in any area, defined as attaining an average score of less than 3.0, then the

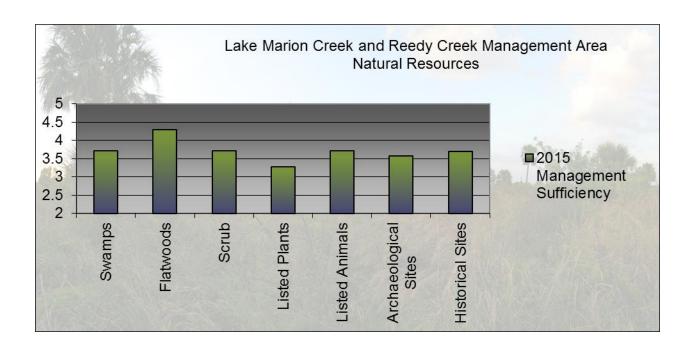
District is to provide a written explanation to the review team along with proposed corrective actions.

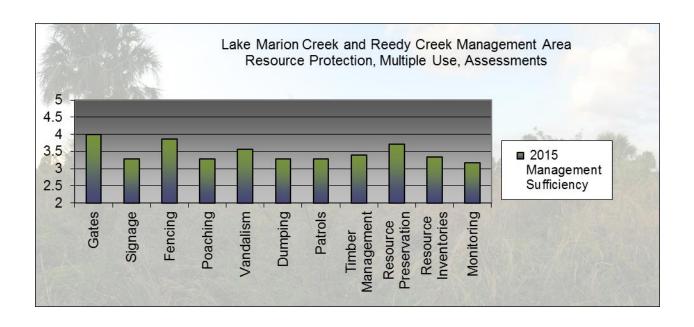
A management review was conducted in November 2015. The review team provided comments on the condition of the land and the management of the site. Positive comments were received on the condition of the land and the land management practices implemented on the Lake Marion Creek and Reedy Creek Management Area. These comments focused on the District's consistent use of prescribed fire, aggressive exotic control, and the dedication and performance of the land management staff.

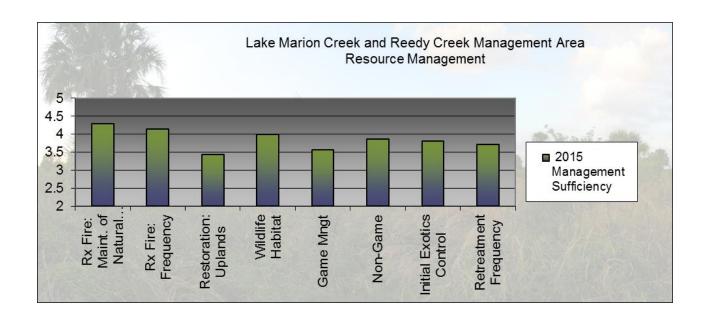
The review also included comments by several team members that additional staffing and increased funding would be beneficial for the overall management of the property. There were individual comments that additional plant monitoring should be conducted and that the District should continue to promote and advertise the public recreational opportunities available on the Management Area.

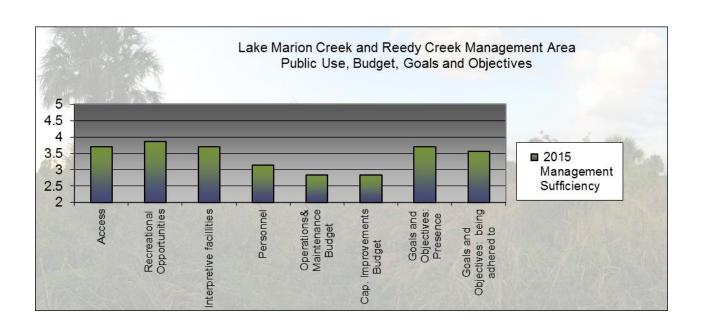
The team also rated the land management sufficiency grouped under the broader categories of Natural Resources; Resource Management; Resource Protection, Multiple Use, Assessments; and Public Use, Budget, Goals and Objectives. The average score for each evaluation criteria is identified on the graphs below and indicate the review team felt the Management Area was being properly managed.

2015 Land Management Review Results









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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.

Appendix B. Soil Descriptions

Flats Soils

Flats soils (previously referred to as slough) are poorly drained hydric soils with sandy marine sediments throughout the profile, or more rarely with loamy sand or sandy loam. Some areas within this unit are frequently flooded alluvial areas that have a sandy surface for the majority of the area. Flats are located between the flatwood and depressional landscapes, and are generally regarded as transition areas. The seasonal high water table can range from the soil surface to one foot below the surface for four to ten months annually. In most years, the seasonal high water table begins in June and ends from September to March (typically by February). Some areas may be inundated for less than a few weeks by large storm events. Examples of these soils include Boca, Felda, and Riviera. Wet-dry prairies dominated by grasses are typical to this landscape position.

One of the ecological communities most typical of the flats landscape is the slough. Slough soils are nearly level and very poorly drained with organic surfaces underlain by sand. Representative soils include Hontoon, Sanibel and Okeelanta. Most sloughs serve as drainage ways for water during periods of heavy and prolonged rainfall. Surface water may move over this area for up to a few weeks during the rainy season. Most sloughs are relatively long and narrow and slightly lower in elevation than the surrounding flatwoods and hammocks. Vegetation within the slough may be open expanse of grasses, sedges and rushes with scattered pines and cypress in an area where the surface soil is saturated during the wet season. Grasses are the most common plant found in sloughs. Other plants that characterize this community are pickerelweed, sundew, milkwort (*Polygala sp.*), beak rushes, blue maidencane (*Amphicarpum muhlenbergianum*), and sloughgrass (*Scleria sp.*).

Flatwood Soils

Flatwood soils are poorly drained non-hydric, upland soils with sandy marine sediments throughout the profile. Most of the soil series have a subsurface spodic horizon, some of which may have loamy sand substrates. The seasonal high water table can range from 6 to 18 inches below the soil surface for three to six months annually. Some areas may become inundated for less than a couple of weeks during large storm events. Examples of these soils include Immokalee, Malabar, and Wabasso. The soils affect plant-water relationships and cause differences in plant composition. Natural communities typical of flatwood soils are dry prairie, mesic flatwoods, and scrubby flatwoods. Typical flatwood soil vegetation includes pine trees with an understory of saw palmetto. Other common plants are live oak, shiny blueberry, gallberry, tarflower, wax myrtle, chalky bluestem (*Andropogon viginicus glaucopsis*), and wiregrass.

Knolls

Knoll soils are non-hydric, upland soils with sandy marine sediments throughout the profile. These soils typically have no unique diagnostic horizons within the soil profile and are well to somewhat poorly drained. The seasonal high water table can range from

one and a half to six feet below the soil surface for four to seven months annually. Examples of these soils include Archbold, Canaveral, and Pomello.

One ecological community that is typical to the knolls landscape is sand pine scrub. Natural vegetation may typically be even-aged sand pine trees with a dense under-story of oaks, saw palmetto, and other shrubs. Ground cover under the trees and shrubs is scattered. Large areas of light colored sand are often noticeable. Satellite soils, which have a high water table for part of the year, support scrubby growth. Myrtle oak, Chapman's oak, and sand pine become infrequent and gallberry becomes prominent. Plants that characterize this community are: Chapman's oak, myrtle oak, sand live oak, sand pine, prickly pear (*Opuntia sp.*), and panicum (*Dichanthelium sp.*).

Central Ridge and Dunes

Central Ridge and Dune landscapes are well drained, non-hydric, high upland soils with sandy marine sediment throughout the profile. These soils are typically populated with xeric species. The water table is more than six feet below the soil surface throughout the year. Common soils of this landscape position include Chandler, Palm Beach, Paola, and St. Lucie. One ecological community that is typical of this landscape position is the South Florida Coastal Strand. Another community that may be found on this landscape position is Sand Pine Scrub.

Muck Depression Soils

Muck depression soils are very poorly drained hydric soils that have an organic surface layer underlain by sandy marine sediments. These areas are often depressions adjacent to flats and flatwood landscapes. The seasonal high water table can range from six inches below to two feet above the soil surface for up to 11 months annually. In most years, the seasonal high water table begins in June and ends between December and April (typically in April). Examples of these soils include Gator, Hontoon, and Sanibel. Some areas within this unit are frequently flooded alluvial areas that have muck surface. These frequently flooded map units are known to have surface flooding at least one out of every two years. A few areas may have a thin organic surface layer less than a few inches thick.

Ecological communities often found in this landscape are basin swamp, dome swamp, strand swamp or floodplain swamp. Typically occurring along rivers, lake margins, slough and strands, these communities may be interspersed throughout other communities such as flats and flatwoods. Water is at or above ground level a good portion of the year. Tree species diversity is low in cypress domes, but increases in cypress strands and along stream margins. Plants which characterize this community are: bald cypress (*Taxodium disticum*), pond cypress, coastal plain willow, red maple, buttonbush, wax myrtle, cinnamon fern, royal fern (*Osmunda regalis*), Spanish moss, giant wild pine (*Tillandsia utriculata*), and maidencane. Some of the protected plants that may be found in these communities include the climbing dayflower (*Commelina gigas*), fuzzy wuzzy airplant (*Tillandsia pruinosa*), giant water dropwort (*Oxypolis greenmanii*), hidden orchid (*Maxillaris crassifolia*), nodding catopsis (*Catopsis nutans*), and grass of Parnassus (*Parnassia graniflora*).

This soil classification is the largest represented in the Management Area.

Sand Depression Soils

Sand depression soils are very poorly drained hydric soils that typically have sandy marine sediments throughout the profile. A few areas may have mucky sand, loamy sand, or sandy loam surfaces with sandy or loamy subsurfaces. Often, these areas are depressions adjacent to flats and flatwood landscapes. The seasonal high water table can range from one foot below to two feet above the soil surface for seven to ten months annually. In most years, the seasonal high water table begins in June and ends from October to March (typically in March). Some areas within this unit are frequently flooded alluvial areas that have a sandy surface for the majority of the area. Soils commonly associated with this community are nearly level and very poorly drained with organic surfaces underlain by sand. Flooding at least one out of every two years. Examples of Sand Depression soils include Basinger, Boca, Chobee, Felda, and Riviera.

Natural communities often found in this landscape are the freshwater marsh and ponds. Vegetation varies widely within marshes, and may be composed of: flag, sawgrass, arrowhead, and other non-grass herbs marsh, cattail, spike-rush, bulrush, and maidencane marsh.

Water (open)

Water areas are permanently inundated, usually to a depth of two feet or greater. This includes freshwater, saltwater, natural and excavated sites.

One small area within the Intercession City Unit contains this soil classification.

Appendix C. Natural Communities

Basin Wetlands

Basin Marsh

Basin marshes are herbaceous or shrubby wetlands situated in relatively large and irregular shaped basins. Basin marshes are associated with and often grade into Wet Prairie or Lake Communities (Florida Natural Areas Inventory). This community is typified by marsh openings within basin swamps, or extensive marshes occupying large, shallow basin landscape positions (Bridges and Reese 1996). Common species identified are panicum (Panicum sp.), cutgrass (Leersia sp.), pennywort (Hydrocotyle sp.), Spanish needle (Bidens bipinnata), soft rush (Juncus sp.), arrowhead (Saggittaria sp.), elderberry (Sambucus canbadensis), spikerush (Eleocharis sp.), buttonbush (Cephalanthus occidentalis), and dog fennel (Eupatorium compositifolium).

Basin Swamp

Basin swamp is generally characterized as a relatively large and irregularly shaped basin that is not associated with rivers, but is vegetated with hydrophytic trees and shrubs that can withstand an extended hydroperiod (Florida Natural Areas Inventory). Dominant trees include cypress (*Taxodium sp.*), Swamp black gum (*Nyssa sylvatica var. biflora*), and Florida slash pine (*Pinus elliottii var. densa*). Other typical plants include red maple (*Acer rubrum*), swamp bay (*Persea palustris*), sweetbay (*Magnolia virginiana*), loblolly bay (*Gordonia lasianthus*), fetterbush (*Lyonia lucidi*), wax myrtle (*Myrica cerifera*), and buttonbush.

Depression Marsh

Depression marsh is characterized as a shallow, usually rounded depression in sand substrate with herbaceous vegetation often in concentric bands (Florida Natural Areas Inventory). Typical plants include St. John's wort (*Hypericum sp.*), yellow-eyed grass (*Xyris sp.*), chain fern (*Woodwardia sp.*), primrose willow (*Ludwigia peruviana*), maidencane (Panicum hemitomum), wax myrtle, buttonbush, pickerelweed (*Pontederia cordata*), and bladderwort (*Utricularia sp.*).

Dome Swamp

Dome swamps are characterized as shallow, forested, usually circular depressions that generally present a domed profile because smaller trees grow in the shallower waters at the outer edge, while larger trees grow in the deeper water in the interior. Pond cypress (*Taxodium ascendens*) and slash pine (in transition areas) are common trees. Other typical plants include red maple, dahoon holly (*Ilex cassine*), swamp bay, sweetbay, loblolly bay, virginia willow, fetterbush, chain fern (*Woodwardia virginiana*), netted chain fern (*Woodwardia areolata*), poison ivy (*Toxicodendron radicans*), Spanish moss (*Tillandsia usneoides*), wild pine (*Tillandsia sp.*), royal fern (*Osmunda regalis*), cinnamon fern (*Osmunda cinnamomea*), maidencane, wax myrtle, St. John's wort, floating heart (*Nymphoides aquatica*), buttonbush, and alligator flag (*Thalia geniculata*).

Mesic Uplands

<u>Upland Mixed Forest</u>

This community is is characterized as well-developed, closed-canopy forests of upland hardwoods on rolling hills. Upland Mixed Forest is found on sandy-clays or clayey sands with substantial organic and often calcareous components. The topography and clayey soils increase surface water runoff, although this is counterbalanced by the moisture retention properties of clays and by the often thick layer of leaf mulch. This community is the climax community for their geographic locations. Southern magnolia, hickory, sweetgum, Florida maple, loblolly pine, and live oak are typical plants found in this community.

Mesic Flatlands

Mesic Flatwoods

Mesic Flatwoods are characterized as an open canopy forest of widely spaced pine trees with little or no understory but a dense ground cover of herbs and shrubs. Mesic flatwoods are found on poorly drained, but rarely if ever inundated soils. They occupy extensive flat inter-drainageway plains in central Florida. Several variations of mesic flatwoods are recognized, the most common in the Management Area being and slash pine-gallberry-saw palmetto.

Scrubby Flatwoods

Scrubby flatwoods are characterized as an open canopy forest of widely scattered pine trees with a sparse shrubby understory and numerous areas of barren white sand (Florida Natural Areas Inventory). This community occurs on sites slightly higher in elevation than mesic flatwoods, but lower than scrub. Soils are well drained and dry, even during maximum rainfall events. Unlike scrub, the water table is relatively close to the soil surface. As with typical scrubby flatwoods, Drasdo and Lightsey Units harbor species common to both scrub and mesic flatwoods. Typical species include slash pine, saw palmetto, myrtle oak, sand live oak, fetterbush, goldenrod (solidago sp.), and wiregrass. Due to floristic and geographic similarities, some ecologists speculate that this community is merely a form of mesic flatwoods where fire has been excluded. This theory is based on the natural occurrence of hardwood (oak) invasion without sufficient fire frequency patterns. In addition, scrubby flatwoods provide habitat for the gopher tortoise and the Florida scrub jay (Aphelocoma coerulescens) – both threatened species.

Prairie Hammock

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). Prairie hammocks establish on elevated soils surrounded by lower topography. These islands are generally sandy marl flooding only for a short duration during the highest water levels.

Canopy species include live oak (Quercus virginiana) and cabbage palm, with occasional laurel oak (Quercus laurifolia) in lower elevations. An abundance of epiphytes, including listed species, are found in mature canopy trees. As in most prairie hammocks, there is 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, beautyberry (Callicarpa americana), and saw palmetto.

Wet Flatlands

Hydric Hammock

Hydric hammock is characterized as a well-developed hardwood and cabbage palm forest with a variable understory often dominated by palms and ferns. Typical plants include cabbage palm (*Sabal palmetto*), red maple, swamp bay, sweetbay, water oak (*Quercus nigra*), wax myrtle, saw palmetto, poison ivy, dahoon holly, royal fern, pepper vine (*Ampleopsis arborea*), and virginia creeper (*Parthenocissus quinque*).

Wet Flatwoods

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 understory and a dense ground cover of hydrophytic herbs and shrubs, with variations between these extremes (Florida Natural Areas Inventory). Native ground cover species are frequently displaced by non-native Bahia.

Wet Prairie

Wet prairie is characterized as a treeless plain with a sparse to dense ground cover of grasses and herbs, including wiregrass, maidencane, spikerush (*Eleocharis sp.*), and beakrush (*Rhynchospora sp.*). Other typical plants include tickseed (*Bidens sp.*), wax myrtle, St. John's-wort (*Hypericum sp.*), and Panicums (Florida Natural Areas Inventory).

Xeric Uplands

Scrub

Scrub occurs in many forms, but is often characterized as a closed to open canopy forest of sand pines with dense clumps or vast thickets of scrub oaks and other shrubs dominating the understory (Florida Natural Areas Inventory). Typical plants include sand live oak, myrtle oak (*Quercus myrtifolia*), scrub oak (*Quercus inopina*), saw palmetto, fetterbush, and wiregrass. Highest elevations in the Management Area support this community.

Scrub is being lost at an alarming rate throughout the state, as high elevations and fast drainage make this community highly desirable for development. This association

occurs almost exclusively in Florida. State ranking of scrub is "S2," imperiled in the state because of its rarity and vulnerability (Florida Natural Areas Inventory).

Xeric Hammock

Xeric Hammock is characterized as either a scrubby, dense, low canopy forest with little understories other than palmetto, or a multi-storied forest of tall trees with an open or closed canopy. Several gradations between these extremes exist. Typical plants include live oak (*Quercus virginiana*), sand live oak (*Quercus geminate*), laurel oak (*Quercus laurifolia*), and saw palmetto. (Florida Natural Areas Inventory)

Seepage Wetlands

Seepage Slope

Seepage slopes are wetlands characterized as shrub thickets on or at the base of a slope where moisture is maintained by downslope seepage such that the ground is usually saturated but rarely inundated. They generally occur where water percolating down through the sand hits an impermeable layer, such as clay or rock. Typical plants include pond pine, wax myrtle, wiregrass, bluestem, longleaf pine, and slash pine. Seepage slope soils are acidic, loamy sands with low nutrient availability that are constantly saturated by seepage except during droughts. They are rarely inundated, although small pools and rivulets are common.

Floodplain Wetlands

Floodplain Forest

Floodplain forests are hardwood forests that occur on drier soils at slight elevations within floodplains, such as on levees, ridges and terraces, and are usually flooded for a portion of the growing season. The dominant trees are sweetgum, red maple, silver maple, sweetbay magnolia, and poison ivy.

Soils of floodplain forests are variable mistures of sand, organics, and alluvials. Hydroperiod is the primary physical feature of floodplain forests, which are inundated by flood waters nearly every year for up to 50% of the growing season. Floodplain forests usually do not have standing water in the dry season.

Riverine

Blackwater Stream

Blackwater streams are characterized as perennial or intermittent seasonal watercourses originating deep in sandy lowlands where extensive wetlands with organic soils function as reservoirs, collecting rainfall and discharging it slowly to the stream. The tea-colored waters are laden with tannins, particulates, and dissolved organic matter and iron translocated by drainage through swamps and marshes. Typical plants include sedges, grasses, smartweed, and golden club.

Blackwater streams have sandy bottoms overlain by organics and frequently underlain by limestone. Limestone outcrops may occur. These streams typically have high, steep banks alternating with floodpain swamps.

Appendix D - Species List Flora

Inventoried by: Edwin Bridges and Gary Reese, 1996-1997, and 2005-2006: Fairchild Tropical Gardens Darla Fousek and Mia VanHorn, 1997, South Florida Water Management District Rufinao Osario, 1997, Independent Contractor for the South Florida Water Management District

	GENUS SPECIES	COMMON NAME
1	Justicia angusta	Everglades or Pineland Water-willow
2	Ruellia caroliniensis subsp. caroliniensis	Carolina Wild-petunia
3	Acer rubrum var. trilobum	Southern Red Maple
4	Nolina brittoniana	Bear-grass
5	Yucca filamentosa	Adam's Needle
6	Sagittaria graminea var. chapmanii	Grass-leaf Arrowhead; Baygalls
7	Sagittaria graminea var. graminea	Grass-leaf Arrowhead
8	Sagittaria lancifolia	Bull-tongue Arrow-head
9	Sagittaria latifolia	Common or Broad-leaf Arrowhead; Duck Potato; Wapato
10	Alternanthera philoxeroides	Alligator-weed
11	Amaranthus australis	Southern Water Hemp; Giant or Southern Amaranth
12	Froelichia floridana	Cottonweed; Plains Snake-cotton
13	Iresine diffusa	Bloodleaf; Juba's Bush
14	Crinum americanum	String-lily; Southern Swamplily; Seven Sisters
15	Rhus copallina	Winged or Shining or Dwarf Sumac
16	Toxicodendron radicans	Poison Ivy
17	Asimina obovata	Flag or Big-flower Pawpaw
18	Asimina parviflora	Small-flower Pawpaw
19	Asimina reticulata	Reticulate or Netted Pawpaw
20	Centella asiatica	Coinwort; Asian Coinleaf; Spade-leaf
21	Cicuta mexicana	Mexican or Spotted Water-hemlock
22	Cyclospermum leptophyllum	Marsh Parsley
23	Eryngium aquaticum	Corn Snakeroot; Marsh Coyote-thistle
24	Eryngium aromaticum	Fragrant Eryngium; Fragrant Coyote-thistle
25	Eryngium baldwinii	Matted Button Snakeroot; Baldwin's Coyote Thistle
26	Eryngium yuccifolium	Rattlesnake-master; Button Snakeroot
27	Hydrocotyle bonariensis	Coastal Plain Marsh or Water Pennywort
28	Hydrocotyle ranunculoides	Floating Marsh Pennywort
29	Hydrocotyle umbellata	Marsh or Many-flower Pennywort
30	Hydrocotyle verticillata	Whorled Pennywort; Whorled Marsh-pennywort
31	Oxypolis filiformis	Water Dropwort; Water Cowbane
32	Sanicula canadensis	Clustered or Canadian Black-snakeroot
33	Ilex ambigua var. ambigua	Carolina Holly; Sand Holly
34	llex cassine	Dahoon Holly; Dahoon
35	Ilex coriacea	Large or Sweet Gallberry
36	llex alabra	Inkberry; Gallberry
37	Ilex opaca var. arenicola	Scrub or American Holly
38	Ilex opaca var. opaca	American Holly
39	Arisaema triphyllum	Swamp Jack-in-the-pulpit; Indian Turnip
40	Orontium aquaticum	Golden Club; Neverwet
41	Peltandra virginica	Green Arum; Green Arrow Arum
42	Pistia stratiotes	Water-lettuce
43	Rhapidophyllum hystrix	Needle Palm
44	Sabal etonia	Scrub Palmetto
45	Sabal minor	Dwarf or Bluestem Palmetto
46	Sabal palmetto	Cabbage Palm
47	Serenoa repens	Saw Palmetto
48	Syagrus romanzoffianum	Queen Palm
49	Asclepias cinerea	Carolina milkweed
50	Asclepias curtissii	Curtiss' Milkweed
51	Asclepias feayi	Feay's Milkweed
52	Asclepias pedicellata	Savannah Milkweed
53	Asclepias perennis	Swamp Milkweed

54	Asclepias tuberosa subsp. rolfsii	Butterfly-weed
55	Cynanchum scoparium	Leafless Cynanchum; Leafless Swallow-wort
56	Matelea gonocarpos	Angle-Pod; Spiny-Pod
57	Dryopteris Iudoviciana	Florida or Southern Shield Fern;Southern Wood Fern
58	Polystichum acrostichoides	Christmas Fern
59	Thelypteris dentata	Downy Shield Fern; Downy Maiden Fern
60	Thelypteris hispidula var. versicolor	Rough Hairy Maiden Fern
61	Thelypteris interrupta	Willdenow's Maiden Fern
62	Thelypteris kunthii	Widespread Maiden Fern
63	Thelypteris palustris var. pubescens	Eastern Marsh Fern
64	Acmella oppositifolia var. repens	Button of Gold; Creeping Spotflower
65	Ageratina jucunda	Hammock Thoroughwort
66	Ambrosia artemisiifolia	Common or Annual Ragweed
67	Aster caroliniensis	Climbing Aster
68	Aster dumosus	Bush Aster
69	Aster elliottii	Elliott's Aster
70	Aster reticulatus	Pine Barren White-top Aster
71	Aster subulatus	Annual Saltmarsh Aster
72	Aster tortifolius	White-topped Aster
73	Baccharis glomeruliflora	Groundsel Tree; Silverling
74	Baccharis halimifolia	GroundselTree;SeaorSaltMyrtle;Eastern False-willow
75	Balduina angustifolia	Yellow Buttons; Coastal-plain Honeycomb-head
76	Bidens alba var. radiata	Common Begger-ticks
77	Bidens bipinnata	Spanish Needle(s)
78	Bidens mitis	Marsh or Small-fruited Beggar-ticks
79	Bigelowia nudata subsp. australis	South Florida Rayless-goldenrod
80	Boltonia diffusa	FalseAster;Small-headDoll'sDaisy;Saltmarsh Boltonia
81	Carphephorus corymbosus	Coastal-plain Chaffhead
82	Carphephorus odoratissimus	Odorless Vanilla-leaf
83	Carphephorus paniculatus	Hairy Chaffhead
84	Chrysopsis scabrella	Coastal-plain Golden-aster
85	Cirsium horridulum	Yellow or Horrid Thistle
86	Cirsium muticum	Swamp Thistle
87	Cirsium nuttallii	Nuttall's Thistle
88	Conoclinium coelestinum	Blue Mistflower
89	Conyza canadensis var. pusilla	Dwarf Horseweed
90	Coreopsis floridana	Florida Tickseed
91	Coreopsis leavenworthii	Leavenworth's Tickseed
92	Elephantopus species	Elephant's Foot
93	Erechtites hieracifolia	Fireweed; American Burn
94	Erigeron quercifolius	Southern or Oakleaf Fleabane
95	Erigeron vernus	Daisy or Early White-top Fleabane
96	Eupatoriadelphus fistulosus	Hollow Joe-pye-weed
97	Eupatorium capillifolium	Small Dog-fennel Thorough-wort; Dog Fennel
98	Eupatorium compositifolium	Dog Fennel; Yankee Weed
99	Eupatorium leptophyllum	Dog Fennel; Yankee Weed Marsh Fennel
99 100	Eupatorium leptophyllum Eupatorium mohrii	Dog Fennel; Yankee Weed Marsh Fennel Dog-fennel; Pale Boneset; Mohr's Thoroughwort
99 100 101	Eupatorium leptophyllum Eupatorium mohrii Eupatorium recurvans	Dog Fennel; Yankee Weed Marsh Fennel Dog-fennel; Pale Boneset; Mohr's Thoroughwort Coastal Plain Thoroughwort
99 100 101 102	Eupatorium leptophyllum Eupatorium mohrii Eupatorium recurvans Eupatorium rotundifolium	Dog Fennel; Yankee Weed Marsh Fennel Dog-fennel; Pale Boneset; Mohr's Thoroughwort Coastal Plain Thoroughwort False Horehound; Round-leaf Thorough-wort
99 100 101 102 103	Eupatorium leptophyllum Eupatorium mohrii Eupatorium recurvans Eupatorium rotundifolium Eupatorium serotinum	Dog Fennel; Yankee Weed Marsh Fennel Dog-fennel; Pale Boneset; Mohr's Thoroughwort Coastal Plain Thoroughwort False Horehound; Round-leaf Thorough-wort Late-flowering Thoroughwort
99 100 101 102 103 104	Eupatorium leptophyllum Eupatorium mohrii Eupatorium recurvans Eupatorium rotundifolium Eupatorium serotinum Euthamia tenuifolia	Dog Fennel; Yankee Weed Marsh Fennel Dog-fennel; Pale Boneset; Mohr's Thoroughwort Coastal Plain Thoroughwort False Horehound; Round-leaf Thorough-wort Late-flowering Thoroughwort Slender Fragrant or Flat-topped Goldenrod
99 100 101 102 103 104 105	Eupatorium leptophyllum Eupatorium mohrii Eupatorium recurvans Eupatorium rotundifolium Eupatorium serotinum Euthamia tenuifolia Garberia heterophylla	Dog Fennel; Yankee Weed Marsh Fennel Dog-fennel; Pale Boneset; Mohr's Thoroughwort Coastal Plain Thoroughwort False Horehound; Round-leaf Thorough-wort Late-flowering Thoroughwort Slender Fragrant or Flat-topped Goldenrod Garberia
99 100 101 102 103 104 105 106	Eupatorium leptophyllum Eupatorium mohrii Eupatorium recurvans Eupatorium rotundifolium Eupatorium serotinum Euthamia tenuifolia Garberia heterophylla Gnaphalium obtusifolium	Dog Fennel; Yankee Weed Marsh Fennel Dog-fennel; Pale Boneset; Mohr's Thoroughwort Coastal Plain Thoroughwort False Horehound; Round-leaf Thorough-wort Late-flowering Thoroughwort Slender Fragrant or Flat-topped Goldenrod Garberia Sweet Everlasting; Rabbit's Tobacco
99 100 101 102 103 104 105 106	Eupatorium leptophyllum Eupatorium mohrii Eupatorium recurvans Eupatorium rotundifolium Eupatorium serotinum Euthamia tenuifolia Garberia heterophylla Gnaphalium obtusifolium Helenium pinnatifidum	Dog Fennel; Yankee Weed Marsh Fennel Dog-fennel; Pale Boneset; Mohr's Thoroughwort Coastal Plain Thoroughwort False Horehound; Round-leaf Thorough-wort Late-flowering Thoroughwort Slender Fragrant or Flat-topped Goldenrod Garberia Sweet Everlasting; Rabbit's Tobacco Southeastern Sneezeweed
99 100 101 102 103 104 105 106 107	Eupatorium leptophyllum Eupatorium mohrii Eupatorium recurvans Eupatorium rotundifolium Eupatorium serotinum Euthamia tenuifolia Garberia heterophylla Gnaphalium obtusifolium Helenium pinnatifidum Helianthus angustifolius	Dog Fennel; Yankee Weed Marsh Fennel Dog-fennel; Pale Boneset; Mohr's Thoroughwort Coastal Plain Thoroughwort False Horehound; Round-leaf Thorough-wort Late-flowering Thoroughwort Slender Fragrant or Flat-topped Goldenrod Garberia Sweet Everlasting; Rabbit's Tobacco Southeastern Sneezeweed Swamp Sunflower
99 100 101 102 103 104 105 106 107 108	Eupatorium leptophyllum Eupatorium mohrii Eupatorium recurvans Eupatorium rotundifolium Eupatorium serotinum Euthamia tenuifolia Garberia heterophylla Gnaphalium obtusifolium Helenium pinnatifidum Helianthus angustifolius Helianthus floridanus	Dog Fennel; Yankee Weed Marsh Fennel Dog-fennel; Pale Boneset; Mohr's Thoroughwort Coastal Plain Thoroughwort False Horehound; Round-leaf Thorough-wort Late-flowering Thoroughwort Slender Fragrant or Flat-topped Goldenrod Garberia Sweet Everlasting; Rabbit's Tobacco Southeastern Sneezeweed Swamp Sunflower Florida Sunflower
99 100 101 102 103 104 105 106 107 108 109	Eupatorium leptophyllum Eupatorium mohrii Eupatorium recurvans Eupatorium retundifolium Eupatorium serotinum Euthamia tenuifolia Garberia heterophylla Gnaphalium obtusifolium Helenium pinnatifidum Helianthus angustifolius Helianthus floridanus Heterotheca subaxillaris	Dog Fennel; Yankee Weed Marsh Fennel Dog-fennel; Pale Boneset; Mohr's Thoroughwort Coastal Plain Thoroughwort False Horehound; Round-leaf Thorough-wort Late-flowering Thoroughwort Slender Fragrant or Flat-topped Goldenrod Garberia Sweet Everlasting; Rabbit's Tobacco Southeastern Sneezeweed Swamp Sunflower Florida Sunflower Camphor-weed
99 100 101 102 103 104 105 106 107 108 109 110	Eupatorium leptophyllum Eupatorium mohrii Eupatorium recurvans Eupatorium retundifolium Eupatorium serotinum Euthamia tenuifolia Garberia heterophylla Gnaphalium obtusifolium Helenium pinnatifidum Helianthus angustifolius Helianthus floridanus Heterotheca subaxillaris Hieracium megacephalon	Dog Fennel; Yankee Weed Marsh Fennel Dog-fennel; Pale Boneset; Mohr's Thoroughwort Coastal Plain Thoroughwort False Horehound; Round-leaf Thorough-wort Late-flowering Thoroughwort Slender Fragrant or Flat-topped Goldenrod Garberia Sweet Everlasting; Rabbit's Tobacco Southeastern Sneezeweed Swamp Sunflower Florida Sunflower Camphor-weed Hawk's Beard; Coastal-plain Hawkweed
99 100 101 102 103 104 105 106 107 108 109 110 111	Eupatorium leptophyllum Eupatorium mohrii Eupatorium recurvans Eupatorium retundifolium Eupatorium serotinum Euthamia tenuifolia Garberia heterophylla Gnaphalium obtusifolium Helenium pinnatifidum Helianthus angustifolius Helianthus floridanus Heterotheca subaxillaris Hieracium megacephalon Iva microcephala	Dog Fennel; Yankee Weed Marsh Fennel Dog-fennel; Pale Boneset; Mohr's Thoroughwort Coastal Plain Thoroughwort False Horehound; Round-leaf Thorough-wort Late-flowering Thoroughwort Slender Fragrant or Flat-topped Goldenrod Garberia Sweet Everlasting; Rabbit's Tobacco Southeastern Sneezeweed Swamp Sunflower Florida Sunflower Camphor-weed Hawk's Beard; Coastal-plain Hawkweed Piedmont Sumpweed; Piedmont Marsh-elder
99 100 101 102 103 104 105 106 107 108 109 110 111 111 112	Eupatorium leptophyllum Eupatorium mohrii Eupatorium recurvans Eupatorium retundifolium Eupatorium serotinum Euthamia tenuifolia Garberia heterophylla Gnaphalium obtusifolium Helenium pinnatifidum Helianthus angustifolius Helianthus floridanus Heterotheca subaxillaris Hieracium megacephalon Iva microcephala Krigia virginica	Dog Fennel; Yankee Weed Marsh Fennel Dog-fennel; Pale Boneset; Mohr's Thoroughwort Coastal Plain Thoroughwort False Horehound; Round-leaf Thorough-wort Late-flowering Thoroughwort Slender Fragrant or Flat-topped Goldenrod Garberia Sweet Everlasting; Rabbit's Tobacco Southeastern Sneezeweed Swamp Sunflower Florida Sunflower Camphor-weed Hawk's Beard; Coastal-plain Hawkweed Piedmont Sumpweed; Piedmont Marsh-elder Virginia Dwarf-dandelion
99 100 101 102 103 104 105 106 107 108 109 110 111	Eupatorium leptophyllum Eupatorium mohrii Eupatorium recurvans Eupatorium retundifolium Eupatorium serotinum Euthamia tenuifolia Garberia heterophylla Gnaphalium obtusifolium Helenium pinnatifidum Helianthus angustifolius Helianthus floridanus Heterotheca subaxillaris Hieracium megacephalon Iva microcephala	Dog Fennel; Yankee Weed Marsh Fennel Dog-fennel; Pale Boneset; Mohr's Thoroughwort Coastal Plain Thoroughwort False Horehound; Round-leaf Thorough-wort Late-flowering Thoroughwort Slender Fragrant or Flat-topped Goldenrod Garberia Sweet Everlasting; Rabbit's Tobacco Southeastern Sneezeweed Swamp Sunflower Florida Sunflower Camphor-weed Hawk's Beard; Coastal-plain Hawkweed Piedmont Sumpweed; Piedmont Marsh-elder

116	Liatris gracilis	Blazing-star; Slender Gayfeather
117	Liatris spicata	Spiked Gayfeather
118	Liatris tenuifolia var. quadriflora	Blazing Star; Short-leaf Gayfeather
119	Liatris tenuifolia var. tenuifolia	Blazing Star; Short-leaf Gayfeather
120	Lygodesmia aphylla	Roserush
121	Melanthera nivea	Snow Squarestem; Cat-tongue
122	Mikania cordifolia	Florida Keys Hempweed; Florida Key Hempvine
123	Mikania scandens	Climbing Hempweed; Climbing Hempvine
124	Palafoxia feayi	Feay's Palafox
125	Phoebanthus grandiflorus	Florida False Sunflower
126	Pityopsis graminifolia	Golden-Aster
127	Pityopsis graminifolia var. aequilifolia	Florida Sand Golden-Aster
128	Pityopsis graminifolia var. latifolia	Golden-Aster
129	Pityopsis graminifolia var. tracyi	Golden Aster; Coastal-plain Silkgrass
130	Pluchea foetida	White or Marsh Fleabane; Stinking Camphor-weed
131	Pluchea longifolia	Long-leaf Camphor-weed
132	Pluchea odorata	Saltmarsh Fleabane; Shrubby Camphorweed
133	Pluchea rosea	
134	Polymnia uvedalia	Godfrey's Fleabane; Rosy Camphor-weed Bear's-foot; Yellow Leafcup
134	· ·	Wand or Coastal Blackroot; Rabbit Tobacco
	Pterocaulon pycnostachyum	
136	Pyrrhopappus carolinianus	Carolina False Dandelion
137	Senecio glabellus	Butterweed;GoldenorGrass-leafRagwort;Gr. Groundsel
138	Solidago fistulosa	Pinebarren Goldenrod
139	Solidago leavenworthii	Leavenworth's Goldenrod
140	Solidago odora var. chapmanii	Sweet Golden-rod
141	Verbesina virginica	Frostweed; White Crownbeard
142	Vernonia gigantea	Tall or Giant Ironweed
143	Youngia japonica	Oriental Hawksbeard
144	Monarda punctata	Horsemint; Spotted Beebalm
145	Begonia cucullata	Wax Begonia
146	Carpinus caroliniana	American Hornbeam; Bluebeech; Musclewood
147	Campsis radicans	Trumpet-vine; Trumpet Creeper
148	Blechnum serrulatum	Toothed Mid-sorus Fern
149	Woodwardia areolata	Netted or Dimorphic Chain Fern
150	Woodwardia virginica	Virginia Chain Fern
151	Cardamine bulbosa	Spring-cress; Bulbous Bitter-cress
152	Lepidium virginicum	Poorman's Pepper; Poorman's Pepper-wort
153	Nasturtium floridanum	One-row Water-cress
154	Tillandsia bartramii	Wild Pine; Bartram's Air Plant
155	Tillandsia fasciculata var. densispica	Wild Pine; Giant Air Plant
156	Tillandsia recurvata	Small Ball-Moss
157	Tillandsia setacea	Wild Pine; Southern Needleleaf Air Plant
158	Tillandsia simulata	Wild Pine; Air Plant
159	Tillandsia usneoides	Spanish Moss
160	Tillandsia utriculata	Wild Pine; Spreading Air Plant
161	Apteria aphylla	Nodding Nixie
162	Opuntia humifusa	Prickly-pear Cactus; Devil's-tongue
163	Opuntia pusilla	Cock's-spur Prickly-pear
164	Lobelia cardinalis	Cardinal Flower
165	Lobelia feayana	Bay Lobelia
166	Lobelia glandulosa	Glandular or Glade Lobelia
	Canna flaccida	Golden or Yellow Canna; Bandana-of-the-Everglades
167	ourina nacciua	Dolucti of Tellow Carina, Danualia-Of-the-Everylaues
167	Canna y generalis	Common Garden or Common Canna
168	Canna x generalis	Common Garden or Common Canna
168 169	Polanisia tenuifolia	Slenderleaf Clammyweed
168 169 170	Polanisia tenuifolia Lonicera sempervirens	Slenderleaf Clammyweed Coral Honeysuckle
168 169 170 171	Polanisia tenuifolia Lonicera sempervirens Sambucus canadensis	Slenderleaf Clammyweed Coral Honeysuckle Elderberry; American Elder
168 169 170 171 172	Polanisia tenuifolia Lonicera sempervirens Sambucus canadensis Viburnum nudum	Slenderleaf Clammyweed Coral Honeysuckle Elderberry; American Elder Possum Haw Viburnum; Possum Haw
168 169 170 171 172 173	Polanisia tenuifolia Lonicera sempervirens Sambucus canadensis Viburnum nudum Viburnum obovatum	Slenderleaf Clammyweed Coral Honeysuckle Elderberry; American Elder Possum Haw Viburnum; Possum Haw Small or Walter Viburnum; Black Haw
168 169 170 171 172 173 174	Polanisia tenuifolia Lonicera sempervirens Sambucus canadensis Viburnum nudum Viburnum obovatum Drymaria cordata	Slenderleaf Clammyweed Coral Honeysuckle Elderberry; American Elder Possum Haw Viburnum; Possum Haw Small or Walter Viburnum; Black Haw West Indian Chickweed; West Indian Drymary
168 169 170 171 172 173 174 175	Polanisia tenuifolia Lonicera sempervirens Sambucus canadensis Viburnum nudum Viburnum obovatum Drymaria cordata Paronychia americana	Slenderleaf Clammyweed Coral Honeysuckle Elderberry; American Elder Possum Haw Viburnum; Possum Haw Small or Walter Viburnum; Black Haw West Indian Chickweed; West Indian Drymary American Nailwort
168 169 170 171 172 173 174	Polanisia tenuifolia Lonicera sempervirens Sambucus canadensis Viburnum nudum Viburnum obovatum Drymaria cordata	Slenderleaf Clammyweed Coral Honeysuckle Elderberry; American Elder Possum Haw Viburnum; Possum Haw Small or Walter Viburnum; Black Haw West Indian Chickweed; West Indian Drymary

178	Stipulicida setacea var. lacerata	Pineland Scaly-pink
179	Euonymus americanus	American Strawberry-bush
180	Chenopodium ambrosioides	Mexican Tea; American Wormseed
181	Licania michauxii	Gopher Apple; Licania
	Helianthemum corymbosum	Rockrose; Pine-barren Frostweed
183	Helianthemum nashii	Florida Scrub Frostweed
	Lechea cernua	Nodding Pinweed
	Lechea deckertii	Deckert's Pinweed
186	Lechea divaricata	Pine or Dry-sand Pinweed
187	Lechea mucronata	Hairy Pinweed
	Lechea sessiliflora	Pineland Pinweed
	Lechea torreyi	Piedmont Pinweed
190	Callisia repens	Basket Plant; Creeping Inchplant
191	Commelina erecta	Day-flower
192	Cuthbertia ornata	Florida Scrub Roseling
193	Tradescantia hirsutiflora	Spiderwort
194	Dichondra carolinensis	Carolina Pony-foot
195	Evolvulus sericeus	Creeping Morning-glories;Silky False-morning-glory
196	Ipomoea cordatotriloba	Morning-glory; Tievine
	Ipomoea pandurata	Wild Potato Vine; Morning-glory; Man-of-the-earth
	Ipomoea sagittata	Saltmarsh or Glade Morning-glory
199	Stylisma abdita	Showy Dawnflower
200	Cornus foemina	Stiff Cornel; Stiff Cornel Dogwood; Swamp Dogwood
	Melothria pendula	Creeping Cucumber; Guadeloupe-cucumber
		Southern Red Cedar
	Juniperus silicicola	
	Bulbostylis barbata	Watergrass
204	Bulbostylis ciliatifolia	Capillary Hair-sedge
205	Bulbostylis warei	Ware's Hairsedge
206	Carex alata	Broadwing Sedge
207	Carex atlantica subsp. capillacea	Howe or Prickly Bog Sedge
208	Carex bromoides	Brome-like Sedge
209	Carex chapmannii	Chapman's Sedge
210	Carex comosa	Bottle-brush or Bearded Sedge
211	Carex floridana	Southern Black-edge Sedge
212	Carex gigantea	Large Sedge
213	Carex godfreyi	Godfrey's Sedge
214	Carex granularis	Limestone Meadow Sedge
215	Carex leptalea	Bristly-stalk Sedge
216	Carex longii	Greenish-white Sedge
217	Carex lupuliformis	Hop Sedge
218	Carex styloflexa	Bent Sedge
219	Carex verrucosa	Warty Sedge
220	Cladium inmainana	Confusing or Florida Hammock Sedge
221	Cladium jamaicense	Jamaica Sawgrass
	Cyperus compressus	Poorland Flatsedge
223	Cyperus croceus	Baldwin Flatsedge
224	Cyperus distinctus	Marshland Flatsedge
225	Cyperus flavescens	Yellow Flatsedge
226	Cyperus haspan	Sheathed Flatsedge
227	Cyperus lecontei	Leconte's Flatsedge
228	Cyperus ovatus	Pinebarren Flatsedge
229	Cyperus odoratus	Rusty Flatsedge
230	Cyperus polystachyos	Texas Sedge; Many-spike Flatsedge
231	Cyperus pumilus	Low Flatsedge
232	Cyperus retrorsus	Retorse or Pine-barren Flatsedge; Galingale
233	Cyperus stenolepis	Pale Marsh Cyperus
	Cyperus strigosus	Straw-colored Flatsedge
23/		
234	71	Tropical Flatsedge
235	Cyperus surinamensis	Tropical Flatsedge
235 236	Cyperus surinamensis Cyperus tetragonus	Four-angle Flatsedge
235 236 237	Cyperus surinamensis Cyperus tetragonus Eleocharis baldwinii	Four-angle Flatsedge Roadgrass; Baldwin's Spikerush
235 236 237 238	Cyperus surinamensis Cyperus tetragonus Eleocharis baldwinii Eleocharis equisetoides	Four-angle Flatsedge Roadgrass; Baldwin's Spikerush Knotted or Horse-tail Spikerush
235 236 237	Cyperus surinamensis Cyperus tetragonus Eleocharis baldwinii	Four-angle Flatsedge Roadgrass; Baldwin's Spikerush

241	Eleocharis tuberculosa	Long-tubercle Spikerush
242	Eleocharis vivipara	Viviparous Spikerush
243	Fimbristylis autumnalis	Slender Fimbry
244	Fimbristylis dichotoma	Tall or Annual or Woolly Fimbry
245	Fimbristylis puberula	Vahl's Hairy Fimbry
246	Fuirena breviseta	Saltmarsh Umbrella-sedge
247	Fuirena pumila	Dwarf Umbrella-sedge
248	Fuirena scirpoidea	Southern Umbrella-sedge
249	Kyllinga odorata	Fragrant Flatsedge
250	Kyllinga pumila	Thin-leaf Flatsedge
251	Lipocarpha maculata	American Lipocarpha
252	Oxycaryum cubense	Cuban Bulrush
253	Rhynchospora caduca	Falling Beakrush; Falling Beaksedge
254	Rhynchospora careyana	Horned Beakrush
255	Rhynchospora cephalantha	Clustered Beakrush; Bunched Beaksedge
256	Rhynchospora ciliaris	Ciliate or Fringed Beakrush
257	Rhynchospora colorata	Starbrush White-topped Sedge; Star Rush
258	Rhynchospora corniculata	Horned-rush;Short-bristle Horned Beak(rush)(sedge)
259	Rhynchospora decurrens	Decurrent or Swamp-forest Beak(rush)(sedge)
260	Rhynchospora divergens	Spreading Beakrush; Spreading Beaksedge
261	Rhynchospora fascicularis	Fasciculate Beakrush; Fasciculate Beaksedge
262	Rhynchospora fernaldii	Fernald's Beakrush; Fernald's Beaksedge
263	Rhynchospora intermedia	Pinebarren Beakrush; Pinebarren Beaksedge
264	Rhynchospora inundata	Narrow-fruited Horned Beak(rush)(sedge)
265	Rhynchospora megalocarpa	Sandy-field Beaksedge
266	Rhynchospora microcarpa	Southern Beakrush; Southern Beaksedge
267	Rhynchospora microcephala	Capitate Beakrush
268	Rhynchospora miliacea	Millet Beakrush; Millet Beaksedge
269	Rhynchospora mixta	Mingled Beakrush; Mingled Beaksedge
270	Rhynchospora nitens	Short-beak Baldrush
271	Rhynchospora odorata	Fragrant Beakrush; Fragrant Beaksedge
272	Rhynchospora plumosa	Plumed Beakrush; Plumed Beaksedge
273	Rhynchospora rariflora	Few-flower Beakrush; Few-flower Beakrush
274	Scirpus cyperinus	Woolgrass; Cotton-grass Bulrush
275	Scirpus lineatus	Pendulous or Drooping Bulrush
276	Scirpus tabernaemontani	Soft-stem(med) Bulrush
277	Scleria lacustris	Wright's nutrush
278	Scleria oligantha	Little-head Nutrush
279	Scleria ciliata	Few-flower Nutrush
280	Scleria reticularis	Netted or Torrey's Nutrush
281	Scleria triglomerata	Tall Nutgrass; Whip Nutrush
282	Cyrilla parviflora	Swamp Titi
283	Nephrolepis exaltata	Boston Fern; Boston Swordfern
284	Drosera brevifolia	Dwarf Sundew
285	Drosera capillaris	Pink Sundew
286	Diospyros virginiana	Common Persimmon
287	Ceratiola ericoides	Florida Rosemary
288	Agarista populifolia	Florida Hobblebush; Pipestem
289	Bejaria racemosa	Tarflower
290	Gaylussacia dumosa	Dwarf Huckleberry
291	Gaylussacia nana	Dangleberry; Creeping Huckleberry
292	Leucothoe axillaris	Coastal Dog-Hobble
293	Lyonia ferruginea	Rusty Lyonia; Rusty Staggerbush
294	Lyonia fruticosa	Coastal-plain Staggerbush
295	Lyonia ligustrina var. foliosiflora	Maleberry; He-huckleberry
296	Lyonia lucida	Fetterbush; Shinyleaf
007	Monotropa uniflora	One-flower Indian-pipe
297		Conservation I lead to record less North and Conservation April 2
298	Rhododendron viscosum	Swamp Honeysuckle; Northern Swamp Azelea
298 299	Rhododendron viscosum Vaccinium corymbosum	Highbush or Fuscous Blueberry
298 299 300	Rhododendron viscosum Vaccinium corymbosum Vaccinium darrowii	Highbush or Fuscous Blueberry Darrow's or Glaucous Blueberry
298 299 300 301	Rhododendron viscosum Vaccinium corymbosum Vaccinium darrowii Vaccinium myrsinites	Highbush or Fuscous Blueberry Darrow's or Glaucous Blueberry Shiny Blueberry
298 299 300	Rhododendron viscosum Vaccinium corymbosum Vaccinium darrowii	Highbush or Fuscous Blueberry Darrow's or Glaucous Blueberry

304	Elephantopus elatus	Florida ot Tall Elephant's-foot
305	Eriocaulon decangulare	Ten-angle Pipewort
306	Lachnocaulon anceps	White-head Bog-buttons
307	Lachnocaulon beyrichianum	Southern Bog-button
308	Lachnocaulon engleri	Engler's Bogbutton
309	Syngonanthus flavidulus	Bantam-buttons; Yellow Hatpins
310	Ptilimnium capillaceum	Hair-like Mock Bishop's-weed
311	Acalypha gracilens	Three-seeded Mercury
312	Cnidoscolus stimulosus	Tread Softly; Stinging or Spurge Nettle; Finger-rot
313	Croton argyranthemus	Silver Croton
314	Crotonopsis linearis	Narrow-leaf Rushfoil
315	Phyllanthus caroliniensis subsp.	Carolina Leaf-flower
0.0	caroliniensis	Carolina Edar novoi
316	Stillingia sylvatica ssp. sylvatica	Queen's Delight
317	Tragia urens	Noseburn
318	Aeschynomene americana	American Joint-vetch; Shyleaf
319	Alysicarpus ovalifolius	False Moneywort
320	Amorpha herbacea	Lead Plant; Cluster-spike Indigo-bush
321	Apios americana	Groundnut; American Potato-bean
322	Chamaecrista fasciculata	Partridge Pea
323	Chamaecrista nictitans var. aspera	Wild Sensitive Plant; Sensitive Partridge-pea
323	Chamaecrista nictitans var. aspera	Sensitive Partridge-pea Sensitive Partridge-pea
325	Chapmannia floridana	Florida Alicia
326	Crotalaria lanceolata	Lance-leaf Rattlebox
327	Crotalaria pallida var. obovata	Smooth Rattlebox
328	Crotalaria rotundifolia	Rabbit-bells; Prostrate Rattle-box
329	Dalea feayi	Feay's Prairie-clover
330	Dalea pinnata var. adenopoda	Florida Summer-farewell
331	Desmodium paniculatum	Marrow-leaf or Panicled Tick-trefoil
332	Desmodium triflorum	Three-flower Tick-trefoil
333	Desmodium viridiflorum	Wide-leaved Tick-trefoil
334	Erythrina herbacea	Coral Bean
335	Galactia elliottii	Elliott's Milk-pea
		2
336	Galactia mollis	amonto mini pou
		Eastern or Florida Milk-pea
336	Galactia mollis	Eastern or Florida Milk-pea Downy Milk-pea
336 337	Galactia mollis Galactia regularis Galactia volubilis Indigofera caroliniana	Eastern or Florida Milk-pea
336 337 338	Galactia mollis Galactia regularis Galactia volubilis	Eastern or Florida Milk-pea Downy Milk-pea
336 337 338 339	Galactia mollis Galactia regularis Galactia volubilis Indigofera caroliniana	Eastern or Florida Milk-pea Downy Milk-pea Carolina Indigo
336 337 338 339 340	Galactia mollis Galactia regularis Galactia volubilis Indigofera caroliniana Indigofera hirsuta	Eastern or Florida Milk-pea Downy Milk-pea Carolina Indigo Rough Hairy Indigo
336 337 338 339 340 341	Galactia mollis Galactia regularis Galactia volubilis Indigofera caroliniana Indigofera hirsuta Lespedeza hirta var. hirta	Eastern or Florida Milk-pea Downy Milk-pea Carolina Indigo Rough Hairy Indigo Hairy Bush-clover
336 337 338 339 340 341 342	Galactia mollis Galactia regularis Galactia volubilis Indigofera caroliniana Indigofera hirsuta Lespedeza hirta var. hirta Lupinus diffusus	Eastern or Florida Milk-pea Downy Milk-pea Carolina Indigo Rough Hairy Indigo Hairy Bush-clover Sky-blue or Oak-ridge Lupine
336 337 338 339 340 341 342 343	Galactia mollis Galactia regularis Galactia volubilis Indigofera caroliniana Indigofera hirsuta Lespedeza hirta var. hirta Lupinus diffusus Macroptilium lathyroides	Eastern or Florida Milk-pea Downy Milk-pea Carolina Indigo Rough Hairy Indigo Hairy Bush-clover Sky-blue or Oak-ridge Lupine Wild Bush-bean
336 337 338 339 340 341 342 343 344	Galactia mollis Galactia regularis Galactia volubilis Indigofera caroliniana Indigofera hirsuta Lespedeza hirta var. hirta Lupinus diffusus Macroptilium lathyroides Rhynchosia cinerea	Eastern or Florida Milk-pea Downy Milk-pea Carolina Indigo Rough Hairy Indigo Hairy Bush-clover Sky-blue or Oak-ridge Lupine Wild Bush-bean Snout-Pea Sensitive Briar
336 337 338 339 340 341 342 343 344 345	Galactia mollis Galactia regularis Galactia volubilis Indigofera caroliniana Indigofera hirsuta Lespedeza hirta var. hirta Lupinus diffusus Macroptilium lathyroides Rhynchosia cinerea Mimosa quadrivalvis	Eastern or Florida Milk-pea Downy Milk-pea Carolina Indigo Rough Hairy Indigo Hairy Bush-clover Sky-blue or Oak-ridge Lupine Wild Bush-bean Snout-Pea
336 337 338 339 340 341 342 343 344 345 346	Galactia mollis Galactia regularis Galactia regularis Galactia volubilis Indigofera caroliniana Indigofera hirsuta Lespedeza hirta var. hirta Lupinus diffusus Macroptilium lathyroides Rhynchosia cinerea Mimosa quadrivalvis Sesbania vesicaria Tephrosia chrysophylla	Eastern or Florida Milk-pea Downy Milk-pea Carolina Indigo Rough Hairy Indigo Hairy Bush-clover Sky-blue or Oak-ridge Lupine Wild Bush-bean Snout-Pea Sensitive Briar Bladderpod; Bag-pod Rattle-bush;Bag-pod River Hemp Scurf Hoary-pea
336 337 338 339 340 341 342 343 344 345 346 347	Galactia mollis Galactia regularis Galactia regularis Galactia volubilis Indigofera caroliniana Indigofera hirsuta Lespedeza hirta var. hirta Lupinus diffusus Macroptilium lathyroides Rhynchosia cinerea Mimosa quadrivalvis Sesbania vesicaria Tephrosia chrysophylla Tephrosia florida	Eastern or Florida Milk-pea Downy Milk-pea Carolina Indigo Rough Hairy Indigo Hairy Bush-clover Sky-blue or Oak-ridge Lupine Wild Bush-bean Snout-Pea Sensitive Briar Bladderpod; Bag-pod Rattle-bush;Bag-pod River Hemp Scurf Hoary-pea Florida Hoary-pea
336 337 338 339 340 341 342 343 344 345 346 347 348	Galactia mollis Galactia regularis Galactia regularis Galactia volubilis Indigofera caroliniana Indigofera hirsuta Lespedeza hirta var. hirta Lupinus diffusus Macroptilium lathyroides Rhynchosia cinerea Mimosa quadrivalvis Sesbania vesicaria Tephrosia chrysophylla Tephrosia hispidula	Eastern or Florida Milk-pea Downy Milk-pea Carolina Indigo Rough Hairy Indigo Hairy Bush-clover Sky-blue or Oak-ridge Lupine Wild Bush-bean Snout-Pea Sensitive Briar Bladderpod; Bag-pod Rattle-bush;Bag-pod River Hemp Scurf Hoary-pea Florida Hoary-pea Spreading Hoary-pea
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336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 360 361 362	Galactia mollis Galactia regularis Galactia regularis Galactia volubilis Indigofera caroliniana Indigofera hirsuta Lespedeza hirta var. hirta Lupinus diffusus Macroptilium lathyroides Rhynchosia cinerea Mimosa quadrivalvis Sesbania vesicaria Tephrosia florida Tephrosia florida Tephrosia hispidula Tephrosia spicata Vicia acutifolia Quercus chapmanii Quercus geminata Quercus incana Quercus inopina Quercus laevis Quercus minima Quercus myrtifolia Quercus nigra Quercus pumila	Eastern or Florida Milk-pea Downy Milk-pea Carolina Indigo Rough Hairy Indigo Hairy Bush-clover Sky-blue or Oak-ridge Lupine Wild Bush-bean Snout-Pea Sensitive Briar Bladderpod; Bag-pod Rattle-bush;Bag-pod River Hemp Scurf Hoary-pea Florida Hoary-pea Spreading Hoary-pea Spreading Hoary-pea Spreading Hoary-pea Spreading Vetch Chapman's Oak Sand or Scrub Live Oak Upland Laurel Oak Bluejack or Gray Oak Scrub Oak Turkey Oak Laurel Oak; Diamond (-leaf) Oak Dwarf Live Oak Water Oak Runn(ing)(er) Oak

366	Sabatia difformis	Lance-leaf Rose-gentian
367	Sabatia grandiflora	Large-flower Rose-gentian
368	Geranium carolinianum	Carolina Cranesbill
369	Lachnanthes caroliniana	Bloodroot; Carolina Redroot
370	Proserpinaca palustris	Marsh Mermaidweed
371	Proserpinaca pectinata	Comb-leaf Mermaid-weed
372	Liquidambar styraciflua	Sweetgum
373	Hydrolea corymbosa	Sky-flower; Corymb False-fiddleleaf
374	Hydrilla verticillata	Hydrilla; Waterthyme
375	Limnobium spongia	Frog's-bit; American Spongeplant
376	Vallisneria americana	Tape-grass; American Eel-grass; Wild-celery
377	Hypericum cf. limosum	Coastal-plain St. John's-wort
378	Hypericum cistifolium	Round-pod St. John's-wort
379	Hypericum crux-andreae	St.Peter's-wort;SaintAndrew's-cross;St.John's Wort
380	Hypericum fasciculatum	Sandweed or Swampy or Peel-bark St. John's-wort
381	Hypericum hypericoides	St. Andrew's Cross; Edison's St. John's-wort
382	Hypericum mutilum	Dwarf or Slender St. John's-wort
383	Hypericum myrtifolium	Myrtle-leafSt. John's-wort
384	Hypericum reductum	Atlantic St. John's-wort
385	Hypericum tetrapetalum	Four-petal St. John's-wort; St. Andrew's Cross
386	Triadenum virginicum	Virginia Marsh St. John's-wort
387	Hypoxis curtissii	Yellow or Swamp Stargrass; Clubpod Goldstar
388	Hypoxis juncea	Fringed Yellow or Common Stargrass
389	Illicium parviflorum	Star Anise; Ocala Anise-tree
390	Iris hexagona var. savannarum	Prairie or Dixie Iris
391	Nemastylis floridana	Fall-flowering Ixia; F-flw.Pleatleaf
391	Sisyrinchium atlanticum	Pointed or Sandplain or Michaux's Blue-eyed-grass
392	Sisyrinchium atlanticum Sisyrinchium xerophyllum	White Sand or Jeweled Blue-eyed Grass
	Isoetes flaccida	Florida or Southern Quillwort
394		
395	Carya aquatica	Water Hickory
396	Carya floridana	Scrub Hickory
397	Carya glabra	Pignut Hickory
398	Juncus coriaceus	Leathery Rush
399	Juncus dichotomus	Two-parted or Forked Rush
400	Juncus effusus subsp. solutus	Soft or Lamp Rush
401	Juncus elliottii	Bog Rush
402	Juncus marginatus var. biflorus	Shore or Grass-leaf Rush
403	Juncus megacephalus	Large-headed or Big-headed Rush
404	Juncus polycephalus	Many-headed Rush
405	Juncus repens	Lesser Creeping Rush
406	Juncus scirpoides	Needle-pod Rush
407	Dicerandra frutescens	Scrub balm; Lloyd's Mint
408	Hyptis alata	Musky Mint; Cluster Bushmint
409	Hyptis mutabilis	Tropical Bushmint
	Lycopus rubellus	Taper-leaf Water Hoarhound
411	Piloblephis rigida	Wild Pennyroyal
412	Salvia lyrata	Lyre-leaved Sage
413	Scutellaria arenicola	Florida Scrub Skullcap
414	Scutellaria integrifolia	Skullcap
415	Teucrium canadense	American Germander; Wood-sage
416	Trichostema dichotomum	Blue-curls
417	Trichostema suffruticosum	Shrubby Blue-curls
418	Lindera benzoin	Spicebush
419	Persea borbonia var. borbonia	Red Bay
420	Persea borbonia var. humilis	Silkbay; Scrub Bay
421	Persea palustris	Swamp Bay: Swamp Red-bay
422	Pinguicula lutea	Yellow Butterwort
423	Pinguicula pumila	Small Butterwort
424	Utricularia inflata	Floating or SwollenBladderwort
425	Utricularia purpurea	Eastern Purple Bladderwort
426	Utricularia subulata	Zigzag Bladderwort
427	Aletris lutea	Yellow Colic-root
428	Lilium catesbaei	Catesby's or Pine or Southern Red Lily
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429	Veratrum virginicum	Virginia Bunchflower
430	Gelsemium sempervirens	Yellow Jessamine; Evening Trumpet-
431	Mitreola petiolata	Miterwort; Lax Hornpod
432	Mitreola sessilifolia	Miterwort; Swamp Hornpod
433	Polypremum procumbens	Rustweed; Juniper-leaf
434	Phoradendron leucarpum	Oak Mistletoe
435	Cuphea carthagenensis	Columbia Waxweed
436	Lythrum alatum var. lanceolatum	Wing(ed)(-angle) Loosestrife
437	Rotala ramosior	Lowland Toothcup
438	Magnolia grandiflora	Southern or Large-flower Magnolia
439	Magnolia virginiana	Sweet Bay; Sweetbay Magnolia
440	Hibiscus coccineus	Scarlet Rosemallow
441	Hibiscus grandiflorus	Swamp Hibiscus; Swamp Rose-mallow
442	Kosteletzkya virginica	Virginia Saltmarsh Mallow; Virginia Fen-rose
443	Pavonia spinifex	Yellow Hibuscus; Barb-fruit Swamp-mallow
444	Urena lobata	Caesar-weed
445	Thalia geniculata	Fire or Alligator Flag
446	Rhexia cubensis	West Indi(an)(es) Meadow-beauty
447	Rhexia mariana	Pale or Maryland Meadow-beauty
448	Rhexia nashii	Nash's Meadow-beauty
449	Rhexia nuttallii	Nuttall's Meadow-beauty
450	Rhexia petiolata	Ciliate Meadow-beauty
451	Melia azedarach	Chinaberry; Chineseberry
452	Broussonetia papyrifera	Paper-Mulberry
453	Morus rubra	Red Mulberry
454	Myrica cerifera	Wax Myrtle; Southern Bayberry
455	Ardisia escallonioides	Island Marlberry
456	Myrsine floridana	Guiana Rapanea; Guiana Myrsine; Guiana Colicwood
457	Nelumbo lutea	Lotus Lily; American Lotus; Water Chestnut
458	Nuphar lutea subsp. advena	Spatter-dock; Yellow Pond-lily
459	Nymphaea odorata	White or Fragrant Waterlily; Alligator Bonnet
460	Nyssa sylvatica var. biflora	Swamp Black or Sour Gum; Swamp Tupelo
461	Ximenia americana	Tallowwood; Hog Plum
462	Chionanthus pygmaeus	Pigmy Fringe Tree
463	Chionanthus virginicus	White Fringe Tree
464	Fraxinus caroliniana	Carolina or Water or Pop Ash
465	Fraxinus pennsylvanica	Red or Green Ash
466	Cartrema americana	Wild Olive; Devil-wood
467	Cartrema floridana	Florida Wild Olive
468	Ludwigia alata	Winged Seedbox; Winged Primrose-willow
469	Ludwigia arcuata	Piedmont Seedbox; Piedmont Primrose-willow
470	Ludwigia curtissii	Curtiss' Seedbox; Curtiss' Primrose-willow
	Ludwigia erecta	Yerba de Jicotea
471	·	
472	Ludwigia leptocarpa	River Seedbox; River Primrose-willow
472 473	Ludwigia linearis	River Seedbox; River Primrose-willow Narrow-leaf Seedbox; Narrow-leaf Primrose-willow
472	Ludwigia linearis Ludwigia maritima	River Seedbox; River Primrose-willow Narrow-leaf Seedbox; Narrow-leaf Primrose-willow Seaside Primrose-willow; Seaside Seedbox
472 473 474 475	Ludwigia linearis Ludwigia maritima Ludwigia microcarpa	River Seedbox; River Primrose-willow Narrow-leaf Seedbox; Narrow-leaf Primrose-willow Seaside Primrose-willow; Seaside Seedbox Small-fruit Seedbox; Small-fruit Primrose-willow
472 473 474 475 476	Ludwigia linearis Ludwigia maritima Ludwigia microcarpa Ludwigia octovalvis	River Seedbox; River Primrose-willow Narrow-leaf Seedbox; Narrow-leaf Primrose-willow Seaside Primrose-willow; Seaside Seedbox Small-fruit Seedbox; Small-fruit Primrose-willow Mexican Seedbox; Mexican Primrose-willow
472 473 474 475 476 477	Ludwigia linearis Ludwigia maritima Ludwigia microcarpa Ludwigia octovalvis Ludwigia palustris	River Seedbox; River Primrose-willow Narrow-leaf Seedbox; Narrow-leaf Primrose-willow Seaside Primrose-willow; Seaside Seedbox Small-fruit Seedbox; Small-fruit Primrose-willow Mexican Seedbox; Mexican Primrose-willow Swamp Primrose; Marsh Primrose-willow
472 473 474 475 476 477 478	Ludwigia linearis Ludwigia maritima Ludwigia microcarpa Ludwigia octovalvis Ludwigia palustris Ludwigia peruviana	River Seedbox; River Primrose-willow Narrow-leaf Seedbox; Narrow-leaf Primrose-willow Seaside Primrose-willow; Seaside Seedbox Small-fruit Seedbox; Small-fruit Primrose-willow Mexican Seedbox; Mexican Primrose-willow Swamp Primrose; Marsh Primrose-willow Peruvian Primrose-willow
472 473 474 475 476 477 478 479	Ludwigia linearis Ludwigia maritima Ludwigia microcarpa Ludwigia octovalvis Ludwigia palustris Ludwigia peruviana Ludwigia pilosa	River Seedbox; River Primrose-willow Narrow-leaf Seedbox; Narrow-leaf Primrose-willow Seaside Primrose-willow; Seaside Seedbox Small-fruit Seedbox; Small-fruit Primrose-willow Mexican Seedbox; Mexican Primrose-willow Swamp Primrose; Marsh Primrose-willow Peruvian Primrose-willow Hairy Seedbox; Hairy Primrose-willow
472 473 474 475 476 477 478 479 480	Ludwigia linearis Ludwigia maritima Ludwigia microcarpa Ludwigia octovalvis Ludwigia palustris Ludwigia peruviana Ludwigia pilosa Ludwigia repens	River Seedbox; River Primrose-willow Narrow-leaf Seedbox; Narrow-leaf Primrose-willow Seaside Primrose-willow; Seaside Seedbox Small-fruit Seedbox; Small-fruit Primrose-willow Mexican Seedbox; Mexican Primrose-willow Swamp Primrose; Marsh Primrose-willow Peruvian Primrose-willow Hairy Seedbox; Hairy Primrose-willow Water Primrose; Creeping Seedbox
472 473 474 475 476 477 478 479 480 481	Ludwigia linearis Ludwigia maritima Ludwigia microcarpa Ludwigia octovalvis Ludwigia palustris Ludwigia peruviana Ludwigia pilosa Ludwigia repens Ludwigia suffruticosa	River Seedbox; River Primrose-willow Narrow-leaf Seedbox; Narrow-leaf Primrose-willow Seaside Primrose-willow; Seaside Seedbox Small-fruit Seedbox; Small-fruit Primrose-willow Mexican Seedbox; Mexican Primrose-willow Swamp Primrose; Marsh Primrose-willow Peruvian Primrose-willow Hairy Seedbox; Hairy Primrose-willow Water Primrose; Creeping Seedbox Shrubby Seedbox; Shrubby Primrose-willow
472 473 474 475 476 477 478 479 480 481 482	Ludwigia linearis Ludwigia maritima Ludwigia microcarpa Ludwigia octovalvis Ludwigia palustris Ludwigia peruviana Ludwigia pilosa Ludwigia repens Ludwigia suffruticosa Oenothera laciniata	River Seedbox; River Primrose-willow Narrow-leaf Seedbox; Narrow-leaf Primrose-willow Seaside Primrose-willow; Seaside Seedbox Small-fruit Seedbox; Small-fruit Primrose-willow Mexican Seedbox; Mexican Primrose-willow Swamp Primrose; Marsh Primrose-willow Peruvian Primrose-willow Hairy Seedbox; Hairy Primrose-willow Water Primrose; Creeping Seedbox Shrubby Seedbox; Shrubby Primrose-willow Cut-leaved Evening Primrose
472 473 474 475 476 477 478 479 480 481 482	Ludwigia linearis Ludwigia maritima Ludwigia microcarpa Ludwigia octovalvis Ludwigia palustris Ludwigia peruviana Ludwigia pilosa Ludwigia repens Ludwigia suffruticosa Oenothera laciniata Ophioglossum	River Seedbox; River Primrose-willow Narrow-leaf Seedbox; Narrow-leaf Primrose-willow Seaside Primrose-willow; Seaside Seedbox Small-fruit Seedbox; Small-fruit Primrose-willow Mexican Seedbox; Mexican Primrose-willow Swamp Primrose; Marsh Primrose-willow Peruvian Primrose-willow Hairy Seedbox; Hairy Primrose-willow Water Primrose; Creeping Seedbox Shrubby Seedbox; Shrubby Primrose-willow Cut-leaved Evening Primrose Adder's Tonge Fern
472 473 474 475 476 477 478 479 480 481 482 483	Ludwigia linearis Ludwigia maritima Ludwigia microcarpa Ludwigia octovalvis Ludwigia palustris Ludwigia peruviana Ludwigia pilosa Ludwigia repens Ludwigia suffruticosa Oenothera laciniata Ophioglossum Spiranthes cranichoides	River Seedbox; River Primrose-willow Narrow-leaf Seedbox; Narrow-leaf Primrose-willow Seaside Primrose-willow; Seaside Seedbox Small-fruit Seedbox; Small-fruit Primrose-willow Mexican Seedbox; Mexican Primrose-willow Swamp Primrose; Marsh Primrose-willow Peruvian Primrose-willow Hairy Seedbox; Hairy Primrose-willow Water Primrose; Creeping Seedbox Shrubby Seedbox; Shrubby Primrose-willow Cut-leaved Evening Primrose Adder's Tonge Fern Cranichis Ladies'-tresses
472 473 474 475 476 477 478 479 480 481 482 483 484	Ludwigia linearis Ludwigia maritima Ludwigia microcarpa Ludwigia octovalvis Ludwigia palustris Ludwigia peruviana Ludwigia pilosa Ludwigia repens Ludwigia suffruticosa Oenothera laciniata Ophioglossum Spiranthes cranichoides Encyclia tampensis	River Seedbox; River Primrose-willow Narrow-leaf Seedbox; Narrow-leaf Primrose-willow Seaside Primrose-willow; Seaside Seedbox Small-fruit Seedbox; Small-fruit Primrose-willow Mexican Seedbox; Mexican Primrose-willow Swamp Primrose; Marsh Primrose-willow Peruvian Primrose-willow Hairy Seedbox; Hairy Primrose-willow Water Primrose; Creeping Seedbox Shrubby Seedbox; Shrubby Primrose-willow Cut-leaved Evening Primrose Adder's Tonge Fern Cranichis Ladies'-tresses Tampa Butterfly Orchid
472 473 474 475 476 477 478 479 480 481 482 483 484	Ludwigia linearis Ludwigia maritima Ludwigia microcarpa Ludwigia octovalvis Ludwigia palustris Ludwigia peruviana Ludwigia pilosa Ludwigia repens Ludwigia suffruticosa Oenothera laciniata Ophioglossum Spiranthes cranichoides Encyclia tampensis Epidendrum conopseum	River Seedbox; River Primrose-willow Narrow-leaf Seedbox; Narrow-leaf Primrose-willow Seaside Primrose-willow; Seaside Seedbox Small-fruit Seedbox; Small-fruit Primrose-willow Mexican Seedbox; Mexican Primrose-willow Swamp Primrose; Marsh Primrose-willow Peruvian Primrose-willow Hairy Seedbox; Hairy Primrose-willow Water Primrose; Creeping Seedbox Shrubby Seedbox; Shrubby Primrose-willow Cut-leaved Evening Primrose Adder's Tonge Fern Cranichis Ladies'-tresses Tampa Butterfly Orchid Green-fly Orchid
472 473 474 475 476 477 478 479 480 481 482 483 484 485 486	Ludwigia linearis Ludwigia maritima Ludwigia microcarpa Ludwigia octovalvis Ludwigia palustris Ludwigia peruviana Ludwigia pilosa Ludwigia repens Ludwigia suffruticosa Oenothera laciniata Ophioglossum Spiranthes cranichoides Encyclia tampensis Epidendrum conopseum Habenaria floribunda	River Seedbox; River Primrose-willow Narrow-leaf Seedbox; Narrow-leaf Primrose-willow Seaside Primrose-willow; Seaside Seedbox Small-fruit Seedbox; Small-fruit Primrose-willow Mexican Seedbox; Mexican Primrose-willow Swamp Primrose; Marsh Primrose-willow Peruvian Primrose-willow Hairy Seedbox; Hairy Primrose-willow Water Primrose; Creeping Seedbox Shrubby Seedbox; Shrubby Primrose-willow Cut-leaved Evening Primrose Adder's Tonge Fern Cranichis Ladies'-tresses Tampa Butterfly Orchid Green-fly Orchid Toothed Habenaria; Tooth-petal False Rein Orchid
472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487	Ludwigia linearis Ludwigia maritima Ludwigia microcarpa Ludwigia octovalvis Ludwigia palustris Ludwigia peruviana Ludwigia pilosa Ludwigia repens Ludwigia suffruticosa Oenothera laciniata Ophioglossum Spiranthes cranichoides Encyclia tampensis Epidendrum conopseum Habenaria floribunda Platanthera flava	River Seedbox; River Primrose-willow Narrow-leaf Seedbox; Narrow-leaf Primrose-willow Seaside Primrose-willow; Seaside Seedbox Small-fruit Seedbox; Small-fruit Primrose-willow Mexican Seedbox; Mexican Primrose-willow Swamp Primrose; Marsh Primrose-willow Peruvian Primrose-willow Hairy Seedbox; Hairy Primrose-willow Water Primrose; Creeping Seedbox Shrubby Seedbox; Shrubby Primrose-willow Cut-leaved Evening Primrose Adder's Tonge Fern Cranichis Ladies'-tresses Tampa Butterfly Orchid Green-fly Orchid Toothed Habenaria; Tooth-petal False Rein Orchid Gypsy-spikes; Pale Green Orchid
472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487	Ludwigia linearis Ludwigia maritima Ludwigia microcarpa Ludwigia octovalvis Ludwigia palustris Ludwigia peruviana Ludwigia pilosa Ludwigia repens Ludwigia suffruticosa Oenothera laciniata Ophioglossum Spiranthes cranichoides Encyclia tampensis Epidendrum conopseum Habenaria floribunda Platanthera flava Ponthieva racemosa	River Seedbox; River Primrose-willow Narrow-leaf Seedbox; Narrow-leaf Primrose-willow Seaside Primrose-willow; Seaside Seedbox Small-fruit Seedbox; Small-fruit Primrose-willow Mexican Seedbox; Mexican Primrose-willow Swamp Primrose; Marsh Primrose-willow Peruvian Primrose-willow Hairy Seedbox; Hairy Primrose-willow Water Primrose; Creeping Seedbox Shrubby Seedbox; Shrubby Primrose-willow Cut-leaved Evening Primrose Adder's Tonge Fern Cranichis Ladies'-tresses Tampa Butterfly Orchid Green-fly Orchid Toothed Habenaria; Tooth-petal False Rein Orchid Gypsy-spikes; Pale Green Orchid Hairy Shadow Witch
472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487	Ludwigia linearis Ludwigia maritima Ludwigia microcarpa Ludwigia octovalvis Ludwigia palustris Ludwigia peruviana Ludwigia pilosa Ludwigia repens Ludwigia suffruticosa Oenothera laciniata Ophioglossum Spiranthes cranichoides Encyclia tampensis Epidendrum conopseum Habenaria floribunda Platanthera flava	River Seedbox; River Primrose-willow Narrow-leaf Seedbox; Narrow-leaf Primrose-willow Seaside Primrose-willow; Seaside Seedbox Small-fruit Seedbox; Small-fruit Primrose-willow Mexican Seedbox; Mexican Primrose-willow Swamp Primrose; Marsh Primrose-willow Peruvian Primrose-willow Hairy Seedbox; Hairy Primrose-willow Water Primrose; Creeping Seedbox Shrubby Seedbox; Shrubby Primrose-willow Cut-leaved Evening Primrose Adder's Tonge Fern Cranichis Ladies'-tresses Tampa Butterfly Orchid Green-fly Orchid Toothed Habenaria; Tooth-petal False Rein Orchid Gypsy-spikes; Pale Green Orchid

492	Osmunda cinnamomea	Cinnamon Fern
493	Osmunda regalis var. spectabilis	Royal Fern
494	Oxalis corniculata	Lady's Sorrel; Creeping or Yellow Wood Sorrel
495	Petiveria alliacea	Garlic Guinea-hen Weed
496	Phytolacca americana	Pokeberryweed; Common or American Pokeweed
497	Phytolacca rigida	Florida Pokeweed
498	Rivina humilis	Rouge Plant
499	Pinus clausa	Sand Pine
500	Pinus elliottii	Slash Pine
501	Pinus palustris	Longleaf Pine
502	Peperomia humilis	Terrestrial Peperomia
503	Plantago virginica	Southern or Pale-seed Plantain
	Amphicarpum muhlenbergianum	Little Blue Maidencane; Perennial Goobergrass
505	Andropogon brachystachyus	Short-spike Bluestem
506	Andropogon floridanus	Florida Bluestem
507	Andropogon glomeratus var. glaucopsis	
508	Andropogon glomeratus var. hirsutior	Hairy Bushy Bluestem
509	Andropogon glomeratus var. pumilus	Big Bushy Bluestem
510	Andropogon gyrans var. gyrans	Elliott's Bluestem
511	Andropogon ternarius	Silver Bluestem
512	Andropogon virginicus var. decipiens	Broomsedge
513	Andropogon virginicus var. glaucus	Little Chalky Bluestem
514	Andropogon virginicus var. virginicus	Broomsedge
	Aristida beyrichiana	Wiregrass; Pineland Threeawn
516	Aristida gyrans	Corkscrew Threeawn
517	Aristida palustris	Long-leaf Three-awn Grass
518	Aristida patula	Tall Threeawn; Tall Wiregrass
519	Aristida purpurascens var.	Slim-spike Three-awn Grass
500	purpurascens	Daulah washa a Risah awas Thanasan
520	Aristida spiciformis	Bottlebrush or Pinebarren Threeawn
521	Axonopus fissifolius	Common or Southern Carpetgrass
522	Axonopus furcatus	Big Carpetgrass
523	Cenchrus echinatus	Southern Sandspur
524	Cenchrus incertus	Coast Sandspur
525	Chasmanthium laxum	Spike Chasmanthium; Slender Spikegrass
526	Chasmanthium nitidum	Shiny Chasmanthium; Shiny Spikegrass
527	Chasmanthium sessiliflorum	Longleaf Chasmanthium; Longleaf Spikegrass
528	Dichanthelium aciculare	Needle-leaf Witchgrass; Panic Grass
	Dichanthelium commutatum	Variable Witchgrass; Panic Grass
530	Dichanthelium dichotomum	Cypress Witchgrass; Panic Grass
531	Dichanthelium ensifolium var. breve	Panic Grass
532	Dichanthelium ensifolium var. ensifolium	Panic Grass
533	Dichanthelium ensifolium var.	Panic Grass
ააა	unciphyllum	Faille Glass
534	Dichanthelium erectifolium	Erect-leaf Witchgrass
535	Dichanthelium laxiflorum	Lax-flower Witchgrass; Panic Grass
536	Dichanthelium leucothrix	Panic Grass
537	Dichanthelium ovale	Panic Grass Panic Grass; Egg-leaf Witchgrass
537	Dichanthelium portoricense	Hemlock Witchgrass
539	Dichanthelium scabriusculum	Woolly Panic Grass
540	Dichanthelium strigosum var.	Panic Grass
540	glabrescens	i anio Orass
541	Digitaria ciliaris	Southern Crabgrass
542	Echinochloa walteri	Coast(al) Cockspur
	Eleusine indica	India Goosegrass
5/12		
543 544	Fragrostic atrovirone	Thalia Lovegrass
544	Eragrostis atrovirens	Thalia Lovegrass
544 545	Eragrostis elliottii	Elliott('s) Lovegrass
544 545 546	Eragrostis elliottii Eragrostis spectabilis	Elliott('s) Lovegrass Purple Lovegrass; Petticoat Climber
544 545 546 547	Eragrostis elliottii Eragrostis spectabilis Eragrostis virginica	Elliott('s) Lovegrass Purple Lovegrass; Petticoat Climber Coastal or Meadow Lovegrass
544 545 546 547 548	Eragrostis elliottii Eragrostis spectabilis Eragrostis virginica Eustachys glauca	Elliott('s) Lovegrass Purple Lovegrass; Petticoat Climber Coastal or Meadow Lovegrass Saltmarsh Fingergrass
544 545 546 547	Eragrostis elliottii Eragrostis spectabilis Eragrostis virginica	Elliott('s) Lovegrass Purple Lovegrass; Petticoat Climber Coastal or Meadow Lovegrass

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551	Imperata cylindrica	Cogongrass
552	Leersia hexandra	Southern or Clubhead Cutgrass
553	Leersia virginica	White Grass
554	Muhlenbergia capillaris var. filpes	Long-awn Muhly
555	Oplismenus setarius	Wood(s)grass; Short-leaf Basketgrass
556	Panicum anceps	Beaked Panicum; Beaked Panic Grass
557	Panicum hemitomon	Maidencane
558	Panicum hians	Gaping Panic Grass
559	Panicum longifolium	Panic Grass
560	Panicum repens	Torpedo Grass
561	Panicum rigidulum	Redtop Panicum; Redtop Panic Grass
562	Panicum tenerum	Bluejoint or Southeastern Panicum
563	Panicum verrucosum	Warty Panicum; Warty Panic Grass
564	Panicum virgatum	Switchgrass; Wand-shape Panicum
565	Paspalum conjugatum	Sour Paspalum; Sour Crowngrass
566	Paspalum floridanum	Florida or Giant Paspalum; Florida Crowngrass
567	Paspalum notatum var. saurae	Bahiagrass
568	Paspalum praecox	Early Paspalum; Early Crowngrass
569	Paspalum setaceum	Thin Paspalum; Slender Crowngrass
570	Paspalum urvillei	Vaseygrass
571	Phanopyrum gymnocarpon	Savannah Panicum; Savannah Panic Grass
572	Pharus lappulaceus	Creeping Leafstalkgrass
573	Piptochaetium avenaceum	Blackseed Needle Grass
574	Rhynchelytrum repens	Red Natalgrass
575	Saccharum giganteum	Sugarcane Plumegrass
576	Sacciolepis indica	India Cupscale; Glenwood Grass
577	Sacciolepis iridica Sacciolepis striata	American Cupscale
578	Schizachyrium rhizomatum	Florida Bluestem
579	Schizachyrium rhizomatum Schizachyrium sanguineum	Crimson False Bluestem
580	Schizachyrium sanguineum Schizachyrium stoloniferum	Crimson Faise Bluestern Creeping Bluestern
580	Setaria geniculata	Knotroot Foxtail; Knotroot Bristle Grass
582	Sorghastrum secundum	Lopsided Indiangrass
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583 584	Spartina bakeri Piptochaetium avenacioides	Sand or Bunch Cordgrass Florida Needlegrass
-	Tridens flavus var. flavus	
585		Tall Redtop; Purpletop; Purpletop Triends
586 587	Triplasis americana	Perennial Sandgrass
-	Tripsacum dactyloides	Eastern Gamagrass; Eastern Mock Grama
588	Urochloa mutica	Paragrass
589	Polygala cruciata	Cross-leaf Milkwort; Drumheads
590	Polygala lewtonii	Lewton's Milkwort; Lewton's Polygala
591	Polygala lutea	Wild Batchelor's Button; Orange Milkwort
592	Polygala nana	Wild Batchelor's Button; Dwarf Milkwort
593	Polygala polygama	Jointweed; Racemed Milkwort
594	Polygala rugelii	Yellow Batchelor's Button; Yellow Milkwort
595	Polygala setacea	Coastal-plain Milkwort
596	Eriogonum longifolium var.	Scrub Buckwheat
	gnaphalifolium	Wild Dod ob oct
597	Eriogonum tomentosum	Wild Buckwheat
598	Polygonella gracilis	Wireweed; Tall Jointweed
599	Polygonella polygama var. polygama	Jointweed; October-flower
600	Polygonella robusta	Sandhill Wireweed; Large-flower Jointweed
601	Polygonum densiflorum	Dense-flower Smartweed; Dense-flower Knotweed
602	Polygonum hirsutum	Hairy Smartweed
603	Polygonum hydropiperoides	Mild or Swamp Water-pepper, Swamp Smartweed
604	Polygonum punctatum	Dotted Smartweed
605	Rumex hastatulus	Hastate-leaved Dock; Heart-wing Sorrel
606	Campyloneurum phyllitidis	Long Strap Fern
607	Pecluma plumula	Plumy Polypody
608	Pecluma ptilodon var. caespitosa	Comb Polypody
609	Phlebodium aureum	Golden Polypody
610	Polypodium polypodioides var.	Resurrection Fern
	michauxianum	
611	Eichhornia crassipes	Common Water Hyacinth

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612	Pontederia cordata	Pickerelweed
613	Samolus valerandi subsp. parviflorus	Water or Pineland Pimpernel; Seaside Brookweed
614	Psilotum nudum	Whisk Fern
615	Pityrogramma trifoliata	Goldenrod or Split-pinna Fern
616	Pteridium aquilinum var. latiusculum	Bracken Fern
617	Clematis catesbyana	Virgin's Bower; Satin-curls
618	Clematis crispa	Swamp Leather Flower
619	Berchemia scandens	Rattan Vine; Alabama Supple-jack
620	Rhamnus caroliniana	Carolina Buckthorn
621	Sageretia minutiflora	Small-flower Mock Buckthorn; Sagaretia
622	Crataegus lepida	Scrub Hawthorn
623	Prunus caroliniana	Carolina Laurel Cherry
624	Prunus geniculata	Scrub Plum
625	Prunus serotina var. serotina	Black or Wild Cherry
626	Prunus umbellata	Flatwoods or Hog Plum
627	Pyrus arbutifolia	Red Chokeberry
628	Rubus argutus	Highbush Blueberry; Serrate-leaf Blackberry
629	Rubus betulifolius	Blackberry
630	Rubus cuneifolius	Sand Blackberry
631	Rubus trivialis	Southern Dewberry
632	Cephalanthus occidentalis	Common Buttonbush
633	Chiococca alba	Snowberry; West Indies Milkberry
634	Diodia teres	Poor Joe; Rough Button-weed
635	Diodia virginiana	Viginia Buttonweed
636	Galium aparine	Goose Grass; Spring Cleavers; Catchweed Bedstraw
637	Galium hispidulum	Coastal Bedstraw
638	Galium pilosum	Hairy Bedstraw
639	Galium tinctorium	Stiff Marsh Bedstraw
640	Galium uniflorum	One-flower Bedstraw
641	Hamelia patens	Firebush: Scarletbush
642	Houstonia procumbens	Innocence; Round-leaf Bluet
643	Hedyotis uniflora	Flat-top Bluet; Clustered Bluet
644	Mitchella repens	
645	Psychotria nervosa	American Partridge Berry; Twinberry Wild Coffee: Seminole Balsamo
646	Psychotria sulzneri	Sulzner's Wild Coffee
	Richardia brasiliensis	
647		Tropical Mexican-clover
648	Richardia scabra	Rough Mexican-clover
649	Citrus aurantium	Sour Orange
650	Zanthoxylum clava-herculis	Hercules'-club; Prickly Ash
651	Zanthoxylum fagara	Wild Lime; Lime Prickly-ash
652	Salix caroliniana	Carolina or Coastal Plain Willow
653	Salix floridana	Florida Willow
654	Azolla caroliniana	Carolina Mosquito Fern
655	Salvinia minima	Water Sprangles
656	Sapindus saponaria	Wing-leaf Soapberry; False Dogwood
657	Bumelia reclinata	Florida Bumelia; Florida Bully
658	Bumelia tenax	Tough Bumelia; Tough Buckthorn
659	Saururus cernuus	Lizard's-tail
660	Decumaria barbara	Cowitch-vine; Woodvamp
661	Itea virginica	Virginia Willow; Virginia Sweetspire
662	Lygodium japonicum	Japanese Climbing Fern
663	Agalinis fasciculata	Beach False-foxglove
664	Agalinis linifolia	Flax-leaf False-foxglove
665	Bacopa caroliniana	Blue Hyssop; Carolina or Blue Water-hyssop
666	Bacopa monnieri	Coastal Water-hyssop
667	Buchnera americana	American Blueheart(s)
668	Gratiola hispida	Rough Hedge-hyssop
669	Gratiola pilosa	Shaggy Hedge-hyssop
670	Gratiola ramosa	Branching Hedge-hyssop
671	Gratiola virginiana	Round-fruit Hedge-hyssop
672	Linaria canadensis	Blue or Oldfield Toadflax
673	Linaria floridana	Florida Toadflax
674	Lindernia anagallidea	False-pimpernel

675	Lindernia grandiflora	Savannah False-pimpernel
676	Mecardonia acuminata	Purple Mecardonia; Purple Axil-flower
677	Micranthemum umbrosum	Shade Mudflower
678	Penstemon multiflorus	Manyflower Beardtongue
679	Scoparia dulcis	Sweet Broom; Licorice Weed
680	Seymeria pectinata	Piedmont Seymeria
681	Selaginella apoda	Meadow Spikemoss
682	Selaginella arenicola	Sand Spikemoss
683	Smilax auriculata	Ear-leaf Greenbrier; Catbrier
684	Smilax bona-nox	Saw Greenbrier; Catbrier
685	Smilax glauca	WildSarsaparilla;Glaucous(-leaf)Greenbrier;Catbrie
686	Smilax laurifolia	Catbrier; Bamboo-vine; Laurel(-leaf) Greenbrier
687	Smilax pumila	SarsaparillaVine;Small Greenbrier;Woolly Cat-brier
688	Smilax smallii	Jackson Vine; Lance-leaf Greenbrier
689	Smilax tamnoides	Catbrier; Bristly/Halberd-leaf Greenbrier; Chinaroot
690	Smilax walteri	Coral Greenbrier
691	Capsicum annuum var. glabrisculum	Bird Pepper
692	Physalis angulata	Cut-leaf Ground-cherry
693	Physalis arenicola var. arenicola	Cypress-head Ground-cherry
694	Physalis pubescens	Low Hairy Ground-cherry
695	Solanum americanum	American Black or Common Nightshade
696	Solanum viarum	Tropical Soda Apple
697	Sphagnum spp.	Sphagnum Mosses
698	Styrax americanus	Storax; American Snowbell
699	Taxodium ascendens	Pond Cypress
700	Taxodium distichum	Bald Cypress
701	Gordonia lasianthus	Loblolly Bay
702	Macrothelypteris torresiana	Mariana Maiden Fern
703	Tilia americana	Basswood
704	Tilia caroliniana	Carolina Basswood
705	Piriqueta caroliniana	Piriqueta; Carolina Stripeseed
706	Typha domingensis	Southern Cattail
707	Typha latifolia	Common or Broad-leaf Cattail
708	Celtis laevigata	Hackberry; Sugarberry
709	Ulmus americana	American Elm
710	Boehmeria cylindrica	Small-spike False-nettle; Bog Hemp
711	Parietaria praetermissa	Pellitory; Clustered Pellitory-of-the-wall
712	Pilea pumila	Canada Clearweed
713	Valeriana scandens	Florida Valerian
714	Callicarpa americana	Beautybush; American Beauty-berry
715	Verbena brasiliensis	Brazilian Vervain
716	Verbena scabra	Harsh Verbena; Sandpaper Vervain
717	Viola affinis	Leconte's Violet
718	Viola lanceolata	Bog White or Long-leaf or Lance-leaf Violet
719	Viola ranccolata Viola primulifolia	Swamp White or Primrose-lea(f)(ved) Violet
720	Viola septemloba	Southern Coast Violet
721	Viola sororia	Woolly or Hooded or Thicket Blue Violet; Florida V.
722	Ampelopsis arborea	Pepper-vine
723	Parthenocissus quinquefolia	Virginia Creeper; Woodbine
724	Vitis aestivalis	Summer Grape
		'
725	Vitis rotundifolia var. munsoniana	Southern Fox or Muscadine Grape; Muscadine
726	Vitis rotundifolia var. rotundifolia	Annalashian Chasatring Form
727	Vittaria lineata	Appalachian Shoestring Fern
728	Xyris ambigua	Coastal-plain Yellow-eyed Grass
729	Xyris brevifolia	Short-leaf Yellow-eyed Grass
730	Xyris caroliniana	Carolina Yellow-eyed Grass
731	Xyris difformis var. floridana	Florida Bog Yellow-eyed Grass
732	Xyris elliottii	Elliott's Yellow-eyed Grass
733	Xyris fimbriata	Fringed Yellow-eyed Grass
734	Xyris flabelliformis	Savannah Yellow-eyed Grass
735	Xyris jupicai	Common or Richard's Yellow-eyed Grass
736	Xyris platylepis	Tall Yellow-eyed Grass
737	Xyris smalliana	Small's Yellow-eyed Grass

INVERTEBRATES

		Species	Status	
	Order	Genus species	Common	
1	Coleoptera	Dytiscus spp.	Large Diving Beetle	
2		Cicindela Lepida	Dainty Tiger Beetle	
3		Odontotaenius disjunctus	Horned Passalus	
4			Soldier Beetle	
5	Hemiptera	Lethocerus americanus	Giant Water Bug	
6		Notonecta undulata	Backswimmer	
7	Lepidoptera	Agraulis vanillae	Gulf Fritillary	
8		Papilio polyxenes asteruis	Eastern Black Swallowtail	
9		P. glaucus	Eastern Tiger Swallowtail	
10		P. cresphontes	Giant Swallowtail	
11		Heliconius charitonius	Zebra Butterfly	
12		Danaus gilippus berenize	Queen	
13	Hymenoptera	Ichneumonidae (Scambus spp.?)	Ichneumid wasps	
14		Xylocopa virginica	Black bee	
15		Dasymutilla occidentalis	Cowkiller	
16		Bombus spp.	Bumblebee	
17		Camponotus pennsylvanicus	Carpenter ant	
18			Large headed ant	
19	Diptera	Exoprospa spp.	Progressive beefly	
20		Stratiomys spp.	(Aquatic larva)	
21	Orthoptera	Gryllotalpa hexadactyla	Mole Cricket	
22		Romalea microptera	Southeaster Lubber	
23		Tetrigidae	Pygmy Grasshoppers	
24		Acrididae	Short-horned Grasshoppers	
25	Ephemeroptera	Callibaetis spp.	Mayflies	
26	Trichoptera		Caddisflies	
27	Odonata (Zygptera)	Nehalennia integricollis	<larva adult="" and=""></larva>	
28		Ischnura hastata	<larva adult="" and=""></larva>	
29		Calopteryx maculata	<larva adult="" and=""></larva>	
30		Argia fumipennis	<adult></adult>	
31		Lestes vigilax	<larva adult="" and=""></larva>	
32	Odonata (Anisoptera)	Erythemis simplicicollis	<adult></adult>	
33		Pachydiplax longipennis	<adult></adult>	
34		Celithemis amanda	<adult></adult>	
35		C. eponina	<adult></adult>	
36		Tramea carolina	<adult></adult>	
37		Erythrodiplax connata minuscala	<adult></adult>	

38		Perithemis tenera	<adult></adult>	
39		Epitheca cynosura	<larva adult="" and=""></larva>	
40		Anax longipes	<larva adult="" and=""></larva>	
41		Nasiaeschna pentacantha	<adult></adult>	
42		Didymops floridensis	<adult></adult>	
43		Gomphus minutus	<adult></adult>	
44		Hagenius brevistylus	<adult></adult>	
45	Araneae	Peucetia viridans	Green Lynx Spider	
46		Phidippus audax	Daring Jumping Spider	
47		Р. ѕрр.	Red Jumping Spider	
48		Nephila clavipes	Golden Silk Spider	
49		Argiope aurantia	Black and Yellow Argiope	
50		Dolomedes triton	Six-spotted Fishing Spider	
51		Lycosa rabida	Rabid Wolf Spider	
52		Tetragnatha elongata	Elongate Long-jawed Orb Weaver	
53		Lycosa spp.	Scrub Wolf Spider	
54	Corbiculidae	Corbicula manilensis	Asian Clam	
55	Unionidae	Elliptio buckleyi		
56	Palaemonidae	Palaemonetes paludosus	Grass Shrimp	
57	Cambarida	Procambarus spp.	Crayfish	
58	Taltridae	Hyalela axteca	Common Amphipod	
59	Ampulariidae	Pomacea spp.	Apple Snail	

FISH

		Species	Status
	Genus species	Common	
1	Micropterus salmoides	Largemouth Bass	
2	Lepomis spp.	Sunfish	
3	Percina nigrofasciata	Blackbanded Darter	
4	Notropis chalybaeus	Ironcolor Shiner	
5	Gambusia affinis	Mosquitofish	
6	Fundulus chrysotus	Golden Topminnow	

Birds

	Species		Status
	Genus species	Common	
1	Gavia immer	Common Loon	
2	Podilymbus podiceps	Pied-billed Grebe	
3	Anhinga anhinga	Anhinga	
4	Phalacrocorax auritus	Double-crested Cormorant	
5	Aix sponsa	Wood Duck	
6	Anas acuta	Northern Pintail	
7	A. americana	American Wigeon	
8	A. clypeata	Northern Shoveler	
9	A. crecca	Green-winged Teal	
10	A. discors	Blue-winged Teal	
11	A. fulvigula	Mottled Duck	
12	A. platyrhynchos	Mallard	
13	A. rubripes	Black Duck	
14	A. strepera	Gadwall	
15	Aythya affinis	Lesser Scaup	
16	A. collaris	Ring-necked Duck	
17	A. valisineria	Canvasback	
18	Dendrocygna bicolor	Fulvous Whistling-duck	
19	Mergus serrator	Red-breasted Merganser	
20	Pelecanus erythrorhynchos	White Pelican	
21	P. occidentalis	Brown Pelican	SSC
22	Larus delawarensis	Ring-billed Gull	
23	Sterna antillarum	Least Tern	ST
24	S. hirundo	Common Tern	
25	Ardrea herodias	Great Blue Heron	
26	A. herodias	Great White Heron	
27	Botaurus lentiginosus	American Bittern	
28	Bubulcus ibis	Cattle Egret	
29	Butorides striatus	Green Heron	
30	Ardea albus	Great Egret	
31	Egretta rufescens	Reddish Egret	SSC
32	E. thula	Snowy Egret	SSC
33	E. careulea	Little Blue Heron	SSC
34	E. tricolor	Tricolored Heron	SSC
35	Ixobrychus exilis	Least Bittern	
36	Nycticorax nycticorax	Blk-crowned Night-heron	
37	N. violaceus	Yel-crowned Night-heron	
38	Mycteria americana	Wood Stork	FT
39	Grus canadensis	Sandhill Crane	ST
40	Aramus guarauna	Limpkin	SSC

41	Platalea ajaja	Roseate Spoonbill	SSC
42	Eudocimus albus	White Ibis	SSC
43	Plegadis falcinellus	Glossy Ibis	
44	Coturnicops noveboracensis	Yellow Rail	
45	Fulica americana	American Coot	
46	Gallinula chloropus	Common Moorhen	
47	Laterallus jamaicensis	Black Rail	
48	Porphyrula martinica	Purple Gallinule	
49	Porzana carolina	Sora	
50	Rallus elegans	King Rail	
51	R. limicola	Virginia Rail	
52	R. longirostris	Clapper Rail	
53	Charadrius vociferus	Killdeer	
54	Pluvialis squatarola	Black-bellied Plover	
55	Actitis macularia	Spotted Sandpiper	
56	Gallinago gallinago	Common Snipe	
57	Scolopax minor	American Woodcock	
58	Tringa flavipes	Lesser Yellowlegs	
59	T. melamoleuca	Greater Yellowlegs	
60	T. solitaria	Solitary Sandpiper	
61	Meleagris gallopavo	Wild Turkey	
62	Colinus virginianus	Northern Bobwhite Quail	
63	Accipiter cooperii	Cooper's Hawk	
64	A. striatus	Sharp-shinned Hawk	
65	Buteo brachyurus	Short-tailed Hawk	
66	B. jamaicensis	Red-tailed Hawk	
67	B. lineatus	Red-shouldered Hawk	
68	B. platypterus	Broad-winged Hawk	
69	Circus cyaneus	Northern Harrier	
70	Elanoides forficatus	Swallow-tailed Kite	
71	Elanus leucurus	White-tailed Kite	
72	Haliaeetus leucocephalus	Bald Eagle	Protected
73	Rostrhamus sociabilis	Snail Kite	FE
74	Pandion haliaetus	Osprey	
75	Cathartes aura	Turkey Vulture	
76	Coragyps atratus	Black Vulture	
77	Falco columbarius	Merlin	
78	F. peregrinus	Peregrine Falcon	
79	F. sparverius	American Kestrel	
80	F. sparverius paulus	SE. American Kestrel	ST
81	Polyborus plancus	Crested Caracara	FT
82	Asio flammeus	Short-eared Owl	
83	Athene cunicularia	Burrowing Owl	SSC
84	Bubo virginianus	Great Horned Owl	
85	Otus asio	Eastern Screech-owl	
86	Strix varia	Barred Owl	
87	Tyto alba	Barn Owl	

88	Columba livia	Rock Dove	
89	Columbina passerina	Common Ground Dove	
90	Zenaida asiatica	White-winged Dove	
91	Z. macroua	Mourning Dove	
92	Coccyzus americanus	Yellow-billed Cuckoo	
93	C. erythropthalumus	Black-billed Cuckoo	
94	C. minor	Mangrove Cuckoo	
95	Crotophaga ani	Smooth-billed Ani	
96	Caprimulgus carolinensis	Chuck-will's-widow	
97	C. vociferus	Whip-poor-will	
98	Chordeiles minor	Common Nighthawk	
99	Ceryle alcyon	Belted Kingfisher	
100	Archilochus colubris	Ruby-throated Hummingbird	
101	Colaptes auratus	Common Flicker	
102	Dryocopus pileatus	Pileated Woodpecker	
103	Melanerpes carolinus	Red-bellied Woodpecker	
104	M. erythrocephalus	Red-headed Woodpecker	
105	Picoides borealis	Red-cockaded Woodpecker	FE
106	P. pubescens	Downy Woodpecker	
107	P. villosus	Hairy Woodpecker	
108 109	Sphyrapicus varius Chaetura pelagica	Yellow-bellied Sapsucker Chimney Swift	
110	Contopus virens	Eastern Wood-pewee	
111	Empidonax minimus	Least Flycatcher	
112	E. virescens	Acadian Flycatcher	
113	Myiarchus crinitus	Great Crested Flycatcher	
114	Sayornis phoebe	Eastern Phoebe	
115	Tyrannus dominicensis	Gray Kingbird	
116	T. forficatus	Scissor-tailed Flycatcher	
117	T. tyrannus	Eastern Kingbird	
118	Anthus spinoletta	Water Pipit	
119	Hirundo pyrrhonota	Cliff Swallow	
120	H. rustica	Barn Swallow	
121	Progne subis	Purple Martin	
122	Riparia riparia	Bank Swallow	
123	Stelgidopteryx serpennis	N. Rough-winged Swallow	
124	Tachycineta bicolor	Tree Swallow	
125	Aphelocoma coerulescens	Scrub Jay	FT
126	Corvus brachyrhynchos	American Crow	
127	C. ossifragus	Fish Crow	
128 129	Cyanocitta cristata Parus bicolor	Blue Jay Tufted Titmouse	
130	P. carolinensis	Carolina Chickadee	
131	Sitta pusilla	Brown-headed Nuthatch	
132	Cistothorus palustris	Marsh Wren	SSC
133	C. platensis	Sedge Wren	
134	Troglodytes aedon	House Wren	

135	T. Iudovicianus	Carolina Wren	
136	Polioptila caerulea	Blue-gray Gnatcatcher	
137	Regulus calendula	Ruby-crowned Kinglet	
137	Dumetella carolinensis	Gray Catbird	
139		Northern Mockingbird	
140	Mimus polyglottos Toxostoma rufum	Brown Thrasher	
140	Catharus fuscescens	Veery	
142	C. guttatus	Hermit Thrush	
143	C. guitatus C. minimus	Gray-cheeked Thrush	
144	C. ustulatus	Swainson's Thrush	
145	Sialia sialis	Eastern Bluebird	
146	Turdus migratorius	American Robin	
147	Bombycilla cedrorum	Cedar Waxwing	
148	Lanius iudovicianus	Loggerhead Shrike	
149	Vireo altiloguus	Black-whiskered Vireo	
150	V. flavifrons	Yellow-throated Vireo	
151	V. griseus	White-eyed Vireo	
152	V. olivaceus	Red-eyed Vireo	
153	V. solitarius	Solitary Vireo	
154	Dendroica caerulescens	Blk-throated Blue Warbler	
155	D. coronata	Yellow-rumped Warbler	
156	D. discolor	Prairie Warbler	
157	D. discolor paludicola	Florida Prairie Warbler	
158	D. dominica	Yellow-throated Warbler	
159	D. magnolia	Magnolia Warbler	
160	D. petechia	Yellow Warbler	
161	D. pinus	Pine Warbler	
162	D. plamarum	Palm Warbler	
163	D. striata	Blackpoll Warbler	
164	D. tigrina	Cape May Warbler	
165	D. virens	Blk-throated Green Warbler	
166	Geothlypis trichas	Common Yellowthroat	
167	Helmitheros vermivorus	Worm-eating Warbler	
168	Icteria virens	Yellow-breasted Chat	
169	Limnothlypis swainsonii	Swainson's Warbler	
170	Mniotilta varia	Black-and-white Warbler	
171	Oporonis agilis	Connecticut Warbler	
172	O. formosus	Kentucky Warbler	
173	Parula americana	Northern Parula	
174	Protonotaria citrea	Prothonotary Warbler	
175	Seiurus aurocapillus	Ovenbird	
176	S. motacilla	Louisiana Waterthrush	
177	S. noveboracensis	Northern Waterthrush	
178	Setophaga ruticilla	American Redstart	
179	Vermivora celata	Orange-crowned Warbler	
180	Wilsonia citrina	Hooded Warbler	
181	Agelaius phoeniceus	Redwing Blackbird	

182	Dolichonyx oryzivorus	Bobolink	
183	Euphagus carolinus	Rusty Blackbird	
184	E. cyanocephalus	Brewer's Blackbird	
185	Icterus galbula	Northern Oriole	
186	I. spurius	Orchard Oriole	
187	Molothrus ater	Brown-headed Cowbird	
188	Quiscalus major	Boat-tailed Grackle	
189	Q. quiscula	Common Grackle	
190	Sturnella neglecta	Eastern Meadowlark	
191	Sturnus vulgaris	European Starling	
192	Piranga olivacea	Scarlet Tanager	
193	P. rubra	Summer Tanager	
194	Aimophila aestivalis	Bachman's Sparrow	
195	Ammodramus caudacutus	Sharp-tailed Sparrow	
196	A. henslowii	Henslow's Sparrow	
197	A. leconteii	Le Conte's Sparrow	
198	A. savannarum	Grasshopper Sparrow	
199	Cardinalis cardinalis	Northern Cardinal	
200	Carduelis tristis	American Goldfinch	
201	Guiraca caerulea	Blue Grosbeak	
202	Melospiza georgiana	Swamp Sparrow	
203	M. melodia	Song Sparrow	
204	Passer domesticus	House Sparrow	
205	Passerculus sandwichensis	Savannah Sparrow	
206	Passerina ciris	Painted Bunting	
207	P. cyanea	Indigo Bunting	
208	Pheucticus Iudovicianus	Rose-breasted Grosbeak	
209	Pipilo erythrophthalmus	Rufous-sided Towhee	
210	Pooecetes gramineus	Vesper Sparrow	
211	Spiza americana	Dickcissel	
212	Spizella passerina	Chipping Sparrow	
213	S. pusilla	Field Sparrow	
214	Zonotrichia albicollis	White-throated Sparrow	

REPTILES

	Species	Status	
	Genus species	Common	
1	Alligator mississippiensis	American Alligator	FT S/A
2	Chelydra serpentina osceola	Florida Snapping Turtle	
3	Kinosternon baurii	Striped Mud Turtle	
4	K. subrubrum steindachneri	Florida Mud Turtle	
5	Sternotherus odoratus	Common Musk Turtle	
6	Psuedoemys floridana	Peninsula Cooter	
7	P. nelsoni	Florida Redbelly Turtle	
8	Deirochelys reticularia chrysea	Florida Chicken Turtle	
9	Terrapene carolina bauri	Florida Box Turtle	
10	Gorpherus polyphemus	Gopher Tortoise	ST
11	Trionyx ferox	Florida Softshell Turtle	
12	Sphaerodactylus notatus notatus	Florida Reef Gecko	
13	Anolis carolinensis	Green Anole	
14	A. sagrei sagrei	Brown Anole	
15	Sceloporus undulatus undulatus	Southern Fence Lizard	
16	S. woodi	Florida Scrub Lizard	
17	Cnemidophorus sexlineatus sexlineatus	Six-lined Racerunner	
18	Eumeces egregius lividus	Bluetailed Mole Skink	FT
19	E. egregius onocrepis	Peninsula Mole Skink	
20	E. inexpectatus	Southeastern Five-lined Skink	
21	E. laticeps	Broadheaded Skink	
22	Neoseps reynoldsi	Florida Sand Skink	FT
23	Scincella lateralis	Ground Skink	
24	Ophisaurus attenuatus longicaudus	Eastern Slender Glass Lizard	
25	O. ventralis	Eastern Glass Lizard	
26	Rhineura floridana	Florida Worm Lizard	
27	Cemophora coccinea coccinea	Florida Scarlet	
28	Coluber constrictor paluticola	Everglades Racer	
29	C. constrictor priapus	Southern Black Racer	
30	Diadophis punctatus punctatus	Southern Ringneck Snake	
31	Drymarchon corais couperi	Eastern Indigo Snake	FT

20	Flamba sustata sustata	Comm/Dod Dot	
32	Elaphe guttata guttata	Corn/Red Rat Snake	
33	E. obsoleta quadrivittata	Yellow	
33	L. obsoleta quadrivittata	Rat/Chicken	
		Snake	
34	E. obsoleta rossalleni	Everglades Rat	
		Snake	
35	Farancia abacura abacura	Eastern Mud	
		Snake	
36	F. erytrogramma seminola	Southern Fla.	
		Rainbow Snake	
37	Heterodon platyrhinos	Eastern Hognose Snake	
38	H. simus	Southern	
30	Tr. Simus	Hognose Snake	
39	Lampropeltis calligaster rhombomaculata	Mole Kingsnake	
40	Lampropeltis getulus	Common	
	Zamproponio gotarae	Kingsnake	
41	L. triangulum elapsoides	Scarlet Kingsnake	
42	M. flagellum flagellum	Eastern	
72	Wi. Hagenam hagenam	Coachwhip	
43	Nerodia floridana	Fla. Green	
		Watersnake	
44	N. fasciata pictiventris	Florida	
		Watersnake	
45	N. taxispilota	Brown	
40	Ontroduction	Watersnake	
46	Opheodrys aestivus	Rough Green Snake	
47	Pituophis melanoleucus mugitus	Florida Pine	SSC
	, naspine melanerada magnae	Snake	000
48	Seminatrix pygaea pygaea	Swamp Snake	
49	Stilosoma extenuatum	Short-tailed	ST
		Snake	
50	Storeria dekayi victa	Florida Brown	
	,	Snake	
51	Tantilla relicta relicta	Peninsula	
		Crowned Snake	
52	Thamnophis sauritus sackeni	Peninsula Ribbon	
53	T. sirtalis sirtalis	Eastern Garter	
54	Micrurus fulvius fulvius	Eastern Coral	
		Snake	
55	Sistrurus miliarius barbouri	Dusty Pygmy	
		Rattlesnake	
56	Agkistrodon contortrix contortrix	Southern	
57	A. piscivorus conanti	Copperhead Florida	
31	л. μισοινοιας conanti		
58	Crotalus adamanteus		
		Diamondback	
58	Crotalus adamanteus	Cottonmouth Eastern Diamondback	

AMPHIBIANS

	Sp	ecies	Status
	Genus species	Common	
1	Pseudobranchus striatus axanthus	Narrow-striped Dwarf Siren	
2	P. striatus belli	Everglades Dwarf Siren	
3	Siren intermedia intermedia	Eastern Lesser Siren	
4	S. lacertina	Greater Siren	
5	Amphiuma means	Two-toed Amphiuma	
6	Notophthalmas perstriatus	Striped Newt	
7	N. viridescens louisianensis	Central Newt	
8	Eurycea quadridigitata	Dwarf Salamander	
9	Scaphiopus holbrooki	Eastern Spadefoot Toad	
10	Bufo quercicus	Oak toad	
11	B. terrestris	Southern Toad	
12	Acris gryllus dorsalis	Florida Cricket Frog	
13	Hyla cinerea	Green Tree Frog	
14	H. femoralis	Pinewoods Tree Frog	
15	H. gratiosa	Barking Tree Frog	
16	H. septentrionalis	Cuban Tree Frog	
17	H. squirella	Squirrel Tree Frog	
18	Limaoedus ocularis	Little Grass Frog	
19	Pseudacris nigrita verrucosa	Florida Chorus Frog	
20	Gastrophryne carolinensis carolinensis	Eastern Narrow-mouthed Toad	
21	Rana areolata aesopus	Florida Gopher Frog	SSC
22	R. catesbeiana	Bullfrog	
	R. clamitans	Green Frog	
23	R. grylio	Pig Frog	
24	R. sphenocephala	Southern Leopard Frog	

MAMMALS

	Sı	pecies	Status
	Genus species	Common	
1	Didelphis marsupialis	Opossum	
2	Blarina carolinenus carolinenus	Short-tailed Shrew	
3	B. carolinenus shermani	Sherman's Short-tailed Shrew	SSC
4	Cryptotis parva	Least Shrew	
5	Scalopus aquaticus	Eastern Mole	
6	Eptesicus fuscus fuscus	Big Brown Bat	
7	Lasiurus cinereus	Hoary Bat	
8	L. intermedius floridanus	Northern Yellow Bat	
9	L. seminolus	Seminole Bat	
10	Myotis austroriparius	Southeastern Brown Bat	
11	Nycticeius humeralis	Evening Bat	
12	Pipistrellus subflavus	Eastern Pipisterl	
13	Plecotus rafinesquei	Eastern Big-eared Bat	
14	Eumops floridanus	Florida Bonneted Bat	FE
15	Tadarida brasilienus cynocephala	Brazilian Free-tailed Bat	
16	Ursus americanus floridanus	Florida Black Bear	
17	Procyon lotor	Raccoon	
18	Lutra canadenis	River Otter	
19	Mephitis mephitis	Striped Skunk	
20	Mustela frenata	Long-tailed Weasel	
21	M. frenata peninsulae	Florida Weasel	
22	M. vison mink	Southern Florida Mink	
23	Spilogale putorius	Spotted Skunk	
24	Canis latrans	Coyote	
25	Uroncyon cinereoargenteus	Gray Fox	
26	Vulpes fulva	Red Fox	
27	Felis concolor caryl	Florida Panther	FE
28	Lynx rufus	Bobcat	
29	Glaucomys volans	Southern Flying Squirrel	
30	Sciurus carolinensis	Eastern Gray Squirrel	
31	S. niger shermani	Sherman's Fox Squirrel	SSC
32	Geomys pinetis	Southeastern Pocket Gopher	
33	Podomys floridanus	Florida Mouse	SSC
34	Reithrodontomys humulis	Eastern Harvest Mouse	
35	Peromyscus gossypinus	Cotton Mouse	
36	P. polionotus	Oldfield Mouse	
37	Neotoma floridana	Eastern Woodrat	
38	Oryzomys palustris	Rice Rat	
39	Sigmodon hisipus	Hispid Cotton Rat	
40	Neofiber alleni	Florida Water Rat	

41	Sylvilagus floridanus	Eastern Cottontail	
42	S. palustris	Marsh Rabbit	
43	Sus scrofa	Feral Hog	
44	Odocoileus virginianus	Whitetail Deer	
45	Dasypus novemcinctus	Armadillo	

Appendix E. Lake Marion Creek Wildlife Management Area Hunting Regulations



Lake Marion Creek

Regulations Summary and Area Map July 1, 2015 - June 30, 2016

South Florida Water Management District

A cooperative public wildlife and recreational area

Florida Fish and Wildlife Conservation Commissior

Cons Myr

This brochure is designed to provide the public with information and a summary of regulations pertaining to hunting and other recreational use on the Lake Marion Creek Wildlife Management Area. Regulations that are new or differ substantially from last year are shown in bold print. Area users should familiarize themselves with all regulations. For exact wording of the wildlife laws and regulations, see the Florida Fish and Wildlife Conservation Commission's wildlife code, on file with the Secretary of State and state libraries. This brochure, the Florida Hunting Regulations handbook, and quota permit worksheets should provide the information necessary for you to plan your hunting activities. These publications are available from any Commission office, county tax collector and at MyFWC.com.

Persons using wildlife management areas are required to have appropriate licenses, permits and stamps. The following persons are exempt from all license and permit requirements (except for quota permits when listed as "no exemptions", recreational use permits, antierless deer permits and the Migratory Bird Hunting and Conservation Stamp [federal duck stamp]). Florida residents who are 65 years of age or older; residents who possess a Florida Resident Disabled Person Hunting and Fishing Certificate; residents in the U.S. Armed Forces, not stationed in Florida, while home on leave for 30 days or less, upon submission of orders; and children under 16 years of age. Children under 16 years of age are exempt from the federal duck stamp. Anyone born on or after June 1, 1975 and 16 years of age or older must have passed a Commission-approved hunter-safety course prior to being issued a lunting license, except the Hunter Safety Mentoring exemption allows anyone to purchase a hunting license and hunt under the supervision of a licensed hunter, 21 years of age or older.

Licenses and permits may be purchased from county tax collectors, license agents, at MyFWC.com/license or by telephone at 888-486-8356. A no-cost Migratory Bird Permit is available when purchasing a hunting license. Any waterfowl hunter 16 years of age or older must possess a federal duck stamp.

Quota Permit Information:

Archery - 35, no-cost, quota permits (no exemptions) for each of 2 hunts.

Muzzleloading Gun - 35, no-cost, quota permits (no exemptions).

Wild Hog-Still - 50, no-cost, quota permits (no exemptions) for each of 2 hunts.

General Gun - 35, no-cost, quota permits (no exemptions) for each of 2 hunts. Youth Turkey - 5, no-cost, quota permits (no exemptions).

Spring Turkey - 15, no-cost, quota permits (no exemptions) for each of 3 hunts.

Permit applications: Hunters must submit electronic applications for quota and special-opportunity permits through the Commission's Recreational License Issuance Services (RLIS). Worksheets listing hunts, application periods, deadlines and instructions are available at county tax collector's offices, FWC offices or MyFWC.com. Quota application periods occur throughout the year beginning April 1; please refer to the hunting handbook or MyFWC.com for specific dates. Worksheets will be available about 2 weeks prior to each application period.

Guest hunters: For each non-transferable archery, muzzleloading gun, general gun, wild hog, spring turkey and mobility-impaired quota permit issued through the Commission's RLIS, a quota permit holder (host) may take a guest hunter by obtaining a guest permit. Guest hunters are not allowed during the youth turkey hunt. A guest hunter must possess a completed guest permit while hunting except the following persons may be a guest hunter without a guest permit: a youth under 16 years of age, a youth supervisor, a mentor license holder or a mentor license supervisor. A host may only bring 1 guest hunter at a time and may only use 1 guest permit per day. The following persons are not considered to be guest hunters: other quota permit holders, non-hunters and exempt hunters (on areas and during seasons that allow exemptions). The host must share the bag limit with the guest hunter and the host is responsible for violations that exceed the bag limit. The guest hunter and host must enter and exit the area together and must share a streetlegal vehicle while hunting on the area. The guest hunter may hunt only while the host is on the area. Refer to the quota hunt worksheets for additional information.

Youth and mentor license holders: A youth hunter (less than 16 years of age) must be supervised by a person at least 18 years of age. A mentor license holder must be supervised by a licensed hunter at least 21 years of age. Unless exempt, only those supervisors with proper licenses and permits may hunt. If the supervisor is hunting during any hunt for which quota permits are issued, at least 1 person in the party must be in possession of a quota permit. A non-hunting supervisor is allowed to accompany a youth or mentor license holder during any hunt.

Transfer of permits: Quota and guest permits are not transferable. A positive form of identification is required when using a non-transferable permit, except for a youth under 16 years of age. The sale or purchase of any quota permit or guest permit is prohibited.

General Area Regulations:

All general laws and regulations relating to wildlife and fish shall apply unless specifically exempted for this area. Hunting or the taking of wildlife or fish on this area shall be allowed only during the open seasons and in accordance with the following regulations:

 Any person hunting deer or accompanying another person hunting deer shall wear at least 500 square inches of daylight fluorescent-orange material as an outer garment, above the waistline. These provisions are not required when hunting with a bow and arrow during archery season.

- 2. Taking of spotted fawn, swimming deer or roosted turkey is prohibited. Species legal to hunt are listed under each season.
- 3. It is illegal to hunt over bait or place any bait or other food for wildlife on this area.
- Driving a metal object into any tree, or hunting from a tree into which a metal object has been driven, is prohibited.
- 5. No person shall cut, damage or remove any natural, man-made or cultural resource without written authorization of the landowner or primary land
- 6. Taking or attempting to take any game with the aid of live decoys, recorded game calls or sounds, set guns, artificial light, net, trap, snare, drug or poison is prohibited. Recorded calls and sounds can be used to hunt furbearers, wild hog and crows.
- 7. The wanton and willful waste of wildlife is prohibited.
- 8. Hunting, fishing or trapping is prohibited on any portion of the area posted as closed to those activities.
- 9. People, dogs, vehicles and other recreational equipment are prohibited in areas posted as "Closed to Public Access" by FWC administrative action.
- 10. Taking or herding wildlife from any motorized vehicle, aircraft or boat which is under power is prohibited, until power and movement from that power, has ceased.
- 11. Most game may be hunted from 1/2 hour before sunrise until 1/2 hour after sunset (see exceptions for each season).
- 12. The release of any animal is prohibited, without written authorization of the landowner or primary land manager.
- 13. The head and evidence of sex may not be removed from the carcass of any deer or turkey on the area.
- 14. The planting or introduction of any non-native plant is prohibited, without written authorization of the landowner or primary land manager.
- 15. Wild hog may not be transported alive.
- A hunting license is not required for the take of wild hog.
- Littering is prohibited.
- It is unlawful to set fire to any forest, grass or woodlands.
- A Fish and Wildlife Conservation Commission Law Enforcement Officer may search any camp, vehicle or boat, in accordance with law.
- 20. Falconers may hunt during the statewide falconry season anytime a management area is open for public access. Falconers are not exempt from quota permits during hunts requiring them.

Public Access and Vehicles:

- 1. Open to public recreational access year round. Public access other than on foot or bicycle is prohibited except by persons that have obtained authorization from the South Florida Water Management District.
- 2. The entrance gate is locked at all times and a combination is necessary to access the property with a motor vehicle. Vehicle access for any purpose, except camping, requires a Special Use License obtained through the South Florida Water Management District's Recreation website at my.sfwmd.gov/recreation. Campers must obtain a Special Use License, which will include the combination, and will not need an authorization for vehicle access. For more information, please call 800-250-4200 ext. 3333.
- 3. Persons with a Special Use License for vehicle access should display the reference number on the driver's side of the vehicle's dashboard.
- 4. All persons shall enter and exit the area at a designated entrance.
- Vehicles may be operated only on named roads.
- 6. Vehicles must be parked in designated parking areas or within 25 feet of a
- 7. Parked vehicles may not obstruct a road, gate or firelane.
- No motor vehicle shall be operated on any part of any wildlife management area that has been designated as closed to vehicular traffic.
- The use of tracked vehicles, all-terrain vehicles, airboats, horses or unlicensed and unregistered motorcycles is prohibited.

- 1. Hunting equipment may not be taken onto the WMA until after 8 a.m. the day before the opening of a season and shall be removed by 6 p.m. 1 day after the end of the season.
- Hunters shall enter and exit the area at a designated entrance.

Guns:

- Hunting at night with a gun is prohibited.
- 2. Muzzleloading guns used for taking deer must be .40 caliber or larger, if firing a single bullet, or be 20 gauge or larger if firing 2 or more balls.

- 3. Hunting deer with rimfire or non-expanding, full metal jacket (military ball) ammunition is prohibited.
- 4. Air guns may be used to hunt gray squirrel and rabbits during any season when these species are legal to hunt, except archery and muzzleloading
- 5. Children under the age of 16 hunting with a firearm or air gun must be in the presence of a supervising adult.
- No person shall discharge a firearm or have a loaded firearm in hand while under the influence of alcohol or drugs.
- 7. For hunting non-migratory game, only shotguns, rifles, pistols, bows, crossbows or falcoury may be used.
- 8. For hunting migratory game, only shotguns, bows, crossbows or falconry may be used. Shotguns shall not be larger than 10 gauge and shall be incapable of holding more than 3 shells in the magazine and chamber combined.
- 9. Hunting with full automatic firearms, centerfire semi-automatic rifles having a magazine capable of holding more than 5 rounds, explosive or drug-injecting devices and set guns is prohibited.
- 10. The discharge of a firearm outside of periods open to hunting or in areas closed to hunting is prohibited per s. 790.15 FS.

Dogs:

- 1. Hunting deer or wild hog with dogs is prohibited.
- 2. Hunting with dogs other than bird dogs or retrievers is prohibited, except dogs with a shoulder height of 15 inches or less are allowed during the small game season.
- 3. No person shall allow any dog to pursue or molest any wildlife during any period in which the taking of wildlife by the use of dogs is prohibited.
- Dogs on leashes may be used for trailing wounded game.
- For purposes other than hunting, dogs are allowed, but must be kept under physical restraint at all times.

- Camping:
 1. Prohibited during hunting seasons.
- Allowed during non-hunting periods by persons possessing a Special Use License issued by the South Florida Water Management District; call 866-433-6312 and select option 2, or go to my.sfwmd.gov/recreation. Camping is limited to 8 continuous days.

Bag and Possession Limits: A guest hunter must share the host's bag limit. No person shall exceed statewide bag limits.

- Deer -
 - A. Archery season 1 antlered and 1 antlerless deer per quota permit.
- B Muzzleloading gun and general gun seasons - 1 antiered deer per quota permit.
- Wild hog No size or bag limit.
- Turkey -
 - A. Archery season Daily limit 1, season limit 2, possession limit 2.
 - B. Spring turkey season 1 per quota permit.
- 4. Gray squirrel, quail and rabbit Daily limit 12, possession limit 24 for
- Raccoon, opossum, armadillo, beaver, coyote, skunk and nutria No bag
- Bobcat and otter Prohibited.
- Migratory birds See Migratory Bird Hunting Regulations pamphlet.

Archery Season:

October 17-19 and 23-25.

Permit, Stamp and License Requirements - Quota permit, hunting license, management area permit, archery permit, deer permit (if hunting deer), wild turkey permit (if hunting wild turkey) and migratory bird permit (if hunting migratory birds).

Legal to Hunt - Deer with at least 1 antler having 3 or more points (each point 1-inch or more in length) OR a main beam length of 10 inches or more, antlerless deer (which includes does and bucks with antlers less than 5 inches in length, but not spotted fawn), wild hog, turkey of either sex, gray squirrel, quail, rabbit, raccoon, opossum, armadillo, beaver, coyote, skunk, mutria and migratory birds in season.

Regulations Unique to Archery Season -

- 1. Youth less than 16 years of age may harvest antlered deer with at least 1 antier 5 inches or more in length.
- Hunting with bird dogs or retrievers is allowed.

Hunting with gums or crossbows (except by disabled crossbow permit) is
prohibited, except that centerfire shotgums are allowed for hunting
migratory birds when 1 or more species are legal to hunt (see Migratory
Bird section and the current Migratory Bird Hunting Regulations
pamphlet).

Muzzleloading Gun Season:

November 27-29.

Permit, Stamp and License Requirements - Quota permit, hunting license, management area permit, muzzleloading gun permit, deer permit (if hunting deer), migratory bird permit (if hunting migratory birds), and state waterfowl permit and federal duck stamp (if hunting waterfowl).

Legal to Hunt - Deer with at least 1 antler having 3 or more points (each point 1-inch or more in length) OR a main beam length of 10 inches or more, wild hog, gray squirrel, quail, rabbit, raccoon, opossum, armadillo, beaver, coyote, skunk, nutria and migratory birds in season.

Regulations Unique to Muzzleloading Gun Season -

- Youth less than 16 years of age may harvest antlered deer with at least 1 antler 5 inches or more in length.
- 2. Hunting with bird dogs or retrievers is allowed.
- Hunting with archery equipment or guns, other than muzzleloading guns, is prohibited, except that centerfire shotguns are allowed for hunting migratory birds when 1 or more species are legal to hunt (see Migratory Bird section and the current Migratory Bird Hunting Regulations pamphlet).

Wild Hog-Still Season:

December 11-13 and 25-27

Permit, Stamp and License Requirements - Quota permit and management area permit.

Legal to Hunt - Wild hog.

Regulations Unique to Wild Hog-Still Season - Hunting with dogs is prohibited.

Small Game Season:

January 8-10 and 15-17.

Permit, Stamp and License Requirements - Hunting license, management area permit, migratory bird permit (if hunting migratory birds), and state waterfowl permit and federal duck stamp (if hunting waterfowl).

Legal to Hunt - Wild hog, gray squirrel, quail, rabbit, raccoon, opossum, armadillo, beaver, coyote, skunk, nutria and migratory birds in season.

Regulations Unique to Small Game Season -

- Hunting with bird dogs, retrievers or dogs with a shoulder height of 15 inches or less is allowed.
- 2. Hunting wild hog with dogs is prohibited.
- 3. Hunting with centerfire rifles is prohibited.

General Gun Season:

January 22-24 and February 5-7.

Permit, Stamp and License Requirements - Quota permit, hunting license, management area permit, deer permit (if hunting deer), migratory bird permit (if hunting migratory birds), and state waterfowl permit and federal duck stamp (if hunting waterfowl).

Legal to Hunt- Deer with at least 1 antler having 3 or more points (each point 1-inch or more in length) OR a main beam length of 10 inches or more, wild hog, gray squirrel, quail, rabbit, raccoon, opossum, armadillo, beaver, coyote, skunk, nutria and migratory birds in season.

Regulations Unique to General Gun Season -

- Youth less than 16 years of age may harvest antlered deer with at least 1 antler 5 inches or more in length.
- Hunting with bird dogs or retrievers is allowed.

Trapping: Prohibited.

Spring Turkey Season:

Youth Turkey: March 12-13.

Spring Turkey: March 19-21, April 1-3 and 15-17.

Permit, Stamp and License Requirements - Quota permit, hunting license, management area permit and wild turkey permit.

Legal to Hunt - Bearded turkey or gobbler.

Regulations Unique to Spring Turkey Season -

- Legal shooting hours are ½ hour before sunrise until 1 p.m.
- 2. Hunting other animals is prohibited.

- Only bows, crossbows and shotgums using a #2 or smaller shot size may be used for hunting.
- 4. During the youth turkey hunt, only youth under 16 years of age may hunt and must be under the supervision and in the presence of an adult not younger than 18 years of age. Adults with required licenses and permits for taking wild turkeys may participate when in the presence of a youth, but may not harvest a wild turkey.

Migratory Bird Seasons:

Rails, common moorhen, mourning dove, white-winged dove, snipe, ducks, geese, coot, woodcock and crows may be hunted during statewide migratory bird seasons that coincide with the seasons where migratory birds are listed as legal to hunt in this brochure.

Permit, Stamp and License Requirements - Quota permit (if hunting during any quota period), hunting license, management area permit, migratory bird permit, and state waterfowl permit and federal duck stamp (if hunting waterfowl).

Legal to Hunt - See Migratory Bird Hunting Regulations pamphlet.

Regulations Unique to Migratory Bird Seasons - All Migratory Bird Regulations shall apply.

- 1. Hunting ducks, geese and coot with lead shot is prohibited.
- Centerfire shotgums are allowed for hunting during established area seasons when 1 or more migratory birds are legal to hunt.

Fishing:

Allowed year round.

Permit, Stamp and License Requirements - Fishing license.

Legal to Take - See Florida Freshwater Fishing Regulations Summary.

Regulations Unique to Fishing - All General Freshwater Fishing Regulations shall apply. Frogging is prohibited.

General Information:

- Information for persons with disabilities can be found at MyFWC.com/ADA.
- If you have any questions about this material, please call the Fish and Wildlife Conservation Commission at 863-648-3200 (TDD 800-955-8771).
- The FWC is not responsible for protection of personal property and will not be liable for theft of or damage to personal property.
- Please report the location of any sick or extremely skinny deer to the Chronic Wasting Disease hotline, toll free at 866-293-9282.

Cooperation Requested:

If you see law violators or suspicious activities, contact your nearest Commission regional office or call 888-404-FWCC. You may qualify for a cash reward from the Wildlife Alert Reward Association.

The U.S. Department of the Interior prohibits discrimination on the basis of race, color, national origin, age, sex or disability. If you believe that you have been discriminated against in any program, activity or facility as described above, or if you desire further information, please write to: The Office for Human Resources, U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C. 20240. The project described in this publication is part of a program funded by federal dollars under the Wildlife Restoration Act. Federal funds vary 20 vercent of the cost of the program.

Wildlife Alert Reward Program

Report fishing, boating or hunting law violations, you may qualify for a cash reward.

888-404-FWCC (3922)
*FWC or #FWC on cellular phones
TIP@MyFWC.com by text message

