## Six Mile Cypress Slough Preserve Land Stewardship Plan

7791 Penzance Boulevard Fort Myers, Florida 33966







Prepared by the Land Stewardship Section Lee County Department of Parks and Recreation

Approved by the Lee County Board of County Commissioners: November 27, 2012

#### **Acknowledgements**

We would like to thank the following for their assistance in the development of this document: The Conservation 20/20 Land Acquisition and Stewardship Advisory Committee, Roger Clark, Cathy Olson, and Andy Getch with Lee County DOT for carefully reviewing the Six Mile Cypress Slough Preserve Land Stewardship Plan.

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## **List of Acronyms**

ATV	all-terrain vehicle		
BOCC	Lee County Board of County Commissioners		
C20/20	Conservation 20/20		
FDACS	Florida Department of Agriculture and Consumer Services		
FDEP	Florida Department of Environmental Protection		
FDOT	Florida Department of Transportation		
FFS	Florida Forest Service		
FGCU	Florida Gulf Coast University		
FLEPPC	Florida Exotic Pest Plant Council		
FLU	future land use		
FNAI	Florida Natural Areas Inventory		
FPL	Florida Power & Light		
FWC	Florida Fish and Wildlife Conservation Commission		
IRC	Institute for Regional Conservation		
LCDCD	Lee County Department of Community Development		
LCDNR	Lee County Division of Natural Resources		
LCDP	Lee County Division of Planning		
LCEC	Lee County Electric Coop		
LCPR	Lee County Parks and Recreation		
LCDOT	Lee County Department of Transportation		
LEED	Leadership in Energy and Environmental Design		
LSOM	Land Stewardship Operations Manual		
LSP	Land Stewardship Plan		
MU	Management Unit		
NGCD	National Geodetic Vertical Datum		
ORV	off-road vehicle		
SFWMD	South Florida Water Management District		
SMCSP	Six Mile Cypress Slough Preserve		
SMCSPN	Six Mile Cypress Slough Preserve North		
SOR	Save Our Rivers		
STRAP	Section-Township-Range-Area-Block.Lot (Parcel)		
USACOE	United States Army Corps of Engineers		
USFWS	United States Fish and Wildlife Service		

### Vision Statement

It is the vision of the Lee County Parks and Recreation Department and the Conservation 20/20 Program staff to conserve, protect and restore all lands associated with the Six Mile Cypress Slough Preserve. This vision will be obtained through adaptive management techniques. The Preserve is a haven for wildlife and the goal of all restoration activities will be to increase its service to native flora and fauna. The Preserve will continue to provide eleven miles of critical connectivity for wildlife travel and water flow within a highly urbanized area, while providing valuable natural history educational and resourced based recreational opportunities for the public.

#### I. EXECUTIVE SUMMARY

This Preserve consists of conservation land acquired through different agencies and funding sources which need to be discussed separately in sections of this plan. Stewardship of portions of the Preserve is also funded through various methods. To minimize confusion throughout this plan, we have used "the entire Preserve" to refer to all land within the entire boundary of the land managed by Lee County staff- whether by direct ownership or through management agreements. When we are referring specifically to Six Mile Cypress Slough Preserve- North the acronym SMCSPN will be used. For all other parcels of the Preserve the acronym SMCSP will be used. Figure 1 delineates ownership and acronym references.

The entire Preserve is located in central Lee County, within Sections 13-15, 22-27, and 34-35 of Township 44 South Range 25 East and Sections 03, 04, 08-10, 17, 20, 29, 30 and 31 of Township 45 South, Range 25 East. It is approximately 3500 acres in size and is 11 miles long. Four major roadways; State Road 82, Colonial Boulevard, Interstate-75 and Daniels Parkway cross Six Mile Cypress Slough Preserve.

This Preserve is comprised of parcels acquired through several funding sources. Inspired by the work of public high school students involved in the "Monday Group", voters approved a .25 mil property tax assessment in 1976 to be used towards the purchase of land associated with the Six Mile Cypress Slough system. In 1987 South Florida Water Management District purchased 550.09 acres from Lee County through the Save Our Rivers program to provide funds for Lee County to purchase land from private land owners, and then in 1988 turned management responsibilities over to Lee County. In 1994 the Lee County Board of County Commissioners accepted the Special Warranty Deed from Eagle Lake Estates, Ltd. to transfer ownership of their 40.56 acre mitigation area to Lee County. In 2007 the Lee County Board of County Commissioners voted to purchase 2.88 acres funded through the Capital Improvement Fund program. Conservation 20/20 funds were used from 1999-2011 to purchase 1590.72 additional acres, including the portion known as Six Mile Cypress Slough-North. The Conservation 20/20 program was established in 1996 after Lee County voters approved a referendum that increased property taxes by up to 0.5 mil for the purpose of purchasing and protecting environmentally sensitive lands.

The natural elevations range from 20 feet above sea level at the north end and slope in a general southwesterly direction to 12 feet above sea level at the south end of the Preserve.

There are twenty-seven different soil types found on the entire Preserve. The soils within the Preserve have all been identified as having severe physical limitations; either ponding, wetness, or being too sandy. Covering over one-third

(35 percent) of the Preserve, Isles Fine Sand, Depressional is the most common soil type. Malabar Fine Sand is the second most common soil type covering nearly 16 percent, while the remaining twenty-five soil types cover less than one-half of the lands.

SMCSPN is within the Tidal Caloosahatchee Basin of the South Florida Water Management District's Lower West Coast Region, while the remainder of SMCSP is within the Estero Bay basin. SMCSPN lies in the Orange River watershed while the rest of the Preserve lies in the Six Mile Cypress Slough watershed and borders the southeastern edge of the Ten Mile Canal watershed for most of its length. Lee County Division of Natural Resources watersheds match SFWMD with the exception of SMCSPN which Lee County Division of Natural Resources divides into the Billy's Creek and Orange River watersheds. The hydrologic features of the entire Preserve have been drastically altered due to ditching, weir and other water control structure installation, digging of borrow pits and retention ponds for adjacent roads and housing developments which can increase discharge rates into the slough system as well as divert water from wetlands within the Preserve. The existing berms, power line easement, and cattle wells also influence water flow by either interrupting sheet flow or holding water for extended periods in some areas.

The entire Preserve consists of 37 natural or altered plant communities; the majority of which consists of strand swamp, hydric hammock and wet flatwoods. Approximately 23% of the plant communities are designated by Florida Natural Areas Inventory as altered landcover types which are typically created by previous land clearing activities, invasive exotic plant infestations resulting in monocultures, and/or man-made ditches, roads or cow wells. Approximately 19% of SMCSPN has been categorized as disturbed communities, primarily due to an abundance of invasive exotic species, lack of fire or hydrologic changes. Another 4% has undergone extensive changes for mitigation and has been planted with native plants, but are not established enough to be considered a natural plant community at this time. The remaining 53% of the SMCSPN plant communities are in an unaltered natural state, or have undergone numerous years of restoration work and are at a maintenance level for invasive exotic plants.

Former land uses on some areas of the Preserve include agricultural clearing for pasture, cattle grazing and other small scale farming endeavors. SMCSPN holds a small remnant portion of a railroad utilized as part of the Buckingham Army Air Field operations in the 1940s. The most unique feature of this Preserve is the slough itself.

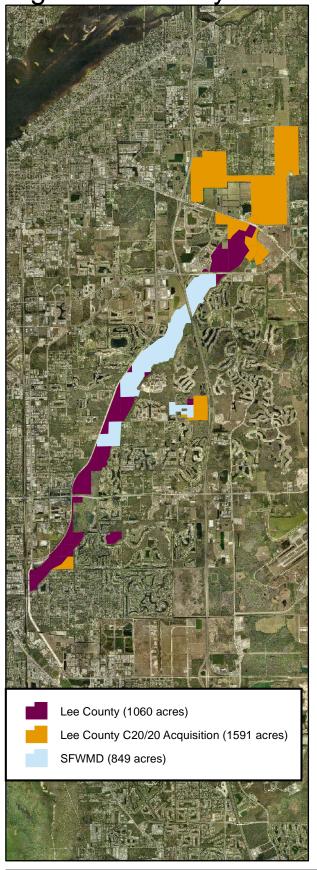
In addition to restoring and protecting the resources for wildlife and native plant communities, our goal is to provide enjoyable opportunities for the public while protecting the Preserve's biologic integrity and ecological services. Existing amenities on SMCSP include an interpretive building with an interpretive center,

small gift shop, staff offices and classrooms, picnic areas and a 1.2 mile long boardwalk, as well as a designated parking area for users of the multi-use path located alongside Ben Pratt/ Six Mile Cypress Parkway. Over 100 volunteers are involved in projects ranging from leading guided walks and inventorying wildlife species to treating exotic vegetation. Plans for providing access to a borrow pit for fishing on a part of SMCSP, and future equestrian and hiking opportunities may be incorporated onto SMCSPN after the hydrologic restoration project is completed.

The goal of this land stewardship plan is to identify Preserve resources, develop strategies to protect the resources and implement restoration activities to restore the entire Preserve to a productive, functional and viable ecosystem while ensuring that the Preserve will be managed in accordance with Lee County Parks and Recreation's Land Stewardship Operations Manual.

Restoration and management activities on the entire Preserve will focus on controlling invasive exotic plant and animal species, protecting cultural resources, hydrological restoration, removing debris, enhancing wildlife habitat and maintaining fire dependant ecosystems with prescribed fire. A Management Action Plan outlines restoration and stewardship goals. This plan outlines these goals and strategies, explains how the goals will be accomplished, and provides a timetable for completion. Any future additions to the Preserve will be managed similarly to this land stewardship plan. This plan will be revised in ten years (2022).

Figure 1: Acronym and Ownership Map







## **Six Mile Cypress Slough Preserve**

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Six Mile Cypress Slough Preserve\Stewardship\_Plant
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#### II. INTRODUCTION

This approximately 3500 acre Preserve is comprised of parcels acquired through several funding sources. Inspired by the work of public high school students involved in the "Monday Group", voters approved a .25 mil property tax assessment in 1976 to be used towards the purchase of land associated with the Six Mile Cypress Slough system. In 1987 South Florida Water Management District purchased 550.09 acres from Lee County through the Save Our Rivers program to provide funds to Lee County to purchase additional land, and then in 1988 turned land management responsibilities over to Lee County. In 1994 the Lee County Board of County Commissioners accepted the Special Warranty Deed from Eagle Lake Estates, Ltd. to transfer ownership of their 40.56 acre mitigation area to Lee County. In 2007 the Lee County Board of County Commissioners voted to purchase 2.88 acres funded through the Capital Improvement Fund program. Conservation 20/20 funds were used from 1999-2011 to purchase 1590.72 additional acres, including the area known as Six Mile Cypress Slough Preserve-North. The Conservation 20/20 (C20/20) program was established in 1996 after Lee County voters approved a referendum that increased property taxes by up to 0.5 mil for the purpose of purchasing and protecting environmentally sensitive lands.

The entire Preserve is located in central Lee County and extends from Luckett Road at its northern most boundary to Briarcliff Road at its southwestern most point. It is orientated in a northeast to southwest direction. The entire Preserve is located in central Lee County, within Sections 13-15, 22-27, and 34-35 of Township 44 South Range 25 East and Sections 03, 04, 08-10, 17, 20, 29, 30 and 31 of Township 45 South, Range 25 East. It is approximately 3500 acres in size and 11 miles long. Portions of the Preserve are within the City of Fort Myers and other portions are within unincorporated Lee County.

The most common plant communities are strand swamp, hydric hammock and wet flatwoods. Approximately 53% of the plant communities are in an unaltered natural state or have undergone numerous years of restoration work and are at a maintenance level for invasive exotic plants.

Former land uses on some areas of the Preserve include agricultural clearing for pasture and other small scale farming endeavors. SMCSPN contains a small remnant portion of a railroad utilized as part of the Buckingham Army Air Field operations in the 1940s. The most unique feature of this Preserve is the slough itself. Decades of hydrologic alterations on lands around the Preserve have altered the historic hydroperiods for many of the wetland systems.

SMCSP contains a combination of wetland and upland communities that serve as important habitat for a variety of wildlife. Several listed species utilize the

Preserve, including state and federally listed endangered wood stork (*Mycteria americana*) and Florida panther (*Puma concolor coryi*) as well as the state listed Big Cypress fox squirrel (*Sciurus niger avicennia*) and gopher tortoise (*Gopherus polyphemus*). The wildlife and overall ecosystem will benefit from enhanced, viable and functioning plant communities through invasive exotic plant removal/control, improved wetland hydroperiods, pasture restoration, and initiation of an essential fire interval with prescribed fire management. The slough provides groundwater recharge and water filtering while also serving as a wildlife corridor.

In addition to restoring and protecting the natural resources for wildlife and native plant communities, our goal is to provide enjoyable opportunities for the public while protecting the Preserve's biologic integrity and ecological services. Existing amenities on SMCSP include an interpretive building with a natural history museum, small gift shop, staff offices and classrooms, picnic areas and a 1.2 mile long boardwalk, as well as a designated parking area for users of the multi-use path located alongside Ben Pratt/ Six Mile Cypress Parkway. Over 100 volunteers are involved in projects ranging from leading guided walks to treating exotic vegetation. Plans for providing access to a borrow pit for fishing on a part of SMCSP, and future equestrian and hiking opportunities may be incorporated onto SMCSPN after the hydrologic restoration project is completed.

The purpose of this stewardship plan is to define conservation goals for the entire Preserve that will address the above concerns. It will serve as a guide for Lee County's Department of Parks and Recreation (LCPR) to use best management practices to ensure proper stewardship and protection of the Preserve. It also serves as a reference guide because of the field studies and research of scientific literature and historic records conducted by LCPR staff that help to explain the Preserve's ecosystem functions, its natural history and its influences from human use.

#### III. LOCATION AND SITE DESCRIPTION

The entire Preserve is located in central Lee County, within Sections 13-15, 22-27, and 34-35 of Township 44 South Range 25 East and Sections 03, 04, 08-10, 17, 20, 29, 30 and 31 of Township 45 South, Range 25 East. Because of its linear nature, the Preserve is accessed in several areas along its boundaries. It has numerous addresses assigned by the Lee County Property Appraiser's office. These are shown in Table 1 below.

Table 1: Addresses by Strap Number

Strap#	Address:	
13-44-25-P1-00001.0000	11400 LUCKETT RD, FORT MYERS	
22-44-25-P2-00009.0020	9601 SR 82, FORT MYERS	
23-44-25-P4-00062.0000	10250 SR 82, FORT MYERS	
26-44-25-00-00001.0010	10011 COLONIAL BLVD, FORT MYERS	
27-44-25-00-00002.1000	9931 COLONIAL BLVD, FORT MYERS	
34-44-25-00-00001.1000	9910 COLONIAL BLVD, FORT MYERS	
04-45-25-00-00005.0010	10951 BEN C PRATT SIX MILE CYPRESS PKWY, FORT MYERS 11031 BEN C PRATT SIX MILE CYPRESS	
09-45-25-00-00001.3000	PKWY, FORT MYERS	
09-45-25-00-00002.0010	8001 PENZANCE BLVD, FORT MYERS	
08-45-25-00-00004.0050	7791/7881 PENZANCE BLVD, FORT MYERS	
17-45-25-00-00004.0010	12121 BEN C PRATT SIX MILE CYPRESS PKWY, FORT MYERS	
17-45-25-00-00001.0000	12321 BEN C PRATT SIX MILE CYPRESS PKWY, FORT MYERS	
17-45-25-00-00002.0010	12581 BEN C PRATT SIX MILE CYPRESS PKWY, FORT MYERS	
20-45-25-00-00001.1000	13101 BEN C PRATT SIX MILE CYPRESS PKWY, FORT MYERS	
20-45-25-00-00003.4000	7040 DANIELS PKWY, FORT MYERS	
19-45-25-00-00003.0010	13691 BEN C PRATT SIX MILE CYPRESS PKWY, FORT MYERS	
30-45-25-00-00002.2020	14301 BEN C PRATT SIX MILE CYPRESS PKWY, FORT MYERS	
10-45-25-00-00006.0010	11780 PALOMINO LN, FORT MYERS	Owned by: SOUTH FLA WATER MGMT DIST
10-45-25-00-00006.0240	11581 MORGAN HILL RD, FORT MYERS	

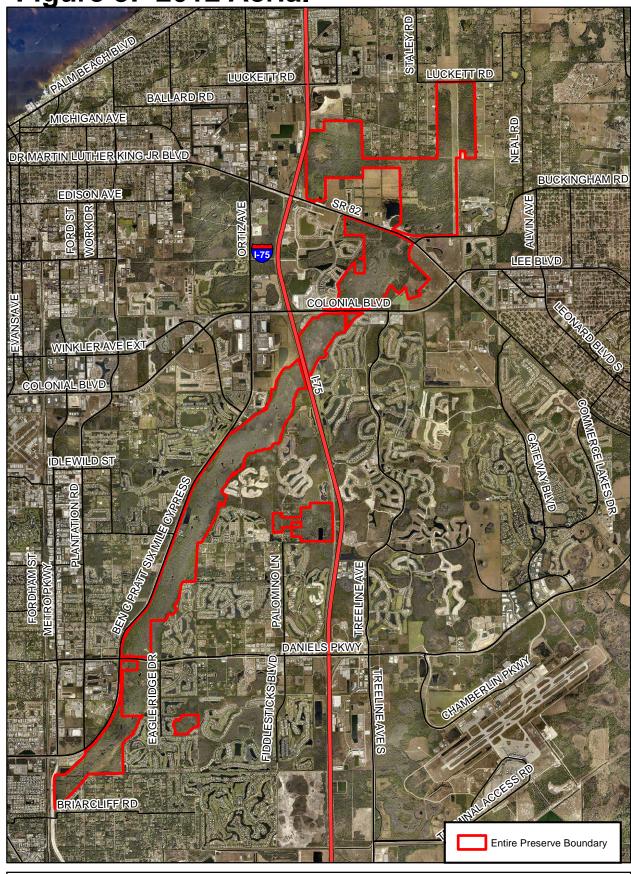
The Preserve is approximately 11 miles long, averages 1,500 feet in width and occupies approximately 3,500 acres in central Lee County (see Figure 2). It extends from Luckett Road at its northern most boundary to Briarcliff Road at its southern boundary in a northeast to southwest direction with a land slope of less than one foot per mile. Elevation at its north end is approximately 21 feet National Geodetic Vertical Datum (NGVD) and at its south end about 12 feet NGVD. Interestingly, its orientation parallels that of the Caloosahatchee River. The depth of the slough, between the edge of the wetlands fringe and the slough bottom, averages 2-3 feet. A number of depression ponds occur throughout the strand with the deeper depressions having the greatest hydroperiod, at times holding water throughout the year. There are also narrow, shallow channels that cut into the broader slough bottom creating flowways and wildlife passages.

The headwaters of the slough system originate in a series of wetlands on SMCSPN north of State Road 82 and Buckingham Road. The main area of the slough occurs immediately south of Immokalee Road (SR 82) at its intersection with Buckingham Road. Culverts installed beneath State Road 82 permit water flow from SMCSPN into SMCSP. This area previously had culverts but berms prevented flow to the south.

The Preserve has a remnant cultural resource railroad bed near the mid portion of SMCSPN. SMCSP contains thirty seven plant communities, a mosaic of both human-altered and natural plant communities. Approximately 13% of the plant communities are designated as "disturbed," typically due to land clearing activities, invasive exotic plant infestations and/or changes in the natural drainage patterns. Figure 2 shows the location in Lee County while Figure 3 identifies the boundaries of the entire Preserve in a 2012 aerial photograph.

Figure 2: Location Map BAYSHORE RD ORANGE RIVER BLVD **BUCKINGHAM RD** RD TICE ST STALEY PANGOLA DR BALLARD RD MICHIGAN AVE ORTIZ/ DR MARTIN LUTHER KING JR BLVD BUCKINGHAM RD EDISON AVE BRÓADWAY **MCGREGOR BLVD** <u>Ċ</u>LEVELANĎ AVE ST HANSON ST LEE BLVD WINKLER AVE EXT EVANS AV TREELINE AVI FORD ST COLONIAL BLVD BENC PRAITS SY, MILE CYPRESS DANLEY DR SUMMERLIN RD VELAND METRO PKWY PLANTATION RD CLE. PALOMINO LN DANIELS PKWY **Major Roads** EAGLE RIDGE other roads Interstate TREELINE AVE Interstate 75 Exits **Parks Buckingham Community Park** BRIARCLIFF RD Lakes Regional Park Lee County Sports Complex Other C20/20 Preserves Hickory Swamp Preserve **Buckingham Trails Preserve** Billy Creek Preserve Entire Preserve Boundary M:\GISLAYERS\Projects\Parks\_Rec\C2020\
Six Mile Cypress Slough Preserve\Stewardship\_Plan\
Six\_Mile\_Location.mxd **Six Mile Cypress Slough Preserve** Map Prepared On: 01/01/2012 by janderson@leegov.com This is not a survey. Land Stewardship Staff has prepared this map for informational and planning purposes

Figure 3: 2012 Aerial





## Six Mile Cypress Slough Preserve

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#### IV. NATURAL RESOURCES DESCRIPTION

#### A. Physical Resources

#### i. Climate

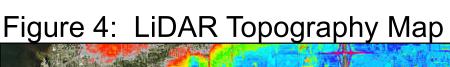
General information on the climate of southwest Florida is located in the Land Stewardship Operations Manual's (LSOM) Land Stewardship Plan Development and Supplemental Information section which can be found on the Conservation 20/20 website at http://www.conservation2020.org/Documents/LSOM.pdf.

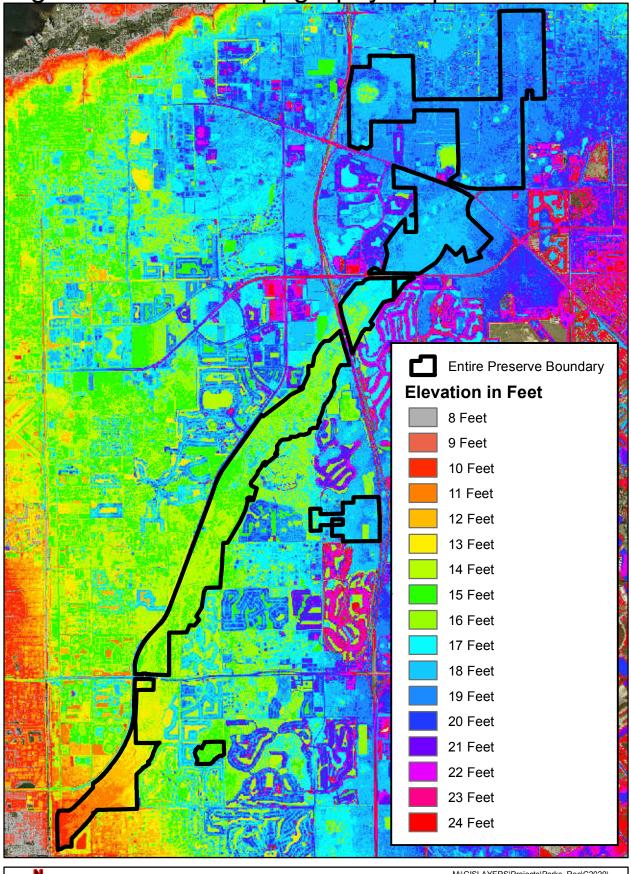
#### ii. Geology

Specific information on the geologic features such as physiographic regions, formations and maps can be found in the LSOM's Land Stewardship Plan Development and Supplemental Information section.

#### iii. Topography

Elevation at the north end of the Preserve is approximately 20 feet NGVD and at the south end approximately 12 feet NGVD. The decrease in elevation is a little less than one foot per mile. The cross-section depth of the slough between the elevation of the wetland fringe and the mid-slough averages 2-3 feet. Elevations in the portions of the slough north of SR 82 have been disrupted by human activity through the placement of ditches leveling and lowering through farm activities and diverted by linear features such as railroad beds, power line easements and woods roads. Figure 4 shows topography based on LiDar imaging.







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#### iv. Soils

SMCSP contains a total of 27 different soils (Appendix A and Figures 5-9). Soils play an important role in dictating the location and types of recreation that the Preserve can provide. Covering over one-third (38 percent) of the Preserve, Isles Fine Sand, Depressional is the most common soil type. Malabar Fine Sand is the second most common soil type covering nearly 16 percent, while the remaining twenty-five soil types cover less than one-half of the lands. All soils, with the exception of 3.4 acres of Matlacha-Urban Land Complex and Matlacha Gravelly Fine Sand, are classified as wetland soils.

Please refer to the LSOM's Land Stewardship Plan Development and Supplemental Information section for additional information on soil types and limitation.

Figure 5: Legend for Soils Maps

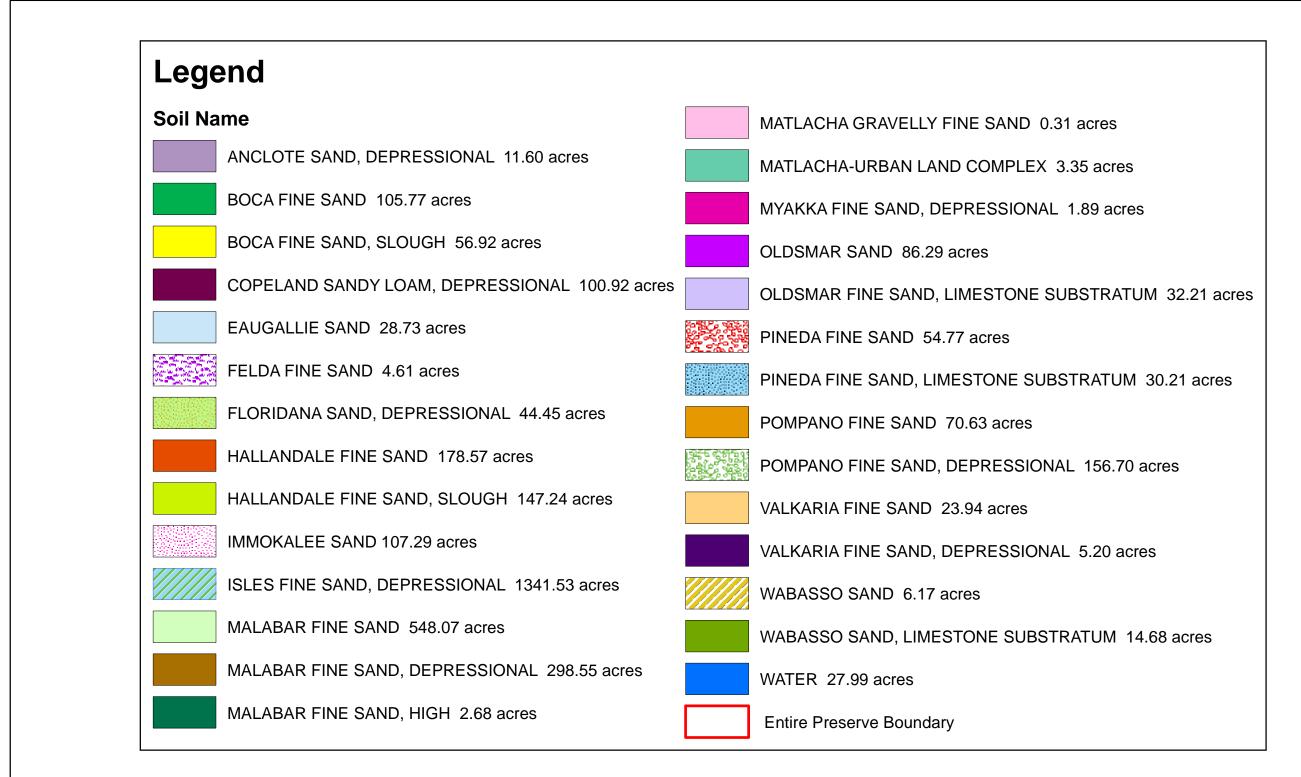
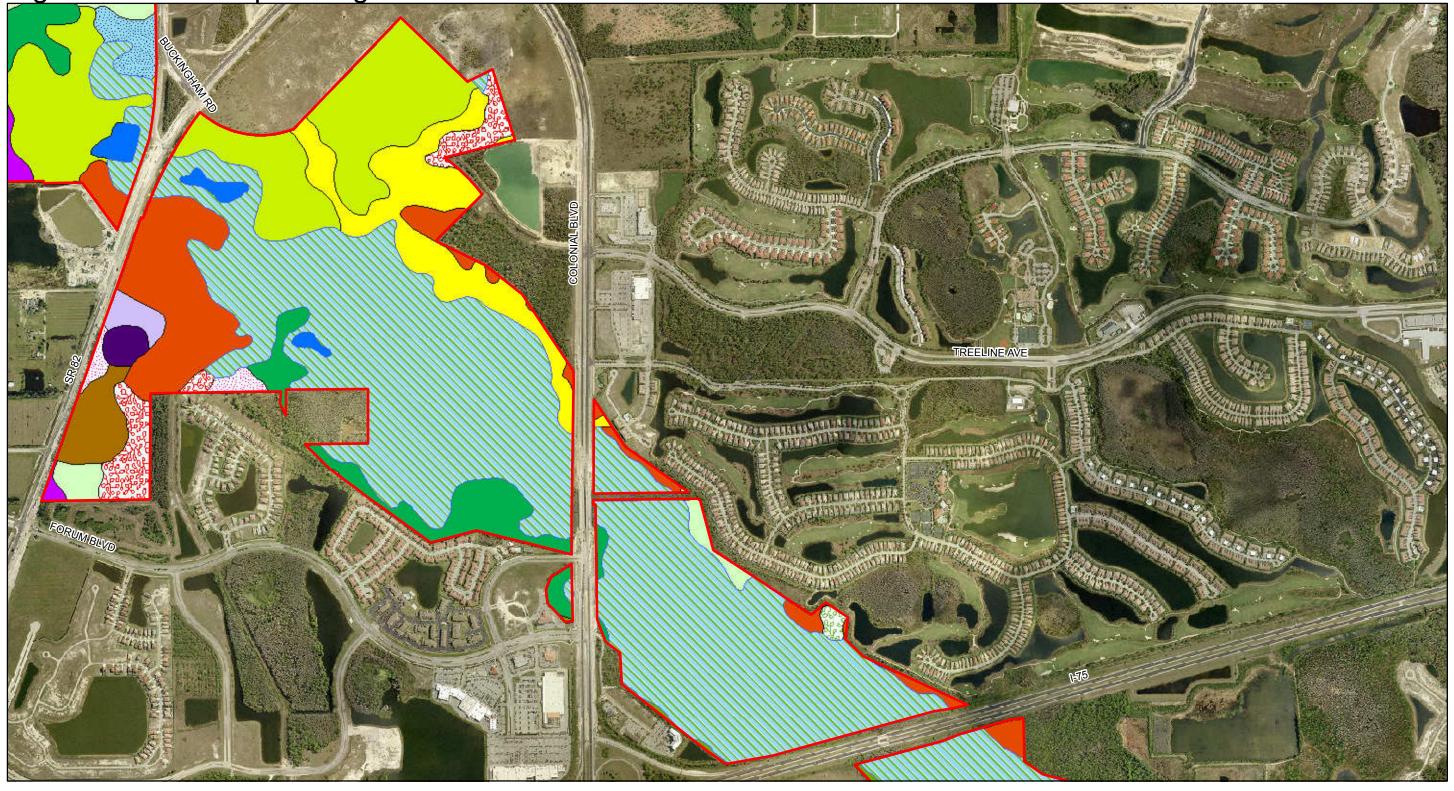
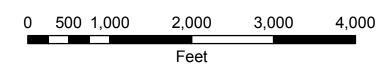


Figure 6: Soils Map Management Units 1-2





Six Mile Cypress Slough Preserve Management Units 1 & 2

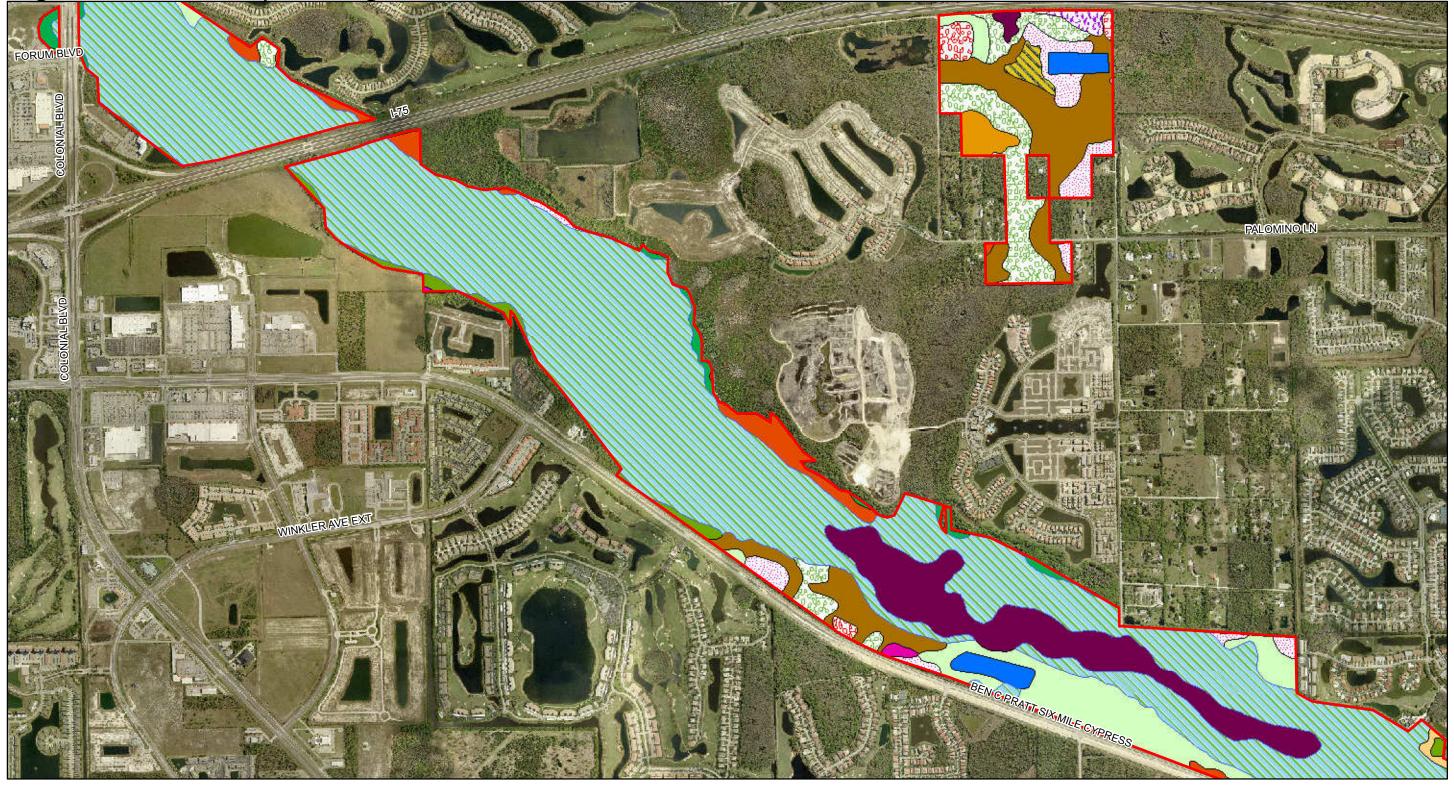


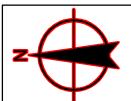
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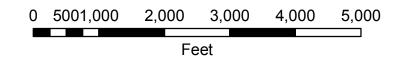
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Figure 7: Soils Map Management Units 3-7





Six Mile Cypress Slough Preserve Management Units 3-7

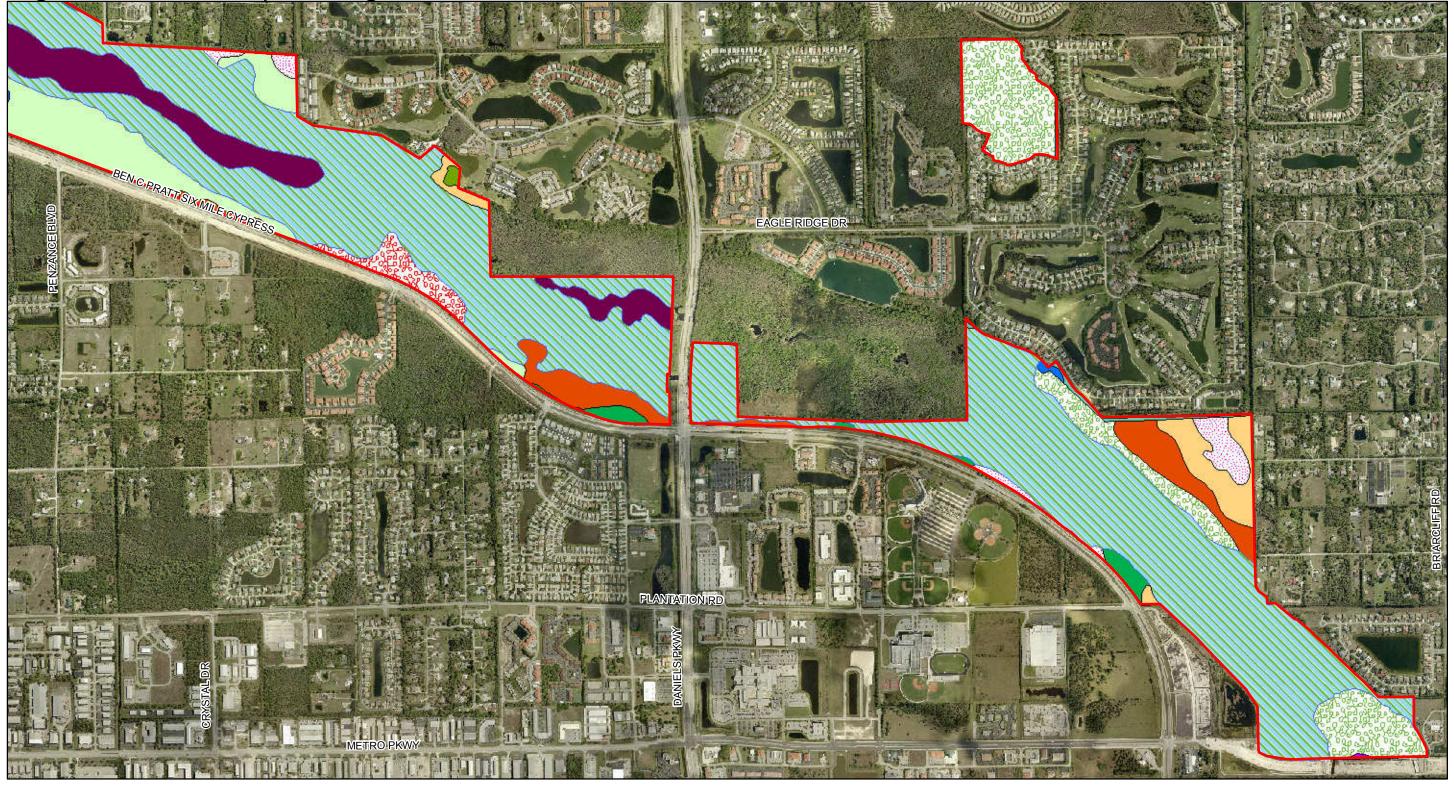


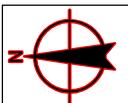
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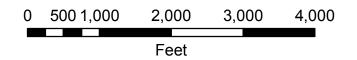
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Figure 8: Soils Map Management Units 8-11





Six Mile Cypress Slough Preserve Management Units 8-11

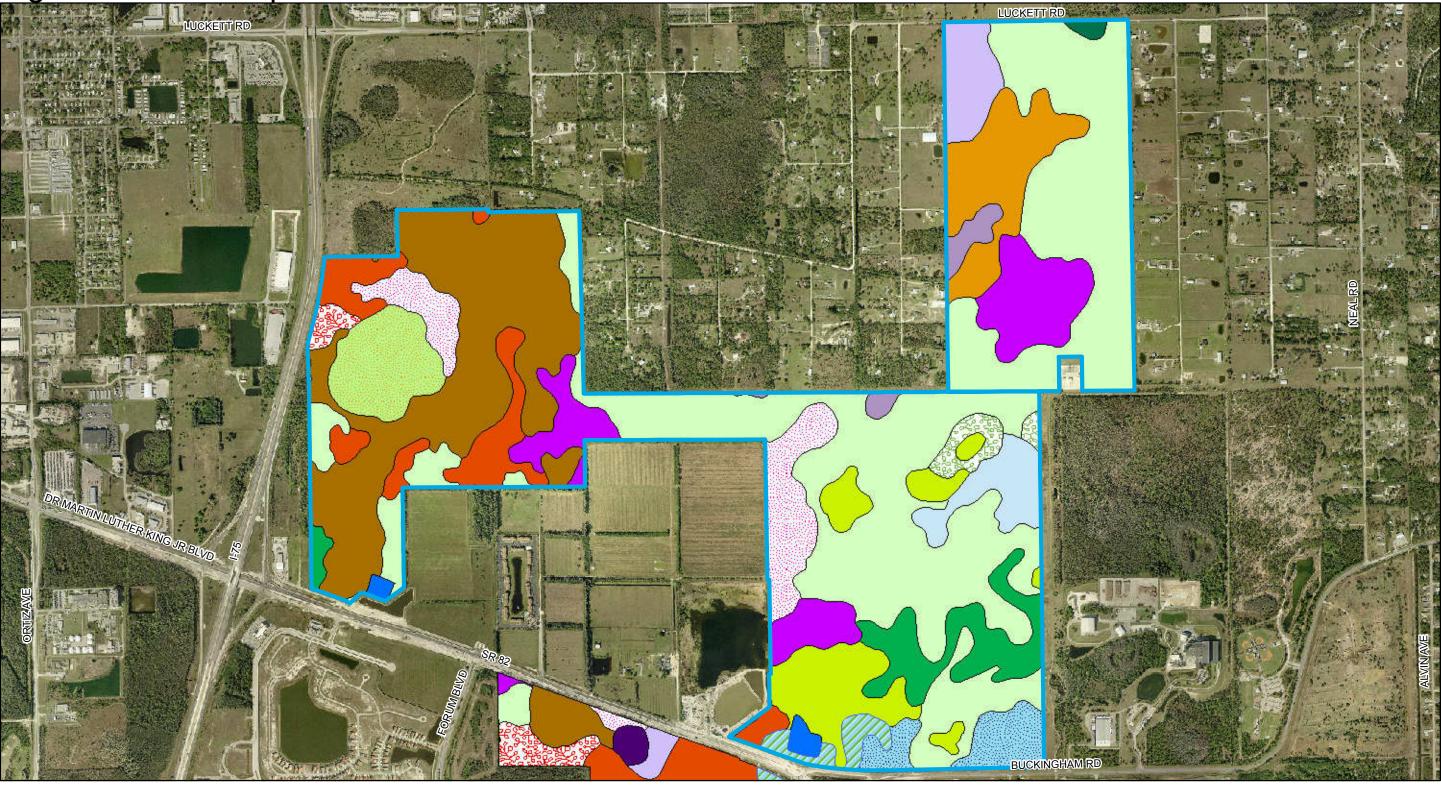


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> Map Prepared On: 6/12/2012 by Igreeno@leegov.com

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Figure 9: Soils Map SMCSPN





Six Mile Cypress Slough Preserve - North



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Six Mile Cypress Slough Preserve\Stewardship\_Plan\
Six\_mile\_North\_soils.mxd

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This is not a survey. Land Stewardship Staff has prepared this map for informational and planning purposes.

#### v. Hydrologic Components and Watershed

SMCSPN is within the Tidal Caloosahatchee Basin of the SFWMD Lower West Coast Region, while the remainder of SMCSP is within the Estero Bay basin. SMCSPN lies in the Orange River watershed while the rest of the Preserve lies in the Six Mile Cypress Slough watershed and borders the southeastern edge of the Ten Mile Canal watershed for most of its length. Lee County Division of Natural Resources (LCDNR) watersheds match those of SFWMD with the exception of SMCSPN which LCNDR divides into the Billy's Creek and Orange River watersheds (Figure 10).

In 1974 the United States Fish and Wildlife Service (USFWS) directed its Office of Biological Services to conduct an inventory of the nation's wetlands. Wetlands were identified on aerial photography by vegetation, visible water features and geography, and subsequently classified in general accordance with the Classification of Wetlands and Deep Water Habitats of the United States (Cowardin et al. 1979). More information about the different classifications can be found there, or in the LSOM's Land Stewardship Plan Development and Supplemental Information section. Figure 11 shows an overlay of the 1974 wetlands on a 2012 aerial photograph to visually demonstrate how many of the wetlands around the Preserve have been altered or eliminated due to development activities.

In addition to the National Wetlands Inventory's wetlands, LCPR staff has identified numerous other wetland communities. More information about these wetland communities can be found in the Natural Plant Communities section of this plan.

True data on historic hydroperiods for this system do not exist so comparisons to Corkscrew Swamp Sanctuary in Collier County have been used as a baseline. The hydrologic features of the entire Preserve have been drastically altered due to ditching, weir and other water control structure installation, digging of borrow pits and retention ponds for adjacent roads and housing developments which can increase discharge rates into the slough system as well as divert water from wetlands within the Preserve. Figures 12-15 show ditches and culverts which direct flow into and out of the slough system, along with old two track roads and plow lines from wildfires which also act as shallow ditches redirecting water flow within the system.

SFWMD controls discharge from developments in the SMCSP watershed to 37 cubic feet per second, per square mile. Even with these limitations, water will be conveyed to the slough at a quicker rate than desired for an optimum hydroperiod (2002 LSP).

Control structures on the north side of Daniels Parkway have been operational since 1980. The crest elevation for the weir is 15 feet NGVD. Permanent control structures similar to these with a crest elevation of the weir of 11 feet were installed at the confluence of the slough with Ten Mile Canal in 1991. Side by side box culverts were installed in 2011 to convey the slough headwaters under State Road 82.

Lee County DOT/OPS is responsible for the operation and maintenance of the Lee County weirs. Per SFWMD, all Lee County weirs are closed from October through March for dry season. Information on the crest levels and opening/closing requirements is located at S:/C2020/Preserves/six mile cypress preserve (SMCP)/resource management/weirs.

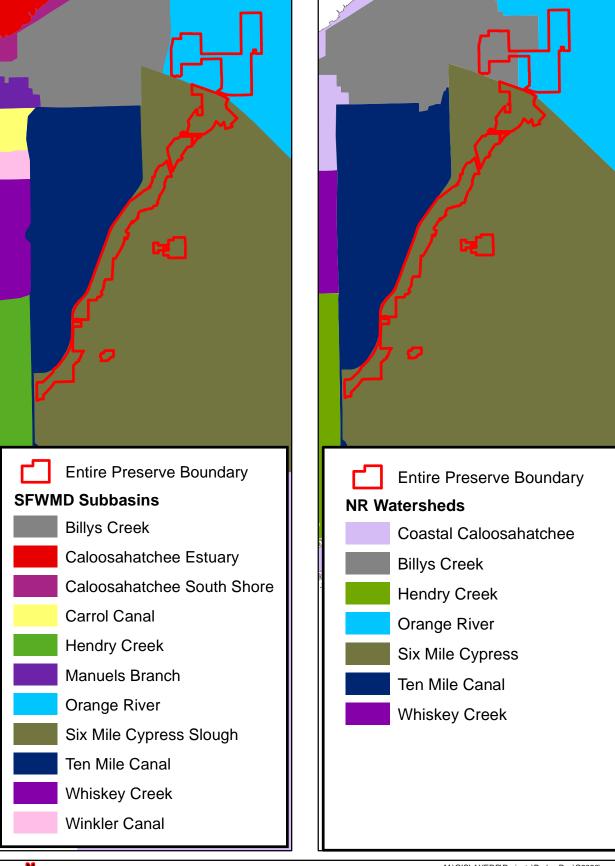
A series of water monitoring and hydrologic studies have been conducted or are on-going on portions of SMCSP. This information is stored at the office of the SMCSP land stewardship coordinator and is too lengthy to be incorporated into this Land Stewardship Plan (LSP). Water level monitoring and other studies were initiated on SMCSPN at the time of the writing of this LSP in order to gather the data necessary to rehydrate wetlands on it, as well as potentially to redirect surface water from its current flow into the Orange River watershed into the Slough. More detailed information on this project can be found in the Goals and Strategies section of this plan.

Sheet flow pathways have been altered by the numerous roads, berms and retention ponds surrounding or within the Preserve. These not only alter sheet flow but also change the timing of water inflow and outflows to the system as well as potentially bring in pollutants associated with runoff from vehicles or maintenance activities associated with neighborhood yards and golf courses.

Lee County has five water quality stations in the slough. Data is collected on three pollution indicators; fecal coliform, total nitrogen and total phosphorus. Fecal coliform is a measure of gut bacteria in the water. It originates from vertebrate wastes products. The fecal coliform quantities are dependent on season and other factors. A large amount of rainfall can increase amounts by flushing the surrounding areas build up of wastes into the system. Fecal coliform was not a problem at any of the slough stations. Phosphorus and nitrogen are nutrients that in overabundance can cause an ecosystem imbalance. If there is an over abundance in the system it is usually manmade. Monitoring results at all five stations show values for the most part are below the polluted threshold. Nutrient peaks generally occur at the beginning and end of rainy season. At the beginning of rainy season water has become concentrated in pockets, plants have decayed from dry season and nutrients are at higher concentrations. At the end of rainy season water entering the system decreases and nutrients become concentrated in the water which remains on-site.

General information on hydrology and watershed is located in the LSOM Land Stewardship Plan Development and Supplemental Information section.

Figure 10: Watershed Map



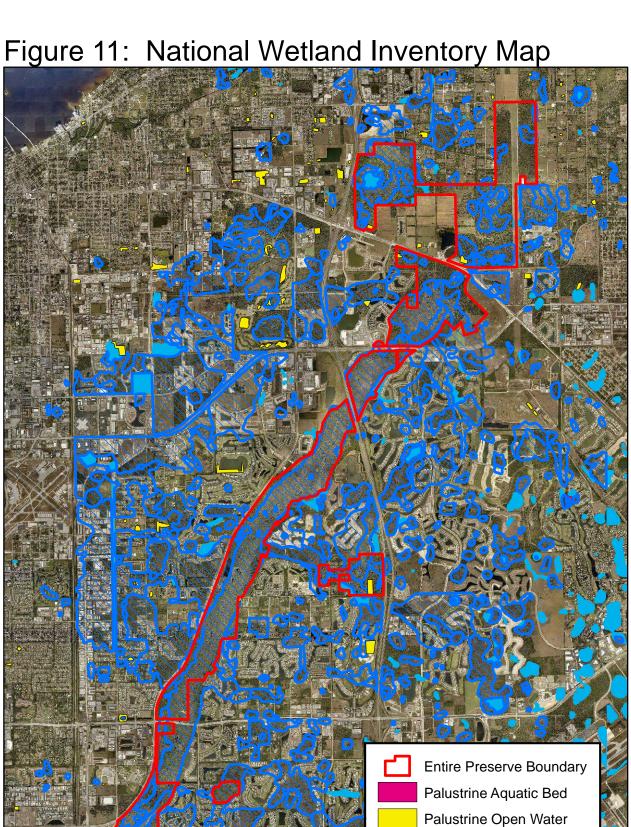


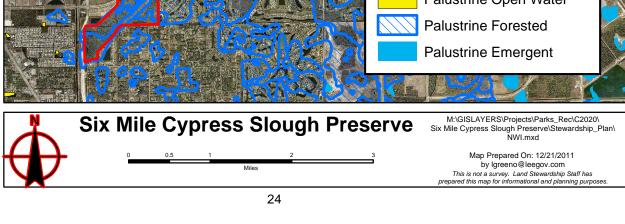
## **Six Mile Cypress Slough Preserve**

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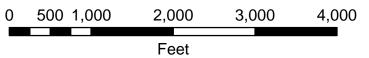


**Entire Preserve Boundary** ditches **BOX CULVERT** DOT pond **Drainage Flow ways** Six Mile Cypress SR 82 SR 82 Tributary Colonial Country Club Pelican Preserve Golf Course





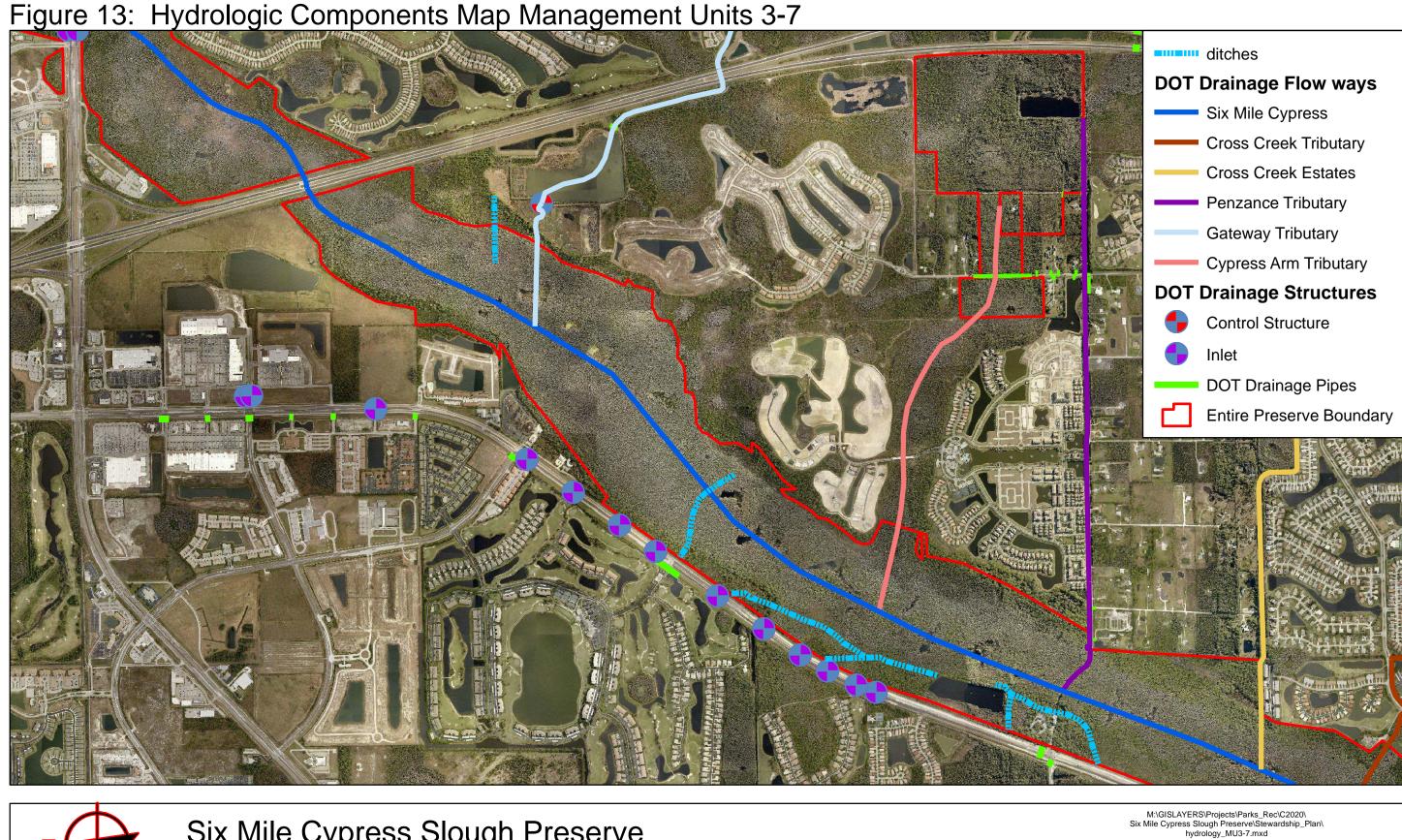
Six Mile Cypress Slough Preserve Management Units 1 & 2



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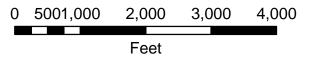
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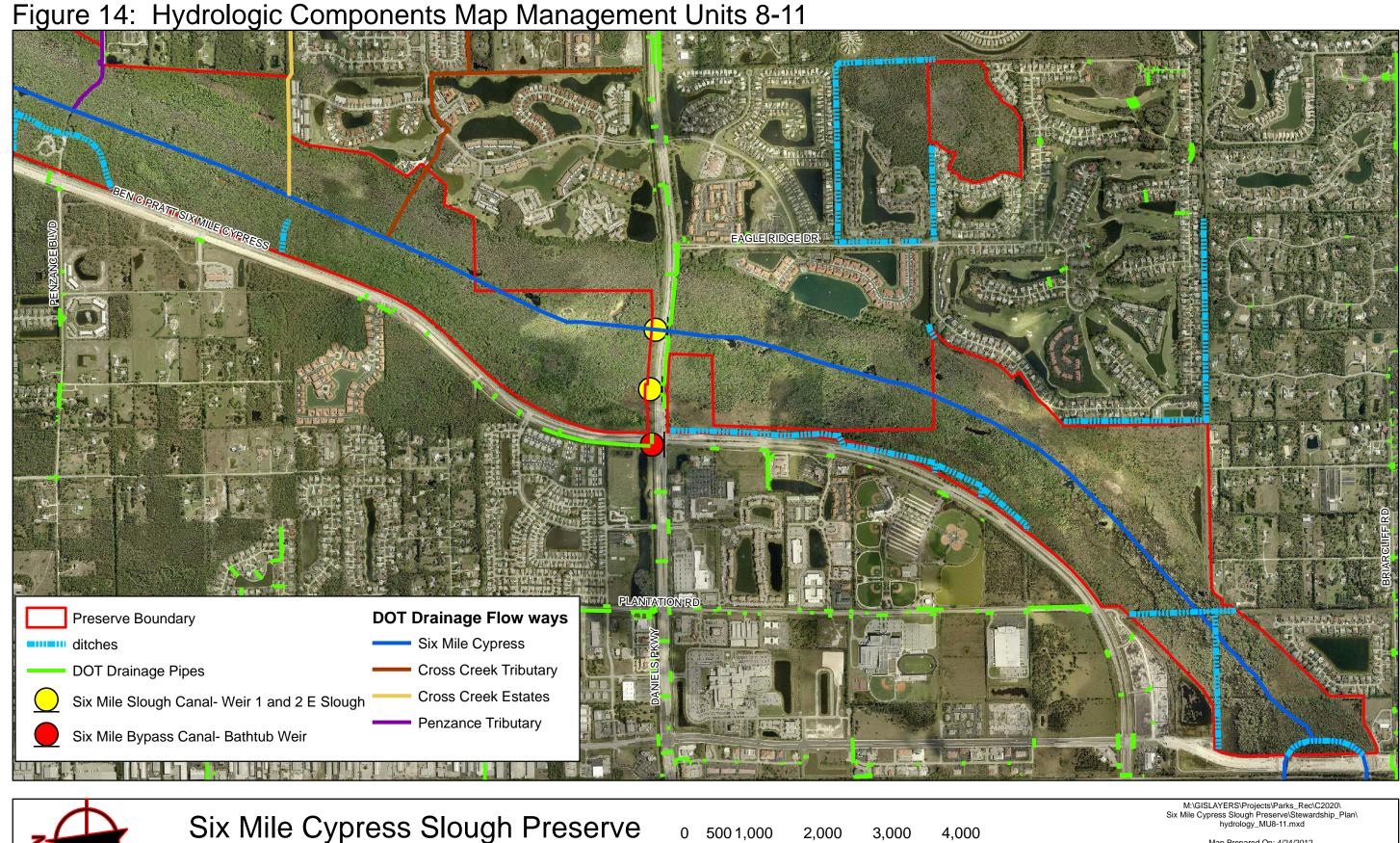


Six Mile Cypress Slough Preserve Management Units 3-7



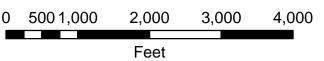
Map Prepared On: 4/25/2012 by lgreeno@leegov.com

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Six Mile Cypress Slough Preserve Management Units 8-11



Map Prepared On: 4/24/2012 by lgreeno@leegov.com

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Figure 15: Hydrologic Components Map SMCSPN SMCSPN Boundary ditches **BOX CULVERT** 



# Six Mile Cypress Slough Preserve - North



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#### **B.** Biological Resources

#### i. Ecosystem Function

Lee County's preserves contain a diversity of plant communities that provide habitat for numerous plant and animal species. The majority of the preserves are not islands of habitat, but are pieces of a larger conservation effort striving to create or maintain a healthy and viable ecosystem. Ecosystem function information is located in the LSOM Land Stewardship Plan Development and Supplemental Information section.

#### ii. Natural Plant Communities

The Preserve consists of 37 natural or altered plant communities; the majority of which consists of strand swamp, hydric hammock and wet flatwoods. Approximately 23% of the plant communities are designated by Florida Natural Areas Inventory (FNAI) as altered landcover types which are typically created by previous land clearing activities, invasive exotic plant infestations resulting in monocultures, and/or man-made ditches, roads or cow wells. Approximately 19% of the Preserve has been categorized as disturbed communities, primarily due to an abundance of invasive exotic species, lack of fire or hydrologic changes. Another 4% have undergone extensive changes for mitigation and have been planted with native plants, but are not established enough to be considered a natural plant community at this time. The remaining 53% of the Preserve's plant communities are in an unaltered natural state, or have undergone numerous years of restoration work and are at a maintenance level for invasive exotic plants. Figures 16-19 show the location of the plant communities found at the Preserve. The plant communities are defined using the Guide to the Natural Communities of Florida (2010) prepared by FNAI.

Acreages and percent of cover for each community are listed below. Descriptions of the plant communities and characteristic animals found within each community, as well as management suggestions can be found in the LSOM. The percent cover is slightly less than 100% due to rounding off values. A complete list of plant species identified during site inspections to the Preserve can be found in Appendix B. This list will be updated on a seasonal basis to identify plants in their inflorescence phase.

#### **Basin Marsh (Disturbed) –** 32.5 acres, <1% coverage of the Preserve

The basin marsh community is located in SMCSPN Management Unit (MU) 16, on the west side of C20/20 Nomination # 422. It is considered disturbed because of the thick covering of paragrass (*Urochloa mutica*) and West Indian marsh grass (*Hymenachne amplexicaulis*). The marsh also has numerous encroaching

Carolina willows (Salix caroliniana) that typically invade basin marshes that have a lowered water table.

**Basin Swamp –** 114.6 acres, 3.3% coverage of the Preserve

Basin swamps are located on SMCSPN (MU 16), the "arm" of SMCSP (MU 6) and the majority of the MU 11. These swamps were distinguished from the strand swamp by using historic aerials and topographic information to determine where the location of the historic slough was and which swamps were still connected to it.

Basin Swamp (Disturbed) – 186.93 acres, 5.3% coverage of the Preserve

The basin swamp communities that are characterized as "disturbed" are located in the C20/20 acquisitions on SMCSPN (MU 13, 14 & 16), the C20/20 portion of the "arm" and the C20/20 portion of MU 1.

**Baygall –** 0.55 acres, <1% coverage of the Preserve

There is a small baygall community located on an elevated area inside the strand swamp of MU 1.

**Depression Marsh –** 3.3 acres, <1% coverage of the Preserve

There are seven non-forested wetlands within the strand swamp of SMCSP in MU 1, 5 & 8. They are distinguished from the swamp lakes by the heavy cover of vegetation.

**Dome Swamp –** 3.2 acres, <1% coverage of the Preserve

The two dome swamps are located on C20/20 portions of SMCSP in MU 1 & 6.

**Dome Swamp (Disturbed) –** 17.01 acres, <1% coverage of the Preserve

Six additional dome swamps are characterized as disturbed. All but one are located on C20/20 acquisitions are considered disturbed because of invasive exotic plant coverage and one located in MU 1 is isolated from the rest of the Preserve by roads and other development.

**Hydric Hammock –** 346.3 acres, 9.9% coverage of the Preserve

Hydric hammocks are located on both sides of SMCSP adjacent to the strand swamp (MU 1-5 & 7-9). They are differentiated because of the higher variety of tree species. There are some slash pine trees, which are not commonly found in this community, but probably reflect the change in hydroperiod of the swamp.

**Hydric Hammock (Disturbed) –** 21.1 acres, <1% coverage of the Preserve

The hydric hammocks classified as "disturbed" because of the presence of invasive exotic plants. They are located in the "arm" (MU 6) and in the mitigation areas of MU (9 & 10).

Mesic Flatwoods – 165.9 acres, 4.7% coverage of the Preserve

The majority of MUs (1, 3, 4, 6-9, 12, 14 & 16) have small (average <6-acre) mesic flatwood communities growing on isolated higher portions of the Preserve.

Mesic Flatwoods (Disturbed) – 245.3 acres, 7.0% coverage of the Preserve

The mesic flatwoods characterized as "disturbed" have a significant amount of invasive exotic plants. They are located in MUs 1, 6, & 12-16.

**Mesic Hammock –** 0.6 acres, <1% coverage of the Preserve

There are only two very small mesic hammocks located on islands of higher ground surrounded by swamps in MU's 1 & 11.

**Shrub Bog (Disturbed) –** 9.4 acres, <1% coverage of the Preserve

This community is located in the mitigation portion of MU 10. Although being restored, it was initially cleared of an extensive invasive exotic infestation and the native plants are still becoming established.

**Strand Swamp –** 932.2 acres, 26.6% coverage of the Preserve

The strand swamp community stretches between MU 1-9 and is the plant community that the Preserve was named after (although FNAI describes a slough as a non-forested plant community).

**Strand Swamp (Disturbed) –** 90.5 acres, 2.6% coverage of the Preserve

Where there is considerable invasive exotic coverage (C20/20 portions of MU 1) or where restoration is still taking place for mitigation (MU 9 & 10) are the strand swamp areas considered disturbed.

**Stringer Swamp -** 9.0 acres, <1% coverage of the Preserve

The stringer swamps are domes that are connected together on SMCSPN (MU 13 & 14). This community will be managed in a similar fashion to dome swamps.

**Stringer Swamp (Disturbed) –** 27.2 acres, <1% coverage of the Preserve

The "disturbed" stringer swamps are portions of the stringer swamps that have a large amount of Brazilian pepper in the understory.

Swamp Lake - 41.1 acres, 1.2% coverage of the Preserve

There are 45 swamp lakes located in MU 1-3, 5, 7-9, 13, 14 & 16. Most are located in the center portion of the strand swamp and are differentiated from the depression marsh by the amount of open water.

**Swamp Lake (Disturbed) –** 0.9 acres, <1% coverage of the Preserve

There are several swamp lakes (MU 1 & 6) that are considered disturbed due to invasive exotic plant infestations.

**Wet Flatwoods** - 195.1 acres, 5.6% coverage of the Preserve

The wet flatwoods communities are located on the edges of the Preserve in MU 1-5 & 7-9. There is a tremendous variety in the vegetation found in them. On the northeast side of the Preserve, they tend to be very open and grassy with scattered small cypress trees. Others have a very thick shrub and vine layer that includes wax myrtle, myrsine, and greenbriar.

Wet Flatwoods (Disturbed) – 250.69 acres, 7.2% coverage of the Preserve

The disturbed wet flatwoods communities are areas where the invasive exotics consist of a large portion of the habitat and are located on the C20/20 portions of MU 1, 6 & 12-16.

#### **Altered Landcover Types:**

**Canal/Ditch –** 10.9 acres, <1% coverage of the Preserve

Within the Preserve there are several ditches created as part of the railroad and agricultural operations as well as conveyances for water to enter or drain from the Preserve. The largest ones are located in MU 1, 6, 9, 10 & 12. Maps showing those ditches, as well as more minor ones can be found in the Hydrologic Components and Watershed section.

**Clearing –** 157.4 acres, 4.5% coverage of the Preserve

There are numerous areas of cleared land scattered throughout the Preserve. Some, further categorized as "Farm Field" or "Mitigation" have undergone extensive restoration activities and have been replanted with native vegetation. At this time, the vegetation is not established enough to

be considered a natural plant community. The roadside swales are adjacent to Six Mile Cypress Parkway near the Daniels Road intersection. There are also a few small cleared areas of unknown origin.

- Farm Field 15.6 acres, <1% coverage of the Preserve (MU9)</li>
- General 5.5 acres, <1% coverage of the Preserve (MU 9, 13 & 16)</li>
- Mitigation 134.7 acres, 4.0% coverage of the Preserve (MU 7-10)
- Roadside Swale 2.7 acres, <1% coverage of the Preserve (MU 8 & 9)</li>

**Developed –** 2.7 acres, <1% coverage of the Preserve

The developed areas on the Preserve are areas associated with the interpretive center in MU 7.

**Impoundment/Artificial Pond –** 35.0 acres, 1.0% coverage of the Preserve

Nine borrow ponds were created for drainage and water storage on MU 1, 6, 7, 9, 10, 13 & 16 and one cattle well is located on the northwest corner of MU 12 on SMCSPN.

**Invasive Exotic Monoculture –** 245.4 acres, 7.0% coverage of the Preserve

The invasive exotic monocultures at the Preserve primarily consist of either melaleuca or Brazilian pepper. They are all found on C20/20 acquisitions in MU 1, 6, 10, 12-16.

**Pasture - Improved -** 95.3 acres, 2.7% coverage of the Preserve

The pasture is located on the west side of MU 15 on the Preserve

**Pasture- Semi-improved –** 63.1 acres, 1.8% coverage of the Preserve

The pasture is located on portions of MU 12-14 on the Preserve

**Pine Plantation** – 32.8 acres, <1% coverage of the Preserve

There is a planted pine stand located in the southwest corner of MU 12 on SMCSPN.

Road – 10.0 acres, <1% coverage of the Preserve

The roads on the Preserve are associated with the remnant railroad bed and utility easement on MU 12 (SMCSPN), as well as the gravel roads (Palamino and Morgan Hill) that bisect portions of MU 6.

**Spoil Area –**7.3 acres, <1% coverage of the Preserve

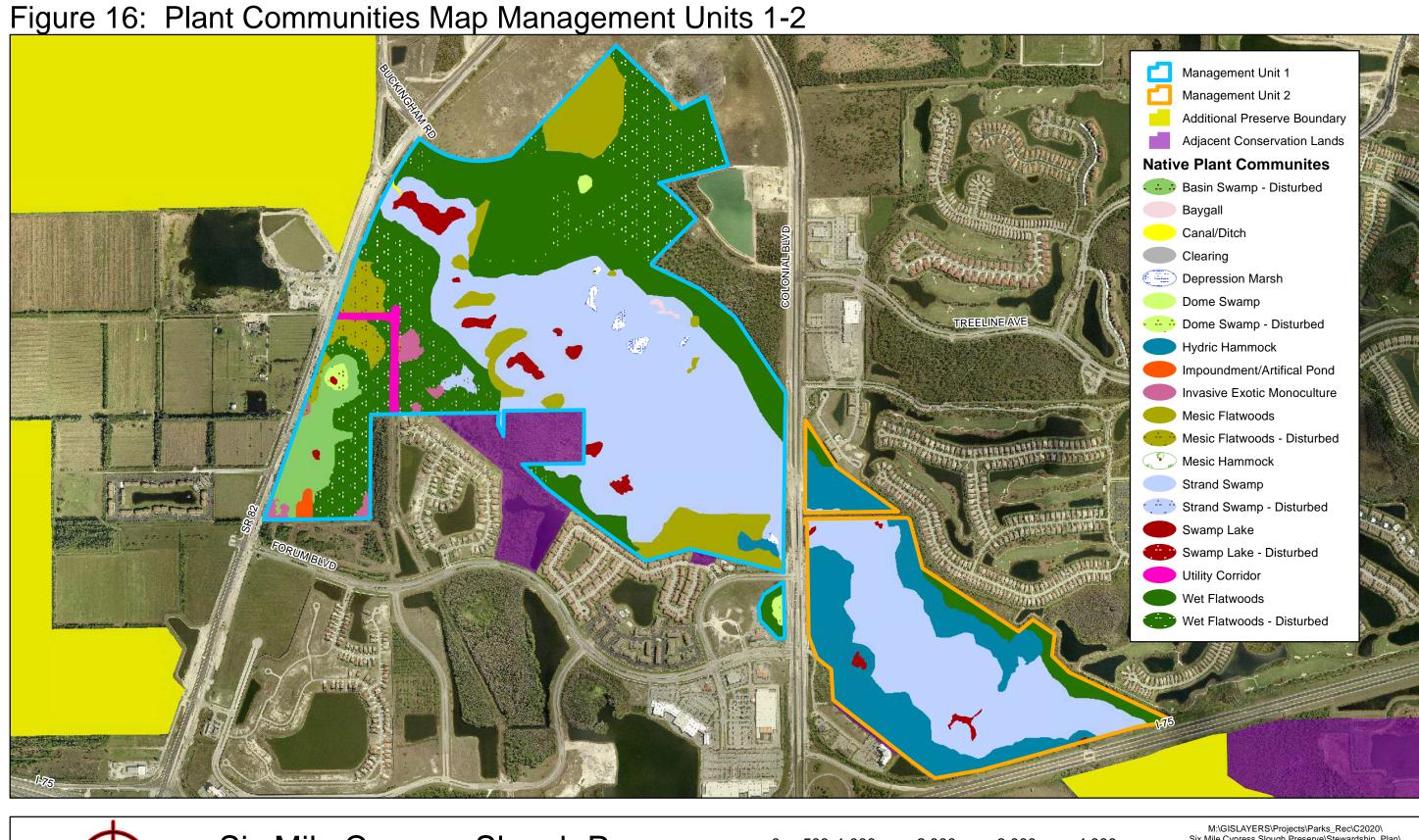
The spoil areas are berms on portions of the boundaries of MU 9 & 10 that were built to contain and control water in the Preserve to maintain hydroperiods while protecting adjacent neighborhoods.

**Successional Hardwood Forest –**54.6 acres, 1.6% coverage of the Preserve

These areas, located in MU 12, 13 & 16 of SMCSPN were cleared for past land use and have grown back with numerous oaks, myrtles and invasive exotic species.

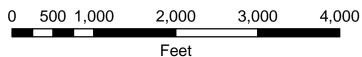
Utility Corridor -97.4 acres, 2.8% coverage of the Preserve

All of the utility corridors on the Preserve are powerline easements. The majority are found on the northern portion of the Preserve (MU 1 & 12-15) with a smaller one located on the south end of SMCSP between MU 9 & 10.





Six Mile Cypress Slough Preserve Management Units 1 & 2



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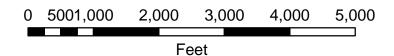
Map Prepared On: 04/12/2012 by ljewell@leegov.com

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Figure 17: Plant Communities Map Management Units 3-7 Management Unit 3 Management Unit 4 Management Unit 5 Management Unit 6 Management Unit 7 Additional Preserve Boundary Adjacent Conservation Lands **Native Plant Communities** Basin Swamp Basin Swamp - Disturbed Canal/Ditch Clearing - Colonial Mitigation Depression Marsh Developed Dome Swamp Hydric Hammock Hydric Hammock - Disturbed Impoundment/Artifical Pond Invasive Exotic Monoculture Mesic Flatwoods Mesic Flatwoods - Disturbed Strand Swamp Swamp Lake Wet Flatwoods Wet Flatwoods - Disturbed



Six Mile Cypress Slough Preserve Management Units 3-7



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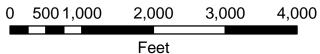
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Figure 18: Plant Communities Map Management Units 8-11 Management Unit 8 Clearing, Daniels Mitigation Mesic Flatwoods Management Unit 9 Clearing, Farm Field Planting Mesic Hammock Management Unit 10 Clearing, Metro Mitigation Shrub Bog - Disturbed Management Unit 11 Clearing, Roadside Swale Spoil Area Additional Preserve Boundary ( ?, ?) Strand Swamp Clearing, Weir mitigation **Native Plant Communities** Strand Swamp - Disturbed **Depression Marsh** Basin Swamp Successional Hardwood Forest Hydric Hammock Canal/Ditch Hydric Hammock, Disturbed Swamp Lake Clearing Impoundment/Artifical Pond **Utility Corridor** Clearing, Colonial Mitigation Invasive Exotic Monoculture Wet Flatwoods



Six Mile Cypress Slough Preserve Management Units 8-11



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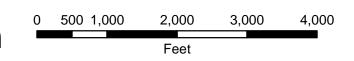
Map Prepared On: 04/12/2012 by ljewell@leegov.com

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Figure 19: Plant Communities Map SMCSPN Management Unit 12 Management Unit 13 Management Unit 14 Management Unit 15 Management Unit 16 Adjacent Conservation Land **Native Plant Communities** Basin Marsh - Disturbed Basin Swamp Basin Swamp - Disturbed Canal/Ditch Clearing Dome Swamp - Disturbed Impoundment/Artifical Pond Invasive Exotic Monoculture Mesic Flatwoods Mesic Flatwoods - Disturbed Mesic Hammock - Disturbed Pasture - Improved Pasture - Semi-Improved Pine Plantation Road Stringer Swamp Stringer Swamp - Disturbed Successional Hardwood Forest Swamp Lake **Utility Corridor** Wet Flatwoods - Disturbed



# Six Mile Cypress Slough Preserve - North



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Map Prepared On: 05/23/2012 by ljewell@leegov.com

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#### iii. Fauna

The Preserve provides a variety of habitats for wildlife including those that are state and federally listed. Eighteen exotic wildlife species have been documented at the Preserve. Appendix C has the complete list of wildlife documented on the Preserve; as recorded through staff and volunteer field work and site inspections.

Additional general information about fauna on all C20/20 preserves can be found in the LSOM's Land Stewardship Plan Development and Supplemental Information section.

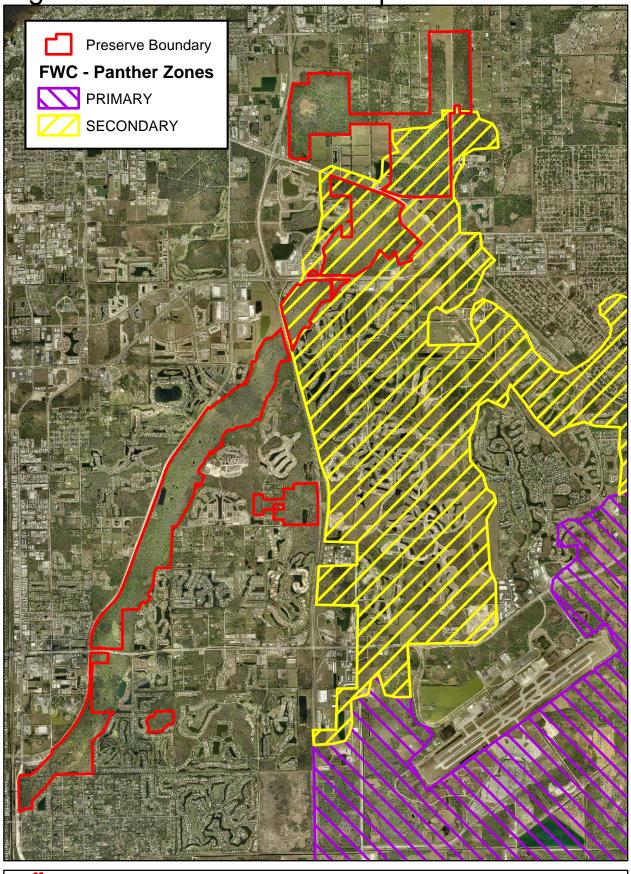
# iv. Designated Species

There are a variety of designated animal and plant species found on the entire Preserve. Although all native plant and animal species found on the Preserve have some protection due to the preservation of this property, certain species need additional attention. For stewardship purposes, all plants and animals listed by the USFWS, Florida Fish and Wildlife Conservation Commission (FWC), Florida Department of Agriculture and Consumer Services (FDACS), the Institute for Regional conservation (IRC) and FNAI will be given special consideration.

Additional natural history information on these species and stewardship measures to protect them can be found in the LSOM's Land Stewardship Plan Development and Supplemental Information section.

Figure 20 illustrates the portions of the Preserve which fall within the secondary zone (designated by FWC) for the Florida panther. The secondary zone is described as habitat adjacent to primary panther habitat that could potentially support the panther population, but where habitat restoration may be needed.

Figure 20: Panther Zone Map





# **Six Mile Cypress Slough Preserve**

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Map Prepared On: 8/28/2012 by Igreeno@leegov.com This is not a survey. Land Stewardship Staff has prepared this map for informational and planning purpose:

#### v. Biological Diversity

General information on biological diversity and measures used to help promote biological diversity can be found in the LSOM's Land Stewardship Plan Development and Supplemental Information section.

#### C. Cultural Resources

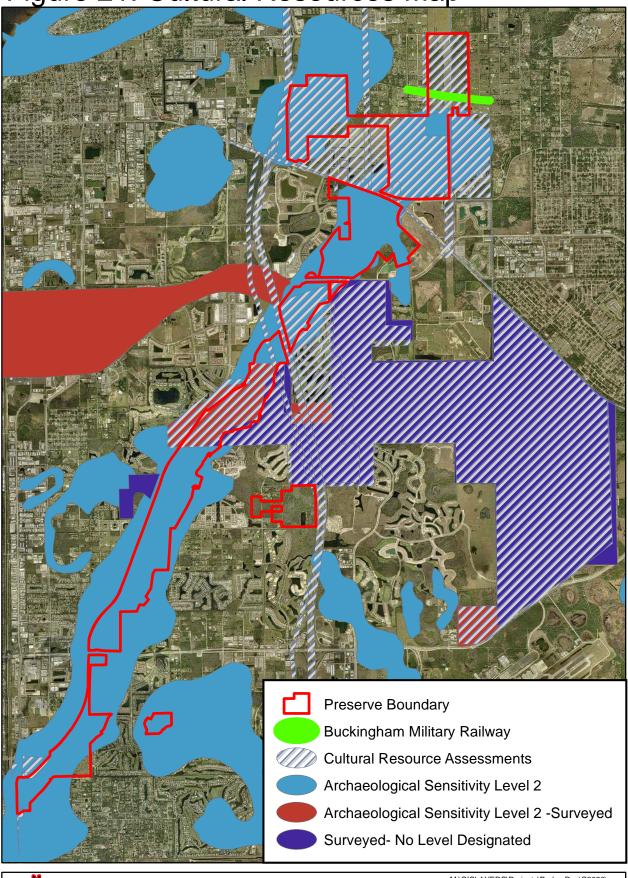
# i. Archaeological Features

According to the Lee County Master Site Plan, there are no records of archeological sites within the entire Preserve. There has not been an archaeological study for most of the Preserve to date. Occasional debris is found indicating past use of the Preserve such as old corrals, fences, gates, and signs.

SMCSPN contains some access routes to the Buckingham Airfield area and one scattering of materials from a prehistoric encampment which were not considered significant. The 1940's military base related features include an old railroad bed, the road SR 82, and in MU 1 a borrow pit that was used for road fill that dates when the air field was created.

Archeological surveys for developments next to MU 3 show a mid-1800's military road that would have crossed the slough south of Colonial Blvd and the I-75 crossing. No traces of the road were found on the development surveys so remnants existing in the slough are unlikely. Figure 21 shows the cultural resources and the archaeological sensitivity zones associated with the entire Preserve.

Figure 21: Cultural Resources Map





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Map Prepared On: 06/21/2012 by janderson@leegov.com This is not a survey. Land Stewardship Staff has prepared this map for informational and planning purposes.

# ii. Land Use History

There is no evidence of former home sites, ranches or camps within the Preserve. The dense vegetation and seasonal flooding would most likely have precluded these types of uses. Anecdotal accounts from residents indicate that the slough was very different before the virgin cypress was logged in the 1950s. The stand density was less with fewer larger trees occupying the strand. The transitional wetlands and pine flatwoods were also more open.

Evidence of use by individuals driving off-road vehicles (ORV's) or riding horses has been observed for the past several years. Illegal hunting and trapping of hogs also occurs on the Preserve. Several active and/or abandoned small scale marijuana plots have been found on SMCSP. Illegal dumping also has and continues to occur along the Preserve boundary.

Several portions of the slough show signs of former farming activities and improved pasture creation. SMCSPN has improved pasture lands and MU 1 on the east side had portions cleared for pastures prior to acquisition. This process removed the melaleuca and is re-establishing as open flatwoods. In MU 9 old farm fields were planted with a variety of trees in the 1990's. Old farm fields also occur in SMCSPN.

The apparent land uses of the Preserve were cattle grazing, as evidenced by old fence lines that run throughout the entire Preserve, logging as indicated by large stumps, and hunting. Old maps indicate the slough as part of the Lee Wildlife Management Area, that was managed by the Florida Game and Freshwater Fish Commission, which is now known as the FWC. This management area occupied privately owned land and as land was developed the management area was discontinued.

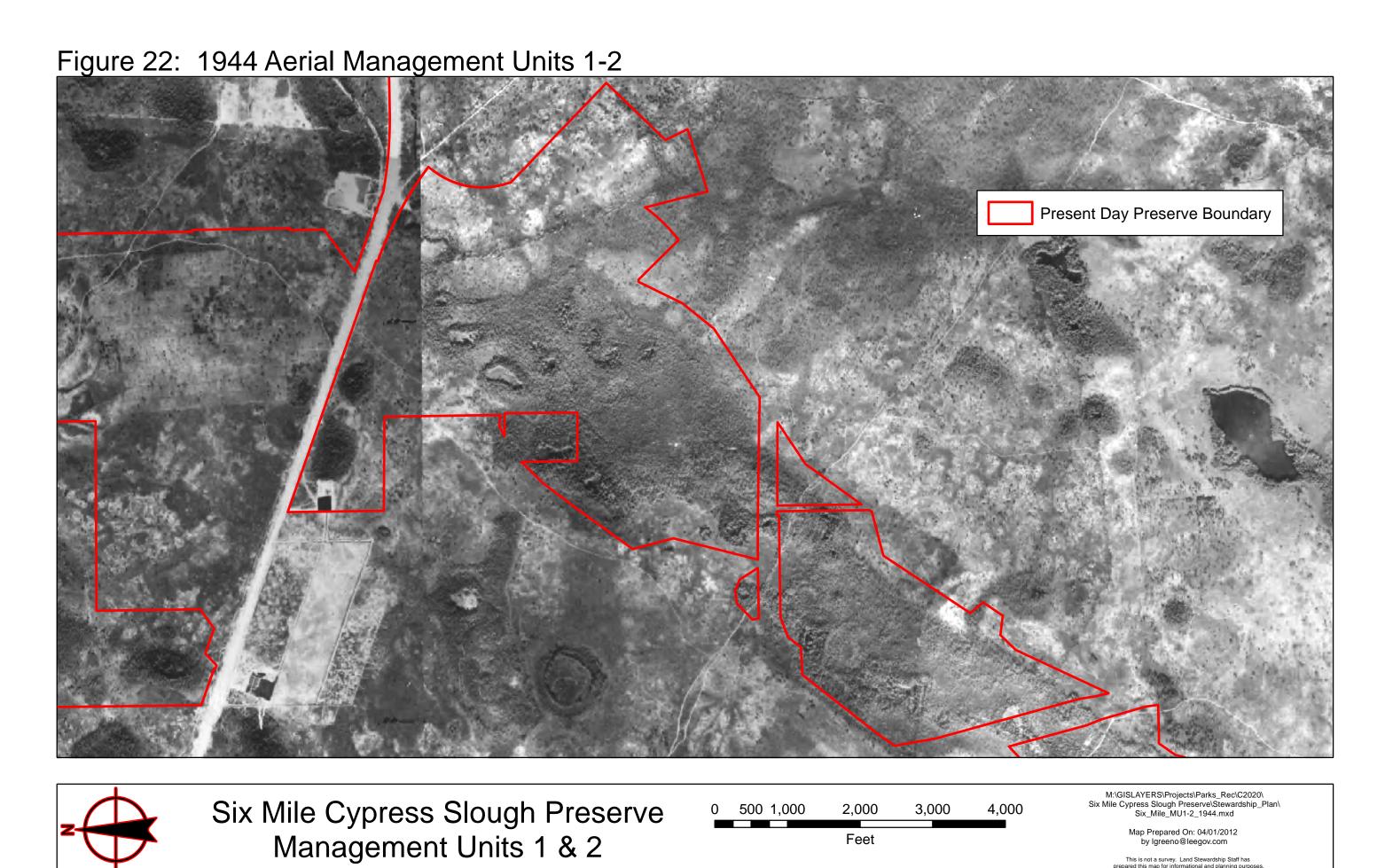
According to interpretations based on aerial photography dating back to 1944 (Figures 22- 25), land uses included agricultural activities such as cattle grazing, farming, and installation of drainage ditches and borrow pits. The 1944 aerial photographs show the site as mainly undeveloped forest and the railroad track crossing the northern portion of the site. SMCSPN has evidence of a prehistoric camping area located near the western boundary in close proximity to I-75.

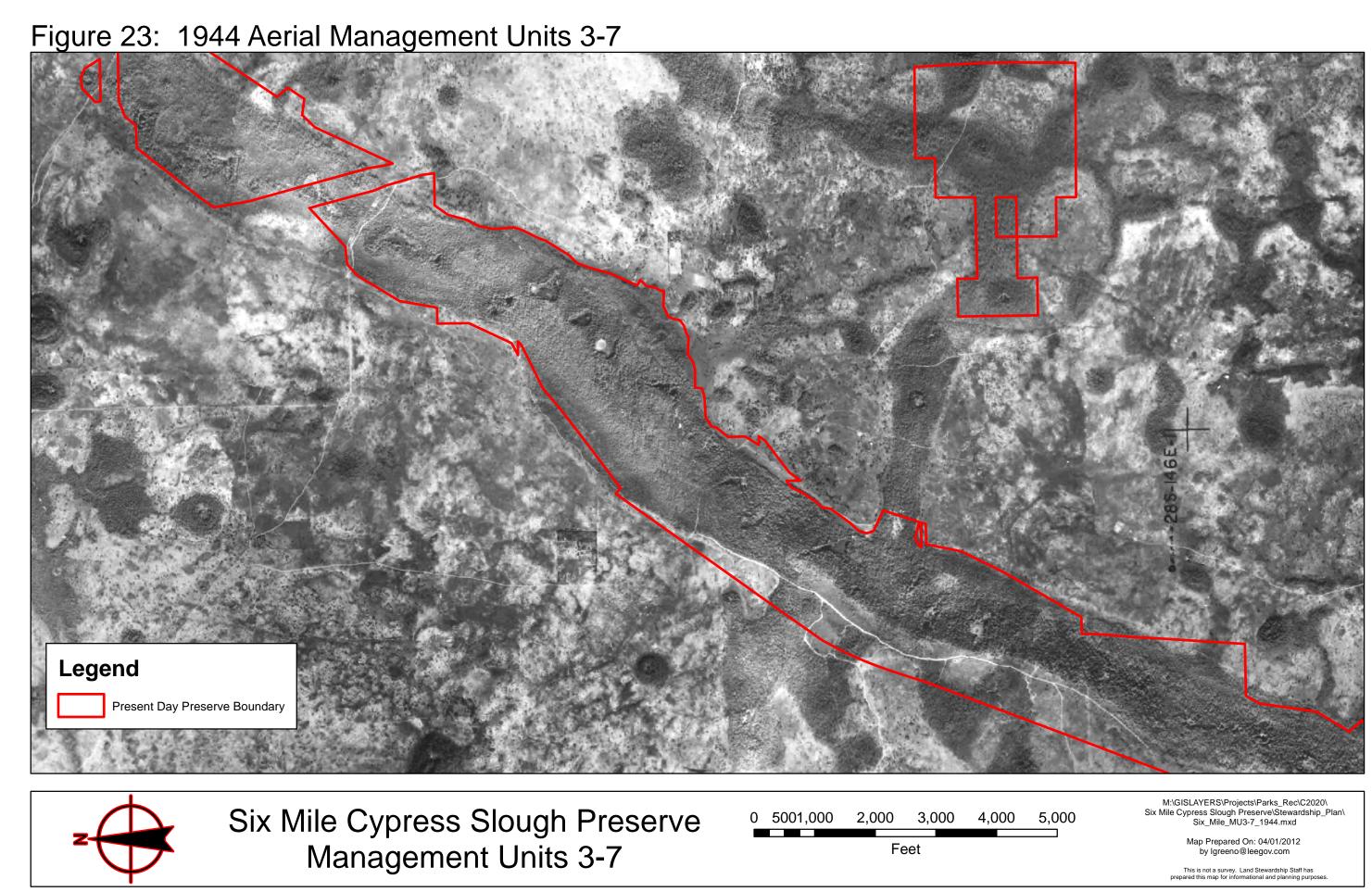
Past land use on SMCSPN includes use as access routes to the Buckingham Airfield area during its heyday. These include an old railroad bed, the original roadbed which has become State Road 82, and in MU 1 a borrow pit that was used for road fill that dates to the 1940s when the air field was created.

A Florida Power and Light (FPL) electrical easement crosses through the central portion of the Preserve and a FPL electrical substation is located near the northeastern border of the Preserve.

At the time of writing this plan Florida Gulf Coast University (FGCU) is compiling an oral history of the Slough which may shed more light of past uses and activities in the Slough.

The length of the preserve and the sheer number of individual photos needed to be georectified limits the ability to show a large number of aerials of the entire preserve in this LSP. Figure 26 shows the Preserve in 1998, Figure 27 shows the Preserve in 2005 and Figure 28 shows the Preserve in 2009.





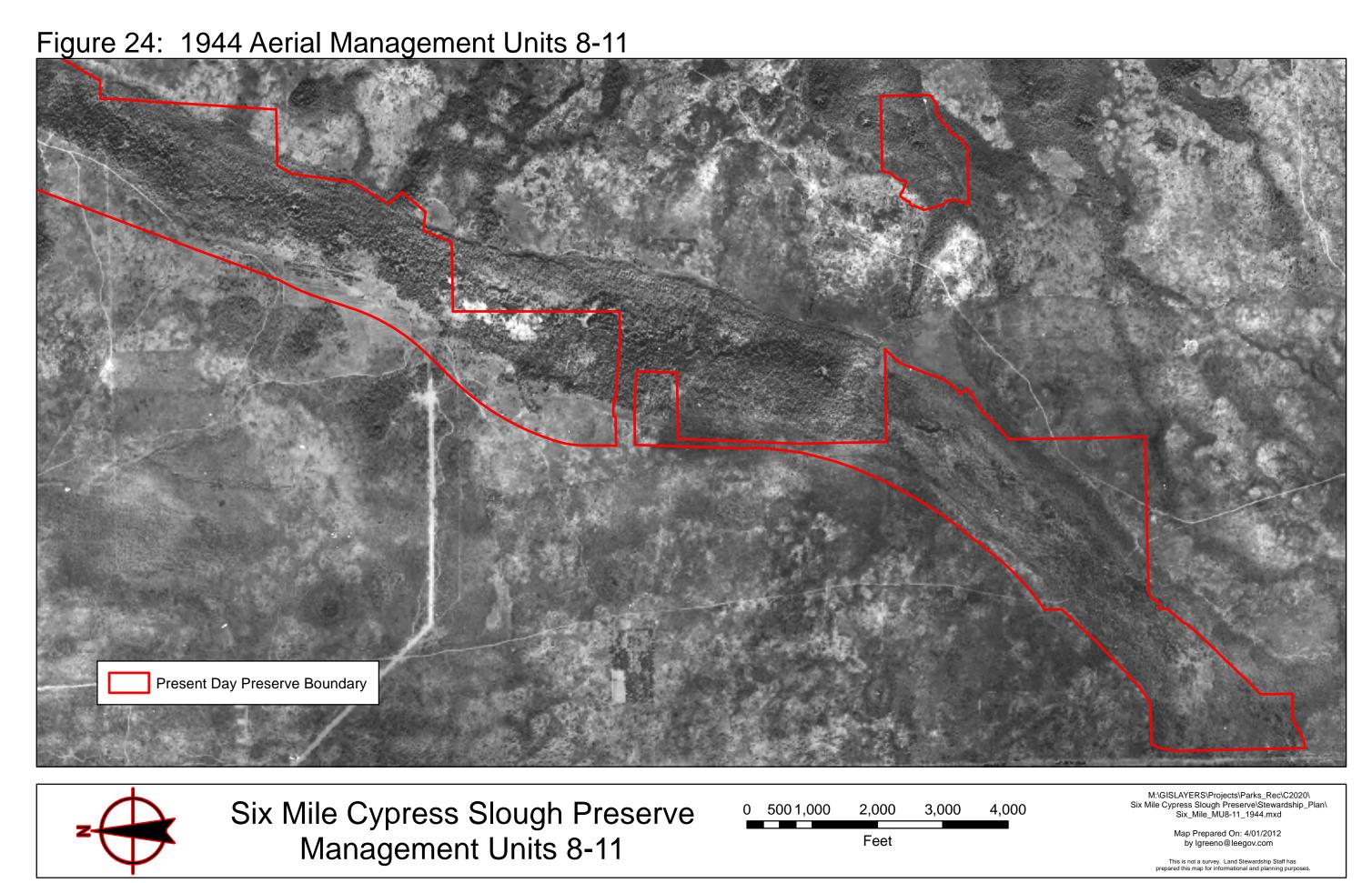
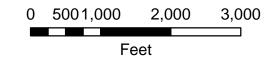


Figure 25: 1944 Aerial SMCSPN





# Six Mile Cypress Slough Preserve - North

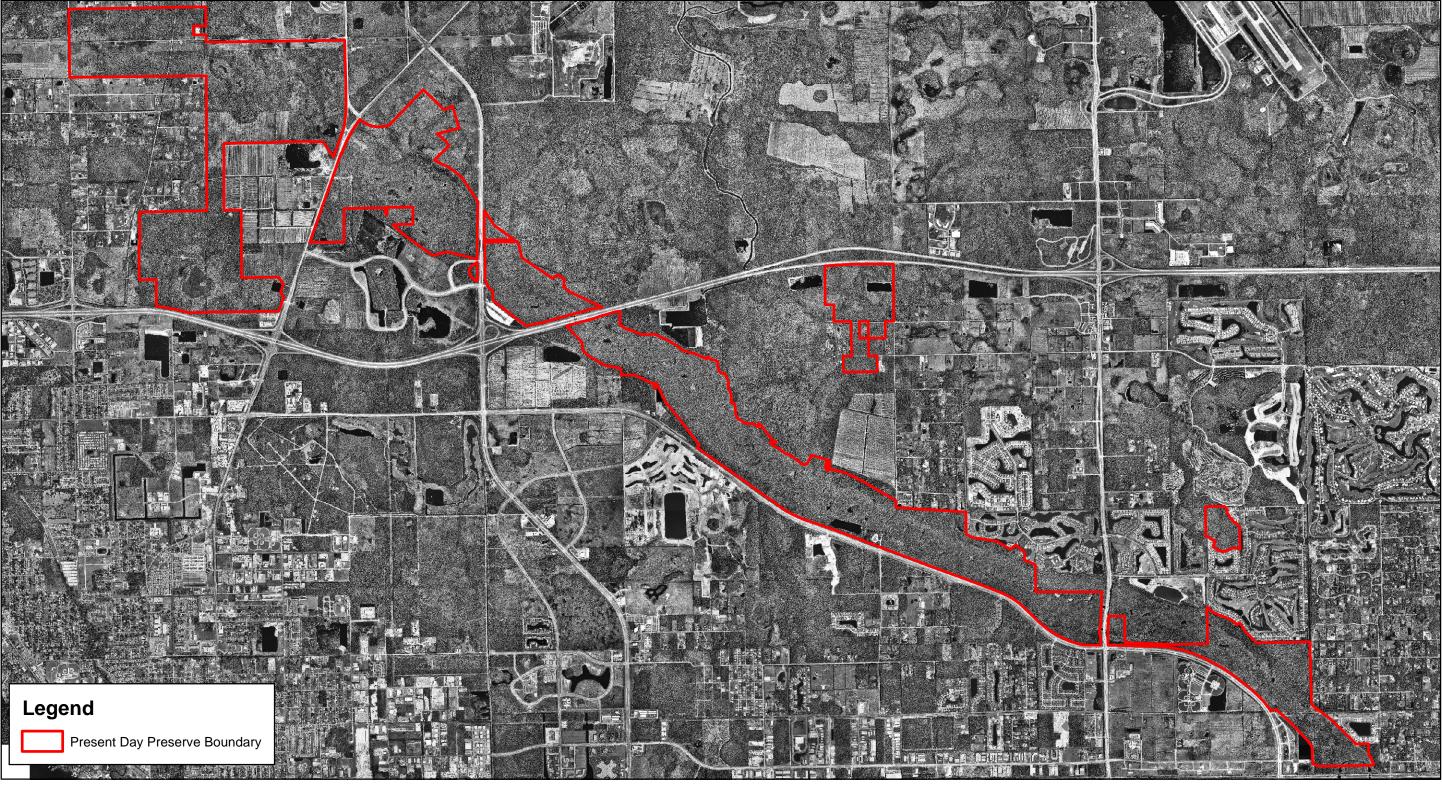


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Six Mile Cypress Slough Preserve\Stewardship\_Plan\
Six\_Mile\_North\_1944.mxd

Map Prepared On: 4/01/2012 by Igreeno@leegov.com

This is not a survey. Land Stewardship Staff has prepared this map for informational and planning purposes.

Figure 26: 1998 Historical Aerial





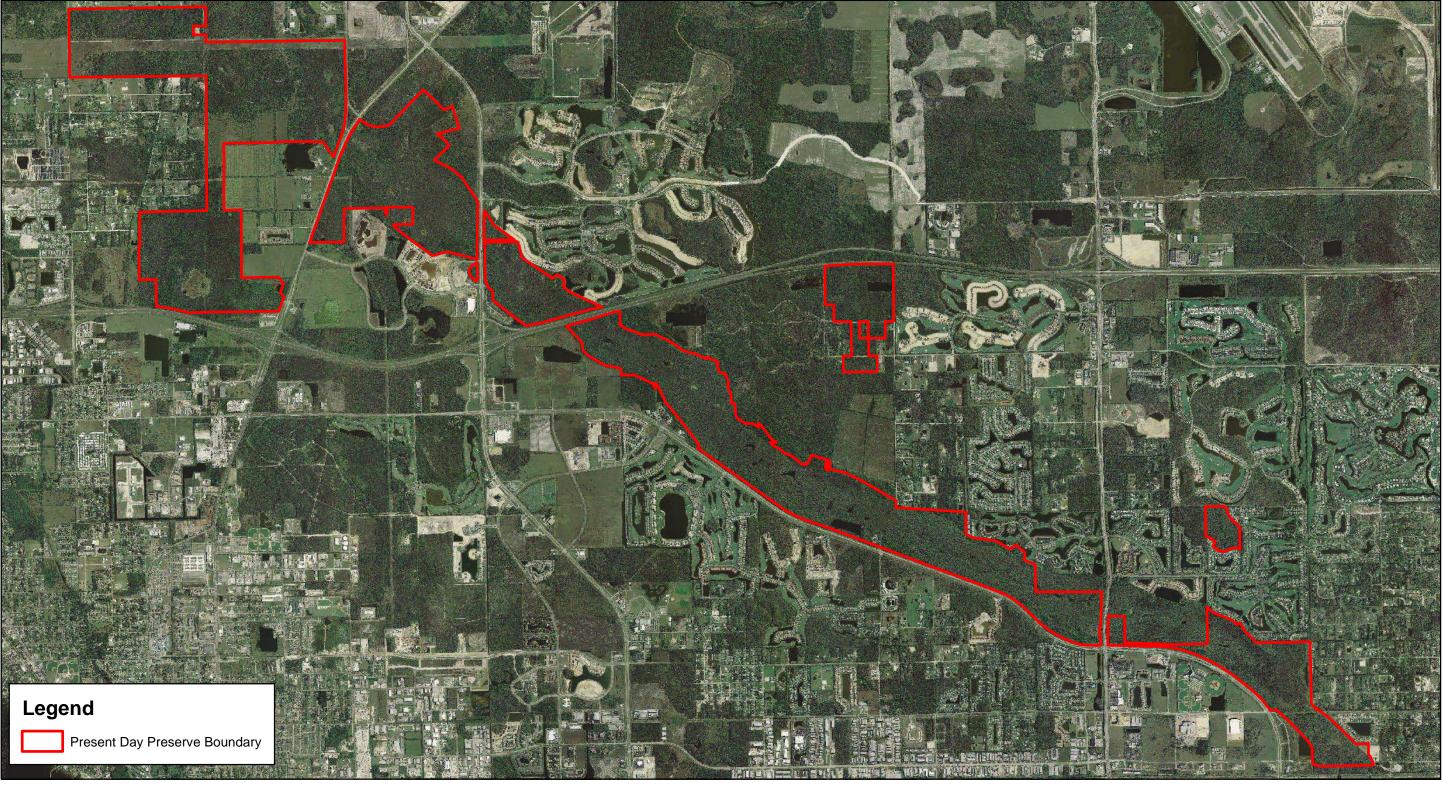


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> Map Prepared On: 08/16/2012 by Igreeno@leegov.com

This is not a survey. Land Stewardship Staff has prepared this map for informational and planning purposes

Figure 27: 2005 Historical Aerial





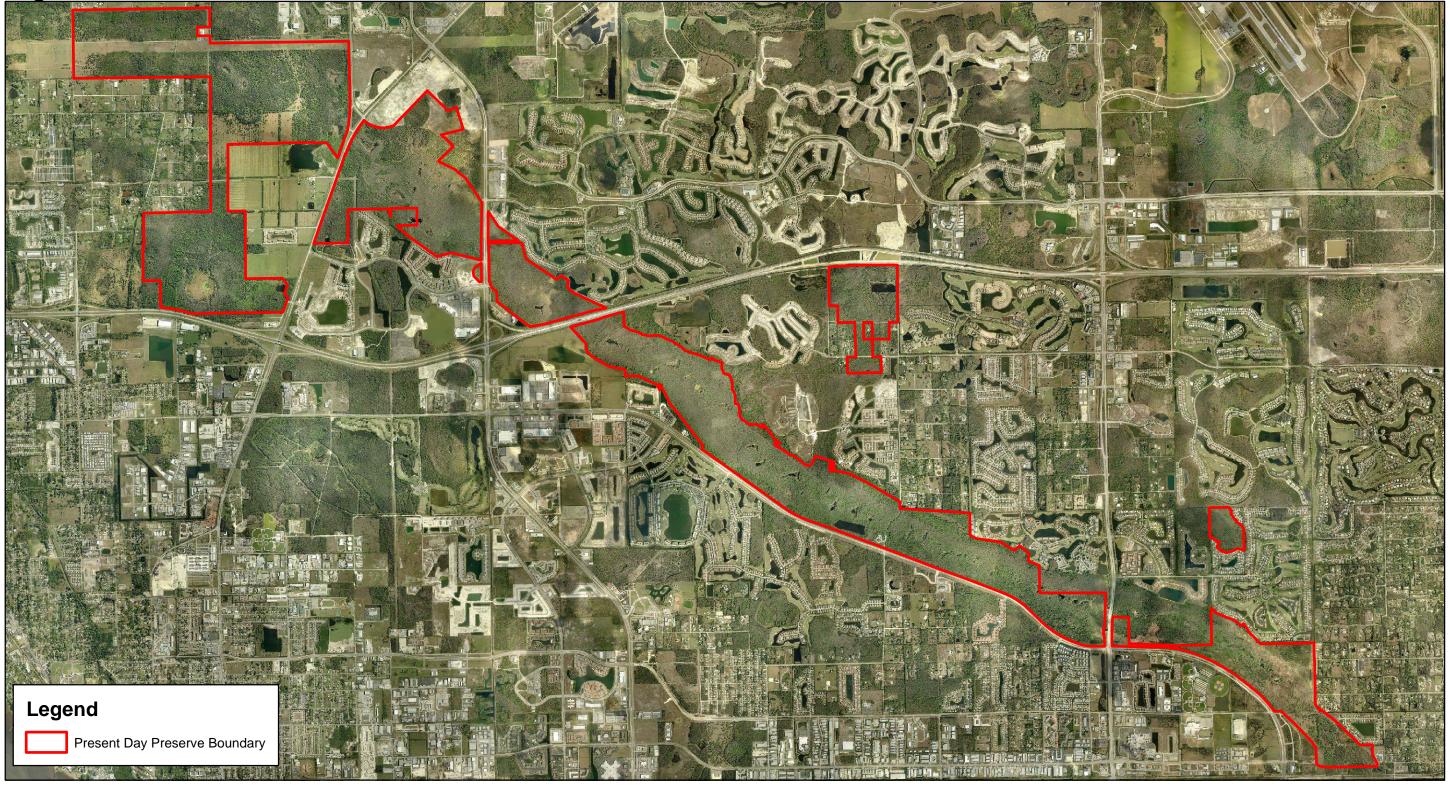


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Six\_Mile\_2005.mxd

Map Prepared On: 08/16/2012 by Igreeno@leegov.com

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Figure 28: 2009 Historical Aerial







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Map Prepared On: 08/16/2012 by Igreeno@leegov.com

This is not a survey. Land Stewardship Staff has

#### iii. Public Interest

In 1976 a group of Lee County high school students studying the role of forested wetlands in Florida became alarmed at how fast environmental treasures were disappearing to private interests in the area. The students, known simply as "The Monday Group", envisioned a place where visitors could stroll amongst majestic cypress trees and catch the whisper of Florida's primordial past. They sought an oasis where guests could observe the vast array of plants and animals that can live in a place which is sometimes land, sometimes water, sometimes both. In such pristine surroundings they hoped that people could begin to learn how wetlands provide priceless, but often hidden benefits such as water purification and storage, natural flood control and wildlife habitat. Knowing that Six-Mile Cypress Slough was under imminent threat from logging and the channeling away of its water, the Monday Group launched a daring campaign to save it for future generations. With the blessing of the Board of County Commissioners they were able to get a referendum placed on the ballot to save the slough. Lee County voters responded overwhelmingly by increasing their own property taxes by 25 cents per thousand dollars taxable value to their property taxes for a period of two years to provide funds to purchase and protect SMCSP. The South Florida Water Management District assisted in the purchase of the Preserve through the Save Our Rivers (SOR) Program (Appendix D). Additional acquisitions were made through another voter approved conservation land acquisition program called Conservation 20/20.

SMCSP was first opened to the public in October 1991. The facility included a parking area, restrooms, two picnic areas, an amphitheater, a 1.2 mile boardwalk with seating areas, interpretive signs, overlooks, and a photo blind. Ten years later, a few volunteers at SMCSP held an exploratory meeting based on their desire to promote environmental education and enhance the capabilities of staff and volunteers. They wanted to broaden understanding and respect for the complex wetland community that the Slough represents. This citizen's group, motivated by its desire to help provide the Preserve with an interpretive center and to inspire more community support, founded Friends of Six Mile Cypress Slough Preserve (FSMCSP) as a not-for-profit corporation by late 2001. The goals of the FSMCSP group are to support the Preserve staff, promote public understanding of the Preserve's importance to the community and the environment, create an interpretive center and be an advocate's voice for the Preserve within the community. Additional information about the FSMCSP can be found at their website www.sloughpreserve.org

The partnership between Lee County Staff, the FSMCSP and other agencies has been enormously successful. As advocates to the Preserve, the Friends continue to monitor the status of C20/20 funding and nominations of additional land to the program. Money raised by the Friends was used to help with the construction of the center and its interpretive displays as well as allow the center to proceed with the Leadership in Energy and Environmental Design (LEED) Green Building Certification. The interpretive center was opened in April 2008

and contains numerous educational exhibits. LCPR staff and volunteers continue to offer guided walks and other educational programs. Attendance to SMCSP has averaged over 100,000 annually.

Because of the centralized educational facilities, staff has received limited requests from the public for access into other portions of the Preserve.

Information concerning this and all C20/20 and other preserves can be found on the web sites (www.conservation2020.org and www.leeparks.org) along with copies of their associated stewardship plans. Staff may mail newsletters when activities are scheduled to take place that the Preserve neighbors may be interested in.

#### V. FACTORS INFLUENCING MANAGEMENT

#### A. Natural Trends and Disturbances

Natural trends and disturbances can include hurricanes, flooding, wildfires, occasional freezes, and the pattern of wet and dry seasons. Implementation of the Management Action Plan will take all of these factors and their influence on projects at SMCSP into consideration. General information on natural trends and disturbances influencing native communities and stewardship at SMCSP can be found in the LSOM's Land Stewardship Plan Development and Supplemental Information section.

#### **B.** Internal Influences

Anthropogenic activities have impacted the entire Preserve. There are several ditches that were created for drainage or agricultural use and some Jeep trails that now act as shallow ditches that change flow patterns and drainage in the Preserve. These are discussed in the Hydrologic Components and Watershed section of this LSP.

Currently a study is being conducted on SMCSPN to see how we can best improve and restore waterflow to the slough by rehydrating wetlands on SMCSPN, holding water and possibly adding more water to the slough system.

Additional internal influences include four major roads that cross SMCSP. These are State Road 82, Colonial Boulevard, I-75, and Daniels Parkway. These roadways restrict water flow patterns and channelize it. Lee County Electric Cooperative (LCEC) and FPL utility power lines run along approximately 1300' across the Slough north of SR82, and through management unit 1 and between management units 9 and 10. An out parcel south of SR 82 adjacent to management unit 12 has a FPL/LCEC substation on it an additional 1/10<sup>th</sup> of an acre easement was granted in 2012 for additional transmission line routing. In addition to powerline easements a water main easement goes under the slough

from Ben C. Pratt/Six Mile Cypress Parkway on the west to the Paseo housing development on east. The Briarcliff community has a forced main sewer line under the slough along the FPL power line easement between MU 9 and 10.

State Road 82, I-75, Daniels Parkway and Penzance Road were in existence at the time parcels were acquired for SMCSP and SMCSPN. In the areas now part of SMCPN, State Road 82 was built in the mid 20<sup>th</sup> century as a two lane road. I-75, Daniels Parkway and Penzance Road were in existence at the time parcels were acquired in the area as part of SMCSP. I-75 was designed in the 1970's and finished through what is now SMCSP in 1980 as a four lane interstate, Daniels Parkway was a graded road through the slough that had been improved to a two-lane paved roadway in 1983. Penzance Road was also a graded road. Thirty or more years ago, road projects were typically designed with little to no consideration for area flora and fauna.

In the late 1980s Colonial Boulevard was extended across the Preserve. At that time it was determined by the SFWMD that no more road crossings of the slough would be permitted in the future. In the 1990s Lee County and FDOT developed plans to extend Metro Parkway south from Ben C. Pratt/Six Mile Cypress Parkway to Alico Road. To accomplish this Penzance Road was closed and removed east of Ben C. Pratt/Six Mile Cypress Parkway across the Preserve. With this road removal Metro Parkway extension crossing was allowed. The Metro Parkway extension is under construction by Florida Department of Transportation (FDOT). Permitting information is further discussed in the Legal Obligations Section D. The existing roads that cross the slough serve as a barrier and threat to wildlife as they pass through the slough. Wildlife passages were added to SR 82, Colonial Boulevard, Daniels Road and Metro Parkway to facilitate wildlife movement under the roads. None of these crossings meet the standards set for panther crossings. As future roads are constructed efforts should be made to ensure wildlife crossings are adequate for panther and other larger mammals. This is particularly important for the Hanson Street extension project.

Four road extensions, as depicted on Figure 29, have been planned to cross portions of the Preserve but not the main slough. These are Hanson Street extension from Veronica Shoemaker Boulevard to State Road 82, Luckett Road extension from Country Lakes Drive to Sunshine Boulevard, Treeline Avenue extension from Colonial Boulevard to State Road 82 and Forum Boulevard Extension from State Road 82 to Luckett Road. The Hanson Street extension and the Luckett Road extension are currently shown on the Lee Plan Map 3A (Appendix E), Lee County Financially Feasible Highway Plan, amended March 2006. Hanson Street is shown extending east of Forum Boulevard through a part of the Preserve. Luckett Road is shown extending east of Staley Road through a part of the Preserve. The extensions of Treeline Avenue and Forum Boulevard are not included in Map 3A.

The Metropolitan Planning Organization 2035 Highway Cost Feasible Plan is required to be updated at least every five years. Based on changes to the plan in 2010, Map 3A in the Lee Plan will be recommended by Lee County DOT staff for revisions. The 2035 New Horizon Lee Plan Amendments will include recommendations to adopt the Metropolitan Planning Organization maps. The amendment to Map 3A is anticipated to be presented to the Board of County Commissioners for their consideration in 2013.

The Metropolitan Planning Organization 2035 Highway Needs Plan, includes the planned roadway extensions along with many other unfunded transportation projects. The Metropolitan Planning Organization is comprised of elected officials including all five Lee County Commissioners. For one of the road extension projects to go forward, it would be required to be placed on the Financially Feasible Plan. The review process for all projects on the Highway Needs Plan includes input from stakeholders and the Efficient Transportation Decision Making process. Evaluation layers in the process include avoiding or minimizing impacts on floodplains, recreation areas, wetlands, wildlife and habitat.

In order for a project placed on the Financially Feasible Highway Plan to go forward it must be programmed for funding in the Capital Improvements Plan, along with authorizations for design and construction contracts. Any of these actions would require BoCC approval.

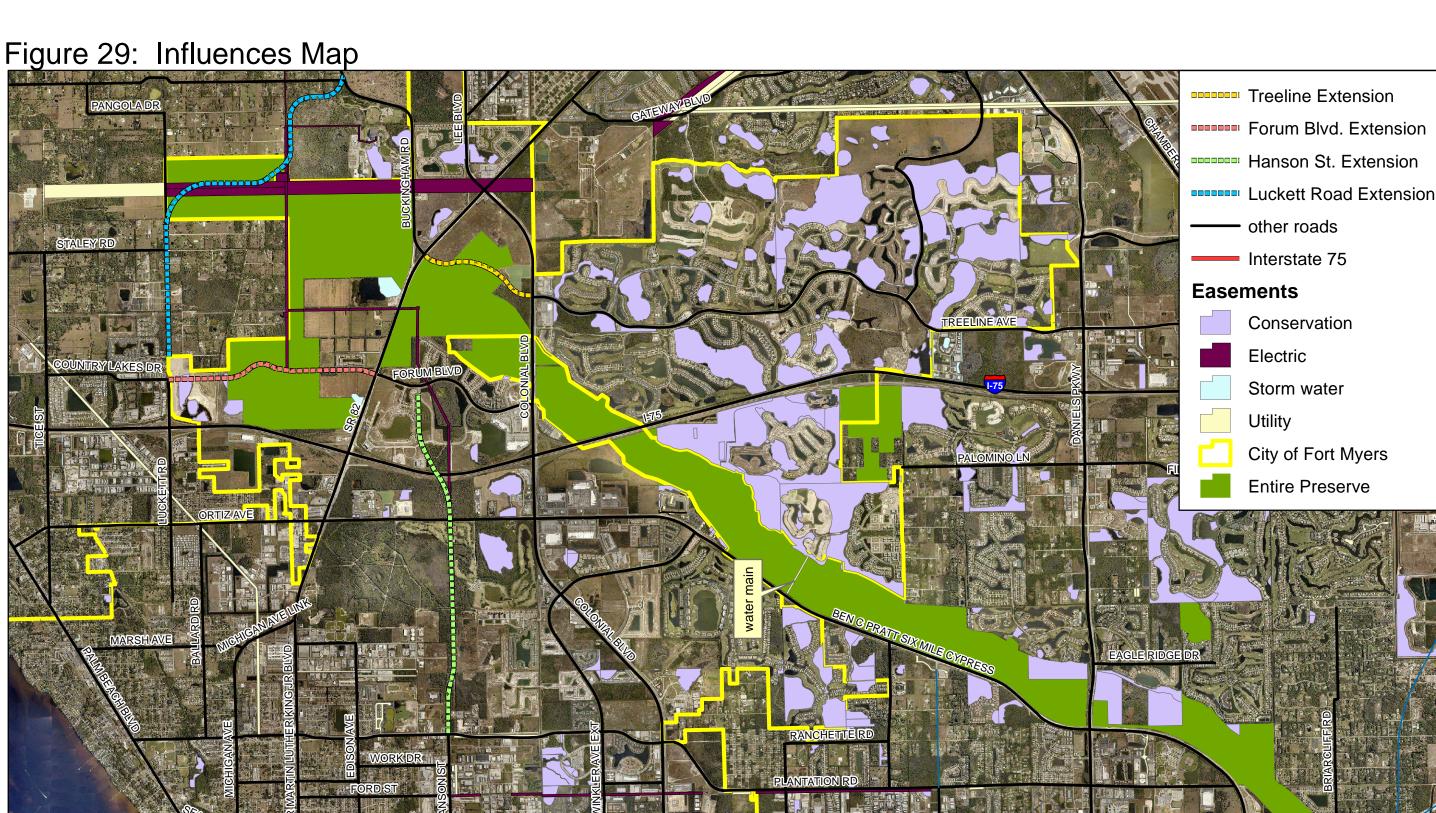
The Metropolitan Planning Organization 2035 Highway Cost Feasible Plan, adopted in December 2010, does not include additional road crossings of the preserve. The Metropolitan Planning Organization 2035 Highway Cost Feasible Plan includes the western portion of the Hanson Street extension from Veronica Shoemaker Boulevard to Forum Boulevard but does not include the Luckett Road, Treeline Avenue or Forum Boulevard extensions across the Preserve. At the writing of this LSP, no funding exists for these roads and there is no definite year construction will start.

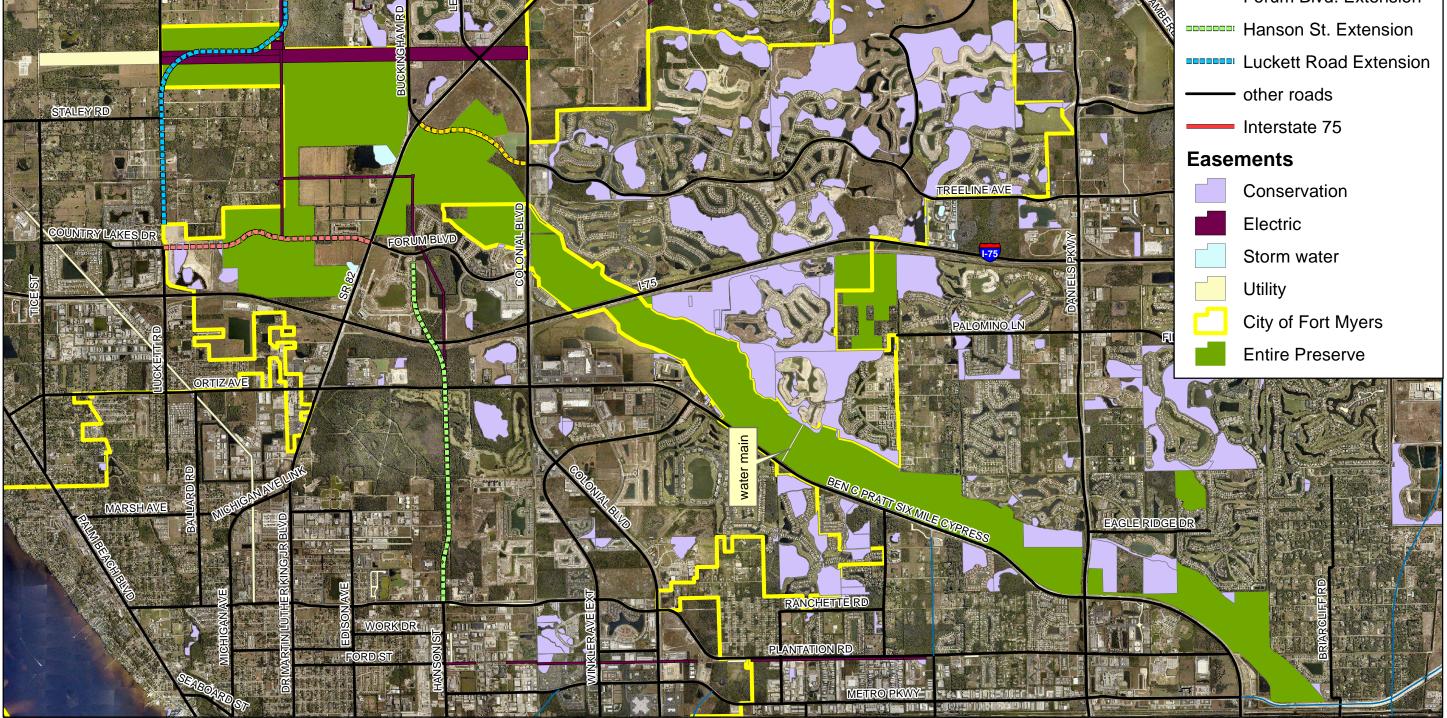
Recent widening of SR 82, Colonial Boulevard and I-75 have added the water retention and management systems that provide some benefit to the slough. In MU 6 a borrow pit exists that was created to obtain road fill for the original building of I-75. No easement exists for this pit but discussions have been held with the FDOT for use of it as a part of the water management system of future widening projects for the interstate. These discussions have fallen apart and will likely not be pursued in the future.

Poor quality interior fences which may have been used in the past to restrict cattle access occur throughout the entire Preserve. These fences will be removed if not needed since they can be hazardous to visitors, staff and machinery during restoration activities and site inspections. At this time, the cattle lease will continue north of SR 82, however when it is no longer needed for resource management reasons the lease will not be renewed. The cow pens,

interior fences, and various gates associated with this area will remain in those areas as long as cattle grazing is allowed. Boundary fences will be installed as needed on SMCSP.

Figure 29 shows the location of internal and external influences on the entire Preserve.





Map Prepared On: 08/22/2012

by Igreeno@leegov.com

#### C. External Influences

There are a variety of external influences that affect the entire Preserve (Figure 29 shows internal and external influences). Portions of the Preserve are located in the City of Fort Myers and other portions are in unincorporated Lee County. These political boundaries make everything from facilities development to law enforcement more complicated since different rules apply depending on the jurisdiction.

The Preserve is a linear wetland swamp. Changes in drainage throughout the watershed influence the entire Preserve. Nearly the entire watershed has been altered in one way or another. Nearly one third of the historic watershed has been diverted away from the slough. The Briarcrest dike and lands between the Ben C. Pratt/Six Mile Cypress Parkway and Ten Mile Canal have been cut off and diverted to the Ten Mile Canal. In the southeast portion of the watershed the airport and surrounding lands have been diverted via the Briarcliff Canal to the Ten Mile Canal below where the slough enters it. Portions of Six Mile Cypress Slough North that historically flowed into the Six Mile Cypress Slough have been cut off by roadways. In other areas the traditional sheet flow into the slough has been converted to point discharges through water management systems. The dual role of these systems to retain water to recharge aguifers, provide irrigation for communities, to provide flood control and to provide for the historic surface flow are frequently in conflict often with the surface flow usually the loser. Dikes, raised roadbeds and raised communities restrict the exchange of water with adjacent areas. The historic sheet flow is channelized often with increased flow velocity at point discharged rather than the historic meandering shallow water flow that naturally occurred. At this point little can be done to correct these historic changes. Recent road widening projects have contained the surface flow in ponds and swales that allow the settling out of impurities in the runoff before they enter the swamp.

Land uses adjacent to the Preserve boundary vary between green space required for residential developments, backyards, 5 to 10 acre residential lots, roadways, commercial office parks and vacant land. Many of the non C20/20 areas have no access for public use or management.

With the recent development and infrastructure improvements conducting ecological prescribed burns will become more of a challenge. Even with these challenges, it is critical that efforts are made to reduce fuel loads, establish and maintain fire lines and conduct prescribed burns to minimize the risk of having a wildfire endanger the surrounding areas. These management activities will help protect the entire Preserve's natural resources from being impacted by a wildfire, and provide decreased likelihood of wildfire carrying across the Preserve and onto neighboring development.

In some areas the neighbors dump vegetative yard waste in the Preserve. These issues are addressed as encountered. Yard creep is another issue that without costly surveys is harder to deal with but is also dealt with on a case by case basis. In these cases approved boundary signs are placed where the boundary is known. Areas where the boundary is not clear include management units 3 on both sides of the slough and portions of management unit 8 because no surveys were done.

Lighting from development adjacent to the SMCSP can create light pollution that can impact wildlife and recreation in the slough. Recent projects near the interpretive center have been reviewed by staff and changes in use and lighting were required. One of the SMCSP's most popular activities is the full moon walks where night time sounds are featured on a walk lit only by the moon. Both light and noise pollution can impact this activity. Lighting along the newly widened Ben C. Pratt/Six Mile Cypress Parkway was limited to the intersections because of a request by the Department of Parks and Recreation. Staff will continue to monitor future development projects for this type of impact.

Not all areas of the Preserve are fenced. Only a few areas have problems with ORV use. This should be reduced as the adjacent developments fill in. Where the need exists fencing will be considered and installed. Much of the boundary south of SR 82 is residential development and blocks public access. Additional fencing along Ben C. Pratt/Six Mile Cypress Parkway may be added in the future as funds become available. After completion of the Metro Parkway Extension fence will be added along this southern boundary to prohibit access by ORV's to the mitigation area. Funding for this is included in the mitigation project.

Neighboring communities continue to complain about hogs from the Preserve damaging their communities. Much of this problem arose when the adjacent upland habitat was cleared for development concentrating the hogs in the few remaining undeveloped areas. Wetlands are not a prime habitat for hogs but it is almost all that is left. Legally no land owner is responsible for damage a wild hog does on another land owner's property because they are considered wild animals. When they leave the Preserve they are not the County's hogs. Contractors have trapped more than 1400 hogs from some management units of SMCSP since 2006. These trapping efforts will continue to benefit the natural resources of the entire Preserve. The cattleman on SMCSPN is licensed and actively traps hogs to deter destruction in the pasture areas.

Multiple conservation easements with differing requirements are associated with housing developments and office complexes bordering the SMCSP. SFWMD is the grantee for the majority of these conservation easements. Depending on the age of the easements the properties are either just set aside or are required to be managed in a natural state for perpetuity. These areas serve as a connective corridor, buffer and flow ways the Preserve. If they are not managed, they can

also serve as seed sources for invasive exotic vegetation and could increase wildfire risk.

# D. Legal Obligations and Constraints

#### i. Permitting

Land stewardship activities conducted on the entire Preserve may involve obtaining permits from regulatory agencies. Proposed hydrologic improvements to the site may require obtaining permits from the Florida Department of Environmental Protection (FDEP), the U.S. Army Corps of Engineers (USACOE) and SFWMD. Hydrological and/or habitat restoration projects requiring heavy equipment or tree removal will require notification to the Lee County Department of Community Development (LCDCD). Burn authorization from the Florida Forest Service (FFS) is required for all prescribed burns conducted on any burn units on the Preserve. Any proposed primitive trailheads may require limited development permits from the LCDCD or the City of Fort Myers and driveway permit approval from LDOT.

Approximately 804 acres of SMCSP have received some form of stewardship through funding from private and public mitigation projects. Figure 30 shows the locations of the various mitigation projects.

## EXISTING/PERMITTED MITIGATION

#### The Forum

This mitigation area includes portions of Management Units (MU) 1 & 3 and all of MU 2 and totals 391.3 acres. The mitigation work conducted in this portion of SMCSP was to mitigate for wetland impacts that resulted from The Forum (a private development located adjacent to the SMCSP). Invasive exotic plants were removed and treated over a five-year period under the requirements of the permits issued by the ACOE (#2002-2926 (IP-MAE)) & the SFWMD (36-10363-S). As of August 2012, the private development still needs to complete the final monitoring report to both of these agencies. LCPR will receive \$75,000 to be used for future exotic maintenance treatments on this portion of SMCSP once the mitigation is approved as successful. In order to keep up with permit conditions this money should be placed in a separate account to be used only for this project area. This account should be treated as a trust fund able to continue from year to year to ensure the money is used for its intended purpose.

# Colonial Boulevard

There are two separate mitigation areas for LCDOT's Colonial Boulevard extension (DER Permit #361658389) that were conducted to compensate for the extension of Colonial Boulevard through SMCSP dividing MU 1 & 2. The first section is located on the west side of Management Unit 7, adjacent to the large borrow pond. A portion of the SMCSP boardwalk goes through this area at the beginning of the trail. The second area is located on the northeast side of Management Unit 8. These areas were former mesic flatwoods that had been impacted by invasive exotic vegetation. The mitigation removed the vegetation from approximately 15 acres, excavated 32,961 cubic yards of fill and planted the excavations with thousands of trees and groundcover species associated with wetland communities. It has met the success criteria of the permit and is at a maintenance level. Continued maintenance is conducted by Land Stewardship staff and volunteers. Unfortunately no long term maintenance money was provided so maintenance funds are unidentified.

#### Interpretive Center

To compensate for wetland impacts when constructing the interpretive center for SMCSP, LCPR conducted the mitigation on the 12.78 acres on the southeast corner of MU 7 (ACOE Permit # 2005-6929, SFWMD Permit #36-01548-S). Invasive exotic plants were removed in 2007 and periodic maintenance has been conducted numerous times to treat invasive exotic plants in this portion of SMCSP. The fifth annual report will be submitted in 2012 and the area is expected to meet the success criteria of the permit. Continued maintenance will be conducted by Land Stewardship staff and volunteers. LCPR is responsible for maintaining this mitigation area into perpetuity.

#### Stewart Mitigation

In May, 2006, LCPR received a check for \$7,668 to conduct invasive exotic plant control on 8.5 acres in the northeast corner of MU 8. This payment was made by Robert and Anisa Stewart as part of a Consent Order with FDEP (03-0364-36-DF) for unauthorized dredging and filling activities on their property located in the SMCSP drainage system. The exotic plant control work took place in 2008 and is periodically re-treated by Land Stewardship staff and volunteers.

# Daniels Parkway Widening

Beginning in the early 1990s, LCDOT conducted mitigation for wetland impacts from the widening of Daniels Parkway on the southwest portion of Management Unit 8, just north of Daniels Parkway Permits: FDEP (361490969) and SFWMD (36-01303-S). Invasive exotic plants were removed, portions were re-graded and thousands of trees, shrubs and herbaceous wetland plants were planted in a portion of the mitigation area. It has met the success criteria of the permit and is at a maintenance level. Required continued maintenance is conducted by Land Stewardship staff and volunteers because no long term management funding was provided.

# Metro Parkway Extension

This mitigation work covers the majority of MUs 9 & 10 (289.96 acres) and consists of wetland and upland enhancement as well as wetland restoration to compensate for impacts from the FDOT extension of Metro Parkway and realignment of Alico Road near U.S. 41 for ACOE Permit SAJ-1997-65 (IP-TWM) and SFWMD permit #36-01148-S. A small portion of this mitigation work is occurring on part of C20/20 portion of the Preserve. Invasive exotic plant removal and replanting were conducted between 2007 and 2009. The final (fifth) monitoring report is scheduled to be completed in October of 2014. According to the Second Annual Monitoring Report, the hydroperiods are suitable for a slough ecosystem, there is natural recruitment by native ground cover and the exotic and nuisance plant maintenance work is continuing. Once the mitigation area has met the success criteria, FDOT will give \$208,046.55 to continue invasive exotic plant control in this portion of SMCSP. In order to keep up with permit conditions this money should be placed in a separate account to be used only for this project area. This account should be treated as a trust fund able to continue from year to year to ensure the money is used for its intended purpose. A copy of the bluesheet and agreement is located in Appendix F.

# Six Mile Cypress Berm Extension

This mitigation work was to compensate for wetland impacts that was caused by LCDNR extending an existing berm on the southeastern boundary of SMCSP to connect with an existing berm on the west side of the Eagle Ridge subdivision (SFWMD permit #36-03556-P) located on the east side of MU 9. The purpose of the berm was to help increase the hydroperiod of SMCSP and provide

flood relief and a positive outfall for stormwater discharges from Eagle Ridge. To compensate for the <1-acre impacts, invasive exotics were removed from 4 acres of pine flatwoods. On April 5, 2010 SFWMD sent a letter to LCDNR stating that the mitigation had met the success criteria and monitoring reports would no longer need to be submitted. Continued maintenance is conducted by Land Stewardship staff and volunteers because no long term management funding was provided.

# Buckingham Road & State Road 82 Improvements

LCDOT coordinated with LCPR staff to conduct mitigation (FDEP #362287765) for wetland impacts as a result of improvements to the intersection of Buckingham Road and S.R. 82. The location for this 2.5 acre project is on the northwest side of MU 10, across from the intersection of Plantation Road and Six Mile Cypress Parkway. LCPR staff was already performing regular exotic plant control and LCDOT provided funds to plant, monitor and maintain the area for 5 years. The mitigation met the success criteria for all but tree canopy coverage in September of 1998. The canopy coverage was later resolved. Costs to continue to maintain this area according to the mitigation agreements are covered by the SMCSP management fund.

# Six Mile Cypress Weir Replacements

This project was initially conducted by LCDOT and transferred over to LCDNR on the southern end of SMCSP (MU 10) to replace two non-functional weirs between SMCSP and the Ten Mile Canal. The purpose of the project was to increase the hydroperiod of the lower portion of SMCSP, south of Daniels Road to more closely match the historic pattern. In addition to the weir replacement, an interior berm was excavated and another berm was constructed on the southern boundary of SMCSP to help maintain the hydroperiod while preventing flooding in the adjacent communities. The work included removal of invasive exotic plants and plantings (FDEP Permit #361643809). It has met the success criteria of the permit and is at a maintenance level. Continued maintenance is conducted by Land Stewardship staff and volunteers.

# Briarcliff Baptist Church

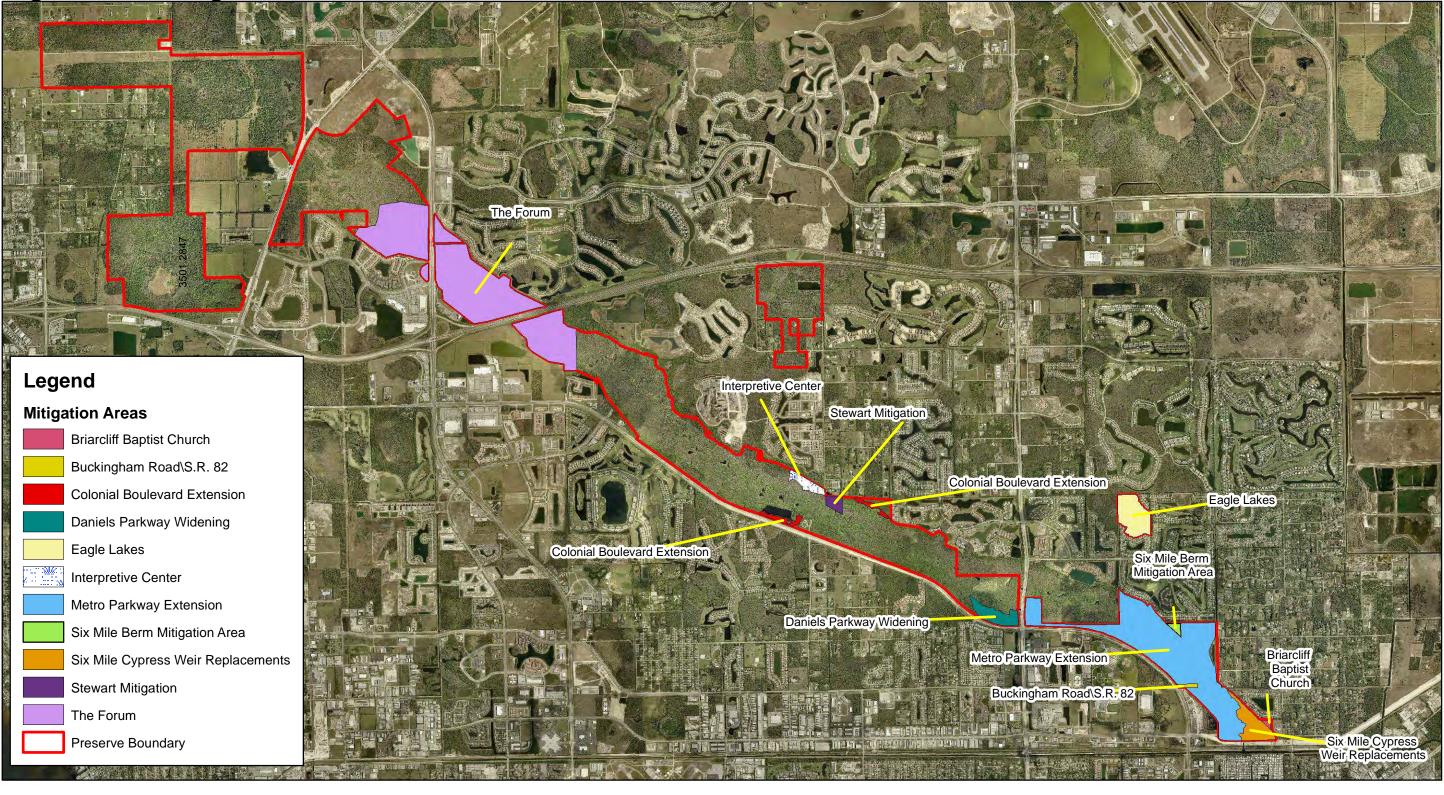
On August 7, 2007 Lee County BOCC voted to purchase a 2.88 acre parcel, which included a 2.08 acre mitigation area from Parkway Baptist Church of Lee County, Inc. (see acquisition section for details). This acquisition is located on the south boundary of MU 10. The mitigation work (including invasive exotic

plant control, berm relocation, wetland creation and wetland plantings) was completed by the previous owners, but no monitoring reports were submitted to the SFWMD. As part of the purchase agreement (Appendix G), Lee County maintenance and management budget for SMCSP is to bear the cost and responsibility to monitor and maintain the property in accordance to the SFWMD permit (#36-04826-P) conditions. Land Stewardship staff is currently working to monitor and submit the 5 annual reports required under the permit conditions as well as continuing to periodically treat any invasive exotic plants.

# Eagle Lake Preserve

On May 11, 1994 Lee County BOCC voted to accept responsibility for the perpetual maintenance of Eagle Lake Preserve (MU 11) which was the conservation area for Eagle Lake Estates (Woodland Walk Subdivision). LCPR received \$17,250 from the developer (Appendix H), which was used to remove the invasive exotic vegetation from this portion of the Preserve. Land Stewardship staff continues to maintain the area at a maintenance level for exotic plants under the jurisdiction of the SFWMD (Permit #36-00318-S – Tract C). No additional funds from Eagle Lake Estates for management will be coming so permit compliance is the responsibility of LCPR.

Figure 30: Mitigation Areas







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Six Mile Cypress Slough Preserve\Stewardship\_Plan\
Six\_Mile\_mitigation.mxd

Map Prepared On: 08/16/2012 by ljewell@leegov.com

This is not a survey. Land Stewardship Staff has prepared this map for informational and planning purposes.

# ii. Other Legal Constraints

There is an active cattle lease on SMCSPN (Appendix I). As a consideration of the License for Cattle Grazing, the licensee put up fences which gives him three years of use without additional payment. After that the lease may be terminated with a 30-day written notice to the Licensee or canceled upon 48 hours verbal notice if cattle are not kept within the confines of the leased area. Cattle are a beneficial management tool to assist with brush management. Land Stewardship staff has found that removing cattle before restoration activities take place often leads to a rapid invasion of shrubs and weedy species leading to increased costs for future pasture restoration.

Portions of the SMCSP are owned by the SFWMD. These portions are managed by LCPR through a management agreement. This LSP must also be approved by the SFWMD.

Other legal constraints are in place that affects the entire Preserve. These include several powerline easements, a sewage line easement and a water main easement (shown in Figure 29). The latter two are subterranean and should have little impact on surface management activities. The power line easements include: A 580 foot wide FPL power line easement that bisects SMCSPN parcel 410 and extends south along the eastern boundary of parcel 390 where the easement is 290 feet. The area under the power line is regularly mowed by FPL to prevent shrub and tree establishment. A second power line easement for LCEC runs from the south boundary line of SMCSPN 100 feet north. Another power line easement runs north south across the narrow strip of parcel 422. On SMCSP there are FPL power lines on MU 1 on the C20/20 parcel 239. Permits to fence across these easements have been obtained and fence and gates are installed. Between management units 9 & 10 at the south end of the SMCSP another FPL easement proceeds south from Plantation Boulevard and crosses the slough. Permission to fence and gate this easement is also in place. At this same location the Briarcrest subdivision has a forced sewage main that crosses under the slough. This removed a community package plant and hooked the community to the regional sewage grid removing the need for a drain field adjacent to the Preserve.

On December 20, 1989 Lee County BOCC adopted Resolution 89-12-39 which agreed road crossings of the Six Mile Cypress Slough would be limited to Colonial Boulevard, Interstate 75, Penzance Boulevard and Daniels Parkway (Appendix J).

In August of 1995 the Lee County BOCC approved the substitution of the proposed Metropolitan Extension Crossing of the Slough as a substitute to the Penzance Crossing (Appendix K). This was allowed with the removal of the road bed of Penzance Boulevard which crossed the slough as a dirt road.

Additional internal influences include the Briarcliff dike system established by LCDNR for water management. This dike has been turned over to Parks and Recreation for inclusion in the SMCSP. No easement exists for maintenance of this dike but it is assumed if needed LCDNR would rebuild the dike.

In 1991 County Commissioners approved Resolution No. 91-11-22 (Appendix L) to potentially grant Florida Gulf Coast University the land use of 320 acres within SMCSP. No action has occurred to date. However, FGCU uses SMCSP for research and educational opportunities.

In 2005 FDOT staff approached LCPR staff to explore the feasibility of utilizing the borrow pit on C20/20 parcel 216 for water treatment of runoff from the widening of I-75. After a few years of consideration and legal exploration, this proposal was not approved.

# iii. Relationship to Other Plans

The Lee Plan, Lee County's comprehensive plan, is written to depict Lee County as it will appear in the year 2020. Several themes have been identified as having "great importance as Lee County approaches the planning horizon" (LCDCD 2010). These themes are:

- The growth patterns of the county will continue to be dictated by the Future Land Use map.
- > The continued protection of the county's natural resource base.
- > The diversification of the county's traditional economic base.
- > The expansion of cultural, educational and recreational opportunities.
- A significant expansion in the county's physical and social infrastructure.

The entire Lee Plan can be found on the Internet at: <a href="http://www3.leegov.com/dcd/Leeplan/Leeplan.pdf">http://www3.leegov.com/dcd/Leeplan/Leeplan.pdf</a>. The sections of the Lee Plan which may pertain to Lee County Preserves have been identified in the LSOM.

Additional goals that specifically relate to SMCSP include:

Chapter IV, Goal 60, Objective 60.3: LEVEL-OF-SERVICE STANDARDS. To protect or improve the quality of receiving waters and surrounding natural areas and the functions of natural groundwater aquifer recharge areas while also providing flood protection for existing and future development, Level of Service Standards have been established for basins identified in the surface water master plan. Under Policy 60.30.1 the level-of-service standard for the Six Mile Cypress Watershed will be that public infrastructure remains adequate such that floor slabs for all new private and public structures which are constructed a minimum of one (1) foot above the 100-year, 3-day storm event flood plain level for Six Mile Cypress Watershed will be safe from flooding from a 100-year, 3-day storm event (rainfall). The 100-year level and watershed boundaries are as established in Volume IV of the Six Mile Cypress Watershed Plan.

The following additional standards are hereby established as desired future levelof-service standards, to be achieved by September 30, 1994:

1. The Six Mile Cypress Slough and its major tributaries as identified in the Six Mile

Cypress Watershed Plan (February 1990) must accommodate the associated discharge from the 25 year, 3-day storm event (rainfall). [Ref: Six Mile Cypress Watershed Plan (February 1990) -Volume II, Pages 10-5.]

2. Water quality will be improved in accordance with EPA's NPDES and Rule 17-40 F.A.C. criteria for stormwater discharges.

Chapter V, Goal 85, Objective 85.1, Policy 85.1.5: The county will continue to participate in the formation, expansion, and management of those greenways identified in the Lee County Greenways Master Plan and the six regionally significant greenways identified in the Southwest Florida Regional Planning Council's Strategic Regional Policy Plan. The six regionally significant greenways are: the Charlotte Harbor/Pine Island Sound Coastal Greenway, the Corkscrew Regional Ecosystem Watershed Greenway, the Estero Bay/Wiggins Pass Coastal Greenway, the Hickey Creek Greenway, the Sanibel Island Greenway, and the Six Mile Cypress Slough Preserve Greenway. (Added by Ordinance No. 98-09, Amended by Ordinance No. 07-09)

# **E. Management Constraints**

The principle management constraints for SMCSP include limited funding, the mixture of land ownership and funding sources, the brief dry season, easement constraints and impacts, and limited vehicular access and limited legal access. Increasing urbanization pressures require staff to diligently track development orders and permitting requirements which impact surface water discharges/flow patterns in the slough system, as well as impacts posed to wildlife.

Although C20/20 has a management fund, it is inadequate to fulfill the restoration activities for the C20/20 portions of SMCSP. The non-C20/20 portions of SMCSP are funded through the LCPR operations budget, private mitigation projects and one-time payments for management activities related to conservation easements LCPR took responsibility for maintaining from private developments. Specifics on mitigation agreements and conservation easements can be found in the Legal Obligations and Constraints section of this LSP. LCPR staff is responsible for completing all reports required as part of the mitigation agreements. Efforts to obtain additional funding through grants and/or monies budgeted for mitigation of public infrastructure projects will be pursued to supplement the operations budget to meet the restoration goals in a timely manner.

Vast areas of SMCSP remain under water for over seven months of the year, and more than half of the entire Preserve is comprised of wetland plant communities. The remaining plant communities are typically driest between December and May, so most stewardship activities will be conducted during these months. With the exception of wetland areas, if access is necessary for stewardship activities to occur when water levels are high, vehicles such as an all-terrain vehicle (ATV) may be used; otherwise staff will travel on foot. The Eagle Lake conservation easement does not provide for vehicular access for contractors or staff to conduct work.

C20/20 staff will be required to coordinate with FPL and LCEC on any land alterations that may impact the multiple powerline easements described in the other legal constraints section of this LSP. The easements allow the right to cut, trim and keep clear all trees, brush and undergrowth within 25 feet of the powerlines and any trees deemed dangerous beyond the 25 feet. Any utility maintenance or improvements projects conducted by other agencies (LCDOT, FPL, LCEC or LCDNR) related to their various easements may affect future stewardship activities.

Urbanization pressures increasingly affect stewardship activities and boundary security. Fire management is a vital tool used to keep fuel loads down, to ensure biological diversity, and to maintain functional habitat value for wildlife. Smoke management will be one of the greatest factors in planning prescribed fires. Prescribed fire parameters become more restrictive with expanding residential and commercial development, increased traffic on nearby roadways and surrounding airports. The presence of a major powerline corridor and planned construction of the Luckett Road Extension further hamper prescribed burning.

When restoration activities and prescribed burns are in progress where public access is provided, signs will be installed at the entrance and on the trail near the management activity to warn the public that the area is temporarily closed. Letters will be sent to adjacent land owners and other interested parties when large scale restoration activities are scheduled.

An active cattle lease exists for portions of SMCSPN. Coordination with the cattleman will be needed while doing certain restoration projects, fence work and prescribed burns. Boundary security is a constant challenge and regular patrols are conducted by C20/20 staff and the cattleman to maintain secure fence lines and gates.

#### F. Public Access and Resource-Based Recreation

Historically, public use of Six Mile Cypress Slough (before Lee County began acquisition in 1979) consisted primarily of hunting and fishing. Early use for education after acquisition by the County began with use by the Lee County School District's Department of Environmental Education. A wet trail that enters SMCSP on its west side just south of the Penzance Boulevard interpretive facilities has been in use since 1981. This trail is used to instruct students and others about the importance of the slough.

A 1.2 mile boardwalk, bathrooms and paved parking has been in place since 1991 allowing residents and visitors to experience the slough (Figure 31). Currently, two LCPR staff have trained over 100 volunteer guides who offer a variety of tours and opportunities for visitors to see and learn about the slough. Staff also offers special educational programs, nature based summer camp, and other continuing education for volunteers.

In 2009 an interpretive center was added which now houses staff for site interpretation and management as well as interpretive displays and a resource room for a variety of classes and activities. The center is Lee County's first LEED silver certified public building. This certification is by the U.S. Green Building Council. For more information for the LEED building standards go to <a href="http://www.usgbc.org">http://www.usgbc.org</a>.

From October 1, 2010 to September 30, 2011 a total of 136,651 visitors used the facilities at this entrance point. The greeters staffing the desk at the center are specially trained volunteers. They answer questions about the site and its resources. They also recommend other local sites to visit. Use of the interpretive facilities at Penzance Boulevard has increased to the point where no parking exists during some peak days. This may require the addition of an over flow parking area to be added in uplands to the south of the entrance road. Currently, there are no funds to meet this need.

The uses allowed by the Lee County Parks and Recreation Ordinance and this Stewardship Plan include nature study, photography, hiking, and picnicking. Areas where these types of uses can occur are limited by the nature of the SMCSP itself, both in terms of its wetlands, seasonal flooding, dense vegetation and its limited access points.

To preserve the nature based recreation of the entire Preserve dog walking is prohibited. Dog friendly parks are available nearby on the John Yarborough Linear Park, which parallels the length of SMCSP approximately a mile to the west and at the Barkingham Dog Park at Buckingham Park 9/10<sup>th</sup>'s of a mile past SMCPN on Buckingham Road.

Resource based recreational uses are the only appropriate types of recreation for SMCSP. All uses must be carefully evaluated to ensure that they are compatible with the area being considered for their development as well as that they do not impact on the adjacent neighbors. Consumptive uses such as hunting are prohibited because of the urban nature of the entire Preserve though in the future hunting may be used as a management tool to control exotic wildlife principally wild hogs. Walk in fishing areas may be allowed in parcels with ponds or borrow pits. Fishing in ponds off the boardwalk at the interpretive facilities is prohibited to allow visitors a location to view fish.

A man-made borrow pit off Morgan Hill Road is currently used for fishing by the public although the use is not officially authorized. Room for several parking spaces exist next to the gate at this location some fill would be needed to make these usable. The parking and a walk through will be the limit of site development at this location. If spaces are labeled as parking, an American with Disabilities Act (ADA) compliant parking space must be included in the planning.

SMCSPN was purchased for protection of the headwaters of the slough and for water storage. It is in need of ecological restoration before it will be opened to the public. Projects using heavy equipment to be conducted in the next few years are incompatible with public use of this site. These management activities include mechanical removal of exotics and construction of hydrological restoration projects.

In addition to resource management activities two roads are slated to cross this property. There is no clear timeline for construction of these roads and clear alignments have not been established. It would not be wise or cost effective to plan a trail system, parking areas or entrances until these alignments are in place. It may also be better to add turnoffs and parking to these areas during the road construction and planning stages.

After the design of hydrological restoration and road projects is known and the projects are completed it is anticipated that hiking trails and other low impact recreational activities will be added. Seasonal (November-April) horseback riding is a use that maybe considered for portions of the eastern portion of SMCSPN along the powerline easement. Coordination with FPL for this use will be needed. Location and placement of the Luckett Road extension may offer the opportunity to have an associated parking area and entrance for horse riders and hikers. Until the development of this area the nearby Buckingham Trails Preserve will soon offer this recreational activity.

The hydrological restoration work in SMCSPN is in the planning stage. As part of the project old agricultural fields may be turned into retention ponds. The dikes around these ponds could be used for hiking and biking trails. In the long run a paved path maybe added if funding can be found to allow ADA access to what is anticipated to be an excellent wildlife viewing area.

Figure 31: SMCSP 2012 Site Plan Map Wood **Gator Lake Otter Pond** Pop Ash Pond Р Preserve Boundary Observation Deck Restrooms Existing Parking Area ? Photo Blind Amphitheater Seating Enclave Picnic Area Existing Parking Shelter Interpretive Center Proposed Parking Boardwalk Trail M:\GISLAYERS\Projects\Parks\_Rec\C2020\
Six Mile Cypress Slough Preserve\Stewardship\_Plar
Six\_Mile\_Master\_Site\_Plan.mxd Six Mile Cypress Slough Preserve Map Prepared On: 8/30/2012 by sloughman@leegov.com □Feet This is not a survey. Land Stewardship Staff has prepared this map for informational and planning purpos

# G. Acquisition

The story of the Monday Group is discussed in detail in the public interest section of this LSP. Their work initiated the referendum in 1976 to add 25 cents per thousand dollars taxable value to property taxes to purchase and protect the slough (Appendix M). Over the years through this program and others Lee County has acquired over a thousand acres to be added to the Preserve.

Lee County partnered with SFWMD through the SOR program to acquire 550.09 acres for \$1,221,221.00 in 1987. In 1988, Lee County BOCC entered into an agreement with SFWMD to establish LCPR as the agency responsible for managing this land. An additional 133 acres was added to the SOR purchases with no agreement.

On May 11, 1994 Lee County BOCC voted to accept the special Warranty Deed from Eagle Lake Estates, Ltd., the developer of the Woodland Walk Subdivision. This vote gave land ownership of 40.56 acres and full responsibility for the perpetual maintenance of Eagle Lake Preserve per SFWMD permit requirements to LCPR.

On August 7, 2007 Lee County BOCC voted to purchase a 2.88 acre parcel from Parkway Baptist Church of Lee County, Inc. The \$28,310 was funded through the Capital Improvement Fund Program for the Briarcliff Channel Weirs project.

Lee County voters approved the C 20/20 land acquisition program in 1996. Ten parcels totaling 331.7 acres were added to SMCSP through this program. In addition, three larger parcels and one donated parcel totaling 1219 acres were also purchased through C20/20 and are managed as SMCSPN.

Figures 32-35 show each piece of the property associated with each STRAP number. Legal descriptions of the C20/20 parcels are included in Appendix N. The legal descriptions for the LCPR non-C 20/20 parcels and SFWMD owned parcels are too cumbersome to include in this LSP because they photocopied from Warranty Deeds.

Figure 36 illustrates the acquired and nominated parcels by the C20/20 Program located near the entire Preserve. The entire Preserve is surrounded by numerous Future Land Use (FLU) categories shown on Figure 37. Land use for most of the site is listed as Conservation lands and Residential. Two small areas are listed as traditional community, a few smaller areas are listed as commercial/downtown and one area is listed as recreation. LCPR staff will work to change all FLU to Conservation Lands.

Currently, most of SMCSP is zoned as Environmentally Critical (Figure 38). Land Stewardship staff is in the process of coordinating with Lee County Division

of Planning (LCDP) and City of Fort Myers staff to change the zoning of the remainder of the Preserve to this category. LCPR Conservation 20/20 staff will work with the staff of the City of Fort Myers to change the FLUM and zoning to appropriate designations to protect the entire Preserve.

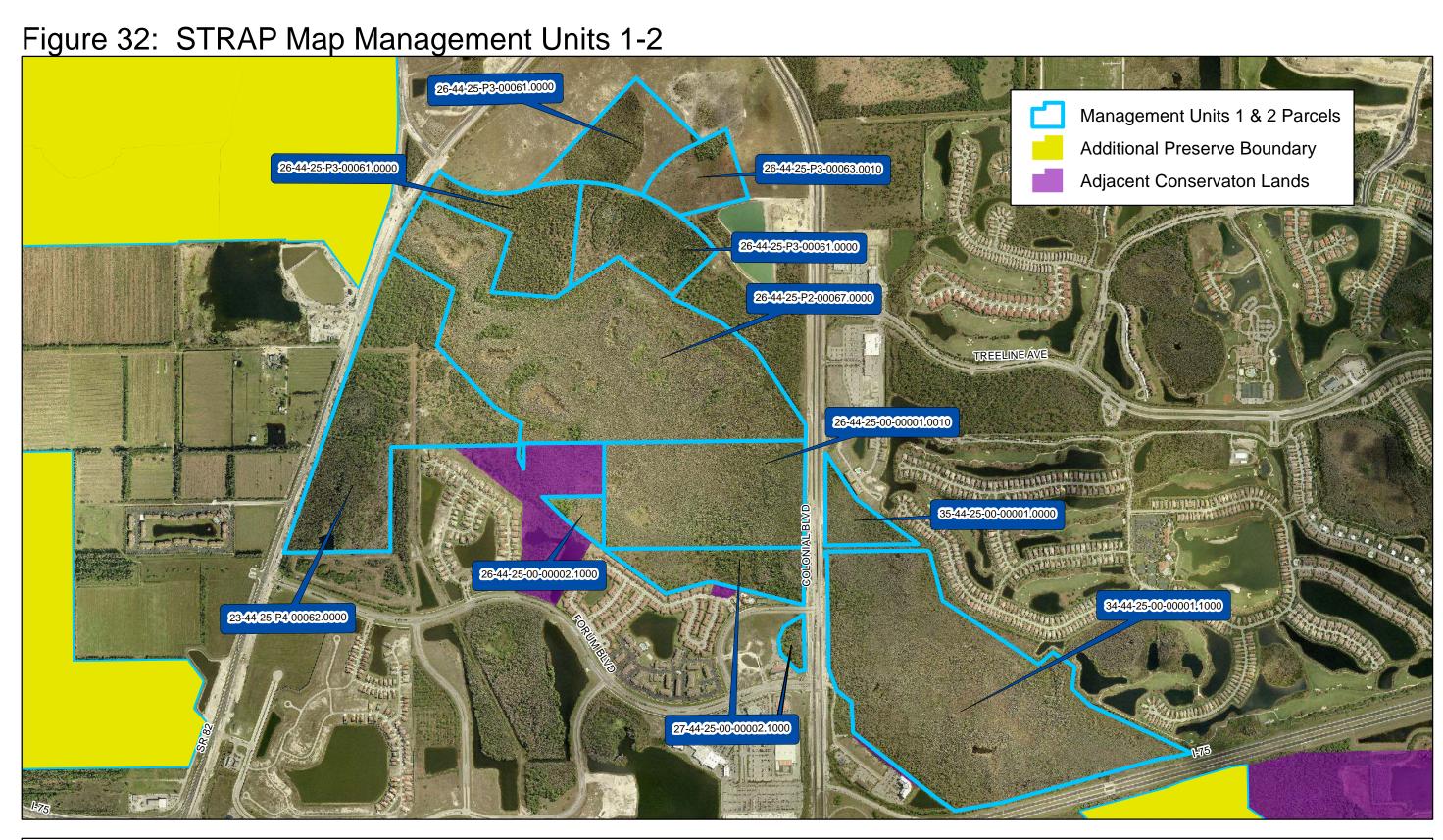
Table 2 below summarizes the acquisition information for each of the C20/20 purchases. The C20/20 Acquisition \$ column only represents land cost and does not include survey costs or other costs associated with closing. Table 3 summarizes LCPR non-C20/20 acquisition information.

Table 2: Preserve Conservation 20/20 Acquisition Information

Parcel #	Acres	C20/20 Acquisition \$	Date Acquired				
53-2	34.91	\$4,561,948.00	4/12/08				
69	39.51	\$725,500.00	12/20/99				
216	43.12	\$948,640.00	5/9/03				
239-2	105.68	\$16,106,096.00	9/14/07				
298	2.5	\$250,000.00	4/20/07				
347	36.09	\$4,837,300.00	2/20/08				
348	32.11	\$4,196,134.00	4/2/08				
352	19.03	\$2,321,838.00	12/4/08				
360	2.5	\$200,000.00	8/21/08				
439	56.25	\$1,500,000.00	10/20/09				
390	468.02	\$14,508,620.00	7/1/10				
390 donation	16.49	\$0.00	7/1/10				
410	317.37	\$4,633,602.00	5/3/10				
422	417.14	\$16,685,600.00	2/1/11				
TOTALS	1590.72	\$71,475,278.00	_				

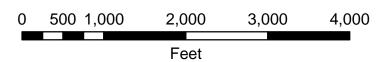
Table 3: LCPR non-C 20/20 Acquisition Information

STRAP#	Acres	Acquisition \$	Date Acquired
26-44-25-P2-00067.0000	186.24	\$1,161,900.00	June 1, 1989
26-44-25-00-00001.0010	75.08	part of above	June 1, 1989
26-44-25-00-00002.1000	6.36	\$153,000.00	April 1, 1982
27-44-25-00-00002.1000	30.92	Part of above	April 1, 1982
04-45-25-00-00005.0010	4.74	\$276,000.00	May 1, 1989
09-45-25-00-00001.1000	5.55	\$16,000.00	January 1, 1981
08-45-25-00-00004.0050	91.76	\$99,800.00	March 1, 1981
10-45-25-00-00006.0290	5	\$55,000.00	February 11, 1997
10-45-25-00-00006.0240	5	\$55,000.00	June 19, 1998
17-45-25-00-00002.0010	11.47	\$42,600.00	October 1, 1988
17-45-25-00-00005.0010	72	\$113,000.00	February 1, 1981
17-45-25-01-00000.031A	0.55	\$700.00	March 1, 1981
20-45-25-00-00001.1000	99.32	\$375,000.00	August 1, 1980
30-45-25-00-00002.2020	24.38	\$245,000.00	March 1, 1987
30-45-25-00-00002.001A	34.31	\$0.00	March 1, 1994
30-45-25-00-00002.0010	5.69	\$100.00	February 1, 1994
29-45-25-00-00001.2070	13.64	\$100.00	December 1,1995
29-45-25-00-00001.2010	19.12	\$0.00	April 1, 1983
29-45-25-00-00001.2000	1.05	\$100.00	January 16, 2004
30-45-25-00-00004.0020	44.21	\$100.00	March 1, 1993
19-45-25-00-00003.0010	7.23	\$317,000.00	April 1, 1990
20-45-25-00-00003.4000	4.99	\$98,800.00	June 1, 1983
20-45-25-00-00003.5000	5.01	\$35,000.00	October 1, 1988
20-45-25-00-00003.6000	5.01	\$13,750.00	June 1, 1987
30-45-25-00-00002.2010	40.55	\$199,000.00	December 1, 1986
31-45-25-00-00002.1380	2.88	\$28,400.00	September 28, 2007
31-45-25-00-00002.1360	27.2	\$560,000.00	February 1, 1987
31-45-25-00-00002.1390	12.34	\$78,500.00	June 1, 1984
31-45-25-00-00002.1000	31.6	\$12,100.00	November 1, 1990
30-45-25-00-00008.0010	22.13	\$83,300.00	July 1, 1984
TOTALS	895.33	\$3,285,350.00	





Six Mile Cypress Slough Preserve Management Units 1 & 2



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Map Prepared On: 06/21/2012 by janderson@leegov.com

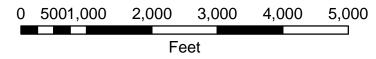
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Figure 33: STRAP Map Management Units 3-7 3-45-25-00-00001.1000 34-44-25-00-00001:1000 0-45-25-00-00006.0010 09-45-25-00-00001,3000 Management Units 3-7 Parcels Additional Preserve Boundary



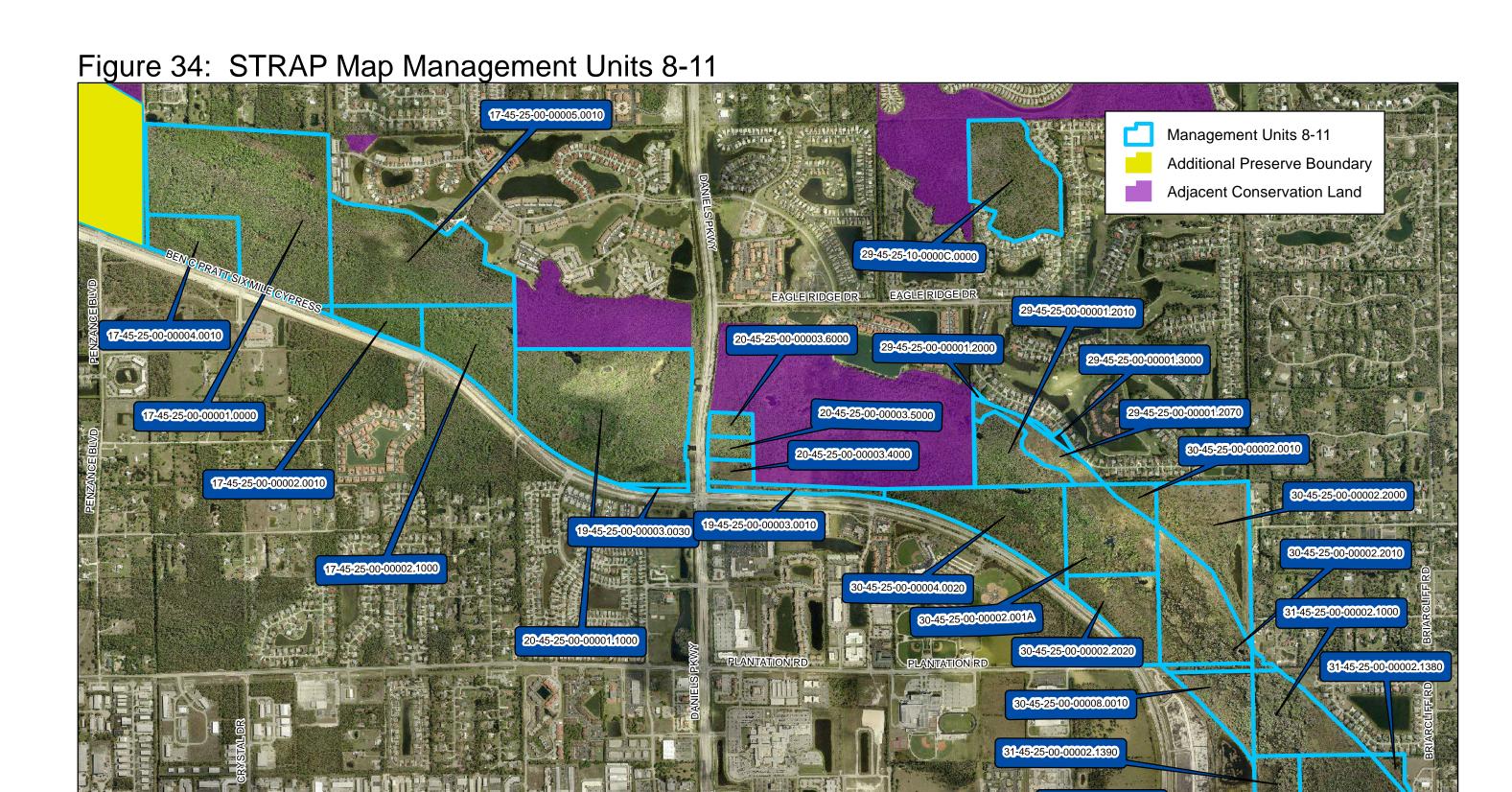


Management Units 3-7



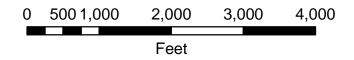
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Six Mile Cypress Slough Preserve Management Units 8-11

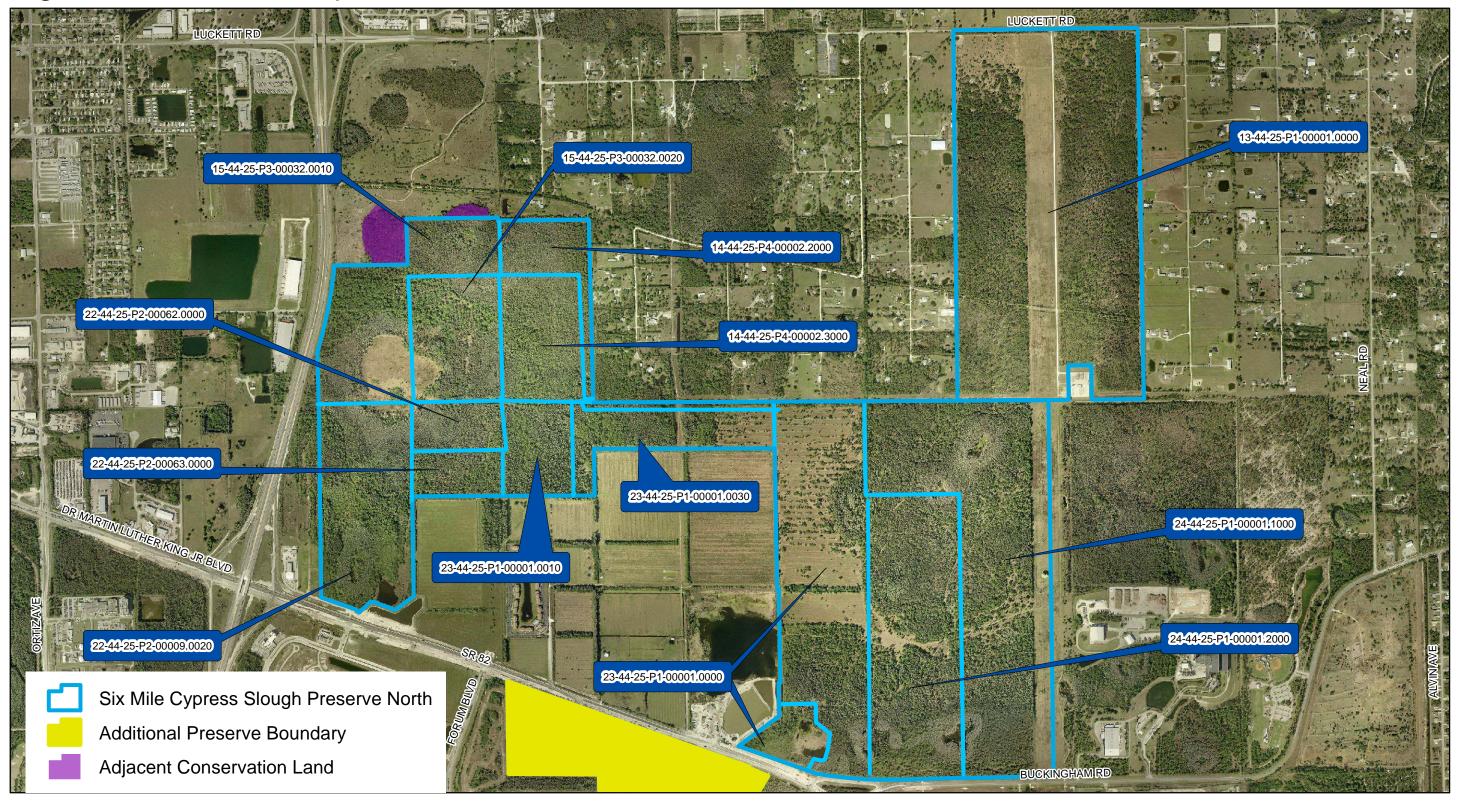


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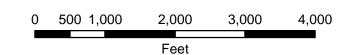
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Figure 35: STRAP Map SMCSPN





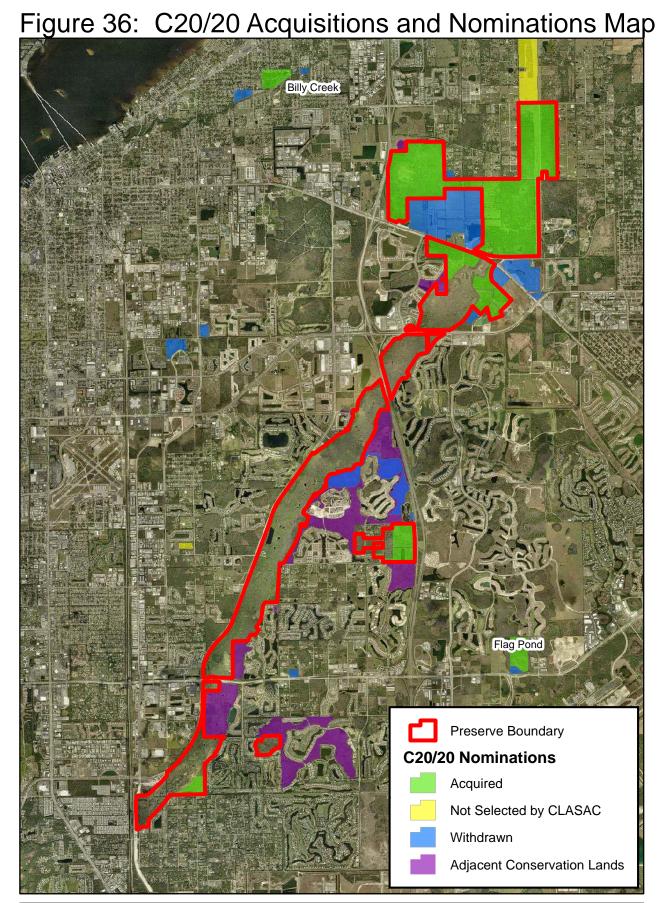
# Six Mile Cypress Slough Preserve - North



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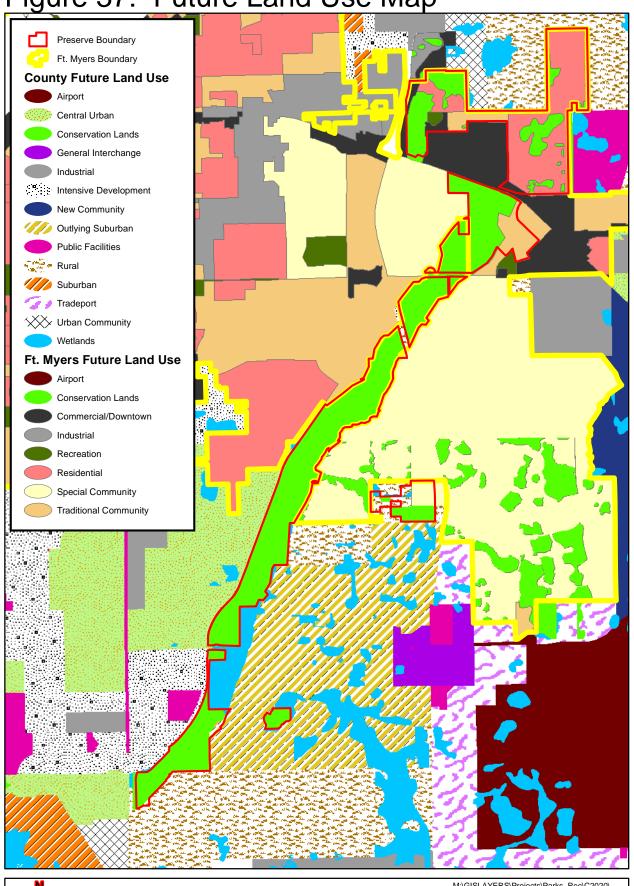




# **Six Mile Cypress Slough Preserve**

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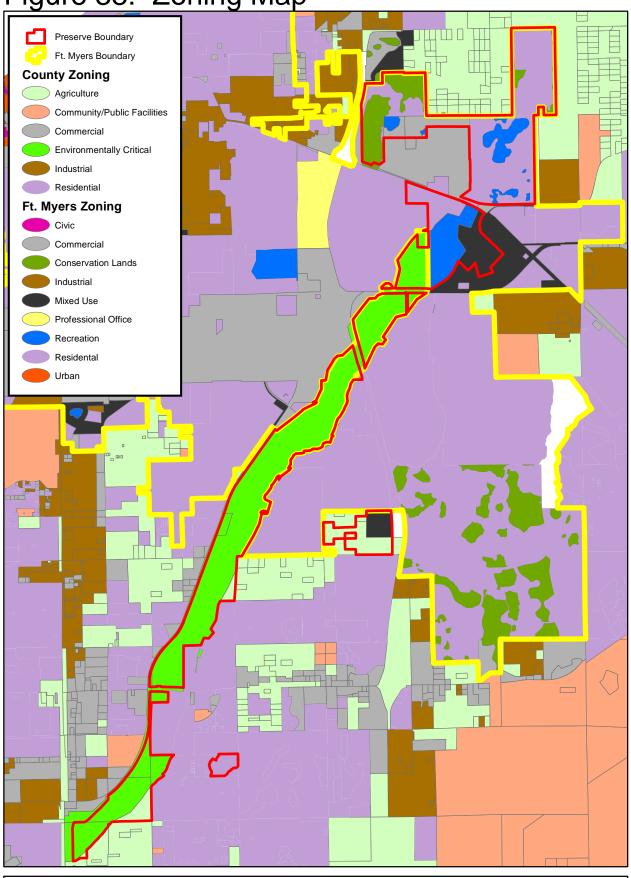
Map Prepared On: 06/21/2012 by janderson@leegov.com This is not a survey. Land Stewardship Staff has prepared this map for informational and planning purposes Figure 37: Future Land Use Map





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Six Mile Cypress Slough Preserve\Stewardship\_Plan\
Six\_Mile\_FLUM.mxd

Map Prepared On: 06/25/2012 by janderson@leegov.com This is not a survey. Land Stewardship Staff has prepared this map for informational and planning purposes. Figure 38: Zoning Map





# **Six Mile Cypress Slough Preserve**

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Six Mile Cypress Slough Preserve\Stewardship\_Plan\
Six\_Mile\_Zoning.mxd

Map Prepared On: 06/25/2012 by janderson@leegov.com This is not a survey. Land Stewardship Staff has prepared this map for informational and planning purposes

#### VI. MANAGEMENT ACTION PLAN

# A. Management Unit Descriptions

The entire Preserve has been divided into 16 management units to better organize and achieve management goals. Figure 39 identifies the MUs that were created based on existing roads, boundaries and plant communities. Acreage for all units has been rounded to the nearest whole acre. SMCSP is comprised of MUs 1-11 south of State Road 82. SMCSPN is comprised of MUs 12-16 north of State Road 82.

#### UNIT 1

Unit 1(524 acres) is located between State Road 82 to the north and Colonial Boulevard to the south. This unit is bordered by both woods and improved pastures to the east and residential development to the west. The unit is comprised of ponds, cypress slough, cypress domes, hardwood hammocks and hydric pine flatwoods. Portions of this unit are part of the mitigation area for the Forum development and are virtually exotic free. Recently acquired lands on the sides are infested with exotics and are being actively managed. SFWMD permits have been obtained for these areas to mechanically remove the melaleuca. Some of the flatwoods areas on this management unit should be burned on a regular basis. Two roads are planned to cross this unit Hanson Street extension and Treeline Boulevard Hydrological connection and wildlife crossing will be needed between the slough parcels to be separated by these roads.

#### UNIT 2

Unit 2 (185 acres) is bordered to the north by Colonial Boulevard and to the southwest by I-75. The unit is bordered to the west by a commercial/developed parcel and I-75 and to the east by the residential development of Colonial Country. The unit is predominately comprised of cypress with a fringe of uplands on the east. Within the cypress area, there are intermittent ponds. All the exotics in this unit have been removed and kept in a maintenance mode for five years through mitigation. The limited size of the unit and lack of access make development for public use not possible. All areas of the slough without access to the general public do retain the public values of water quality improvement, ground water recharge and maintenance of wildlife populations inherent to the preservation of natural systems.

#### UNIT 3

Unit 3 is 326 acres. The northeastern boundary is I-75 and the southern boundary is an old logging road to the south that is a trail with depressional

areas that crosses the slough. The eastern boundary is water treatment areas for Gateway Community and the green space for the developments of Reflection Lakes and Paseo. On the west it is bordered by development, pastures and Unit 4, a hardwood hammock/ slash pine habitat along the west side of the slough bordering Ben C. Pratt/Six Mile Cypress Parkway. The unit is comprised of cypress slough, scattered ponds and transitional areas with some upland pine flatwoods on the east boundary. The northern half of the area has been cleared of exotics while the southern half has exotics mostly Brazilian pepper and melaleuca along the edges. Lack of access to this section makes control of exotics difficult. The lack of access also makes the use of the area by the public not possible.

#### UNIT 4

Unit 4 is 63 acres and consists of a strand of pine flatwoods mixed with hardwood hammock and cypress domes. It is a narrow unit that borders units 3, 5 and 7 on the east and Ben C. Pratt/Six Mile Cypress Parkway to the west. The southern boundary is a man-made pond known as Gator Lake. The flatwoods in this management unit are being restored to a more open appearance with the elimination of the hardwood understory and brush. After restoration it is hoped that small prescribed fires can be used to maintain the community. The unit is in a maintenance mode as far as exotic plant management. The existing interpretive facilities offer access to the slough just south of this management unit so no additional access is needed.

#### UNIT 5

Unit 5 (153 acres) is bordered by unit 3 to the north, unit 4 to the west and unit 7 to the south. A section of the east boundary borders the green space for the Paseo development. The north boundary of the unit is adjacent to unit 3, separated by the old logging road. The majority of the unit is comprised of cypress slough with some pinelands, hardwood hammock and freshwater marsh on the east side. Unit 5 is in a manageable level of exotics with the worst area being the eastern boundary where lack of access makes treatment of melaleuca difficult. The boundary of this unit on the east is the green space for development with no access for management or the public.

#### **UNIT 6**

Unit 6 is 173 acres. It is part of a flow way connected to the slough from the east known as "the arm of the slough". It extends east of the slough to I-75. The County and SFWMD owned lands are connected to the slough proper by the preserve areas for the Paseo development. This unit is cypress slough, cypress domes and hydric pine flatwoods. Exotics in the non-C20/20 area are being treated by staff and volunteers. Recently the worst stands of melaleuca were

harvested and other exotics in the C20/20 portions have been treated. The remainder of the unit is being managed with the help of volunteers. The areas with previous access problems (ATV, horses, and hunting) have been fenced and posted. Other management issues being addressed include removal of old barbed wire fences and tires. Access to portions of this unit is via a walk through next to the gate on Morgan Hill Road where a borrow pit offers fishing. No public access facilities have been anticipated for this area other than the walk through.

#### UNIT 7

Unit 7 is 126 acres and includes a manmade lake, public access facilities, boardwalk and parking area (collectively called the interpretive facility). Six Mile Cypress Parkway is the western boundary of the unit and the eastern boundary is adjacent to the green space for the Paseo development. The unit was historically crossed from east to west by Penzance Road. This road was removed in 1994 under an agreement with Lee County and the SFWMD to allow the crossing of the Preserve farther south with an extension of Metro Parkway. The central portion of the unit is comprised of cypress slough habitat with scattered ponds; the western edge of the unit has hydric pine flatwoods. There are three mitigation areas within this unit. One is west of Gator Lake, the second, is near the beginning section of boardwalk and the third is the interpretive center mitigation on the eastern boundary. The northeastern corner of this unit has some melaleuca and the remaining area is a control level for exotics. The only additional facility proposed for this unit is additional parking for the public access area which would be south of Penzance Boulevard near the interpretive facility.

#### **UNIT 8**

Unit 8 is 354 acres. The central portion of this unit is cypress slough with scattered ponds. The boundary to the west is Six Mile Cypress Parkway and to the east there are residential areas, a golf course and a landscape nursery. The western edge of the unit has areas of pine flatwoods and upland hammock. On the east side of the unit there is a cypress mitigation area. The southern boundary of the unit is Daniels Parkway. The exotics in this unit are in maintenance mode. A 20 acre portion adjacent to Cross Creek development is owned by the development but placed under an easement with the county that allows but does not require the county to perform management activities on the parcel. This area is in need of exotic plant control.

#### **UNIT 9**

Unit 9 is 244 acres. Daniels Parkway is the northern boundary of this unit and the FPL right of way is the southern boundary. The western boundary is Ben C. Pratt/Six Mile Cypress Slough Preserve. On the eastern boundary there are residential communities. The southern boundary has a manmade berm to

control flooding in these residential communities. As part of this project C20/20 parcel 69 was acquired and a pond/wetland was created on the southern boundary of the unit and was planted with native plants in August 2002. It is maintained by LCDNR. The remainder of the unit was mitigation for the Metro Parkway extension. Exotic plants are being actively treated on this management unit.

#### **UNIT 10**

Unit 10 is 90 acres. The northern boundary of the unit is the FPL access road and the western boundary is the terminus of the entire slough at Metro Parkway. The majority of this unit is in maintenance level for exotics. Several areas are moderately infested with scattered exotics. The C-shaped diverter canal connecting the two weirs creates an island at the end of the preserve that is heavily infested with Melaleuca. The northern boundary is adjacent to a man made pond and commercial properties. The southern boundary has a berm along the length of the unit to protect adjacent residential areas off Briarcliff Road. The other side of the berm is a residential area and a church. The churches wetland mitigation area was given to the county with the county assuming management and permit responsibility for the parcel. The county recently obtained a conservation easement on the parcel and hired a consultant to perform mitigation compliance reports for the parcel.

#### Unit 11

Unit 11 is a 41 acre isolated parcel acquired by the county from the developers of Eagle Lake Preserve. Upon acquisition it was treated for exotics and controlled burned. Afterwards little was done with it and it was retreated for exotics in 2010. Exotics continue to be a problem in this unit especially ear-leaf acacia and old world climbing fern. Access to this unit is through neighboring properties. Four home owners associations border the property and the green space (unmanaged) for an apartment complex is to the north.

#### Unit 12

Unit 12 consists of 317 acres of land that is the northern most portion of the slough. It is bisected by the FPL transmission lines. It consists of mowed power line corridor, pine flatwoods and planted pines ranging from dense to sparse in coverage. On the west side of the unit is some cypress swamp. The historic rail bed that originally supplied Buckingham Air Field crosses this unit. The extension of Luckett Road is to go through this management unit. A parking area and trail head may be added in the northwest corner of this unit for horse and hikers to use on a seasonal basis (December-May).

#### Unit 13

Unit 13 is 194 acres in size and has Buckingham Road and State Road 82 as its southern boundary. The eastern boundary abuts the Lee County waste to energy plant and has a portion of the FPL transmission corridor along the edge. It is heavily infested with melaleuca with a natural base of pine flatwoods and cypress domes. The boundary along SR 82 has box culverts and a wildlife crossing that connects it to the rest of the slough to the south. The western boundary is manmade lakes and fallow farm field. The fields are slated to be part of a water management project.

#### Unit 14

Unit 14 is 208 acres in Size and is bordered on the east by the powerline easement. The northern boundary connects to MU 12 and private ranchette style lots. The western boundary is the fallow farm fields of MU 15. MU 13 is to the south separated by an existing farm road with cleared areas along it. The parcel is a combination of pine forest and cypress domes. It also is heavily infested with melaleuca.

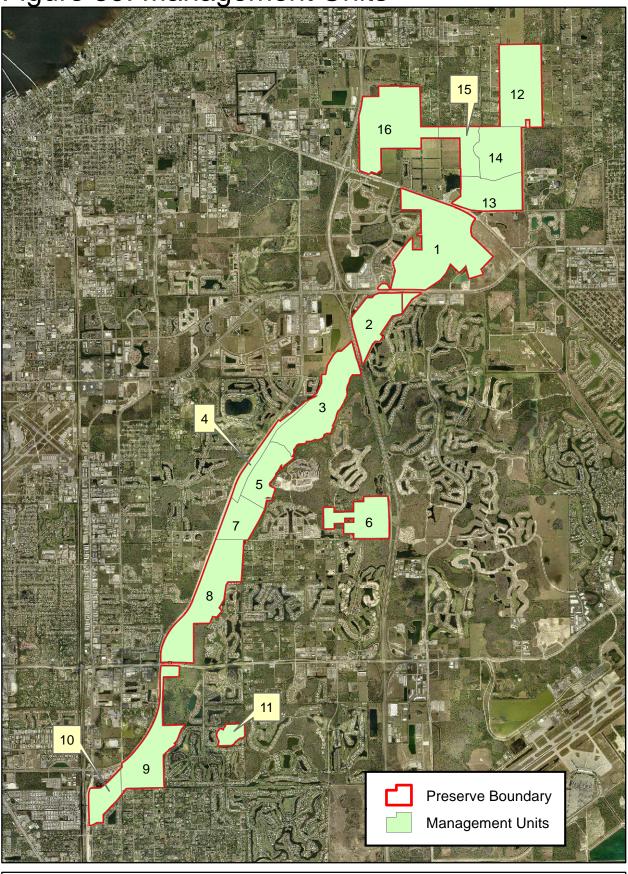
#### Unit 15

Unit 15 is 103 acres and is comprised of mostly open fallow farm fields. It contains part of the connector area which connects the east and western portions of the lands north of SR 82. It is potentially a site for retention areas to hold slough waters during the wet season. It is bounded on the east by MU 14, on the south by MU 13 and fallow fields. To the west are fallow fields and to the north ranchette style lots.

# Unit 16

Unit 16 is 396 acres in size and contains a mixture of pine flatwoods, wet flatwoods and various wetland areas from open marsh to cypress swamp. It is bordered to the west by vacant lands and I-75. To the south by SR 82 and fallow fields and to the north and east by ranchette style lots and a cleared but yet to be built development. The area is heavily impacted by exotics. The proposed extension of Forum Boulevard is planned to cross this unit from south to north.

Figure 39: Management Units





# **Six Mile Cypress Slough Preserve**

0 0.5 1 2 3 Miles M:\GISLAYERS\Projects\Parks\_Rec\C2020\ Six Mile Cypress Slough Preserve\Stewardship\_Plan 6Mile\_management\_units.mxd

Map Prepared On: 08/21/2012 by rrepenning@leegov.com This is not a survey. Land Stewardship Staff has prepared this map for informational and planning purposes

# B. Goals and Strategies

The primary management objectives for SMCSP are natural community and hydrologic improvements, cultural resource protection, removal and continued treatment of invasive exotic plants and prescribed burning. Although funding is currently not available to conduct all of these stewardship activities, tasks at SMCSP will be prioritized in order of importance and ease of accomplishment and include the following tasks. Grants and/or monies budgeted to mitigate public infrastructure projects will be used to supplement the operations budget to meet our goals in a timely manner. Management activities on non Conservation 20/20 portions of SMCSP will be paid for through the Lee County Parks and Recreation operations budget, grants or donations, while the Conservation 20/20 portions are paid for through the Conservation 20/20 management fund, grants, or donations.

# **Natural Resource Management**

- ✓ Exotic plant control/maintenance
- ✓ Prescribed fire management
- ✓ Mechanical brush reduction
- ✓ Pine tree thinning
- ✓ Monitor and protect listed species
- ✓ Exotic and feral animal removal
- ✓ Hydrologic restoration
- ✓ Restoration of pastures and abandoned fields

#### **Outside Consultants**

- ✓ Permitting for public access
- ✓ Environmental/engineering
- ✓ Hydrologic construction
- ✓ Submitting monitoring reports

#### **Overall Protection**

- ✓ Safeguard cultural and natural resources
- ✓ Install/maintain fire breaks
- ✓ Boundary fence installation, interior fence installation and removal
- ✓ Boundary sign maintenance
- √ Assess cattle lease
- ✓ Change Zoning and Future Land Use categories
- ✓ Debris removal and prevent dumping
- ✓ Monitor water quality levels

# **Public Use**

- ✓ Infrastructure improvements for public access
- ✓ Interpretive kiosk at entrance along Luckett Road

#### Deannexation

✓ Remove associated parcels from City of Fort Myers to streamline management

#### **Volunteers**

✓ Assist volunteer group(s)

The following is a description of how each of these goals will be carried out, the success criteria used to measure accomplishment of each goal and a projected timetable outlining which units each activity will take place in and when.

# Natural Resource Management

# **Exotic plant control and maintenance**

The most current Florida Exotic Pest Plant Council's (FLEPPC) List of Invasive Species will be consulted in determining the invasive exotic plants to be controlled in each management unit. The goal is to remove/control these exotic species, followed with treatments of resprouts and new seedlings as needed. This goal will bring the entire Preserve to a maintenance level, defined as less than 5% invasive exotic plant coverage.

Prior to any invasive exotic plant control project at SMCSP performed by contractors, a Prescription Form (located in the LSOM) will be filled out by the contractor(s), reviewed & approved by the C20/20 staff.

Uplands with light to moderate infestations:

In areas where invasive plants are sporadic and below 50% of the vegetation cover, hand removal will be utilized for control, while heavy equipment may be used in more densely infested areas. Specific methodology will depend on stem size, plant type and season, but generally the stem will be cut near the ground and the stump will be sprayed with appropriate herbicide, or a foliar application will be applied to the entire plant. Hand pulling will be utilized when possible with appropriate species in order to minimize herbicide use. Basal bark treatment may be used at some locations. Areas that receive heavy equipment work will receive follow-up treatment that will include an application of an appropriate herbicide mixture to the foliage of any resprouts or seedlings. Cut stems may be piled to facilitate future potential burning, chipping or removal from site. No replanting will be needed due to significant presence of native vegetation and the native seed bank.

Uplands with moderate to heavy infestations:

In areas where the exotics occur as monotypic stands or comprise more than 50% of the vegetation cover and access is available, the use of heavy equipment will be utilized in appropriate communities and during suitable season. Heavy equipment will be chosen so that soil disturbance and compaction are minimized. In areas along ditches where the hydric soils may not be conducive for heavy equipment, hand crews will be used to cut down and remove these plants. Tree debris will then either be pile burned or mulched. Mulching equipment may be used. Follow-up treatment of these areas will include an application of an appropriate herbicide mixture to the foliage of any resprouts or seedlings. Staff will evaluate replanting areas on a case-by-case basis.

Wetlands with moderate to heavy infestations:

At suitable locations such as seasonal ponds, low impact equipment may be utilized during dry, winter periods or hand crews will need to hike in on foot and either foliar, girdle, basal bark, or cut-stump the exotics with the appropriate herbicide. Follow-up treatments will need to be conducted on at least an annual basis and may eventually decrease to every two years. Where feasible or necessary, biomass may be removed from sites to be piled and burned and/or mulched.

• Wetlands with light to moderate infestations:

Hand crews will need to hike in and foliar, girdle, basal bark, or cut-stump treat the exotics with the appropriate herbicide. Follow-up treatments will need to be done on an annual basis and may eventually decrease to every two years. Where feasible or necessary, biomass may be removed from wetland sites to be piled and burned and/or mulched.

# Prescribed fire management

A prescribed fire program will be implemented that closely mimics the natural fire regimes for the different plant communities. The objectives of this program include reducing hazardous fuel loads, enhancing and maintaining critical wildlife habitat, enhancing natural ecosystem diversity, and controlling exotic species. Many plant and animal communities in Lee County and southwest Florida have been shaped by and are adapted to the relatively frequent historical fire regimes. Wildland fire has played a major role in the development of this natural landscape. As land stewards, we are charged with the task of recognizing the natural role fire has played in south Florida. Further, we are obligated when determining where fire is necessary and where it should be excluded, to protect

those resources that may be adapted to or dependent upon fire and those that are adversely affected by fire.

Once restoration projects are completed in management units that contain fire dependent communities, prescribed burns will be performed after the creation of appropriate fire lines/breaks. The timing of prescribed burning will be influenced by seasonal rain, staff and equipment availability, listed species requirements and wind patterns. Prescribed burning on SMCSP will follow procedures outlined in the C20/20 Fire Management Plan that applies to all Preserves.

Prescribed fire may be utilized for exotic plant control of seedling/sapling in areas previously treated.

Staff will inform adjacent neighbors of imminent prescribed burns.

#### **Mechanical brush reduction**

Before a prescribed fire is conducted in pine flatwoods or other fire dependent communities within the Preserve, hazardous fuel loads may need to be reduced. Slash pines, saw palmettos and/or invading oaks may need to be thinned mechanically in overgrown areas to achieve desired results and to prevent crown scorch or intense fires from occurring. Wetland areas containing fire dependent communities may also need fuel reduction work before implementing a prescribed fire regime.

# Monitor and protect listed species

There are several listed species that have been documented on the entire Preserve including gopher tortoise, wood stork, Florida sandhill crane, Sherman's fox squirrel, and both giant and cardinal airplants. These species will benefit from exotic plant control, prescribed burns, pasture and hydrological restoration activities. During stewardship activities, efforts will be made to minimize negative impacts to listed species. The hydrologic restoration planned for management units 12, 13, 14 and 15 will be designed to enhance wading bird foraging habitat.

The C20/20 portions of the entire Preserve are part of a countywide tri-annual site inspection program conducted for all C20/20 Preserves. The site inspection spreadsheet is available on the LCPR's computer server ("S" drive). These inspections allow staff to monitor for impacts and/or changes to each Preserve and includes lists of all animal sightings and new plant species that are found. If, during these inspections, staff finds FNAI listed species, they will be reported using the appropriate forms.

#### Exotic and feral animal removal

Several exotic animal species have been recorded on SMCSP. The most problematic of these is the feral hog. Currently, the only acceptable method of hog removal on county preserves is trapping, but more aggressive removal methods may be needed. Staff is exploring quota/management hunts in conjunction with FWC and hiring nuisance wildlife personnel to shoot hogs at night. Removing all hogs is an unreasonable goal; therefore a control program will need to be continuous on a long-term basis. If practical, a methodology will be established and implemented against other unwanted exotic animal species.

This Preserve, like other Lee County preserves, does not contain nor will it support feral cat colonies. FWC's Feral and Free Ranging Cats policy is "To protect native wildlife from predation, disease, and other impacts presented by feral and free-ranging cats" (FWC 2003). Feral cats will be trapped and taken to Lee County Animal Services.

# **Hydrologic restoration**

Staff has installed water level monitoring wells throughout SMCSP/N. These data will be used by an engineering consultant to determine where water levels are too low. This is a joint hydrologic restoration project with the South Florida Water Management District. These wells will be monitored by C20/20 staff and the data recorded. The purpose of this project is to rehydrate the onsite wetlands by holding more water on site, decrease neighborhood flooding, and if possible, increase water levels to the south of SR 82 into SMCSP.

Currently there are several agricultural ditches and the storm water drainage ditches that affect sheet flow or unnaturally drain sections of the Preserve. Staff recommend that the hydrologic restoration plan be developed to incorporate other "dried down" wetland areas of the Preserve and remove the linear canal structure. Because SMCSPN has been so heavily impacted by the ditches installed both onsite and surrounding the property, future projects may attempt to hold more water onsite in an effort to rehydrate the property.

Any restoration proposal(s) will be presented to SFWMD and USACOE to determine the feasibility of the project and decide which permits will be required.

#### Restoration of pastures and abandoned fields

The entire Preserve contains a few improved pasture areas; some have already undergone succession to native and/or exotic plants. All locations will receive exotic plant control treatment. Some locations may support public facilities (parking, picnicking and other amenities) and the remainders are along powerline easements. Restoration of these areas will require data collection to make informed decisions on which plant community would be most successful. Deep

soil samples will be taken and analyzed in several portions of the pasture. A rain gauge and additional monitoring wells will be set up in strategic areas to monitor water levels over an entire rainy season and a portion of the dry season. Once the data are analyzed, appropriate plans for native plantings will be developed that could include using seeds and/or plants. To prepare the pasture for plantings it will be necessary to eliminate the pasture grasses. This may be accomplished by repeated disking followed by treating the exotic pasture grasses with an appropriate herbicide. Once the exotic plants are under control, an established planting plan will be executed.

# **Outside Consultants**

# Permitting for public access

Staff may apply for a limited development order (for a driveway and culvert permit) with LCDCD or with the City of Fort Myers. A consultant may be hired to implement and oversee construction of an appropriate entrance if the scope-of-work is outside LCPR's capabilities.

# Environmental/engineering

Environmental /engineering contractors have been hired to perform data analysis for the pasture and hydrological restoration projects. The consultant will also be responsible for coordinating and obtaining appropriate environmental permits before restoration efforts begin and for conducting required monitoring and reporting efforts.

# **Hydrologic construction**

Staff will coordinate with SFWMD on a hydrologic construction project to restore water flow within SMCSP/N (discussed in Hydrologic Restoration section). A consultant has been hired to conduct a phase II environmental assessment to look for past agricultural chemicals which will be used to determine the overall feasibility of SFWMD's hydrologic construction plan.

# **Submitting monitoring reports**

Staff will submit monitoring reports to the SFWMD for management units 9 & 10 through 2014, as well as an annual report for management unit 10 in 2013. Any new future projects will also have monitoring reports submitted to the appropriate agency.

# **Overall Protection**

# Safeguard cultural and natural resources

To protect cultural and natural resources, designated hiking trails will be marked and monitored by staff to ensure that users are adhering to the trail system. If erosion or damage to resources is being caused by users, additional measures will be implemented to protect these resources, which may include development of a "ride by permit only" system or closing trails, seasonally or permanently.

Restrictions on any other portions of the entire Preserve would negatively impact the ability of staff to effectively manage the land for its ecological features.

#### Install/maintain fire breaks

Perimeter and internal fire breaks have been and will continue to be created, where needed, to reduce the potential damage to areas outside the entire Preserve from a wildfire or prescribed fire. Once staff has coordinated the installation of necessary fire breaks, these breaks will be maintained on an annual basis by either mowing or disking.

# Boundary fence installation, interior fence installation and removal

The perimeter of SMCSPN and portions of SMCSP are fenced where needed to prevent activities such as dumping, illegal use of motorized vehicles and to maintain cattle within the leased area. Any interior fence used for the cattle license will be removed once the lease is terminated and/or may temporarily be left in place for the hydrologic restoration project. Any other interior fence lines will be documented and scheduled for removal.

# **Boundary sign maintenance**

Boundary signs are installed along the entire perimeter boundary to further protect the Preserve. Missing or damaged signs will be replaced. Staff will check for boundary signs during their patrols and site inspections and replace them where needed.

#### Assess cattle lease

Portions of the entire Preserve have a long history of cattle grazing. However, C20/20 staff feels that the cattle needed to be contained within the SMCSP/N northern portion for various reasons (i.e. erosion along the banks of the linear canal, impacts to wetland areas and public access areas). Staff continually evaluates site conditions to determine if the cattle are negatively impacting SMCSPN. If impacts are noted, staff will meet with the Licensee to determine

methods to lessen the impacts of cattle and determine if the lease should be continued, altered or terminated.

# Change Zoning and Future Land Use categories

Staff will coordinate with LCDP and the city of Fort Myers staff to determine designations and, if necessary, change the zoning and future land use categories for SMCSP. Zoning designations will be changed to "Environmentally Critical" from "Agriculture" and future land use designations will be modified to either "Conservation Lands – Uplands" or Conservation Lands - Wetlands" for all Lee County owned parcels.

# **Debris removal and prevent dumping**

Scattered debris may be found throughout portions of SMCSP. Staff anticipates that during restoration activities, the debris will be removed. Additionally, during tri-annual site inspections, debris will be removed as encountered. Removal of unwanted interior fencing not required for grazing operations will also be removed when necessary.

## **Public Use**

# Infrastructure improvements for public access

Staff will investigate and design a parking area along Luckett Road with trailhead for seasonal hiking and equestrian use, as well as install a designated and marked trail system once the large scale restoration projects are complete on SMCSP/N.

#### Interpretive kiosk

Staff will install an interpretive kiosk on SMCSPN near the trailhead entrance at the proposed public access area along Luckett Road.

#### Deannexation

Deannexation of the entire Preserve from the city of Fort Myers will be investigated in order to make management more consistent and to not have duplicate permitting requirements. Staff will work with the Department of Community Development and the City of Fort Myers staff to accomplish this if it is possible.

# **Volunteers**

# Assist volunteer group(s)

SMCSP has an active Friends group that provides support to the land stewardship activities through volunteers. Friends of Six Mile Cypress Slough Preserve is a not-for-profit advocacy and support organization dedicated to preserving, protecting and promoting the preserve for future generations through education and community partnerships.

The LSOM identifies the Land Stewardship Volunteer Program's mission statement as:

To aid in the management and preservation of Lee County resourcebased public parks and preserves and to provide volunteers with rewarding experiences in nature.

In addition, the Lee County Bird Patrol volunteer group performs bird monitoring surveys at SMCSP on a monthly basis. These data are entered into a nationwide electronic database called "E-bird". Staff can then use these data collected to alter management strategies when necessary.

The following "Prioritized Projected Timetable for Implementation" is based on obtaining necessary funding for numerous land stewardship projects. Implementation of these goals may be delayed due to changes in staff, extreme weather conditions or a change in priorities on properties managed by Lee County.

# VII. PROJECTED TIMETABLE FOR IMPLEMENTATION

Management Activity	Jan-13	Apr-13	July- 13	Oct-13	Jan-14	April- 14	July-14	Oct- 14	Jan-15	Apr- 15	July-15	Oct-15	Jan-16	Apr-16	July-16	Oct-16	Jan- 17	Apr- 17	July- 17	2018 or later
Natural Resource Management																				
Mechanical tree and brush reduction																				
Rollerchopping/forestry mowing of understory				1,3,6,12 ,14,15,1 6	$\rightarrow$	$\rightarrow$														
Pine tree thinning	1,12,13,14, 15,16	$\rightarrow$																		
Prescribed fire management																				
Install firebreaks		1,14,15,16		4																
Conduct prescribed burning				On- going	1,4,9,1 1,12,1 3,14,1 5,16	$\rightarrow$	<b>→</b>	$\rightarrow$	<b>→</b>	$\rightarrow$	<b>→</b>	$\rightarrow$	$\rightarrow$	$\rightarrow$						
Exotic plant control/maintenance																				
Maintenance of treated areas	On-going	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$
Logging of melaleuca	1,12,13,14, 15,16	$\rightarrow$	$\rightarrow$										2,4							
Initial treatment				Х																
Follow-up treatment									Х				Х				Х			Х
Habitat restoration																				
Hydrologic and Pasture/Abandoned field restoration					12,13, 14,15	$\rightarrow$	$\rightarrow$													Х
Mitigation monitoring	9,10				9,10				9,10				9,10				9,10			
Mitigation area retreatment	1,2,3,7,9,10		9,10		9,10		9,10		1,2,3,7,9, 10		9,10						1,2,3,7			1,2,3,7
Maintenance (On-going/Annual)																				X
Exotic animal removal	On-going	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$
Fire break mow/disk	1,12,13,14, 15,16			X		Х		Х		Х		Х		Х		Х		Х		Х
Evaluate cattle leases	12,13,14,15		Х				Х					Х			Х				Х	
Outside Consultants																				
Permitting for public access																			6,12	
Environmental/Engineering	12,13,14,15																			
Hydrologic Construction					12,13, 14,15			Х												
Submitting Monitoring Reports				10		9,10														
Public Recreation																				
Installation of trailhead and gates																	12			
Installation of hiking trails																	12		<u> </u>	
Kiosk design and installation																	12			
Overall Protection																				
Boundary fence installation		15,16																		
Debris removal	On-going	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	<b>→</b>	$\rightarrow$	$\rightarrow$	$\rightarrow$	<b>→</b>	$\rightarrow$	$\rightarrow$	$\rightarrow$	<b>→</b>	<b>→</b>
Removal of selected interior fencing	On-going	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$
Change Zoning or Land Use categories				LU																Zoning
Volunteers																				
Assist volunteer group	On-going	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$

#### **VIII. FINANCIAL CONSIDERATIONS**

There is a management fund established in perpetuity for all parcels purchased with C20/20 funds. Monies from this fund primarily serve to meet the operational needs of the Management section of the C20/20 Program, but a certain amount of this fund will be set aside for planned restoration projects. Funds from the management fund have already been used for some restoration and other projects on the C20/20 portions of the Preserve. C20/20 funds may only be used for restoration activities on portions of the preserve purchased through the C20/20 program and not on parcels purchased through other means or not owned by Lee County.

The remaining portions of the entire Preserve (not purchased through the C20/20 program) has a designated fiscal account string that can use a variety of budget lines for treatment of exotics or other land stewardship activities proposed by the site supervisor. LCPR's budget funds that would be used for Land Stewardship purposes primarily come from Ad Valorem (property) taxes.

Funds from mitigation, grants and donations have all been used to fund land stewardship activities and will continue to be an important source of funding in the future. The C20/20 portions of the entire Preserve are limited to public mitigation, while the rest of the entire Preserve can take advantage of private off-site mitigation opportunities. New rules on mitigation from HB599 will impact the use of some types of mitigation. Expenditures to date and projected costs and funding sources are listed in Appendix O.

# IX. LITERATURE CITED

- Cowardin LM, Carter V, Golet FC, LaRoe ET (Department of the Interior). 1979
  December. U.S. Fish and Wildlife Service, Office of Biological Services.
  Classification of Wetlands and Deepwater Habitats of the United States.
  Washington, D.C.: DOI, 131 p. Available from: Superintendent of
  Documents, U.S. Government Printing Office, Washington, D.C.;
  FWS/OBS-79/31
- [FNAI] Florida Natural Areas Inventory. Tallahassee (FL): Guide to the Natural Communities of Florida 2010 Update [cited 2010 Mar 2]. Available from: http://www.fnai.org/natcomguide\_update.cfm.
- [FWC] Florida Fish and Wildlife Conservation Commission. [Internet].

  Tallahassee (FL): Review of Free Ranging Cats Policy; May 30, 2003.
  [cited 2006 Sept 9]. Available from: <a href="http://myfwc.com/cats/review.htm">http://myfwc.com/cats/review.htm</a>
- Land Stewardship Staff of Lee County Parks and Recreation. (200). <u>Six Mile Cypress Slough Preserve Land Stewardship Plan</u>.
- Land Stewardship Staff of Lee County Parks and Recreation. (2003). <u>Land Stewardship Operations Manual</u>.
- [LCDCD] Lee County Department of Community Development. The Lee Plan 2009 Codification As Amended through May 2011 [Internet]. [cited 2011 Mar 2]. Available from:

  <a href="http://www3.leegov.com/dcd/ComprehensivePlanning/planningmain.htm#">http://www3.leegov.com/dcd/ComprehensivePlanning/planningmain.htm#</a>
  <a href="http://www3.leegov.com/dcd/ComprehensivePlanning/planningmain.htm#">http://www3.leegov.com/dcd/ComprehensivePlanning/planningmain.htm#</a>
  <a href="http://www3.leegov.com/dcd/ComprehensivePlanning/planningmain.htm#">http://www3.leegov.com/dcd/ComprehensivePlanning/planningmain.htm#</a>

#### X. APPENDICES

Appendix A: Soils Table

Appendix B: Plant List

Appendix C: Wildlife Species List

Appendix D: SFWMD Purchase Agreement

Appendix E: Future Road Alignments

Appendix F: Metro Parkway Extension Bluesheet

Appendix G: Briarcliff Purchase Bluesheet

Appendix H: Eagle Lake Bluesheet

Appendix I: Six Mile Cypress Slough Preserve North Cattle Lease

Appendix J: Resolution 89-12-39

Appendix K: Penzance Boulevard Bluesheet

Appendix L: Resolution 91-11-22

Appendix M: Resolution 76-7-16

Appendix N: Legal Descriptions

Appendix O: Expended and Projected Costs and Funding Sources

**Appendix A: Soil Characteristics Table** 

					Phy	ysical Attribu	ıtes	Biological Attributes				
Soil	Мар	Total	% of	Habitats	Wetland	Hydrologic	% Organic	Potent	ial as habitat	for wildlife	in	Limitations for
Types	Symbol	Acres	Preserve	(Range Site)	Class (1)	Group (2)	Matter	Openland	Woodland	Wetland	Rangeland	Recreational Paths & Trails
Anclote Sand, Depressional	40	11.6	0.33	freshwater marshes/ponds	Р	B/D *	2-10%	very poor	very poor	good		Severe: ponding
Boca Fine Sand	13	105.77	3.02	South Florida flatwoods		B/D	1-3%	fair	poor	fair	good	Severe: wetness, too sandy
Boca Fine Sand, Slough	74	56.92	1.63	South Florida flatwoods	S	B/D	1-3%	poor	very poor	fair	fair	Severe: wetness, too sandy
Copeland Sandy Loam, Depressional	45	100.92	2.88	freshwater marshes/ponds	Р	D *	2-6%	very poor	very poor	good		Severe: ponding
EauGallie Sand	9	28.73	0.82	South Florida flatwoods		B/D	2-8%	poor	poor	poor		Severe: wetness, too sandy
Felda Fine Sand	12	4.61	0.13	slough	S	B/D	1-4%	fair	poor	fair		Severe: wetness, too sandy
Floridana Sand, Depressional	51	44.45	1.27	freshwater marshes/ponds	Р	D *	6-15%	very poor	very poor	good		Severe: ponding, too sandy
Hallandale Fine Sand	6	178.57	5.10	South Florida flatwoods		B/D	2-5%	poor	poor	fair	poor	Severe: wetness, too sandy
Hallandale Fine Sand, Slough	75	147.24	4.20	slough	S	B/D	1-2%	poor	poor	fair	poor	Severe: wetness, too sandy
Immokalee Sand	28	107.29	3.06	south Florida flatwoods		B/D	1-2%	poor	poor	poor		Severe: wetness, too sandy
Isles Fine Sand, Depressional	39	1341.53	38.3	freshwater marshes/ponds	Р	D *	1-2%	very poor	very poor	good		Severe: wetness, too sandy
Malabar Fine Sand	34	548.07	15.65	slough	S	B/D	1-2%	poor	poor	fair		Severe: wetness, too sandy
Malabar Fine Sand, Depressional	44	298.55	8.52	freshwater marshes/ponds	Р	B/D *	1-2%	very poor	very poor	good		Severe: ponding, too sandy
Malabar Fine Sand, High	63	2.68	0.08	south Florida flatwoods		B/D	1-2%	fair	poor	fair	fair	Severe: wetness, too sandy
Matlacha Gravelly Fine Sand	69	0.31	0.01	manmade areas		С	not estimated					Severe: too sandy
Matlacha Urban Land Complex	7	3.35	0.10	manmade areas		С	not estimated					Severe: too sandy
Myakka Fine Sand, Depressional	53	1.89	0.05	fresh water marshes/ponds	Р	D	1-2%	very poor	very poor	good		Severe: ponding, too sandy
Oldsmar Sand	33	86.29	2.46	south Florida flatwoods		B/D	1-2%	fair	fair	poor		Severe: wetness, too sandy
Oldsmar Fine Sand, Limestone Substratum	50	32.21	0.92	cabbage palm flatwoods		B/D	1-2%	fair	fair	poor	fair	Severe: wetness, too sandy
Pineda Fine Sand	26	54.77	1.56	slough	S	B/D	.5-6%	fair	poor	fair		Severe: wetness, too sandy
Pineda Fine Sand, limestone substratum	77	30.21	0.92	slough	S	B/D	1-2%	fair	poor	fair		Severe: wetness, too sandy
Pompano Fine Sand	10	70.63	2.02	slough	S	B/D	1-5%	poor	poor	fair		Severe: wetness, too sandy
Pompano Fine Sand, Depressional	27	156.7	4.48	freshwater marshes/ponds		B/D *	1-5%	very poor	poor	good		Severe: ponding, too sandy
Valkaria Fine Sand	14	23.94	0.68	slough, edge flatwoods	S	B/D	1-4%	poor	poor	good		Severe: wetness, too sandy
Valkaria Fine Sand, Depressional	41	5.2	0.15	freshwater marshes/ponds	Р	B/D *	1-4%	very poor	very poor	good		Severe: ponding, too sandy
Wabasso Sand	35	6.17	0.18	South Florida flatwoods		B/D	1-4%	poor	fair	poor		Severe: wetness, too sandy
Wabasso Sand, Limestone Substratum	42	14.68	0.42	south Florida flatwoods		B/D	2-5%	poor	fair	poor		Severe: wetness, too sandy

## Color Key:

Upland

Wetlands Rarely Present (Under 20%)

Wetlands Sometimes Present (20-40%)

Wetlands Often Present (75-95%)

Wetlands Very Often Present (100%)

- (1) F Flooding: The temporary inundation of an area caused by overflowing streams, runoff from adjacent slopes or tides.
- S Slough (sheet flow): A broad nearly level, poorly defined drainage way that is subject to sheet-flow during the rainy season.
- P Ponding: Standing water on soils in closed depressions. The water can be removed only by percolation or evapotranspiration.
- (2) \* Water table is above the surface of soil
- B Soils having a moderate infiltration rate (low to moderate runoff potential) when thoroughly wet.
- C Soils having a slow infiltration rate (moderate to high runoff potential) when thoroughly wet.
- D Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet.

Scientific Name	Common Name	Native Status	FDACS	FNAI	IRC	EPPC
Family: Azollaceae (mosquito fern)	•					•
Azolla caroliniana	mosquito fern	native			R	
Family: Blechnaceae (mid-sorus fern)						
Blechnum serrulatum	swamp fern	native				
Woodwardia virginica	Virginia chain fern	native			R	
Family: Dennstaedtiaceae (cuplet fern)						
Pteridium aquilinum var. caudatum	lacy bracken fern	native				
Pteridium aquilinum var. pseudocaudatum	tailed bracken fern	native			R	
Family: Nephrolepidaceae (sword fern)	-					
Nephrolepis biserrata	giant sword fern	native	Т		R	
Nephrolepis cordifolia	tuberous sword fern	exotic				ı
Nephrolepis exaltata	sword fern	native				
Family: Osmundaceae (royal fern)		•				•
Osmunda regalis var. spectabilis	royal fern	native	CE		R	
Family: Polypodiaceae (polypody)	1 2	•				
Campyloneurum phyllitidis	long strap fern	native			R	
Phlebodium aureum	golden polypody	native				
Pleopeltis polypodioides var. michauxiana	resurrection fern	native				
Family: Psilotaceae (whisk-fern)	<u> </u>	<u>.</u>				
Psilotum nudum	whisk-fern	native				
Family: Pteridaceae (brake fern)						
Acrostichum danaeifolium	giant leather fern	native				
Pteris vittata	Chinese ladder brake	exotic				
Family: Salviniaceae (floating fern)					<u> </u>	
Salvinia minima	water spangles	exotic				
Family: Schizaeaceae (curly-grass)						
Lygodium microphyllum	old world climbing fern	exotic				
Family: Thelypteridaceae (marsh fern)	1					
Thelypteris dentata	downy maiden fern	exotic				
Thelypteris interrupta	hottentot fern	native			R	
Thelypteris kunthii	widespread maiden fern	native				
Thelypteris palustris var. pubescens	marsh fern	native			R	
Family: Vittariaceae (shoestring fern)						
Vittaria lineata	shoestring fern	native				
Family: Cupressaceae (cedar)	J. C.					
Juniperus virginiana	red cedar	native				
Taxodium ascendens	pond-cypress	native				
Taxodium distichum	bald-cypress	native				
Family: Pinaceae (pine)	The same of the sa				<u> </u>	
Pinus elliottii var. densa	south Florida slash pine	native				
Family: Agavaceae (agave)	oodii i ionaa olaan piiro				<u> </u>	
Yucca aloifolia	Spanish bayonet	native				
Family: Alismataceae (water plantain)	Topao Dayonor		ı		<u> </u>	ı
Sagittaria filiformis	threadleaf arrowhead	native			I	
Sagittaria graminea var. chapmanii	Chapman's arrowhead	native			1	
Sagittaria lancifolia	bulltongue arrowhead	native			<del>                                     </del>	
Sagittaria latifolia	broadleaf arrowhead	native				
Family: Alliaceae (garlic)	produital allowhold	Hative		<u> </u>	<u> </u>	
Nothoscordum bivalve	false-garlic, crowpoison	native			CI	
IVOLITOSCOTAUTT DIVAIVE	paise-game, crowpoison	Halive			U	

Scientific Name	Common Name	Native Status	FDACS	FNAI	IRC	EPPC
Family: Amaryllidaceae (amaryllis)	<b>'</b>	<u> </u>	1			
Crinum americanum	string-lily	native				
Family: Araceae (arum)	, , ,	•		l.		1
Landoltia punctata	dotted duckweed	exotic				П
Lemna valdiviana	valdivia duckweed	native				
Pistia stratiotes	water lettuce	exotic				I
Spirodela polyrhiza	common duckweed	native				
Wolffiella gladiata	Florida mudmidget	native				
Family: Arecaceae (palm)						
Caryota mitis	Burmese fishtail palm	exotic				
Dypsis lutescens	areca palm	exotic				
Phoenix reclinata	Senegal date palm	exotic				П
Sabal palmetto	cabbage palm	native				
Serenoa repens	saw palmetto	native				
Roystonea regia	Florida royal palm	native?				
Syagrus romanzoffiana	queen palm	exotic				Ш
Family: Bromeliaceae (pineapple)	•					
Tillandsia balbisiana	northern needleleaf	native	Т			
Tillandsia fasciculata var. densispica	cardinal airplant	native	E			
Tillandsia flexuosa	twisted airplant	native	Т	G5/S3	R	
Tillandsia paucifolia	potbelly airplant	native				
Tillandsia recurvata	ball-moss	native				
Tillandsia setacea	southern needleleaf	native				
Tillandsia usneoides	Spanish moss	native				
Tillandsia utriculata	giant airplant	native	Е			
Tillandsia variabilis	leatherleaf airplant	native				
Family: Burmanniaceae (burmannia)						
Burmannia capitata	southern bluethread	native			R	
Family: Cannaceae (canna)						
Canna flaccida	bandana-of-the-everglades	native				
Family: Commelinaceae (spiderwort)						
Commelina diffusa	common dayflower	exotic				
Commelina diffusa var. gigas	climbing dayflower	exotic				
Murdannia nudiflora	nakedstem dewflower	exotic				

Scientific Name	Common Name	Native Status	FDACS	FNAI	IRC	EPPC
Family: Cyperaceae (sedge)						
Carex gigantea	giant sedge	native			CI	
Carex lupuliformis	false hop sedge	native			I	
Carex gigantea x lupuliformis	no common name	native				
Carex vexans	Florida hammock sedge	native			I	
Cladium jamaicense	Jamaica swamp sawgrass	native				
Cyperus articulatus	jointed flatsedge	native			- 1	
Cyperus croceus	Baldwin's flatsedge	native				
Cyperus distinctus	swamp flatsedge	native			I	
Cyperus erythrorhizos	redroot flatsedge	native				
Cyperus esculentus	yellow nutgrass	exotic				
Cyperus haspan	haspan flatsedge	native				
Cyperus ligularis	swamp flatsedge	native				
Cyperus odoratus	fragrant flagsedge	native				
Cyperus ovatus	pinebarren flatsedge	native				
Cyperus polystachyos	manyspike flatsedge	native				
Cyperus surinamensis	tropical flatsedge	native				
Eleocharis baldwinii	Baldwin's spikerush	native			R	
Eleocharis cellulosa	Gulfcoast spikerush	native				
Eleocharis geniculata	Canada spikerush	native				
Elocharis interstincta	knotted spikerush	native				
Eleocharis nigrescens	black spikerush	exotic				
Fimbristylis autumnalis	slender fimbry	native			R	
Fimbristylis puberula	hairy fimbry	native			ī	
Fimbristylis spadicea	marsh fimbry	native			Ė	
Fuirena breviseta	saltmarsh umbrellasedge	native			R	
Fuirena pumila	dwarf umbrellasedge	native			i	
Fuirena scirpoidea	southern umbrellasedge	native			R	
Lipocarpha micrantha	smallflower halfchaff sedge	native			ı,	
Rhynchospora colorata	starrush whitetop	native			·	
Rhynchospora corniculata	shortristle horned beaksedge	native				
Rhynchospora divergens	spreading beaksedge	native			i i	
Rhynchospora fascicularis	fascicled beaksedge	native	<del> </del>		R	
Rhynchospora fernaldii	Fernald's beaksedge	native	<del> </del>		CI	
Rhynchospora intermedia	pinebarren beaksedge	native			1	
Rhynchospora inundata	narrowfruit horned beaksedge	native			R	
Rhynchospora microcarpa	southern beaksedge	native	<del>                                     </del>		R	
Rhynchospora miliacea	millet beaksedge	native	+		R	
Rhynchospora nitens	shortbeak beaksedge	native	+		R	
Rhynchospora odorata	fragrant beaksedge	native	+		R	
	Š	native			R	
Rhynchospora tracyi Schoenoplectus pungens	Tracy's beaksedge	native	+		^	
	threesquare bulrush softstem bulrush		+		D	
Schoenoplectus tabernaemontani		native	<del>                                     </del>		R	
Schoenus nigricans	black bogrush	native	<del>                                     </del>		R	
Scleria baldwinii	Baldwin's nutrush	native	1		<u> </u>	
Scleria reticularis	netted nutrush	native	1		_	
Scleria verticillata	low nutrush	native	1		R	
Family: Dioscoreaceae (yam)	T		1		1	
Dioscorea bulbifera	air-potato	exotic				

Scientific Name	Common Name	Native Status	FDACS	FNAI	IRC	EPPC
Family: Eriocaulaceae (pipewort)	•	•				•
Eriocaulon decangulare	tenangle pipewort	native			R	
Lachnocaulon anceps	whitehead bogbutton	native			R	
Lachnocaulon engleri	Engler's bogbutton	native			CI	
Syngonanthus flavidulus	yellow hatpins	native			R	
Family: Haemodoraceae (bloodwort)						
Lachnanthes caroliana	Carolina redroot	native				
Family: Hydrocharitaceae (frog's-bit)						-
Hydrilla verticillata	waterthyme	exotic				I
Najas guadalupensis	southern waternymph	native			R	
Family: Hyacinthaceae (hyacinth)						
Schoenolirion albiflorum	white sunnybell	native			R	
Family: Iridaceae (iris)	·					
Iris hexagona	dixie iris	native			I	
Iris virginica	Virginia iris	native				
Family: Juncaceae (rush)						-
Juncus effusus subsp. solutus	soft rush	native			I	
Juncus marginatus	shore rush, grassleaf rush	native			R	
Juncus megacephalus	bighead rush	native			R	
Juncus polycephalos	manyhead rush	native				
Juncus roemerianus	needle rush	native			R	
Juncus scirpoides	needlepod rush	native			ı	
Family: Liliaceae (lily)		•				
Lilium catesbaei	Catesby's lily	native	Т		I	
Family: Marantaceae (arrowroot)	<u> </u>	•				
Thalia geniculata	alligatorflag	native				
Family: Nartheciaceae (bog asphodel)		•				•
Aletris lutea	yellow colicroot	native			R	
Family: Orchidaceae (orchid)	•	•				
Dendrophylax lindenii	ghost orchid	native	E		I	
Epidendrum anceps	dingy-flowered star orchid	native	Е		ı	
Encyclia tampensis	Florida butterfly orchid	native	CE			
Epidendrum rigidum	stiff-flower star orchid	native	E		I	
Eulophia alta	wild-coco	native				
Habenaria quinqueseta	longhorn false reinorchid	native			R	
Harrisella porrecta	needleroot airplant orchid	native	Т		I	
Malaxis spicata	Florida addersmouth orchid				I	
Polystachya concreta	greater yellowspike orchid	native	Е		R	
Prosthechea cochleata	clamshell orchid	native	Е	4G5T2S	I	
Sacoila lanceolata var. lanceolata	leafless beaked ladiestresses	native	Т		I	
Spiranthes odorata	fragrant ladiestresses	native				
Zeuxine strateumatica	soldier's orchid	exotic				

Scientific Name	Common Name	Native Status	FDACS	FNAI	IRC	EPPC
Family: Poaceae (grass)				<u>L</u>		
Amphicarpum muhlenbergianum	blue maidencane	native			R	
Andropogon glomeratus var. glaucopsis	purple bluestem	native			R	
Andropogon glomeratus var. pumilus	common bushy bluestem	native				
Andropogon virginicus	broomsedge bluestem	native			I	
Andropogon virginicus var. decipens	broomsedge bluestem	native			Ι	
Andropogon virginicus var. glaucus	chalky bluestem	native			R	
Aristida palustris	longleaf threeawn	native			I	
Aristida patula	tall threeawn	native			R	
Aristida purpurascens	arrowfeather threeawn	native				
Aristida spiciformis	bottlebrush threeawn	native			R	
Aristida stricta var. beyrichiana	wiregrass	native				
Axonopus fissifolius	common carpetgrass	native			R	
Axonopus furcatus	big carpetgrass	native				
Cenchrus spinifex	coastal sandbur	native				
Coelorachis rugosa	wrinkled jointtail grass	native			R	
Cynodon dactylon	Bermuda grass	exotic				
Chrysopogon pauciflorus	Florida false beardgrass	native			1	
Dactyloctenium aegyptium	Durban crowfootgrass	exotic			† ·	
Dichanthelium aciculare	needleleaf witch grass	native				
Dichanthelium commutatum	variable witchgrass	native			R	
Echinochloa paludigena	Florida cockspur	native			1	
Echinochloa walteri	coast cockspur	native				
Elionurus tripsacoides	Pan-American balsamscale	native			1	
Eragrostis atrovirens	thalia love grass	exotic				
Eragrostis cillaris	gophertail lovegrass	exotic				
Eragrostis elliottii	Elliott's lovegrass	native				
Eragrostis virginica	coastal lovegrass	native			1	
Eriochloa michauxii	Michaux's cupgrass	native			H	
Eustachys glauca	saltmarsh fingergrass	native			-	
Eustachys gladed  Eustachys petraea	pinewoods fingergrass	native				
Imperata cylindrica	cogongrass	exotic				ı
Hemarthria altissima	limpograss	exotic				ll l
Hymenachne amplexicaulis	trompetilla	exotic				- ''
Leersia hexandra	southern cutgrass	native			R	'
Leptochloa fusca subsp. fascicularis	bearded sprangletop				R	
,		native			CI	
Leptochloa virgata Muhlenbergia capillaris	tropical sprangletop	native			CI	
· .	hairawn muhly	native				
Panicum anceps	beaked panicum	native			_	
Panicum dichotomiflorum	fall panicgrass	native			R	
Panicum hemitomon	maidencane	native			_	
Panicum hians	gaping panicum	native			R	
Panicum repens	torpedograss	exotic				- 1
Panicum rigidulum	redtop panicum	native			<u> </u>	
Panicum tenerum	bluejoint panicum	native			R	
Phanopyrum gymnocarpon	Savannah panicum	native			CI	
Paspalum laeve	field paspalum	native			_	
Paspalum monostachyum	gulfdune paspalum	native	ļ		R	
Paspalum notatum	bahiagrass	exotic				
Paspalum repens	water paspalum	native				

Scientific Name	Common Name	Native Status	FDACS	FNAI	IRC	EPPC
Paspalum setaceum	thin paspalum	native				
Paspalum urvillei	vaseygrass	exotic				
Phragmites australis	common reed	native			R	
Rhynchelytrum repens	rose natalgrass	exotic				I
Saccharum giganteum	sugarcane plumegrass	native				
Sacciolepis indica	Indian cupscale	exotic				
Sacciolepis striata	American cupscale	native			R	
Schizachyrium scoparium var. scoparium	little bluestem	native			R	
Setaria parviflora	knotroot foxtail	native				
Sorghastrum secundum	lopsided Indiangrass	native				
Spartina bakeri	sand cordgrass	native				
Sporobolus indicus var. pyramidalis	West Indian dropseed	native				
Sporobolus junceus	pineywoods dropseed	native				
Tripsacum dactyloides	Fakahatcheegrass	native			R	
Tripsacum floridanum	Florida mock gamagrass	native	Т			
Urochloa mutica	Paragrass	exotic				I
Family: Pontederiaceae (pickerelweed)		•				•
Eichhornia crassipes	common water-hyacinth	exotic				I
Pontederia cordata	pickerelweed	native				
Family: Smilacaceae (smilax)	П					
Smilax auriculata	earleaf greenbrier	native				
Smilax bona-nox	saw greenbriar	native			R	
Smilax laurifolia	laurel greenbriar	native			· `	
Family: Typhaceae (cattail)	nadioi gioonandi	1.00.70				I
Typha domingensis	southern cattail	native				
Typha latifolia	broadleaf cattail	native			R	
Family: Xyridaceae (yelloweyed grass)		1				ı
Xyris ambigua	coastalplain yelloweyed grass	native			R	
Xyris brevifolia	shortleaf yelloweyed grass	native			ī	
Xyris caroliniana	Carolina yelloweyed grass	native			R	
Xyris difformis	bog yelloweyed grass	native			ī	
Xyris elliottii	Elliott's yelloweyed grass	native			R	
Xyris jupicai	Richard's yelloweyed grass	native			· `	
Family: Acanthaceae (acanthus)	r tionara e yenemeyea graee	1141170	<u> </u>		<u> </u>	l
Dyschoriste oblongifolia	oblongleaf twinflower	native			П	
Elytraria caroliniensis var. angustifolia	Carolina scalystem	native			CI	
Justicia angusta	pineland waterwillow	native			R	
Ruellia caroliniensis	Carolina wild petunia	native			1	
Ruellia tweediana	Mexican bluebell	exotic			<u> </u>	II
Stenandrium dulce	sweet shaggytuft	native			R	-"
Family: Altingiaceae (sweetgum)	Jaweer anayyyrun	nauve			17	
Liquidambar styraciflua	sweetaum	native				
	sweetgum	native	<u> </u>		<u> </u>	<u> </u>
Family: Amaranthaceae (amaranth)	alligatorygod	avatic			I	11
Alternanthera philoxeroides	alligatorweed	exotic			_	II
Amaranthus australis	southern amaranth	native			R	
Amaranthus blitum subsp. emarginatus	purple amaranth	exotic				
Gomphrena serrata	prostate globe amaranth	exotic				

Scientific Name	Common Name	Native Status	FDACS	FNAI	IRC	EPPC
Family: Anacardiaceae (cashew)	•	•				
Rhus copallinum	winged sumac	native				
Schinus terebinthifolius	Brazilian pepper	exotic				I
Toxicodendron radicans	eastern poison ivy	native				
Family: Annonaceae (custard-apple)	•				•	
Annona glabra	pondapple	native				
Asimina reticulata	netted pawpaw	native				
Family: Apiaceae (carrot)	<u> </u>	•				
Eryngium baldwinii	Baldwin's eryngo	native			R	
Eryngium yuccifolium	button rattlesnakemaster	native			R	
Oxypolis filiformis	water cowbane	native				
Ptilimnium capillaceum	mock bishopsweed	native				
Family: Apocynaceae (dogbane)			1			
Asclepias incarnata	swamp milkweed	native				
Asclepias lanceolata	fewflower milkweed	native			R	
Cynanchum scoparium	leafless swallowwort	native			R	
Sarcostemma clausum	white twinevine	native			- `	
Family: Aquifoliaceae (holly)	Willie Comie vinie	Hauvo	1		l	
llex cassine	dahoon	native				
Ilex glabra	gallberry	native				
Family Araliaceae (ginseng)	galloony	Hativo	1			
Centella asiatica	spadeleaf	native				
Hydrocotyle umbellata	manyflower marshpennywort	native			R	
Hydrocotyle verticillata	whorled marshpennywort	native			R	
Family: Asteraceae (aster)	who hed marshpermy wort	Hativo			11	
Acmella oppositifolia var. repens	oppositeleaf spotflower	native			1	
Ambrosia artemisiifolia	common ragweed	native			· ·	
Baccharis angustifolia	saltwater falsewillow	native	<del> </del>		R	
Baccharis glomeruliflora	silverling	native			- 1	
Baccharis halimifolia	groundsel tree	native				
Bidens alba var. radiata	beggerticks	native				
Bigelowia nudata subsp. australis	southern pineland rayless goldenrod	native			R	
Carphephorus corymbosus	Florida paintbrush	native			R	
Carphephorus odoratissimus var. subtropicanus	vanillaleaf	native			I	
Chaptalia tomentosa	pineland daisy				'	
Cirsium horridulum	purple thistle	native native				
Conoclinium coelestinum	blue mistflower		<u> </u>			
		native native	+			
Conyza canadensis var. pusilla	dwarf Canadian horseweed	_				
Coreopsis floridana	Florida tickseed	native				
Coreopsis leavenworthii	Leavenworth's tickseed	native				
Eclipta prostrata	false daisy	native			_	
Elephantopus elatus	tall elephantsfoot	native			R	
Emilia fosbergii	Florida tasselflower	exotic	1			
Erechtites hieracifolia	American burnweed	native	1			
Erigeron quercifolius	oakleaf fleabane	native	<u> </u>		_	
Erigeron vernus	early whitetop fleabane	native	1		R	
Eupatorium capillifolium	dog fennel	native	1			
Eupatorium leptophyllum	falsefennel	native	1		R	
Eupatorium mikanioides	semaphore thoroughwort	native	ļ		R	
Eupatorium mohrii	Mohr's thoroughwort	native			R	

Scientific Name	Common Name	Native Status	FDACS	FNAI	IRC	EPPC
Eupatorium rotundifolium	roundleaf thoroughwort	native			I	
Euthamia caroliniana	slender goldenrod	native				
Flaveria linearis	narrowleaf yellowtops	native				
Gamochaeta antillana	Caribbean purple everlasting	native				
Helenium pinnatifidum	southeastern sneezeweed	native			R	
Helianthus debilis subsp. vestitus	west coast dune sunflower	native		G5T2/S2	CI	
Heterotheca subaxillaris	camphorweed	native				
Hieracium megacephalon	coastalplain hawkweed	native				
Iva microcephala	Piedmont marshelder	native				
Liatris gracilis	slender gayfeather	native			R	
Liatris tenuifolia	shortleaf gayfeather	native				
Lygodesmia aphylla	rose-rush	native			R	
Melanthera nivea	snow squarestem	native			R	
Mikania scandens	climbing hempvine	native				
Pectis glaucescens	sanddune cinchweed	native				
Pectis linearifolia	Florida cinchweed	native			Ι	
Pluchea odorata	sweetscent	native				
Pluchea rosea	rosy camphorweed	native				
Pterocaulon pycnostachyum	blackroot	native				
Rudbeckia hirta	blackeyed susan	native			R	
Solidago fistulosa	Pinebarren goldenrod	native			R	
Solidago gigantea	giant goldenrod	native				
Solidago sempervirens	seaside goldenrod	native			R	
Solidago stricta	wand goldenrod	native				
Sphagneticola trilobata	creeping oxeye	exotic				Ш
Symphyotrichum carolinanum	climbing aster	native			R	
Symphyotrichum subulatum	annual saltmarsh aster	native				
Symphyotrichum tenuifolium	perennial saltmarsh aster	native			R	
Vernonia blodgettii	Florida ironweed	exotic			R	
Vernonia cinerea	little ironweed	exotic				
Youngia japonica	Oriental false hawksbeard	exotic				
Family: Boraginaceae (borage)	•	-				
Heliotropium polyphyllum	pineland heliotrope	native				
Family: Callitrichaceae (waterstarwort)	•	-				
Callitriche pedunculosa	Nuttall's waterstarwort	exotic				
Family: Cabombaceae (watershield)		•			•	
Cabomba caroliniana	Carolina fanwort	native				
Family: Campanulaceae (bellflower)						
Lobelia glandulosa	glade lobelia	native				
Lobelia homophylla	pineland lobelia	native			CI	
Lobelia paludosa	white lobelia	native			I	
Family: Cistaceae (rockrose)						
Lechea torreyi	Piedmont pinweed	native			R	

Scientific Name	Common Name	Native Status	FDACS	FNAI	IRC	EPPC
Family: Clusiaceae (mangosteen)						
Hypericum brachyphyllum	coastalplain St. John's-wort	native			R	
Hypericum cistifolium	roundpod St. John's-wort	native				
Hypericum fasciculatum	sandweed, peelbark St. John's-wort	native			R	
Hypericum hypericoides	St. Andrew's-cross	native				
Hypericum mutilum	dwarf St. John's-wort	native			ı	
Hypericum reductum	Atlantic St. John's-wort	native				
Hypericum tetrapetalum	fourpetal St. John's-wort	native				
Family: Convolvulaceae (morningglory)	•					
Cuscuta pentagona	fiveangled dodder	native			R	
Evolvulus sericeus	silver dwarf morning-glory	native				
Ipomoea alba	moonflowers	native				
Ipomoea sagittata	saltmarsh morning-glory	native				
Family: Cornaceae (dogwood)						
Cornus foemina	swamp dogwood	native			R	
Nyssa sylvatica var. biflora	swamp tupelo	native			CI	
Family: Cucurbitaceae (gourd)						
Melothria pendula	creeping cucumber	native				
Family: Droseraceae (sundew)						
Drosera capillaris	pink sundew	native			R	
Family: Ericaceae (heath)						
Bejaria racemosa	tarflower	native			R	
Gaylussacia dumosa	dwarf huckleberry	native			R	
Lyonia fruticosa	coastalplain staggerbush	native				
Vaccinium myrsinites	shiny blueberry	native				
Family: Euphorbiaceae (spurge)						
Acalypha gracilens	slender threeseed mercury	native			I	
Chamaesyce blodgettii	limestone sandmat	native				
Chamaesyce hirta	pillpod sandmat	native				
Chamaesyce hypericifolia	graceful sandmat	native				
Chamaesyce hyssopifolia	hyssopleaf sandmat	native				
Chamaesyce ophthalmica	Florida hammock sandmat	native				
Croton glandulosus var. septentrionalis	vente conmigo	native				
Euphorbia polyphylla	lesser Florida spurge	native				
Phyllanthus caroliniensis subsp. saxicola	rock Carolina leafflower	native			R	
Phyllanthus urinaria	chamber bitter	exotic				
Stillingia aquatica	water toothleaf, corkwood	native			R	
Stillingia sylvatica	queensdelight	native			R	

Scientific Name	Common Name	Native Status	FDACS	FNAI	IRC	EPPC
Family: Fabaceae (pea)	•					
Abrus precatorius	rosary pea	exotic				I
Acacia auriculiformis	earleaf acacia	exotic				I
Aeschynomene americana	shyleaf	native				
Chamaecrista fasciculata	partridge pea	native				
Chamaecrista nictitans var. aspera	hairy partidge-pea	native				
Crotalaria pallida var. obovata	smooth rattlebox	exotic				
Crotalaria rotundifolia	rabbitbells	native				
Desmodium incanum	zarzabacoa comun	native				
Desmodium triflorum	threeflower ticktrefoil	exotic				
Galactia elliottii	Elliott's milkpea	native			R	
Galactia regularis	eastern milkpea	native			R	
Leucaena leucocephala	white leadtree	exotic				II
Senna obtusifolia	coffeeweed	exotic				
Senna pendula var. glabrata	valamuerto	exotic				
Sesbania herbacea	danglepod	native			1	
Tephrosia rugelii	Rugel's hoarypea	native			ı	
Vicia acutifolia	fourleaf vetch	native				
Vigna luteola	hairypod cowpea	native				
Family: Fagaceae (beech)	1 71 1	<u> </u>				
Quercus laurifolia	laurel oak, diamond oak	native				
Quercus minima	dwarf live oak	native			R	
Quercus virginiana	Virginia live oak	native				
Family: Gentianaceae (gentian)	g		1			
Sabatia brevifolia	shortleaf rosegentian	native			ı	
Sabatia calycina	coastal rosegentian	native			ı	
Sabatia decandra	Bartram's rosegentian	native			ī	
Sabatia stellaris	rose-of-plymouth	native				
Family: Haloragaceae (watermilfoil)	1		1			
Myriophyllum heterophyllum	towleaf watermilfoil	native			П	
Proserpinaca palustris	marsh mermaidweed	native			R	
Proserpinaca pectinata	combleaf mermaidweed	native			R	
Family: Hydroleaceae (false fiddleleaf)			1			
Hydrolea corymbosa	skyflower	native			R	
Family: Hypoxidaceae (yellow stargrass)	- y					
Hypoxis curtissii	common yellow stargrass	native				
Hypoxis juncea	fringed yellow stargrass	native			R	
Family: Juglandaceae (walnut)	in gen yene ir en gruee		1			
Carya aquatica	water hickory	native			ı	
Family: Lamiaceae (mint)			1			
Callicarpa americana	American beautyberry	native				
Hyptis alata	clustered bushmint, musky mint	native				
Lycopus rubellus	taperleaf waterhorehound	native			ı	
Physostegia purpurea	eastern false dragonhead	native			i	
Piloblephis rigida	wild pennyroyal	native			<b>†</b>	
Teucrium canadense	wood sage	native				
Family: Lauraceae (laurel)	1554 6496	nativo	1			
Cassytha filiformis	love vine	native				
Persea palustris	swamp bay	native				
т втова рагионто	Jawaiiip Day	Hallve			<u> </u>	

Scientific Name	Common Name	Native Status	FDACS	FNAI	IRC	EPPC
Family: Lentibulariaceae (bladderwort)	1					ı
Pinguicula pumila	small butterwort	native			R	
Utricularia cornuta	horned bladderwort	native			R	
Utricularia foliosa	leafy bladderwort	native			R	
Utricularia inflata	floating bladderwort	native			I	
Utricularia simulans	fringed bladderwort	native			Ι	
Utricularia subulata	zigzag bladderwort	native			R	
Family: Linaceae (flax)					•	
Linum medium var. texanum	stiff yellow flax	native			R	
Family: Loganiaceae (logania)			•			
Mitreola petiolata	lax hornpod	native				
Mitreola sessilifolia	swamp hornpod	native			R	
Family: Lythraceae (loosestrife)	-	ı				
Ammannia latifolia	Pink redstem, toothcups	native			R	
Cuphea carthagenensis	Columbian waxweed	exotic				
Lythrum alatum var. lanceolatum	winged loosestrife	native			R	
Rotala ramosior	lowland rotala, toothcup	native			ī	
Family: Magnoliaceae (magnolia)	Tomana rotata, toothoop	1.00.70				I
Magnolia virginiana	sweetbay	native				
Family: Malvaceae (mallow)	lemeetedy	Hativo				l
Melochia spicata	bretonica peluda	native			ı	
Sida acuta	common wireweed	native				
Sida cordifolia	Ilima	exotic				
Sida elliottii	Elliott's fanpetals	native			R	
Sida rhombifolia	Cuban jute, Indian hemp	native				
Urena lobata	Caesarweed	exotic				l II
Family: Melastomataceae (melastome)					1	
Rhexia mariana	pale meadowbeauty	native			R	
Rhexia nuttallii	Nuttall's meadowbeauty	native			ı	
Family: Meliaceae (mahogany)	,				1	
Swietenia mahagoni	West Indian mahogany	native				
Family: Moraceae (mulberry)	The second secon				1	
Ficus aurea	strangler fig	native				
Ficus benjamina	weeping fig	exotic				
Ficus microcarpa	Indian laurel	exotic				ı
Family: Myricaceae (bayberry)	maan laarer	OXOLIO				
Myrica cerifera	southern bayberry, wax myrtle	native				
Family: Myrsinaceae (myrsine)	loodinoin baybony, wax mynao	Hativo				l
Rapanea punctata	myrsine	native				
Family: Myrtaceae (myrtle)	Intyroline	Hative				l
Eucalyptus torelliana	Torrell's eucalyptus	exotic			1	
Eugenia uniflora	Surinam cherry	exotic				ı
Melaleuca quinquenervia	punktree	exotic				i
Melaleuca viminalis	bottlebrush					ll l
		exotic				
Psidium cattleianum	strawberry guava	exotic				
Psidium guajava	guava	exotic				l
Rhodomyrtus tomentosa	rose myrtle	exotic				ı
Syzygium cumini	Java plum	exotic				I
Family: Nymphaeaceae (waterlily)	In attandadi		1		1	l
Nuphar advena	spatterdock	native				

Scientific Name	Common Name	Native Status	FDACS	FNAI	IRC	EPPC
Nymphaea elegans	tropical royalblue waterlily	native			ı	
Family: Oleaceae (olive)						
Fraxinus caroliniana	pop ash	native			R	
Family: Onagraceae (eveningprimrose)	•					
Gaura angustifolia	southern beeblossum	native				
Ludwigia alata	winged primrosewillow	native			R	
Ludwigia curtissii	Curtiss's primrosewillow	native			R	
Ludwigia maritima	seaside primrosewillow	native			R	
Ludwigia microcarpa	smallfruit primrosewillow	native			R	
Ludwigia octovalvis	Mexican primrosewillow	native				
Ludwigia peruviana	Peruvian primrosewillow	exotic				
Ludwigia repens	creeping primrosewillow	native				
Family: Orobanchaceae (broomrape)	In a share a s				1	
Agalinis fasciculata	beach false foxglove	native			R	
Agalinis linifolia	flaxleaf false foxglove	native			R	
Buchnera americana	American bluehearts	native			<u> </u>	
Family: Oxalidaceae (woodsorrel)	7 inchean bluehearte	Hativo	1		l	I
Oxalis corniculata	common yellow woodsorrel	native				
Family: Passifloraceae (passionflower)	poniment your woodserver	Hativo				l
Passiflora suberosa	corkystem passionflower	native				
Family: Phyllanthaceae (leafflower)	passionnower	Hativo				l
Bischofia javanica	Javanese bishopwood	exotic				1
Family: Polygalaceae (milkwort)	Javanese bishopwood	CAULIC				<u> </u>
Polygala balduinii	Baldwin's milkwort	native			R	1
Polygala grandiflora	showy milkwort	native			IX	
Polygala incarnata	procession flower	native			R	
Polygala lutea	orange milkwort	native			1	
Polygala setacea	coastalplain milkwort	native			1	
Family: Polygonaceae (buckwheat)	coastalplain milkwort	Hative				l
Polygonella polygama	October flower	native			R	
Polygonum densiflorum	denseflower knotweed	native			11	
Polygonum hydropiperoides	swamp smartweed	native			R	
Polygonum lapathifolium	curlytop knotweed	native			K	
Polygonum punctatum	dotted smartweed	native				
Rumex verticillatus	swamp dock	native			ı	<u> </u>
Family: Portulaceae (purslane) Portulaca amilis	Deve success surveiles e					1
Family: Primulaceae (primrose)	Paraguayan purslane	exotic				<u> </u>
	Tlorido nimpornal	nativa	1		CI	I
Anagallis pumila Samolus ebracteatus	Florida pimpernel	native			CI	
	water pimpernel	native				
Family: Rubiaceae (madder)	I					1
Cephalanthus occidentalis	common buttonbush	native			<u> </u>	
Diodia virginiana	Virginia buttonweed	native	1		R	
Houstonia procumbens	innocence, roundleaf bluet	native	1		R	
Oldenlandia uniflora	clustered mille graine	native				
Psychotria sulzneri	shortleaf wild coffee	native				
Richardia brasiliensis	tropical Mexican clover	exotic				
Spermacoce assurgens	woodland false buttonweed	native				
Spermacoce verticillata	shrubby false buttonweed	exotic				

Scientific Name	Common Name	Native Status	FDACS	FNAI	IRC	EPPC
Family: Salicaceae (willow)						
Salix caroliniana	Carolina willow, coastal plain willow	native				
Family: Sapindaceae (soapberry)						
Acer rubrum	red maple	native				
Cupaniopsis anacardioides	carrotwood	exotic				I
Family: Sapotaceae (sapodilla)	•					
Sideroxylon reclinatum subsp. reclinatum	recline Florida bully	native			R	
Family: Solanaceae (nightshade)	•					
Physalis walteri	Walter's groundcherry	native				
Solanum americanum	American black nightshade	native				
Solanum diphyllum	twoleaf nightshade	exotic				Ш
Solanum tampicense	aquatic soda apple	exotic				I
Solanum viarum	tropical soda apple	exotic				I
Family: Tetrachondraceae (tetrachondra)	•				•	
Polypremum procumbens	rustweed, juniperleaf	native				
Family: Turneraceae (turnera)	<u> </u>				•	
Piriqueta cistoides subsp. caroliniana	pitted stripeseed	native				
Family: Ulmaceae (elm)	<u>.</u>	•	•			•
Ulmus americana	American elm	native			CI	
Family: Urticaceae (nettle)		•	•			•
Boehmeria cylindrica	false nettle	native				
Family: Verbenaceae (vervain)		•	•			•
Phyla nodiflora	turkey tangle fogfruit, capeweed	native				
Family: Veronicaceae (speedwell)	<u> </u>	•	•			•
Bacopa caroliniana	lemon bacopa	native				
Bacopa monnieri	herb-of-grace	native				
Gratiola ramosa	branched hedgehyssop	native			R	
Lindernia crustacea	Malaysian false-pimpernel	exotic				
Lindernia dubia var. anagallidea	yellowseed false pimpernel	native				
Lindernia grandiflora	Savannah false-pimpernel	native			Ι	
Mecardonia acuminata subsp. peninsularis	axilflower	native				
Micranthemum glomeratum	manatee mudflower	native			Ι	
Micranthemum umbrosum	shade mudflower	native			CI	
Scoparia dulcis	sweetbroom, licoriceweed	native				
Family: Viscaceae (mistletoe)	•				•	
Phoradendron leucarpum	oak mistletoe	native			CI	
Family: Violaceae (violet)	•				-	
Viola lanceolata	bog white violet	native			ı	
Family: Vitaceae (grape)						•
Ampelopsis arborea	peppervine	native				
Parthenocissus quinquefolia	Virginia creeper	native				
Vitis rotundifolia	muscadine	native				

## Appendix B: Plant list for Six Mile Cypress Slough and Six Mile Cypress North Preserves

(scientific and common names were obtained from Wunderlin and Hansen 2003)

Scientific Name	Common Name	Native Status	FDACS	FNAI	IRC	EPPC
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## Key

#### Florida EPPC Status

I = species that are invading and disrupting native plant communities

II = species that have shown a potential to disrupt native plant communities

## FDACS (Florida Department of Agriculture and Consumer Services)

E = Endangered

T = Threatened

CE = Commercially Exploited

#### **IRC (Institute for Regional Conservation)**

CI = Critically Imperiled

I = Imperiled

R = Rare

## **FNAI (Florida Natural Areas Inventory)**

G= Global Status

T= Threatened

CE= Commercially Exploited

- 1= Critically imperiled because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerbility to extinction due to some natural or man-made factor.
- 2= Imperiled because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerbility to extinction due to some natural or man-made factor.
- 3= Either very rare and local throughout its range (21-200 occurences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
- 4= Apparently secure
- 5= Demonstrably secure

Appendix C: Wildlife list for Six Mile Cypress Slough and Six Mile Cypress North Preserves

		Designated S		ed Status
Scientific Name	Common Name	FWC	FWS	FNAI
MAMMALS		•	-	
Family: Didelphidae (opossums)				
Didelphis virginiana	Virginia opossum			
Family: Dasypodidae (armadillos)	<u> </u>	•		
Dasypus novemcinctus	nine-banded armadillo *			
Family: Sciuridae (squirrels and their	allies)	•		
Sciurus carolinensis	eastern gray squirrel			
Sciurus niger avicennia	Big Cypress fox squirrel	Т		G5T2/S2
Family: Muridae (mice and rats)		*	•	
Peromyscus gossypinus	cotton mouse			
Oryzomys palustris	marsh rice rat			
Sigmodon hispidus	hispid cotton rat			
Family: Leporidae (rabbits and hares)	· ·			
Sylvilagus palustris	marsh rabbit			
Sylvilagus floridanus	eastern cottontail			
Family: Talpidae (moles)	•	<del>!</del>		
Scalopus aquaticus	eastern mole			
Family: Felidae (cats)	•	•		
Puma concolor coryi	Florida panther	E	Е	G5T1/S1
Lynx rufus	bobcat			
Felis silvestris	domestic cat *			
Family: Canidae (wolves and foxes)	•			
Urocyon cinereoargenteus	common gray fox			
Family: Ursidae (bears)	3 3 3	<u>_</u>		
Ursus americanus floridanus	Florida black bear			G5T2/S2
Family: Procyonidae (raccoons)		<b>_</b>		
Procyon lotor	raccoon			
Family: Mephitidae (skunks)		I		
Spilogale putorius	eastern spotted skunk			
Mephitis mephitis	striped skunk			
Family: Mustelidae (weasels, otters an		I		
Lutra canadensis	northern river otter			
Family: Suidae (old world swine)		I		
Sus scrofa	feral hog *			
Family: Cervidae (deer)				
Odocoileus virginianus	white-tailed deer			
BIRDS		ļ.		
Family: Anatidae (swans, geese and d	lucks)			
Subfamily: Anatinae (dabbling duck				
Dendrocygna autumnalis	black-bellied whistling duck	I		
Cairina moschata	muscovy duck *			
Aix sponsa	wood duck			
Anas platyrhynchos	mallard			
Anas fulvigula	mottled duck			
Anas discors	blue-winged teal			
Anas crecca carolinensis	green-winged teal			
Subfamily: Merginae (mergansers)	Igreen winged tear	[	I I	
Lophodytes cucullatus	hooded merganser			
Family: Phasianidae (pheasant, grous			l l	
Subfamily: Meleagridinae (turkeys)	o, tarnoyo and then ames,			
Meleagris gallopavo	wild turkey			
Family: Odontophoridae (new world q				
Colinus virginianus	northern bobwhite			
Family: Podicipedidae (grebes)	Inorment bobwille			
Podilymbus podiceps	pied-billed grebe	<u> </u>		
i odilyitibus podic <del>o</del> ps	Thien-pillen Alene			

Appendix C: Wildlife list for Six Mile Cypress Slough and Six Mile Cypress North Preserves

		Designated Statu		Desi	esignated Status	s
Scientific Name	Common Name	FWC	FWS FNAI			
Family: Pelecanidae (pelicans)						
Pelecanus occidentalis	brown pelican	SSC	G4/S3	3		
Family: Phalacrocoracidae (cormora	ants)					
Phalacrocorax auritus	double-crested cormorant					
Family: Anhingidae (anhingas)						
Anhinga anhinga	anhinga					
Family: Ardeidae (herons, egrets, bi						
Botaurus lentiginosus	American bittern					
Ixobrychus exilis	least bittern		G5/S4	4		
Ardea herodius	great blue heron					
Ardea alba	great egret		G5/S4			
Egretta thula	snowy egret	SSC	G5/S3			
Egretta caerulea	little blue heron	SSC	G5/S4			
Egretta tricolor	tricolored heron	SSC	G5/S4	<u>4</u>		
Bubulcus ibis	cattle egret					
Butorides virescens	green heron					
Nycticorax nycticorax	black-crowned night heron		G5/S3			
Nyctanassa violacea	yellow-crowned night heron		G5/S3	3		
Family: Threskiornithidae (ibises an		1 000 1	I a-:-			
Eudocimus albus	white ibis	SSC	G5/S4			
Plegadis falcinellus	glossy ibis		G5/S3			
Platalea ajaja	roseate spoonbill	SSC	G5/S2	2		
Family: Ciconiidae (storks)		<del></del>	- I 0.//0/			
Mycteria americana	wood stork	E	E G4/S2	2		
Family: Cathartidae (new world vult						
Coragyps atratus	black vulture					
Cathartes aura	turkey vulture					
Family: Pandionidae (ospreys)						
Pandion haliaetus	osprey					
Family: Accipitridae (hawks, kites, a						
Subfamily: Elaninae and Milvinae			1 07/04			
Elanoides forficatus	swallow-tailed kite		G5/S2	2		
Subfamily: Buteoninae (buzzard h	<u> </u>		1 07/04			
Hailaeetus leucocephalus	bald eagle		G5/S3	3		
Subfamily: Accipitrinae (bird hawl						
Accipiter striatus	sharp-shinned hawk		05/0/			
Accipiter cooperii	Cooper's hawk		G5/S3	3		
Subfamily: Buteoninae (buzzard h						
Buteo lineatus	red-shouldered hawk					
Buteo platypterus	broad-winged hawk		0405/	<u></u>		
Buteo brachyurus	short-tailed hawk		G4G5/	51		
Buteo jamaicensis	red-tailed hawk		ļ			
Family: Falconidae (falcons) Subfamily: Falconinae (falcons)						
	American keetrel		Т			
Falco sparverius Falco columbarius	American kestrel merlin	++++++	G5/S2			
			J G5/5/			
Family: Rallidae (coots and gallinule			T			
Porzana carolina	sora					
Gallinula galeata	common gallinule					
Fulica americana	American coot					
Family: Aramidae (limpkins)	limpkin	1 000 1	05/04			
Aramus guarauna	limpkin	SSC	G5/S3	3		
Family: Charadriidae (plovers)	a analysis and a state of the s	<del>                                      </del>	ı			
Charadrius semipalmatus	semipalmated plover					
Charadrius vociferus	killdeer					

Appendix C: Wildlife list for Six Mile Cypress Slough and Six Mile Cypress North Preserves

		Designated Sta		ed Status
Scientific Name	Common Name	FWC	FWS	FNAI
Family: Recurvirostridae (avocets a				
Himantopus mexicanus	black-necked stilt			
Family: Scolopacidae (sandpipers a	and phalaropes)			
Tringa melanoleuca	greater yellowlegs			
Tringa flavipes	lesser yellowlegs			
Tringa solitaria	solitary sandpiper			
Actitis macularia	spotted sandpiper			
Calidris mauri	western sandpiper			
Calidris minutilla	least sandpiper			
Calidris melanotos	pectoral sandpiper			
Limnodromus griseus	short-billed dowitcher			
Gallinago delicata	Wilson's snipe			
Scolopax minor	American woodcock			
Family: Laridae (gulls)				
Larus atricilla	laughing gull			
Larus delawarensis	ring-billed gull			
Subfamily: Sterninae (terns)				
Sterna antillarum	least tern	Т		G4/S3
Family: Columbidae (pigeons and c				
Columba livia	rock pigeon*			
Streptopelia decaocto	Eurasian collared-dove *			
Zenaida macroura	mourning dove			
Columbina passerina	common ground-dove			
Family: Cuculidae (cuckoos and the	,			
Coccyzus americanus	yellow-billed cuckoo			
Family: Tytonidae (barn owls)				
Tyto alba	barn owl			
Family: Strigidae (true owls)	<del>_</del>			
Otus asio	eastern screech owl			
Bubo virginianus	great horned owl			
Strix varia	barred owl			
Family: Caprimulgidae (goatsucker				
Chordeiles minor	common nighthawk			
Caprimulgus carolinensis	chuck-will's-widow			
Family: Apodidae (swifts)				
Chaetura pelagica	chimney swift			
Family: Trochilidae (hummingbirds				
Archilochus colubris	ruby-throated hummingbird			
Family: Alcedinidae (kingfishers)				
Ceryle alcyon	belted kingfisher			
Family: Picidae (woodpeckers)				
Melanerpes erythrocephalus	red-headed woodpecker			
Melanerpes carolinus	red-bellied woodpecker			
Sphyrapicus varius	yellow-bellied sapsucker			
Picoides pubescens	downy woodpecker			
Picoides villosus	hairy woodpecker			G5/S3
Colaptes auratus	northern flicker			
Dryocopus pileatus	pileated woodpecker			
Family: Tyrannidae (tyrant flycatch				
Contopus virens	eastern wood-pewee			
Empidonax virescens	acadian flycatcher			
Sayornis phoebe	eastern phoebe			
Myiarchus crinicensis	great-crested flycatcher			
Tyrannus tyrannus	eastern kingbird		<u> </u>	

Appendix C: Wildlife list for Six Mile Cypress Slough and Six Mile Cypress North Preserves

			Designate	d Status
Scientific Name	Common Name	FWC	FWS	FNAI
Family: Laniidae (shrikes)	•	•		
Lanius Iudovicianus	loggerhead shrike			
Family: Vireonidae (vireos)	. 33	•		
Vireo griseus	white-eyed vireo			
Vireo flavifrons	yellow-throated vireo			
Vireo solitarius	blue-headed vireo			
Vireo olivaceus	red-eyed vireo			
Family: Corvidae (crows, jays, etc	2.)			
Cyanocitta cristata	blue jay			
Corvus brachyrhyncos	American crow			
Corvus ossifragus	fish crow			
Family: Hirundinidae (swallows)				
Progne subis	purple martin			
Tachycineta bicolor	tree swallow			
Petrochelidon pyrrhonota	cliff swallow			
Hirundo rustica	barn swallow			
Family: Paridae (chickadees and t	titmice)			
Baeolophus bicolor	tufted titmouse			
Family: Troglodytidae (wrens)	•		-	
Thryothorus ludovicianus	Carolina wren			
Troglodytes aedon	house wren			
Cistothorus platensis	sedge wren			
Family: Regulidae (kinglets)				
Regulus calendula	ruby-crowned kinglet			
Family: Sylvidae (gnatcatchers)				
Polioptila caerulea	blue-gray gnatcatcher			
Family: Turdidae (thrushes)				
Sialia sialis	eastern bluebird			
Catharus fuscescens	veery			
Catharus ustulatus	Swainson's thrush			
Catharus guttatus	hermit thrush			
Turdus migratorius	American robin			
Family: Mimidae (mockingbirds a	nd thrashers)			
Dumetella carolinensis	gray catbird			
Mimus polyglottos	northern mockingbird			
Toxostoma rufum	brown thrasher			
Family: Sturnidae (starlings)				
Sturnus vulgaris	European starling *			
Family: Bombycillidae (waxwings				
Bombycilla cedrorum	cedar waxwing			

Appendix C: Wildlife list for Six Mile Cypress Slough and Six Mile Cypress North Preserves

		Designated Stat		ed Status
Scientific Name	Common Name	FWC		FNAI
Family: Parulidae (wood-warblers)				
Vermivora chrysoptera	golden-winged warbler			
Vermivora pinus	blue-winged warbler			
Vermivora peregrina	Tennessee warbler			
Vermivora celata	orange-crowned warbler			
Oreothlypis ruficapilla	Nashville warbler			
Parula americana	northern parula			
Dendroica petechia	yellow warbler			
Dendroica pensylvanica	chestnut-sided warbler			
Dendroica magnolia	magnolia warbler			
Dendroica tigrina	Cape May warbler			
Dendroica caerulescens	black-throated blue warbler			
Dendroica coronata	yellow-rumped warbler			
Dendroica virens	black-throated green warbler			
Dendroica dominica	yellow-throated warbler			
Dendroica pinus	pine warbler			
Dendroica discolor	prairie warbler			
Dendroica palmarum	palm warbler			
Dendroica castanea	bay-breasted warbler			
Setophaga fusca	blackburnian warbler			
Dendroica striata	blackpoll warbler			
Mniotilta varia	black-and-white warbler			
Setophaga ruticilla	American redstart			
Protonotaria citrea	prothonotary warbler			
Limnothylpis swainsonii	Swainson's warbler			
Helmitheros vermivorus	worm-eating warbler			
Seiurus aurocapillus	ovenbird			
Seiurus noveboracensis	northern waterthrush			
Seiurus motacilla	Louisiana waterthrush			
Geothlypis tristis	common yellowthroat			
Wilsonia citrina	hooded warbler			
Family: Emberizine (sparrows and their al	lies)			
Pipilo erythrophthalmus	eastern towhee			
Passerculus sandwichensis	Savannah sparrow			
Chondestes grammacus	lark sparrow			
Ammodramus savannarum	grasshopper sparrow			
Melospiza georgiana	swamp sparrow			
Family: Cardinalidae (cardinals, some gro				
Piranga rubra	summer tanager			
Piranga olivacea	scarlet tanager			
Cardinalis cardinalis	northern cardinal			
Pheucticus Iudovicianus	rose-breasted grosbeak			
Passerina caerulea	blue grosbeak			
Passerina cyanea	indigo bunting			
Passerina ciris	painted bunting			
Family: Icteridae (blackbirds, orioles, etc.)	•			
Agelaius phoeniceus	red-winged blackbird			
Sturnella magna	eastern meadowlark			
Quiscalus quiscula	common grackle			
Quiscalus major	boat-tailed grackle			
Icterus galbula	Baltimore oriole			
•	1			
Family: Carduelinae (cardueline finches)				

Appendix C: Wildlife list for Six Mile Cypress Slough and Six Mile Cypress North Preserves

		Designated Status		
Scientific Name	Common Name	FWC	FWS	FNAI
REPTILES				
Family: Alligatoridae (alligator and cain	nan)			
Alligator mississippiensis	American alligator	SSC		G5/S4
Family: Chelydridae (snapping turtles)	·		•	
Chelydra serpentina osceola	Florida snapping turtle			
Family: Emydidae (box and water turtle				
Graptemys kohnii	Mississippi map turtle *			
Trachemys scripta scripta	yellow-bellied slider *			
Deirochelys reticularia chrysea	Florida chicken turtle			
Pseudemys peninsularis	peninsula cooter			
Pseudemys nelsoni	Florida redbelly turtle			
Terrapene carolina bauri	Florida box turtle			
Family: Kinosternidae (musk and mud t	turtles)			
Kinosternon baurii	striped mud turtle			
Sternotherus odoratus	common musk turtle			
Family: Testudinidae (gopher tortoises	;)			
Gopherus polyphemus	gopher tortoise	Т		G3/S3
Family: Trionychidae (softshell turtles)				
Apalone ferox	Florida softshell			
Family: Anguidae (glass and alligator li	zards)		•	
Ophisaurus ventralis	eastern glass lizard			
Family: Polychridae (anoles)	•		•	
Anolis carolinensis	green anole			
Anolis sagrei	brown anole *			
Family: Scincidae (skinks)	•			
Plestiodon fasciatus	five-lined skink			
Family: Teiidae (whiptails)				
Aspidoscelis sexlineata sexlineata	six-lined racerunner			
Family: Boidae (boas)	-			
Boa constrictor imperator	red-tailed boa *			
Family: Colubridae (harmless egg-layir	ng snakes)			
Coluber constrictor priapus	southern black racer			
Drymarchon couperi	eastern indigo snake	Т	Т	G3/S3
Opheodrys aestivus	rough green snake			
Pantherophis guttatus	eastern corn snake			
Scotophis alleghaniensis	eastern rat snake			
Family: Crotalidae (pitvipers)				
Agkistrodon piscivorus conanti	Florida cottonmouth			
Crotalus adamanteus	eastern diamondback rattlesnake			G4/S3
Sistrurus miliarius barbouri	dusky pygmy rattlesnake			
Family: Dipsadidae (rear-fanged snakes				
Diadophis punctatus punctatus	southern ringneck snake			
Family Natricidae (harmless live-bearing			•	
Nerodia fasciata pictiventris	Florida water snake			
Nerodia taxispilota	brown water snake			
Seminatrix pygaea	black swamp snake			
Storeria dekayi victa	Florida brown snake			
Thamnophis sauritus sackenii	peninsula ribbon snake			
Thamnophis sirtalis sirtalis	eastern garter snake			
AMPHIBIANS				
Family: Amphiumidae (amphiumas)				
Amphiuma means	two-toed amphiuma			
Family: Bufonidae (toads)				
Anaxyrus quercicus	oak toad			
Anaxyrus terrestris	southern toad			

Appendix C: Wildlife list for Six Mile Cypress Slough and Six Mile Cypress North Preserves

		Designated S		ed Status
Scientific Name	Common Name	FWC	FWS	FNAI
Family: Eleutherodactylidae (free-toed fro	ogs)	·	•	
Eleutherodactylus planirostris	greenhouse frog *			
Family: Hylidae (treefrogs and their allies	)			
Acris gryllus dorsalis	Florida cricket frog			
Hyla cinerea	green treefrog			
Hyla femoralis	pine woods treefrog			
Hyla gratiosa	barking treefrog			
Hyla squirella	squirrel treefrog			
Osteopilus septentrionalis	Cuban treefrog *			
Pseudacris nigrita	chorus frog			
Family: Microhylidae (narrowmouth toads	5)			
Gastrophryne carolinensis	eastern narrowmouth toad			
Family: Ranidae (true frogs)				
Lithobates grylio	pig frog			
Lithobates sphenocephalus sphenocephalus	Florida leopard frog			
FISHES				
Family: Clupeidae (herrings and shads)				
Dorosoma petenense	threadfin shad			
Family: Lepisosteidae (gar fish)	•			
Lepisosteus platyrhincus	Florida gar			
Family: Atherinopsidae (silversides)	· · · · · ·		!	
Menidia beryllina	inland silverside			
Family: Clariidae (labyrinth catfishes)	•		<del>'</del>	
Clarias batrachus	walking catfish *			
Family: Callichthyidae (callichthyid armor	red catfishes)	•	•	
Hoplosternum littorale	brown hoplo *			
Family: Ictaluridae (bullhead catfish)	•	•		
Ictalurus nebulosus	brown bullhead			
Family: Fundulidae (topminnows and killi	fishes)	•		
Fundulus seminolis	Seminole killifish			
Fundulus chrysotus	golden topminnow			
Lucania goodei	bluefin killifish			
Family: Cyprinodontidae (pupfishes)	•			
Jordanella floridae	American flagfish			
Family: Poeciliidae (livebearers)	-			
Poecilia latipinna	sailfin molly			
Gambusia spp.	mosquitofish			
Heterandria formosa	least killifish, dwarf livebearer			
Family: Centrarchidae (sunfishes and bas	sses)			
Micropterus salmoides	largemouth bass			
Lepomis macrochirus	bluegill			
Lepomis marginatus	dollar sunfish			
Family: Cichlidae (cichlids)		÷		
Cichlasoma urophthalmus	Mayan cichlid *			
Cichlasoma portalegrensis	black acara *			
Astronotus ocellatus	oscar *			
Tilapia mariae	spotted tilapia *			

Appendix C: Wildlife list for Six Mile Cypress Slough and Six Mile Cypress North Preserves

		Designated		ed Status
Scientific Name	Common Name	FWC	FWS	FNAI
INSECTS				
Family: Cueratopogoninae (biting mid	lges)			
Culicoides insignis	gnat			
Family: Romaleidae (lubber grass	hoppers)			
Romalea microptera	eastern lubber grasshopper			
Family: Bibionidae (march flies)				
Plecia nearctica	love bug			
Family: Nymphalidae (brushfoots)				
Subfamily: Heliconiinae (longwir	ngs)			
Agraulis vanillae	gulf fritillary			
Heliconius charitonius	zebra			
Family: Vespidae (wasps)		,	·	
Poistes sp.	paper wasp			
Vespula sp.	yellow jacket			
ARACHNIDS				
Family: Araneidae (orb weavers)				
Argiope aurantia	black and yellow argiope			
Gasteracantha elipsoides	crablike spiny orb weaver			
Nephila clavipes	golden-silk spider			
Family: Oxyopidae (lynx spiders)				
Peucetia viridans	green lynx spider			
Family: Tetragnathidae (long jawe	d spiders)			
Leucauge venusta	orchard orbweaver			
CRUSTACEANS				
Family: Cambaridae (crayfish)				
Cambaridae camburus	crayfish			
GASTROPODS	•	<del>.</del>	•	
Family: Ampullariidae (apple snail	(s)			
Pomaceae paludosa	Florida apple snail			

## KEY:

FWC = Florida Fish & Wildlife Conservation Commission FWS = U.S. Fish & Wildlife Service

E - Endangered

T - Threatened

SSC - Species of Special Concern

## FNAI = Florida Natural Areas Inventory

- G Global rarity of the species
- S State rarity of the species
- T Subspecies of special population
- 1 Critically imperiled
- 2 Imperiled
- 3 Rare, restricted or otherwise vulnerable to extinction
- 4 Apparently secure
- 5 Demonstratebly secure

## \* = Non-native

## Appendix D: SFWMD Purchase Agreement

Resolution No. 76-7-16

# RESOLUTION OF THE BOARD OF COUNTY CONMISSIONERS OF LEE COUNTY, PLORIDA

County, Florida, is vitally interested in preserving the matural beauty and environment of Lee County; and,

MHEREAS, the Six-Nile Cypress Swamp performs many functions which not only serve to enhance and preserve the sensitive environmental nature of Lee County, but also is vitally important to the continued health and welfare of the citizens of Lee County; and,

County, Florida, will be served by the purchase of the Six-Mile Cypress Swamp in order to protect the swamp and to provide for water conservation, wildlife management and recreational facilities.

MOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF LEE COUNTY, PLORIDA, that:

## SECTION ONE.

This property is being purchased to preserve the Six-Mile Cypress Swamp and to provide for water conservation, wildlife management and recreational facilities.

## SECTION TWO.

The boundaries of the proposed purchase of the Six-Mile

Cypress Swamp consists of the following lands or portions thereof:

A strip or parcel of cypress land running Southeasterly-Northeasterly and varying in width from one thousand feet (1,000') to two thousand five hundred feet (2,500') lying in Sections 26, 27, 34 and 35, Township 44 South, Range 25 East and in Sections 3, 4, 8, 9, 17, 20, 29, 30 and 31, Township 45 South, Range 25 East; as shown on U.S. Geological Quadrangle map entitled "Port Myers S.E., Fla." (N2630-W8145/7.5) 1958-photo revised 1972. Said parcel of land being commonly referred to as "The Six Mile Cypress".

# SECTION THREE.

# EXPENDITURE.

for a maximum levy of the consecutive years in order to purchase the

Six-Rile Cypress Swamp or such portions thereto, which said maximum millage assessment will allow and to provide for water conservation, wildlife management and recreational facilities. This millage assessment shall be in addition to the ten mill cap as set forth by the Florida Constitution for local taxes for all county purposes.

### SECTION FOUR.

#### EFFECTIVE DATE.

This Resolution shall be effective upon the affirmative wote of a majority of those voting in the General Election to be held on the 2nd day of November, 1976. All qualified electors in Lee County shall be entitled to participate.

#### SECTION PIVE.

## POLLING PLACE.

Said election shall be held at the polling places heretofore designated in Lee County, Florida.

#### SECTION SIX.

## HOURS OF ELECTION.

The polls shall be open at 7 o'clock a.m. and close at 7 o'clock p.m. Said election shall be conducted according to the requirements of law governing General Elections excepting as herein otherwise provided. Absentee voting shall be permitted upon compliance of applicable provisions of general law. The ballot to be used in said election shall be that portion of cardboard or paper or other material within the ballot frame of the woting machine which shall contain the question to be voted upon and which said ballot shall be in substantially the following form:

## OFFICIAL BALLOT.

## REPERENDUM ELECTION.

DO YOU PAVOR THE IMPOSITION OF A MILLAGE LEVY OF 9.5 MILLS PER YEAR FOR A MAXIMUM LEVY OF TWO CONSECUTIVE YEARS TO PURCHASE THE SIX-MILE CYPRESS SWAMP OR SUCH PORTIONS THEREOF WHICH CAN BE PURCHASED PURSUANT TO SAID MILLAGE LEVY, TO PROVIDE FOR WATER CONSERVATION, WILDLIFE MANAGEMENT AND RECREATIONAL PACILITIES.

11	POR	15.00	10 m	A PARTY PR	All the second	30	
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## SECTION SEVEN.

## . CANVASSING.

Said election officials shall conduct said election, canvass the ballots and certify the same to the Board of County Commissioners of Lee County, Florida, who shall canvass the same and declare the results thereof and such return shall be recorded in the Minutes of the Board at the first meeting after such

## SECTION EIGHT.

## DELIVERING BALLOTS.

Delivering the ballots to the election officials shall be in the manner and form as required therein at a General Election.

## SECTION NINE.

Be it further resolved that publication of notice of this Referendum shall be had in a newspaper of general circulation in Lee County, Florida; the first publication to be made not less then thirty (30) days prior to the 2nd day of November, 1976, and that said notice be published once a week for four (4) consecutive weeks and that said Referendum Election be otherwise held in accordance with the Election Laws of the State of Florida.

THE FOREGOING RESOLUTION was offered by Commissioner Sayers who moved its adoption. The motion was seconded by Commissioner Bowen and, upon being put to a vote, the vote was as follows:

> AYE DICK SAYERS L. H. BOB WHAN JAMES M. SWEENEY, JR. BETTY BOWEN GEORGE A. GOLDTRAP, JR.

DULY PASSED AND ADOPTED in regular session this 14th day

of July, 1976.

RITESTS

BOARD OF COUNTY COMMISSIONERS

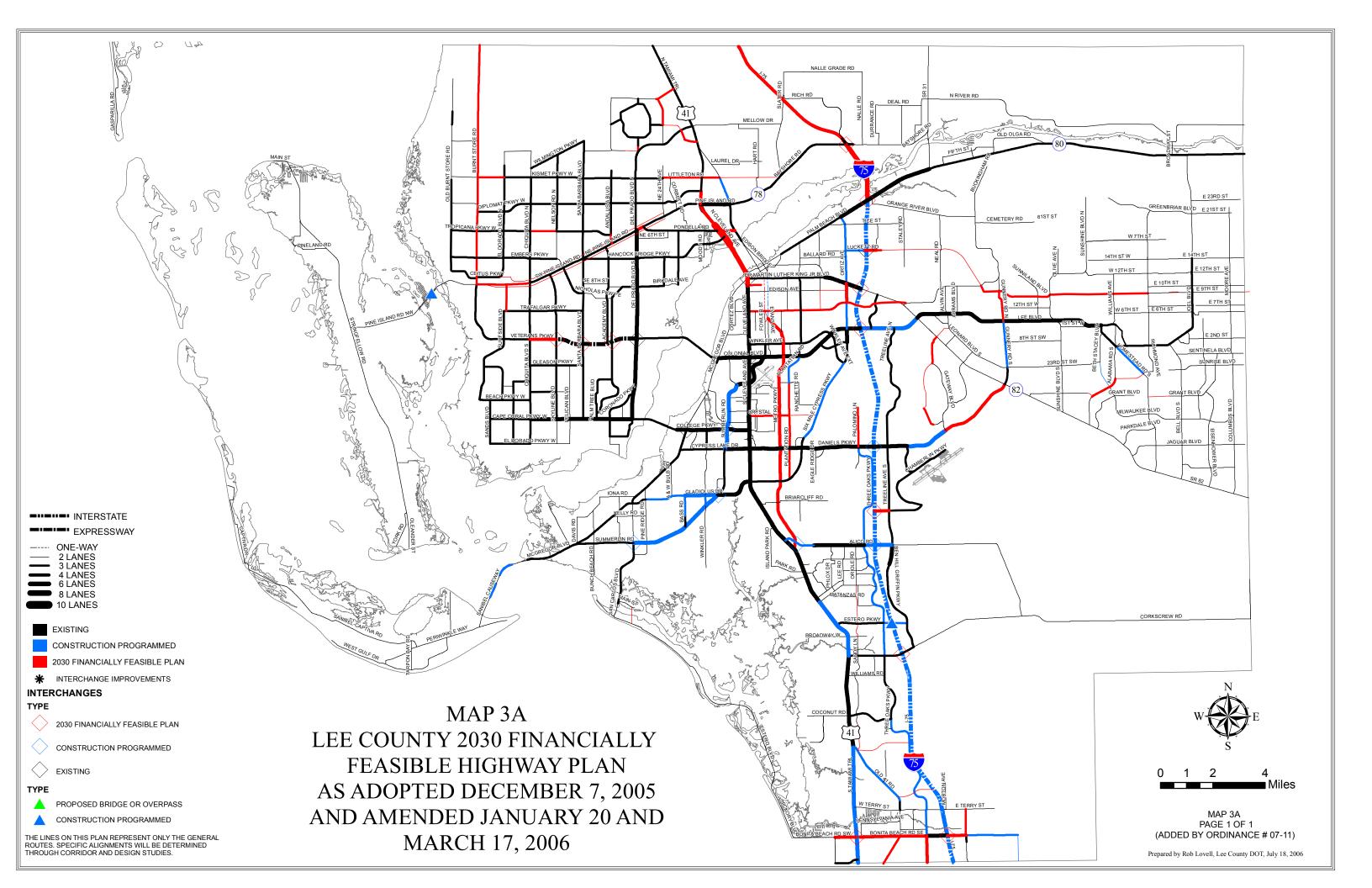
OF LEE COUNTY, FLORIDA

ABSENT

AYE

AYE

## **Appendix E: Future Road Alignments**



## Appendix F: Metro Parkway Extension Bluesheet

FM NO: 195719-1-C8-01 COUNTY: LEE

# JOINT PROJECT AGREEMENT BETWEEN THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION AND LEE COUNTY FOR THE CONSTRUCTION OF MITIGATION PROJECT

This is an Agreement by and between the STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION, hereinafter referred to as the "DEPARTMENT" and LEE COUNTY, FLORIDA, hereinafter referred to as the "COUNTY".

## WITNESSETH

WHEREAS, the DEPARTMENT plans in its work program to construct the Metro Parkway Extension (SR 739) from south of Alico Road to the Six Mile Cypress Parkway, a six-lane highway (hereinafter "Metro Parkway Project"); the Project is scheduled to begin in fiscal year 2003/2004, under FM Number 195719-1-C8-01; and

WHEREAS, the DEPARTMENT as applicant for an Environmental Resource Permit from the South Florida Water Management District, and a Section 404 permit from the United States Army Corps of Engineers will be impacting 31.13 acres of South Florida Water Management District jurisdictional wetlands and 41.02 acres of United States Army Corps of Engineers jurisdictional wetlands, incidental to the construction of the Metro Expansion Project; and

WHEREAS, 40 C.F.R.§ 230.10 and Florida Administrative Code Rule Chapter 40-E stipulate that an applicant may offset certain impacts to jurisdictional wetlands within the confines of a project; and

WHEREAS, the COUNTY has agreed to undertake a mitigation project (hereinafter the "PROJECT") on behalf of the DEPARTMENT to offset said wetland impacts associated with the Metro Parkway Project; and

WHEREAS, said Metro Parkway Project is on the State Highway System, is not revenue producing and is contained in the tentative five year work program; and

WHEREAS, the COUNTY is willing to undertake the PROJECT and the DEPARTMENT is willing to compensate the COUNTY for costs directly related to the construction of the PROJECT; and

WHEREAS, the COUNTY by Resolution, dated the \_\_\_ day of \_\_\_\_\_\_, 2002, a copy

of which is attached hereto and made a part hereof, has authorized the Chairperson or Vice-Chairperson of the Board of County Commissioners to enter into this Agreement.

NOW THEREFORE, in consideration of the mutual benefits to be derived from joint participation in this Agreement, the parties agree as follows:

- 1. The COUNTY agrees to undertake the management and completion of the PROJECT and the DEPARTMENT agrees to pay for said services, as stated in paragraph 9 herein, and to perform such construction in accordance with the DEPARTMENT's specifications and the terms and conditions of this Agreement. The COUNTY shall not commence work on the PROJECT until receipt from the DEPARTMENT of a written notice to proceed with the PROJECT work.
- 2. The PROJECT consists of the completion of a mitigation project to offset the impact to wetlands within or impacted by the Metro Parkway Project. Said mitigation project shall be completed on or before the dates specified in the applicable permits obtained by the DEPARTMENT in connection with the Metro Parkway Project and as further described above.
- 3. The DEPARTMENT will secure the necessary permits from the United States Army Corps of Engineers and the South Florida Water Management District. The DEPARTMENT through the permit process shall determine specifically the types and acreages of wetlands to be impacted. The DEPARTMENT will develop a mitigation plan that offsets wetland impacts and will be acceptable to the permitting and commenting agencies. All mitigation activities by the COUNTY shall be in accordance with the permits obtained by the DEPARTMENT and with the mitigation plan developed by the DEPARTMENT.
- 4. The COUNTY will complete the mitigation project from the approved permit mitigation plan from the DEPARTMENT. Upon completion, the COUNTY will submit a final report to the permitting agencies for review and completion of project to permit specifications.
- 5. The COUNTY shall conduct and ensure that any remedial mitigation activities, all maintenance and monitoring requirements, and all success criteria for the PROJECT are met in accordance with Section 404 of the Clean Water Act (33 U.S.C. § 1344); Chapter 373, Florida Statutes; the Rules and Regulations of the South Florida Water Management District (Chapter 40E-4, Florida Administrative Code); and all other applicable local, State, and Federal laws, regulations and permits.
- 6. The DEPARTMENT, as the permittee, will be considered to have satisfied all of its responsibilities for the mitigation site, upon submittal and approval of the final monitoring report for the mitigation site. At that time, the COUNTY will assume legal responsibility for any remedial construction activities, maintenance, monitoring and any other activities required in order to achieve the stated success criteria for the PROJECT.
- 7. After all success criteria have been achieved, the COUNTY shall assume all responsibilities for perpetual maintenance of the PROJECT, compliance with any remaining permit conditions and adherence to the County's Six Mile Cypress Slough Preserve Land

Stewardship Plan. This provision shall survive final completion and acceptance of the PROJECT.

- 8. If applicable, the DEPARTMENT must approve any consultant or contractor selected for the PROJECT. The COUNTY shall certify that the consultant or contractor has been selected in accordance with applicable Florida law. Any contractor or consultant, including any subcontractor or subconsultant, shall be qualified with the DEPARTMENT as required by DEPARTMENT regulations and applicable law.
- 9. The DEPARTMENT agrees to a maximum participation, including contingencies, in the PROJECT in the amount of \$1,814,900.00. Payment shall be made to the COUNTY in proportion to the completion of the work on the PROJECT as determined by the DEPARTMENT. Payment shall be made upon completion of tasks of the PROJECT. In addition, upon completion of the PROJECT, the DEPARTMENT shall provide an additional payment of \$208,046.55 for long-term maintenance of the PROJECT and in order to meet the continued success criteria of the wetland mitigation areas encompassed within the PROJECT. The COUNTY agrees that said additional amount shall be placed in an account held by the COUNTY and shall be used solely for the purpose of maintaining the PROJECT.
- 10. The DEPARTMENT agrees to pay the COUNTY in accordance with Section 339.12, Florida Statutes, and the DEPARTMENT's obligation to pay shall be subject to legislative approval and appropriation. In any event, no payments shall be made before 2003/2004, the fiscal year in which the Metro Parkway Project is currently programmed.
- 11. All tracings, plans, specifications, maps and/or reports prepared or obtained under this Agreement shall be considered works made for hire and shall become the property of the DEPARTMENT without restriction or limitation on their use. The DEPARTMENT will have the right to visit the PROJECT site for inspection of the work at any time.
- 12. All notices under this Agreement and invoices from the COUNTY to the DEPARTMENT shall be directed to the following addresses:

#### TO DEPARTMENT:

Eduardo Ponce, P.E. District Environmental Permits Engineer Florida Department of Transportation Post Office Box 1249 Bartow, Florida 33831-1249

## TO COUNTY:

Sarah Jamieson
Land Stewardship Coordinator
Lee County Parks and Recreation
3410 Palm Beach Blvd.
Fort Myers FL 33916

13. (a) Invoices or requests for payment from the COUNTY shall be submitted in detail sufficient for a proper preaudit and postaudit thereof and in sufficient detail for the DEPARTMENT to confirm the extent of work completed and compliance of such work with the terms of this Agreement.

- (b) Bills or invoices for travel expenses, if applicable, specifically authorized in this Agreement shall be submitted and paid in accordance with Section 112.061, Florida Statutes.
- (c) The COUNTY shall allow public access to all documents, papers, letters or other material subject to the provisions of Chapter 119, Florida Statutes, and made or received by the COUNTY in conjunction with this Agreement. Failure by the COUNTY to grant such public access shall be grounds for immediate unilateral cancellation of this Agreement by the DEPARTMENT.
- (d) The DEPARTMENT agrees to pay the COUNTY for the herein described services at the compensation amount as detailed in this Agreement. The COUNTY agrees to complete the PROJECT for the amount set forth in this Agreement.
- (e) Vendors (in this document identified as COUNTY) providing goods and services to the DEPARTMENT should be aware of the following time frames. Upon receipt, the DEPARTMENT has five (5) working days to inspect and approve the goods and services, unless the Agreement specifies otherwise. The DEPARTMENT has 20 days to deliver a request for payment (voucher) to the Department of Banking and Finance. The 20 days are measured from the latter of the date the invoice is received or the goods or services are received, inspected and approved.
- (f) If a payment is not available within 40 days, a separate interest penalty at the rate established pursuant to Section 55.03(1), Florida Statutes, per day will be due and payable, in addition to the invoice amount, to the Vendor. Interest penalties of less than one (1) dollar will not be enforced unless the Vendor requests payment. Invoices which have to be returned to a Vendor because of Vendor preparation errors will result in a delay in the payment. The invoice payment requirements do not start until a properly completed invoice is provided to the DEPARTMENT.
- (g) A Vendor Ombudsman has been established within the Department of Banking and Finance. The duties of this individual include acting as an advocate for contractors/vendors who may be experiencing problems in obtaining timely payment(s) from a state agency. The Vendor Ombudsman may be contacted at (904) 488-2924 or by calling the State Comptroller's Hotline, 1-800-848-3792.
- (h) Records of costs incurred under terms of this Agreement shall be maintained and made available upon request to the DEPARTMENT at all times during the period of this Agreement and for three years after final payment is made. Copies of these documents and records shall be furnished to the DEPARTMENT upon request. Records of costs incurred include any consultant's or contractor's general accounting records and the project records, together with supporting documents and records, of any consultant or contractor and all subconsultants or subcontractors performing work on the PROJECT, and all other records of the considered

necessary by the DEPARTMENT for a proper audit of costs.

- (i) The DEPARTMENT, during any fiscal year, shall not expend money, incur any liability, or enter into any contract which, by its terms, involves the expenditure of money in excess of the amounts budgeted as available for expenditure during such fiscal year. Any contract, verbal or written, made in violation of this subsection is null and void, and no money may be paid on such contract. The DEPARTMENT shall require a statement from the Comptroller of the DEPARTMENT that funds are available prior to entering into any such contract or other binding commitment of funds. Nothing herein contained shall prevent the making of contracts for periods exceeding five years but any contract so made shall be executory only for the value of the services to be rendered or agreed to be paid for in succeeding fiscal years. Accordingly, the State of Florida's performance and obligation to pay under this Contract is contingent upon an annual appropriation by the Legislature.
- (j) No funds received pursuant to this Agreement may be expended for lobbying the Legislature or a state agency.
- (k) The COUNTY shall not sublet, assign or transfer any work under this Agreement without the prior written consent of the DEPARTMENT
- (1) The DEPARTMENT shall not be obligated or liable hereunder to any party other than the COUNTY.
- (m) In no event shall the making by the DEPARTMENT of any payment to the COUNTY constitute or be construed as a waiver by the DEPARTMENT of any breach of covenant or any default which may then exist, on the part of the COUNTY, and the making of such payment by the DEPARTMENT while any such breach or default shall exist shall in no way impair or prejudice any right or remedy available to the DEPARTMENT with respect to such breach or default.
- (n) A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.
- (o) An entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work,

may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity.

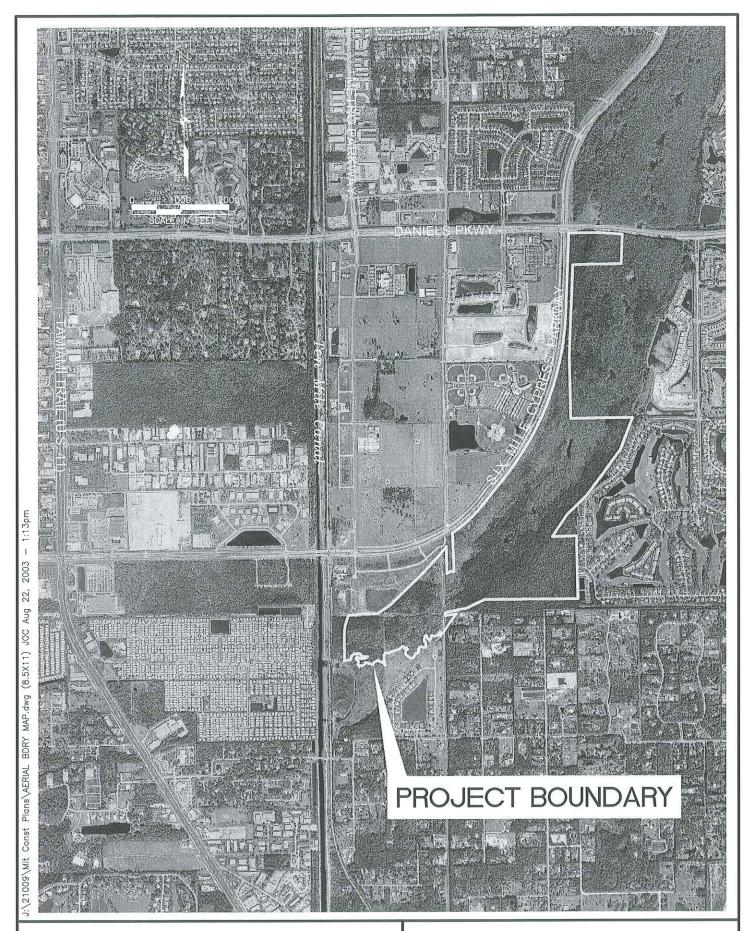
- (p) Unless otherwise specifically stated herein, this Agreement shall be governed by and construed in accordance with the laws of the State of Florida.
- 14. a) The DEPARTMENT also reserves the right to seek termination or cancellation of this Agreement in the event the COUNTY shall be placed in either voluntary or involuntary bankruptcy. The DEPARTMENT further reserves the right to terminate or cancel this Agreement in the event an assignment be made for the benefit of creditors.
  - b) If the DEPARTMENT determines that the performance of the COUNTY is not satisfactory, the DEPARTMENT shall have the option of (i) immediately terminating the Agreement, or (ii) notifying the COUNTY of the deficiency with a requirement that the deficiency be corrected within a specified time, otherwise the Agreement will be terminated at the end of such time, or (iii) take whatever action is deemed appropriate by the DEPARTMENT.
  - c) If the DEPARTMENT requires termination of the Agreement for reasons other than unsatisfactory performance of the COUNTY, the DEPARTMENT shall notify the COUNTY of such termination, with instructions as to the effective date of termination or specify the stage of work at which the Agreement is to be terminated.
    - Notwithstanding the above, the parties agree that in the event of a breach of this Joint Project Agreement, the party must first notify the other party in writing of the nature of the purported breach and seek in good faith to resolve the dispute through negotiation. If the parties cannot resolve the dispute through negotiation, they may agree to a mutually acceptable method of nonbinding alternative dispute resolution with a qualified third party acceptable to both parties. The parties shall each pay 50% of any costs for the services provided by such third party as such costs are incurred. The existence of a dispute shall not excuse the parties from performance pursuant to this Joint Project Agreement.
  - d) If the Agreement is terminated before performance is completed, the COUNTY shall be paid only for that work satisfactorily performed for which costs can be substantiated. Such payment, however, may not exceed an amount which is the same percentage of the contract price as the amount of work satisfactorily completed is a percentage of the total work called for by this Agreement. All work in progress will become the property of the DEPARTMENT and will be turned over promptly by the COUNTY.

- 15. If any part of this Agreement shall be determined to be invalid or unenforceable by a court of competent jurisdiction or by any other legally constituted body having the jurisdiction to make such determination, the remainder of this Agreement shall remain in full force and effect provided that the part of this Agreement thus invalidated or declared unenforceable is not material to the intended operation of this Agreement.
- 16. a) To the extent allowed by Section 768.28, Florida Statutes, the COUNTY hereby agrees to indemnify, defend, save and hold harmless the DEPARTMENT and all of its officers, agents or employees from all suits, actions, claims, demands, liabilities of any nature whatsoever arising out of, because of, or due to breach of this Agreement by the COUNTY, its officers, agents, employees or subcontractors or due to any negligent act or occurrence of omission or commission of the COUNTY, its officers, agents, employees or subcontractors. Neither COUNTY nor any of its officers, agents, employees or subcontractors will be liable under this section for the negligence of the DEPARTMENT or any of its officers, agents or employees. The parties agree that 1% of the total compensation to the COUNTY for performance of this Agreement is the specific consideration from the DEPARTMENT to the COUNTY for the COUNTY's indemnity agreement.
- b) The COUNTY agrees to include the following indemnification in all contracts with contractors/subcontractors and consultants/subconsultants who perform work in connection with this Agreement:

"The contractor shall indemnify, defend, save and hold harmless the DEPARTMENT and all of its officers, agents or employees from all suits, actions, claims, demands, liability of any nature whatsoever arising out of, because of, or due to any negligent act or occurrence of omission or commission of the contractor, its officers, agents or employees. Neither the contractor, nor any of its officers, agents or employees will be liable under this section for damages arising out of injury or damage to persons or property directly caused or resulting from the sole negligence of the DEPARTMENT or any of its officers, agents or employees."

- 17. Except as otherwise provided herein, this Agreement shall continue in effect and be binding on the parties until the PROJECT is completed, final costs are known and legislatively appropriated reimbursements, if approved, are made by the DEPARTMENT.
- 18. This document incorporates and includes all prior negotiations, correspondence, conversations, agreements, or understandings applicable to the matters contained herein, and the parties agree that there are no commitments, agreements or understandings concerning the subject matter of this Agreement that are not contained in this document. Accordingly, it is agreed that no deviation from the terms hereof shall be predicated upon any prior representation or agreements whether oral or written. It is further agreed that no modification, amendment or alteration in the terms or conditions contained herein shall be effective unless contained in a written document executed with the same formality and of equal dignity herewith.

IN WITNESS WHEREOF the COU	JNTY has caused this Agreement to be executed in its
behalf this day of	_, 2002, by the Chairperson of the Board of
Commissioners, authorized to enter into an	d execute same by Resolution Number of
the Board on the day of	, 2002, and the DEPARTMENT has executed this
Agreement through its District Secretary for	r District One, Florida Department of Transportation,
this day of, 2002.	
	g .
BOARD OF COMMISSIONERS	STATE OF FLORIDA
LEE COUNTY, FLORIDA	DEPARTMENT OF TRANSPORTATION
222 00 01/11, 120000	
By:	By:
By:CHAIRPERSON	By: DISTRICT SECRETARY
ATTEST:	ATTEST:
By: (Seal)	By:(Seal)
By:(Seal)	EXECUTIVE SECRETARY
	Legal Review:
	Bv:
	By: DISTRICT LEGAL COUNSEL





2158 JOHNSON STREET
P.O. BOX 1550

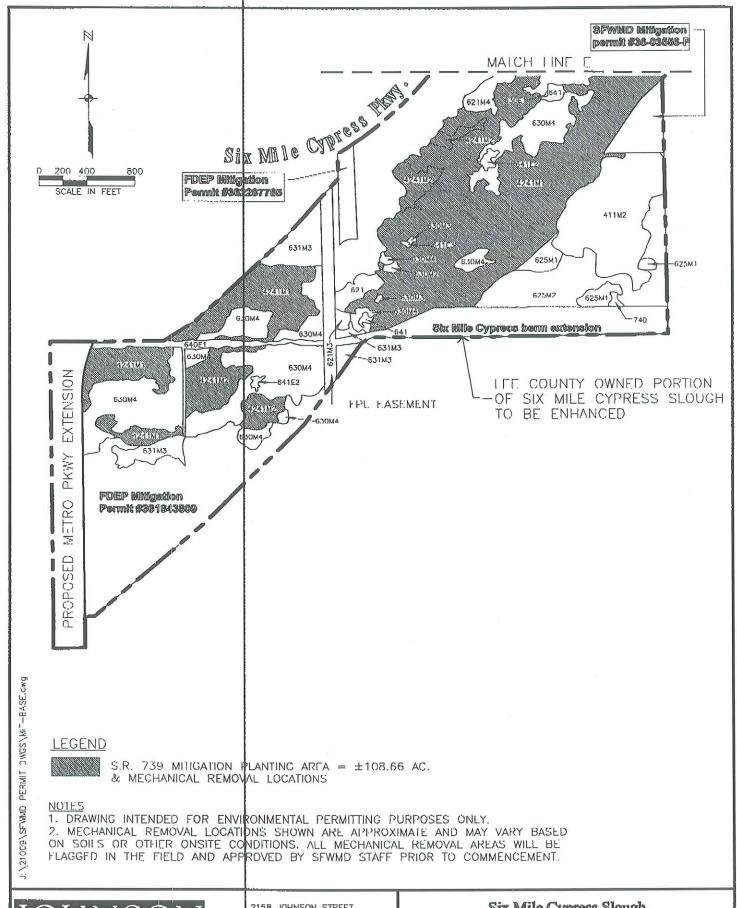
FORT MYERS, FLORIDA 33902–1550
PHONE (239) 334–0046
FAX (239) 334–3661
E.B. #642 & L.B. #642

S.R. 739 Extension Mitigation Aerial Boundary Map

DATE PROJECT NO.
Aug. 2003 21009

FILE NO. 30-45-25 SCALE SHEET
Shown ATTAC

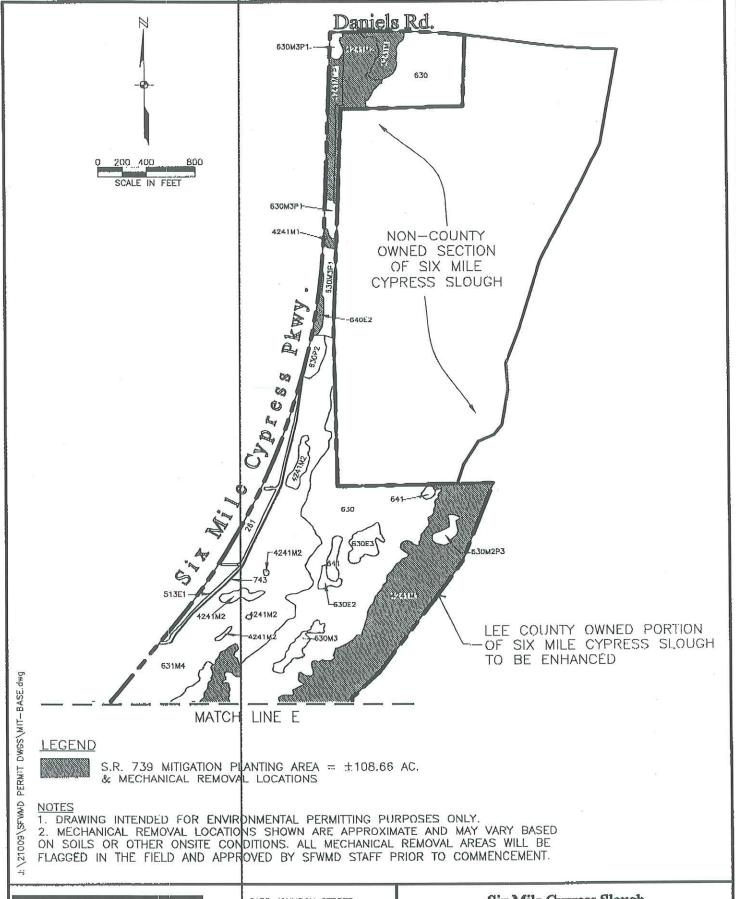
ATTACHMENT A



JOHNSON ENGINEERING 2158 JOHNSON STREET
P.O. BOX 1550
FORT MYERS, FLORIDA 33902-1650
PHONE (941) 334-3661
FAX (941) 334-3661
E.B. #642 & L.B. #642

## Six Mile Cypress Slough SFWMD Mitigation Planting Location Map

DATE	PROJECT NO.	FILE NO.	SCALE	SHEET
Sept. 2001	21009	30-45-25	1"=800"	17



JOHNSON ENGINEERING 215B JOHNSON STREET P.O. BOX 1550 MYERS, FLORIDA 33902-1550 PHONE (941) 334-0046 FAX (941) 334-3661 E.B. #642 & L.B. #642

Six Mile Cypress Slough
S.R.739 Mitigation Planting Location map

DATE PROJECT NO. FILE NO. SCALE SHEET
Sept. 2001 21009 30-45-25 1"-800' 16

# S.R. 739 (Metro Parkway) Extension MITIGATION PLAN

The major emphasis of the mitigation plan is to assist Lee County in the long-term restoration and local management of the Six Mile Cypress Slough (SMCS). Mitigation activities will be conducted within Lee County owned portions of the SMCS. Because Lee County is the landowner of the proposed mitigation site, all mitigation construction, monitoring and maintenance activities will be a joint effort between Lee County and FDOT. To fulfil the mitigation, FDOT will enter into an agreement with Lee County to ensure the mitigation activities are executed in accordance with permit conditions. FDOT will essentially provide the necessary funding for the mitigation activities and develop the mitigation plan, and Lee County will be responsible for coordinating the work and subsequent maintenance and monitoring required until the mitigation areas meet the permit success criteria. After the mitigation areas have met the permit success criteria, perpetual maintenance will be assumed by Lee County in accordance with the "Lee County Six Mile Cypress Slough Preserve Land and Water Management Plan" and permit conditions.

Mitigation will be accomplished by enhancing 283.96 acres of environmentally sensitive wetlands and uplands in the slough, directly adjacent to the project impacts. The components of the mitigation plan will include a combination of wetland enhancement, wetland restoration, wetland creation and upland enhancement.

The boundaries for the proposed mitigation include the majority of the Lee County owned portion of the SMCS between Daniels Parkway and the project limits near Ten Mile Canal. Six Mile Cypress Parkway and the proposed ROW abut much of the mitigation area to the west. Eagle Ridge Subdivision and privately owned, undeveloped SMCS land borders most of the mitigation area to the east. Portions of the SMCS south of Daniels Road have been determined to be unavailable as mitigation for this project. These non-mitigation areas within the SMCS include the FPL transmission easement, Lee County's SMCS berm extension project from Briarcrest to Eagle Ridge and several existing mitigation areas for other projects, as shown in the permit sketches.

### Six Mile Cypress Slough - Existing Conditions

The predominant vegetation community types identified in the mitigation area include melaleuca wetland monoculture, cypress forested wetlands, hydric pine flatwoods, wetland shrub and brush, pine flatwoods, wetland hardwood / conifer mix and freshwater marsh. Exotic vegetation, primarily melaleuca, has invaded these vegetation communities to varying degrees. Other exotic vegetation species noted include Brazilian pepper (*Schinus terebinthifolius*), tropical soda apple (*Solanum tampicense*), torpedo grass (*Panicum repens*), West Indian marsh grass (*Hymenachne amplexicaulis*), cogon grass (*Imperata cylindrica*), Old World climbing fern (*Lygodium microphyllum*), seaside mahoe (*Thespesia populnea*), para grass (*Brachiaria mutica*), Caesar weed (*Urena lobata*) and creeping oxeye (*Wedelia trilobata*).

## **Proposed Mitigation Plan**

Mitigation activities proposed within the SMCS include wetland enhancement, wetland restoration and upland enhancement. The following is a brief description of each mitigation activity.

Wetland Enhancement (+/- 264.92 acres) – Approximately 264.92 acres within the SMCS have been invaded by varying degrees of exotic vegetation. This type of mitigation comprises the majority of the proposed plan. Approximately 133.37 acres of wetlands will be enhanced through the mechanical removal of melaleuca and Brazilian pepper. Mechanical removal areas in general currently have greater than 50% coverage by exotics and have little to no significant native vegetation. Mechanical clearing limits will be flagged in the field prior to clearing and may vary as a result of soil conditions or other limiting factors. Areas that contain native vegetation will be selectively cleared. In order to minimize ground disturbance, equipment used for mechanical clearing will either have low tire pressure or will be tracked. Areas mechanically cleared of exotics will be recontoured to natural grade. Mechanical work will be conducted only during times of dry soil conditions to minimize ground disturbance.

Approximately 131.55 acres of wetland enhancement will entail hand removal or the "killing in place" of exotic vegetation species. Areas targeted for hand removal generally contain higher amounts of desirable native vegetation with less dense exotic vegetation coverage. Hand removal of exotic vegetation will generally be required in areas with mucky soil conditions or other physical features that preclude the use of mechanical equipment. All stems from hand removal areas will be removed from the mitigation area or stacked in accordance with the SFWMD "Guidelines for Melaleuca Removal" and remaining stumps will be treated with an appropriate herbicide to minimize regrowth. "Killing in place" of exotic species will be limited to small, isolated pockets of exotic vegetation in remote areas, where it is not practical to remove the material. Exotic species killed in place will be subsequently felled to promote faster decomposition of the material.

After removing the exotic and nuisance species, the wetland enhancement areas will be replanted with native tree and shrub species according to the S.R. 739 Mitigation Planting Location Map and Plant Quantity Summary or allowed to revegetate naturally. Wetland areas generally containing less than 50% exotic and nuisance species will be allowed to revegetate naturally. Natural recruitment is expected as desirable native ground cover still exists within the majority of these areas and a viable seed bank is likely present within the topsoil. Removing the exotic and nuisance species will provide additional sunlight and free up nutrients to promote the establishment of the existing viable seed bank. This is commonly observed in areas where the topsoil is not removed and the soil is not sterile as a result of fire or other phenomena. Highly degraded wetland areas, generally containing greater than 50% exotic and nuisance species and minimal native vegetation species, will be targeted for replanting. In these areas, plants will be installed in clusters to more closely resemble natural conditions. Plant vegetation shall be from a local or regional (Lake Okeechobee or south) source and nursery grown. A minimum of four to five different tree species will be planted in each cluster to increase diversity and provide an increased likelihood for survival. Specific locations of clusters within the replanting areas may vary as a result of soil conditions or other limiting factors, as determined by the construction supervisor.

Wetland Restoration (6.35 acres) – Approximately 6.35 acres within the SMCS is currently comprised of an abandoned agricultural field and associated perimeter ditch and berm. This area is located immediately east of Six Mile Cypress Parkway and the Lee County Sports Complex. Representative vegetation species noted within this area consists of scattered slash pine (*Pinus elliottii*), bald cypress (*Taxodium distichum*), wax myrtle (*Myrica cerifera*) and red maple (*Acer rubrum*) with various pasture grasses and sedges. The adjacent ditch and berm system is located between SMCS and the abandoned agricultural field, and appears to prevent the natural sheet flow. It is proposed to chemically treat existing exotic vegetation within the ditch. The perimeter ditch will then be filled with the spoil berm material to match adjacent wetland grade. This will restore sheet flow to the fallow agricultural field and restore a more natural hydroperiod. It is anticipated this will promote the reestablishment of native hydrophytic herbaceous species and the growth of existing wetland tree / shrub species in the mid-canopy.

**Upland Enhancement (12.69 acres)** - Approximately 12.69 acres within SMCS are comprised of melaleuca infested pine flatwoods (12.47 ac.) and a disturbed herbaceous upland (0.22 ac.). Similar to wetland enhancement areas, upland enhancement will involve a combination of mechanical removal, hand removal and "killing in place".

## MAINTENANCE OF MITIGATION AREAS

A maintenance program shall be implemented in the mitigation areas on a regular basis to insure the integrity and viability of the mitigation activities. The maintenance will be conducted in perpetuity to insure that total coverage of exotic and nuisance plant species (those species currently identified by the Florida Exotic Pest Plant Council's current list of most evasive plant species and incorporated herein by reference) constitute no more than 5% total coverage. Mitigation areas will be exotic free immediately following treatment. After the five (5) year monitoring period, a final environmental compliance inspection will be scheduled with the SFWMD and the USACOE. A final

inspection may be requested earlier if the mitigation activities are deemed to be successful prior to five (5) years.

#### In addition:

- A. Periodic assessments of the site will be conducted no less than quarterly to identify any potential infestations that will require the attention of the maintenance crew; and
- B. Periodic maintenance will be performed on a quarterly, semi-annual or annual basis, as appropriate for the species in question, to treat any exotic or nuisance plant species. Treatment may consist of, but not be limited to:
  - 1. The use of EPA approved herbicides applied by state licensed pesticide applicators in accordance with the applicable material safety data sheets and label directions;
  - 2. The manual removal and disposal of the nuisance or exotic plant species; and
  - 3. Melaleuca removal will adhere to the "Guidelines for Melaleuca Removal."

## MONITORING OF MITIGATION AREAS

#### A. Introduction

The purpose of the monitoring program is to evaluate the degree of success and trends for any given mitigation activity using established protocols and to evaluate and recommend changes to the mitigation and/or maintenance program.

In order to successfully track the mitigation effort, four categories of monitoring are required. Each category of monitoring fulfills a specific need. The categories of monitoring are described below.

#### 1. Baseline Monitoring

The goal of the baseline monitoring is to document the current condition of the mitigation areas and facilitate the tracking of the restoration program over time. The changes anticipated as a result of hydrological restoration and wetland enhancement include shifts in vegetation species composition and cover, increased wildlife utilization, etc. Therefore, it is important that the baseline monitoring be both repeatable in methodology and sufficiently broad in scope to adequately document these anticipated changes. The principal components of the monitoring plan are vegetation, wildlife utilization, photographic documentation, and hydrology. Baseline monitoring is a one-time event and is completed prior to initiation of the restoration activities.

#### 2. Construction Monitoring

The goal of construction monitoring is to ensure the mitigation activities are undertaken in accordance with the approved design. Construction monitoring allows for potential errors and/or unforeseen problems to be identified early on and if required, corrective action taken immediately. The probability of wetland restoration/creation success is thereby significantly increased and the long-term overall costs reduced.

## 3. Time Zero Monitoring

The goal of time zero monitoring is to accurately document the conditions within created and restored wetlands/uplands at the time construction activities (i.e., exotic removal, grading, planting, etc.) are completed. This monitoring documents that the mitigation areas have been cleared of exotics and grading activities are appropriate. Time zero monitoring also provides a reference point from which plant survival, growth, and change in aerial percent coverage can be evaluated.

## 4. <u>Post-Construction Monitoring</u>

The goal of the post-construction monitoring is to track the progress of the mitigation area effort towards meeting the project's success criteria. Accurate and repeatable monitoring is needed to identify trends, respond to problematic situations, and to demonstrate the eventual success of the mitigation project.

## B. Monitoring Methodology

#### 1. Baseline Monitoring

The baseline study will consist of monitoring vegetation, wildlife utilization, photo documentation, and hydrology. Each component is described below:

## a. Vegetation Monitoring

The mitigation areas consist of both herbaceous and forested components. The distribution of the various macrophyte communities has been delineated using the Florida Land Use, Cover and Forms Classification System (FLUCFCS). The mapping of the dominant macrophyte communities will be adjusted, as needed, within each wetland prior to sampling. The distribution of these communities will be used to stratify the vegetation sampling.

Three strata will be sampled in each plot for representative baseline conditions and will be representative of habitat types within the mitigation areas. These strata are: overstory (plants >10 cm diameter breast height (DBH)), understory (plants <10 cm DBH and greater than 1 meter in height), and ground cover (all non-woody plants and woody plants less than 1 meter in height). The overstory and understory vegetation will be sampled in 5m<sup>2</sup> plots and the ground cover vegetation sampled in 1m<sup>2</sup> plots. For the overstory and understory stratums the relative canopy closure for each species will be recorded. The percent cover of groundcover species and bare ground will be estimated for the herbaceous study plots. Qualitative inspections will be conducted in all of the preserve areas, including uplands. The presence of exotic species will be noted and targeted for eradication.

#### b. Wildlife Utilization

Regular and periodic observations of wildlife will be made during all monitoring events and other site visits by qualified ecologists. This will consist of recording evidence and sign of wildlife (i.e., direct sightings, vocalizations, burrows, nests, tracks, droppings, etc.).

## c. Photographic Documentation

Photographs provide physical documentation of the condition and appearance of the mitigation areas as well as any changes taking place within them. Photographs will accompany vegetation data in each report.

## d. Hydrologic Monitoring

Current water levels at each monitoring plot/station will be recorded and rainfall data will be collected. Staff gauges and/or piezometers will be utilized to monitor monthly water levels within the mitigation areas. This data will be included in the baseline monitoring report. Pertinent discussion about the soil/weather conditions for the area will also be included.

## e. Monitoring Report

The vegetation, wildlife, photographic, and hydrological data collected during the baseline monitoring will be summarized and presented in the baseline monitoring report. Each mitigation area will be described and discussed in terms of these parameters. Upland preserves will be assessed for the presence of exotic plants. This report will be submitted to the agencies within sixty days of data collection.

## 2. <u>Construction Monitoring</u>

During the course of the mitigation activities, periodic observations will be made. Observations will begin when the mitigation areas are field staked and continue through the completion of mitigation activities. Evaluation of work in progress will be made and any potential problems noted. Immediate action will be initiated to correct deficiencies. Specific items to be checked will include:

Exotic species removal

Water levels/soil moisture within mitigation areas

Compliance with construction documents

Through these inspections the contractors, project sponsor, and agencies will be advised of the status of the construction efforts.

#### 3. Time Zero Monitoring

As part of the Time Zero report, permanent site specific linear transect stations and quadrant locations will be established through representative sections of the mitigation areas. The time zero monitoring will consist of documenting existing vegetation, success of exotic species removal and various other creation, restoration and enhancement activities. Each component is described below. Quantitative time zero monitoring will target those restoration areas where large areas of exotics have been removed. Qualitative monitoring will be conducted in all exotic removal areas.

## a. Quantitative Vegetation Monitoring

Within the herbaceous wetlands, 1m<sup>2</sup> study plots will be utilized. Relative coverage will be estimated for each species that occurs within each plot. In existing forested communities, 5m<sup>2</sup> plots will be utilized. Data will be recorded as documented in the baseline methodology. Water levels within each plot will be recorded with a ruler.

## b. Qualitative Vegetation Monitoring

Subsequent to the completion of the initial exotic removal effort, each mitigation area will be observed and documented. Any melaleuca or Brazilian pepper that was missed during the initial treatment, or that have re-sprouted from stumps, and/or that have colonized the mitigation area subsequent to the treatment will be clearly identified for immediate removal.

## c. Photographic Documentation

Panoramic photographs will accompany the vegetation data in each report. Locations of photo stations will remain constant throughout the duration of the monitoring program.

## d. Monitoring Report

The data and photographs collected during the time zero monitoring event will be compiled in a summary report. The report will be submitted to the agencies within sixty days of data collection.

## 4. <u>Post-Construction Monitoring</u>

The monitoring methodologies utilized for the baseline and time zero monitoring events will be used for all post-construction monitoring. The mitigation areas will be monitored annually for a period of five (5) years and will involve the submittal of seven (7) reports to SFWMD and U.S. Army Corps of Engineers staff. This period may be shortened if mitigation is determined to be successful prior to five (5) years. Mitigation success criteria for wetland enhancement, restoration and creation areas shall be 80% coverage by desirable obligate, facultative wetland and facultative species. Total coverage of exotic and nuisance plant species within the mitigation areas, including upland enhancement areas, may constitute no more than 5% total coverage.

STATE ROAD 739 (METRO PARKWAY) EXTENSION MITIGATION

SIX MILE CYPRESS SLOUGH (BETWEEN DANIELS PARKWAY AND TEN-MILE CANAL)

TECHNICAL SPECIFICATIONS

## State Road 739 (Metro Parkway) Extension Mitigation Six Mile Cypress Slough (between Daniels Parkway and Ten-Mile Canal)

#### Section 101-1

#### Mobilization

Perform preparatory work and operations in mobilizing for beginning work on the project, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies, and incidentals to the project site and for the establishment of temporary offices, safety equipment and first aid supplies, and sanitary and other facilities.

Include the costs of bonds and any required insurance, all permits, and any other preconstruction expense necessary for the start of the work, excluding the cost of construction materials.

Basis of payment –

Item 101-1 – Mobilization Contractor:

Lump Sum (L.S.)

#### Section X-102-1

## **Boundary Survey**

This work entails performing a survey to establish the project limits for the mitigation activities. This task may include research of property deeds and verification, recovery and/or reestablishment of boundary monumentation, if necessary. The limits of the mitigation area will be staked, flagged or otherwise clearly delineated in the field at a minimum of 50-foot intervals. Densely forested areas will be staked and/or flagged at 25-foot intervals if necessary, as determined by the Construction Manager.

Basis of payment –
Item X-102-1 – Boundary Survey:

Lump Sum (L.S.)

#### Section X-103-1

## Field Delineate Mechanical Clearing Limits

This task includes field locating and flagging the mechanical clearing limits within the mitigation area. Additionally, this task includes meeting onsite with SFWMD staff to approve all mechanical clearing limits prior to clearing.

Basis of payment –

Item X-103-1 – Field Delineate Mechanical Clearing Limits: Lump Sum (L.S.)

#### Section X-105-1

## Construction, Engineering and Observation

This task includes field observations, meetings and associated coordination with Lee County staff and project contractors performing the mitigation activities to ensure the mitigation project is being conducted in accordance with the approved mitigation plan and is in compliance with agency permits.

Basis of payment –

Item X-105-1 – Construction, Engineering and Observation: Lump Sum (L.S.)

#### Section 104

#### Prevention, Control and Abatement of Erosion and Water Pollution

This work included in this section includes artificial coverings, baled hay or straw, floating turbidity barriers and staked silt fence required to protect any siltation from leaving the project.

Basis of payment –

Item 104-10 – Baled Hay or Straw:

Item 104-13 – Staked Silt Fence:

Per Each (Ea.)

Per Lineal Foot (L.F.)

#### Section X-120

#### Berm Removal

This work includes the following:

- 1. The perimeter berm surrounding a historic farm field just east of the Lee County Sports Complex will be pushed into the adjacent ditch and portions of the internal swales will be filled to match adjacent grade in the Slough.
- 2. All areas to be graded will be staked in the field and verified by the Construction Manager.
- 3. All necessary clearing will be pushed and left in place and is included in the Berm Removal cost.
- 4. Contractor is responsible for all construction staking.

Method of Measurement: Berm removal will be measured in lineal feet.

Basis of payment – Item X-120 – Berms

Per Lineal Foot (L.F.)

#### Section X-450

## **Initial Exotic and Nuisance Species Eradication**

Contractor is responsible for killing all exotic and nuisance species occurring within the ±284 acre mitigation area. Exotic and nuisance species are those identified by the Florida Exotic Pest Council's current list of most invasive plant species. Herbicides applied must be EPA approved and applied by State licensed herbicide applicators in accordance with the applicable material safety data sheets and label directions. All treated material will be stained with a colored dye.

Basis of payment –

Item X-450-1 – Initial Exotic and Nuisance
Species Eradication:

Per Acre (Acre)

#### Section 460

## Field Crew - Hand Harvesting

Field crew (with supervisor) maintenance/exotic removal. Price includes appropriate herbicides (see Section 450) and equipment. Approximate area 124 acres. All material to be removed from the mitigation area unless approved by Construction Manager.

Method of Measurement: Contractor shall GPS locate limits of harvested areas and calculate acreage from GPS data.

Basis of payment -

Item X-460-1 – Eradication of Exotic/Nuisance Species:

Per Acre (Acre)

#### Section 470

## **Mechanical Harvesting**

Mechanical harvesting of exotic/nuisance species (10 acre minimum). Total area to be harvested approximately 109 acres. Harvested material shall be removed from the mitigation area. Also includes clearing and grubbing necessary for staging areas and regrading of any areas that become rutted or otherwise disturbed by mechanical harvesting activities. Staging areas to be located in areas of monotypic melaleuca only.

Method of Measurement: Contractor shall GPS locate harvested areas and calculate acreage from GPS data.

Basis of payment –

Item X-470-1 – Mechanical Harvesting:

Per Acre (Acre)

#### Section X-550-1

#### Fencing

This work includes furnishing and installing a 4' metal hog wire farm fence. Includes furnishing and erecting mesh fabric, line posts, corner posts, pull and end post assemblies. All necessary clearing of brush will be pushed to side and left in place. Cost of clearing is included in the fencing cost.

Basis of payment:

Item X-550-1 – Fence:

Per Lineal Foot (L.F.)

### Section 600-1

#### **Planting**

Planted vegetation shall be from a local or regional (Lake Okeechobee or south) source and nursery grown. All plant material is to be non-topped. All harvested plant material shall be from a FDEP approved and permitted harvested site. Plant installation work consists of furnishing and installing the complete plant materials as specified and shown on the plans. The work shall include the furnishing of all labor, equipment, materials and appliances required for the installation. Changes to plant species have to be approved by the Construction Manager. Trees and shrubs will be planted with root ball intact and unexposed. All containerized plant material 1-gallon size or larger will be fertilized with 20:10:5 AgriForm tablets or equivalent. Application rate shall be 10 grams per gallon of plant container. Trees requiring stability will be staked and tied to keep them upright.

Extensively degraded wetland enhancement areas, generally containing greater than 50% exotic and nuisance species and minimal native vegetation species, will be replanted with native tree and shrub species according to the S.R. 739 Mitigation Planting Location Map and Plant Quantity Summary. Plants will be installed in clusters to more closely resemble natural conditions. A minimum of four to five different tree or shrub species will be planted in each cluster to increase diversity and provide an increased likelihood for survival. Specific locations of clusters within the replanting areas may vary as a result of soil conditions or other limiting factors, as determined by the Construction Manager.

Cypress tree plantings will be concentrated toward the central, deeper areas of the Slough mitigation planting areas. Wetland hardwood species including red maple, laurel oak and swamp bay will generally be planted along the perimeter of the Slough mitigation planting areas, which are less frequently inundated.

#### PLANT QUANTITY SUMMARY

Plant Name	Species	Size	Quantity	
Cypress	Taxodium spp.	3 gallon /4'-6'	2,100	
Cypress	Taxodium spp.	7 gallon /6'-8'	2,100	
Slash Pine	Pinus elliottii	3 gallon /4'-6'	400	
Slash Pine	Pinus elliottii	7 gallon /6'-8'	400	
Red Maple	Acer rubrum	3 gallon /4'-6'	500	
Red Maple	Acer rubrum	7 gallon /6'-8'	500	
American Elm	Ulmus americana	3 gallon /4'-6'	400	
American Elm	Ulmus americana	7 gallon /6'-8'	400	
Laurel Oak	Quercus laurifolia	3 gallon /4'-6'	500	
Laurel Oak	Quercus laurifolia	7 gallon /6'-8'	500	

Plant Name	Species	Size	Quantity	
Swamp Bay	Persea spp.	3 gallon /4'-6'	400	
Swamp Bay	Persea spp.	7 gallon /6'-8'	400	
Pop Ash	Fraxinus caroliniana	3 gallon /4'-6'	400	
Dahoon Holly	Ilex cassine	3 gallon /4'-6'	500	
Swamp Dogwood	Cornus foemina	3 gallon /4'-6'	200	
Myrsine	Myrsine guianensis	3 gallon /4'-6'	200	
Red Bay	Persea borbonia	3 gallon /4'-6'	200	
Pond Apple	Annona glabra	3 gallon /4'-6'	200	
Buttonbush	Cephalanthus occidentalis	3 gallon /4'-6'	200	

Basis of payment – Item P-600-1 – Planting:

Per Plant Installed

#### Section 700-40-1

## **FDOT Mitigation Area Signage**

Contractor to furnish and install three (3) signs mounted on 4" x 4" posts, which indicate the area is a joint FDOT and Lee County mitigation area. Lee County to provide actual sign information. Signs to be installed at locations shown on construction drawings.

Basis of payment -

Item 700-40-1 – FDOT Mitigation Area Signage:

Per Sign

#### Section 701

## Mitigation Maintenance

Maintenance of the mitigation area will be conducted for no less than five (5) years and includes the entire mitigation area ( $\pm 284$  acres). At no time shall exotic and nuisance species exceed 5% total coverage within any one area. Mitigation areas will be exotic free immediately following maintenance events. Periodic assessments of the site will be conducted no less than quarterly by the Contractor to identify any potential exotic species infestations that will require eradication. Maintenance will be performed on a quarterly, semi-annual or annual basis, as appropriate for the species in question.

Basis of payment -

Item M-701-1, M-701-2, M-701-3,

M-701-4, M-701-5 – Annual Maintenance:

Per Year (Year)

#### Section 705

## **Mitigation Monitoring**

The mitigation areas will be monitored annually for a period of five (5) years and will involve the submittal of seven (7) reports to SFWMD and U.S. Army Corps of Engineers staff. This period may be shortened if mitigation is determined to be successful prior to five (5) years. Mitigation success criteria for wetland enhancement, restoration and creation areas shall be 80% coverage by desirable obligate, facultative wetland and facultative species. Total coverage of exotic and nuisance plant species within the mitigation areas, including upland enhancement areas, may constitute no more than 5% total coverage.

Basis of payment – Item M-705-1, M-705-2, M-705-3, M-705-4, M-705-5 – Annual Maintenance:

Per Monitoring Event (Event)

#### Additional Items:

1. Educational Outreach -

\$10,000.00

This item could include: educational video production, other multi-media education, brochures and educational printed materials, project signage and other public outreach activities

Basis of payment -

Initial funding from JPA:

Per item purchased or funds expended

This Instrument Prepared by: PUBLIC WORKS/COUNTY LANDS DIVISION Post Office Box 398 Fort Myers, Florida 33902-0398

STRAP No. 31-45-25-00-00002.1360 & .1390

## THIS SPACE FOR RECORDING

COUNTY (Statute	
THIS DEED, executed this day of POLITICAL SUBDIVISION OF THE STATE OF FLORID Myers, Florida 33902-0398, COUNTY, toState of Flor whose address is _P. O. Box 1249, Bartow, Florida 3383	ida Department of Transportation
<b>WITNESSETH</b> : The COUNTY, for and in consto it in hand paid by the Grantee, receipt whereof is hereb sold to the Grantee, its heirs and assigns forever, the fol County, Florida:	y acknowledged, has granted, bargained and
SEE ATTACHED EXHIE	BIT "A"
In accordance with Florida Statutes s. 270.11, three-fourths interest in, and title in and to an undivided minerals, and metals that are or may be in, on, or unde interest in all the petroleum that is or may be in, on, or un and develop each interest. Provided, however, the riphosphate, minerals, metals or petroleum reserved in subject parcel being conveyed is or has always been a aggregate under the same ownership.	If three-fourths interest in, all the phosphate, if the subject land and an undivided one-half der the subject land with the privilege to mine ght of entry with respect to any interest in favor of the County is hereby released if the
This grant conveys only the interest of the Cour the property herein described, and does not warrant the the title.	nty and its Board of County Commissioners in title or represent any state of facts concerning
IN WITNESS WHEREOF the COUNTY has cauby its Board of County Commissioners acting by the Chairabove.	sed these presents to be executed in its name r or Vice Chair of said Board, the day and year
(OFFICIAL SEAL)	
ATTEST: CHARLIE GREEN, CLERK	LEE COUNTY, FLORIDA, BY ITS BOARD OF COUNTY COMMISSIONERS
By: Deputy Clerk	Chairman
as a re div _ s osciti	APPROVED AS TO LEGAL FORM:
	Office of County Attorney

## Exhibit "A"

#### PARCEL INFORMATION SHEET

FP NO. 1957191 SECTION 12014-2504 STATE ROAD NO. 739 COUNTY Lee

#### DESCRIPTION

#### PARCEL 139.1

That portion of the northwest \$\frac{1}{4}\$ of Section 31, Township 45 South, Range 25 East, being a part of Six Mile Cypress Strand (per Resolution Number ZAB-82-270 Resolution of the Board of County Commissioners) Lee County, Florida.

Being described as follows:

BEGIN at the northwest corner of Lot 13, Briarcliff Unit No. 3 per Official Records Book 728, Page 685 and per Unrecorded Plat Book 1, Page 31, Public Records of Lee County, Florida said corner being on the east existing right of way line of CSX Transportation Inc. Railroad (per Track Map V18 Fla); thence along said east existing railroad right of way line, North 00°36'34" West a distance of 624.23 feet to the intersection with the south boundary of said Six Mile Cypress Strand for a POINT OF BEGINNING; thence along the south boundary of said Six Mile Cypress Strand, North 00°36'34" West a distance of 2,371.27 feet; thence North 89°06'39" East a distance of 344.11 feet; thence South 22°25'33" West a distance of 31.97 feet to the beginning of a curve concave easterly having a radius of 1,023.29 feet; thence along the arc of said curve to the left a distance of 411.41 feet through a central angle of 23°02'07" with a chord bearing South 10°54'30" West to the end of said curve; thence South 00°36'34" East a distance of 1,922.54 feet to the south boundary of said Six Mile Cypress Strand; thence along said south boundary, South 84°41'10" West a distance of 250.84 feet to the POINT OF BEGINNING.

Legal Description Approved by: Lilliang & Pay

Date: 02-06-01

NOT A DEED - INFORMATION PURPOSES ONLY

NOT A DEED - INFORMATION PORPOSES ONDI

OWNED BY: (BSD.03 BSD. 04) - Lee County, a political subdivision of the State of Florida

Grantor(s) ' Mailing Address:

SUBJECT TO:

N/A

# RESOLUTION AUTHORIZING THE CONVEYANCE OF LEE COUNTY PROPERTY TO THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

WHEREAS, the Board of County Commissioners is the governing body for Lee County, a political subdivision of the State of Florida; and

WHEREAS, the Board has certain powers and authority relative to the disposition of real property belonging to the County; and

WHEREAS, Section 125.38, Florida Statutes, authorizes the conveyance of County property to municipalities if that property will be used for public or community interests and welfare; and

WHEREAS, the State of Florida Department of Transportation has requested the conveyance of property identified as part of Strap No. 31-45-25-00-00002.1360 and 1390 located south of Six Mile Parkway, Fort Myers, Florida; and

WHEREAS, the Board has confirmed through its staff that such property is not needed for County purposes; and

WHEREAS, the State of Florida Department of Transportation requests voluntary conveyance for nominal consideration so that the property may be used for public purposes; and

WHEREAS, it is the intent of this resolution to acknowledge the request of the State of Florida Department of Transportation, the purpose for which the property will be used, and the price therefore.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Lee County, Florida, that:

- 1. The above recitations are true and accurate and are hereby adopted and incorporated herein as if set out at length.
- 2. Lee County has concluded that the real property described below is surplus land and is not needed for County purposes. This land is particularly described on Exhibit A attached hereto
- 3. Lee County accepts the request of the State of Florida Department of Transportation and hereby finds that the States use complies with the statutory requirement that the property be used for public or community interest and welfare.

The County agrees to convey the property to State of Florida Department of Transportation for one dollar (\$1.00) and other good and valuable consideration. In order to complete the transaction contemplated herein, the Board authorizes County staff to finalize documents necessary to complete the transaction contemplated herein. In addition, this resolution specifically authorizes the Chairman of the Board of County Commissioners to execute the documents necessary to convey the property to the City. The foregoing resolution was offered by Commissioner \_\_\_\_\_, who moved its adoption. The motion was seconded by Commissioner and being put to a vote, the vote was as follows: **Bob Janes** Douglas R. St. Cerny Ray Judah Andrew W. Coy John E. Albion Duly passed and adopted this \_\_\_\_\_ day of \_\_\_\_\_, 2003. BOARD OF COUNTY COMMISSIONERS ATTEST: OF LEE COUNTY, FLORIDA CHARLIE GREEN, CLERK

By:\_\_\_\_\_\_ Deputy Clerk By: \_\_\_\_\_\_ Chairman, or Vice Chairman

APPROVED AS TO FORM:

By:\_\_\_\_\_\_
Office of the County Attorney

## Exhibit "A"

#### PARCEL INFORMATION SHEET

FP NO. 1957191 SECTION 12014-2504 STATE ROAD NO. 739 COUNTY Lee

#### DESCRIPTION

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Being described as follows:

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Containing 13.858 acres.

Legal Description Approved by: Lillary Pluy

Date: 02-06-01

NOT A DEED - INFORMATION PURPOSES ONLY

OWNED BY: (BSD.03 BSD. 04) - Lee County, a political subdivision of the State of Florida

Grantor(s) Mailing Address:

SUBJECT TO:

## VALUE FINDING

IST DIST. DOT

				Page I of 3
Address of Property Ea		y, Old US 41 /25E	State of Florida Item/So FA Nu Name	mber N/A Metro Parkway
easement portion indicated irregular southeastern corn wetlands, is zoned "Envir	ent Tract: vided maps and information ed on FDOT maps as parcel ner and measures approximate ronmentally Critical (EC)" by at. The property has no legal in	151. The subjects 2,400' by 1 y Lee County,	ect is generally ro ,000 feet. The pard and enjoys full "	ectangular except for the ent tract consists of 100%
and / or other developme "Highest and best use" for some economic developme On the subject inspection of	for the subject property precluent normally associated with or the parent tract is conservatent of its limited, nature considate, the parent tract was communing and free flowing water.	the economition. The economic ervation potential potential telegy to the economic telegy telegy to the economic telegy	ic development of nomic permitted us tial. The demand to d with native vege	f land is permitted. The se for this property is for for these wetlands is low. station, the visible subject
characteristics as indicated irregular, rectangular porti boundary length of this ac	ition is for 13.858 Acres of the different tract, except a tion between the railway-pare equisition is about 2,371 feet tapering to a southerly depth or Square Foot (SF).	for the parent ent tract's wes with a curved	tract's larger size. stern-most propert l easterly depth, at	The acquisition is for an y-boundary. The western the north-most property
State the Highest and B	Best Use: Conservation pur	rposes (see al	ove for discussion	on).
Before Value: (Land Onl Land 53.175 AC/SF	aly) @ <u>\$1,600</u> _AC <del>/SF</del>	= <u>\$85,080</u> Total Land	\$85,100 R	
irregularly rectangular acq	perty Being Acquired: The quisition is 100% wetlands. Terty (see above for discussion	he calculated		A 00-110-010 A 00-110-00 0-110-010-01
Land <u>13.858</u> AC <del>/SF</del> (	@ <u>\$1,600</u> AC <del>/SF</del> =	Total Land	\$22,173 \$22,200 R	
	one otal Improvements		<u>\$-0-</u> <u>\$-0-</u>	RECEIVED OCT 2 2 2002

## Brief Description of the Remainder Property: (if applicable)

The remainder consists of a generally rectangular shape except for the irregular southeastern corner and is 100% wetlands (according to environmental experts called in on adjacent parcels). The calculated value is based on the same per acre factor as the whole property. There is no change in the Highest and Best Use as a result of the acquisition.

State Highest and Best Use: Conservation.

After Value: (Land Only)

Land <u>39.317</u> AC/SF

@ \$1,600 / AC/SF =

**Total Land** 

\$62,907

\$62,900 R

### Brief Description of Severance Damages or Cost to Cure the Remainder Property: (if applicable)

Before Value	\$85,100
Part Taken	\$22,200
Value as Part of Whole	\$62,900
After Value	\$62,900
Severance Damages	\$-0-
Cost to Cure	\$-0-
<b>Total Damages</b>	\$-0-

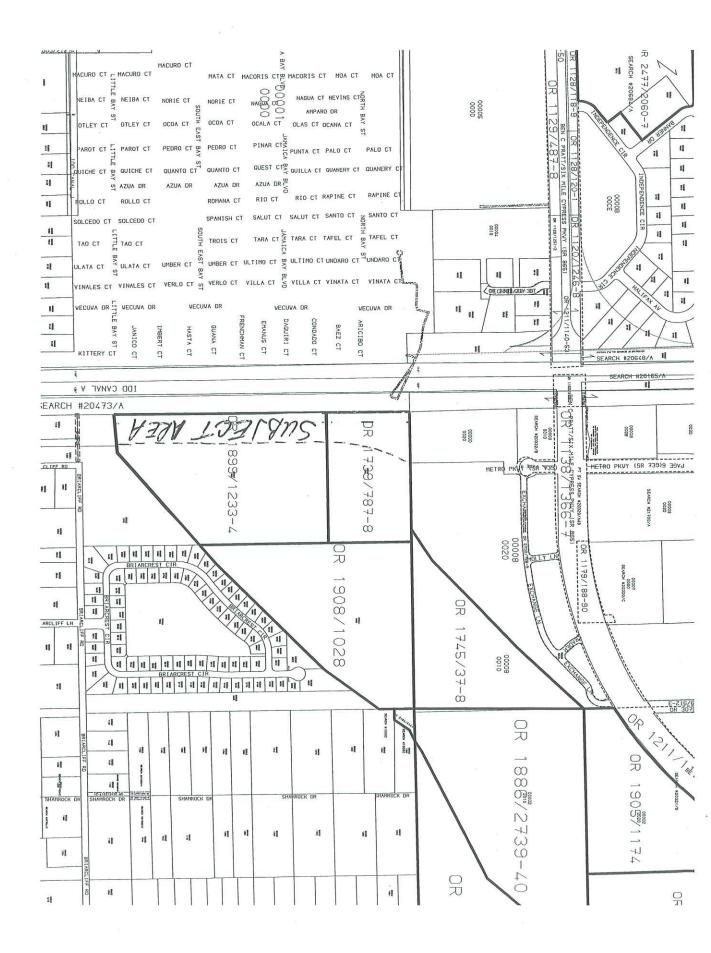
#### **Summary of Compensation:**

Land	\$22,200
Improvements	\$-0-
Damage and/or Cost to Cure	\$-0-
Total	\$22,200

#### **Attachments:**

- [ | Photograph Addendum
- [ | Parcel Information Sheet (legal description of acquisition)
- [ ] Sketch/Survey of Proposed Acquisition
- [✓] Wetlands Delineation Map
- [✓] Zoning and Tax Map
- [✓] Vesting Deed (last deed of record)
- [ | Property Inspection Letter (Owner Letter)
- [ Vetlands Study Conclusions on Adjacent Parcel 141
- [✓] Comparable Sales Data

		CERTIFICAT	E OF VALUE			8
Parcel No.:139 Item/Se	egment: 1957191	Managing District I State Ro	nd: 739 (US 41 B	us.)_County:	Lee	FAP No.: <u>N/A</u>
I certify to the best of my kn	nowledge and belief, that:				5.57	
<ol> <li>The reported analyses,</li> <li>I have no present or present</li></ol>	ospective interest in the protection of contingent on an action plete] appraisal communic	e true and correct.  are my personal, unbiased, profess operty that is the subject of this report event resulting from the analyse ated in a restricted use report form the use of this report cannot be relies.	ort, and I have no p s, opinions, or conc at. (If limited, depa	personal interest lusions that we rtures are as fol	t or bias with re re developed. lows: <u>N/A</u> ) T	This report is intended for use
Transportation and the	e property owner, Lee Cour	erty that is the subject of this reparty. I have also made a personal fie	d inspection of the	comparable sal	es relied upon	
<ol> <li>The purpose of this a Supplemental Standard</li> </ol>	appraisal is to estimate mads, Section 6.2, Right of W	led significant professional assistan arket value as of the effective dat Vay Manual. The intended use is in ssistance of Federal-aid highway f	e of the report. The connection with the	he definition one acquisition o	f market value f right-of-way	for a transportation facility to
<ol> <li>This appraisal has been purposes; and, to the bestablished law of the s</li> </ol>	best of my knowledge, no	appropriate State laws, regulation portion of the property value ento	s, policies and proc red on this certifica	cedures applicate consists of	ble to appraisal items which ar	of right-of-way for highway e noncompensable under the
10. I have not revealed the Federal Highway Adm	e findings or results of this ninistration and I will not o	appraisal to anyone other than the				
11. Regardless of any state collected or prepared to	under this agreement shall	assumption, I acknowledge that the become the property of the Department				
12. Statements supplement	conclusions, opinions, and tal to this certification requerence, are made a part here	uired by membership or candidacy	in a professional a	ppraisal organiz	zation are descr	ribed on an addendum to this
Based upon my independent the property appraised as of	t appraisal and the exercis	e of my professional judgment, m 002, is: \$22,200.	opinion of the ma	rket value for t	he part taken, i	including damages, if any, of
Market Value should be allo	ocated as follows:					
	\$ <u>22,200</u> \$-0-	Land Area (Ac/SF) 13.858  Property Type RVSP	2.	370 Mar	ype Codes: R - Rural, U - U I, V - Vacant	Jrban
Severance Damages/	¥	(*CODE 1234)		3. I	I - Home/Resid	dence, B - Business I, S – Special Purpose
Cost to Cure:	\$ <u>-0-</u> \$ <u>22,200</u>			4.	W - Whole Tak	ing, P – Partial Taking
Date Appra		Way  Staff Appraiser	¥			
			<b>1</b>		r. 1 1:	D-+!-1/W/L-1/
11-25-02 Sosep	oh C. Harper, Staff Appr	raiser Review		Acquisition In ric Remaind a: SF/AC		Partial/Whole
Whole Co	~~~		Land:		$\times$	
	Appraiser - Administra		Improven	and/or Cost	to Cure	
Wyatt V	V. Busing FDOT I R/W	Appraisal Project Coordinator tate Appraiser No. 2327 raise			to Cure	
Suite Of	Somethi Rout Lo	E 9 E	CEIVED	ection	RE	CEIVED
Comments on Uneconom	nic Remnant:	Wi	N 2 6 2000		خام بنم بدع	0000



# Appendix G: Briarcliff Bluesheet

#### Lee County Board Of County Commissioners Blue Sheet No. 20071447 Agenda Item Summary 1. ACTION REQUESTED/PURPOSE: Approve Purchase Agreement for acquisition of a 2.88 acre parcel located at 6211 Briarcliff Road for the Briarcliff Channel Weirs Project 8512, in the amount of \$28,310. Authorize payment of costs to close and the Division of County Lands to handle all documentation necessary to complete the transaction. 2. FUNDING SOURCE: Fund: Capital Improvement Fund Program: Capital Projects Project: Briarcliff Channel Weirs 3. WHAT ACTION ACCOMPLISHES: Acquires lands adjacent to the Six Mile Cypress Slough expanding its boundaries providing the county with ownership and control of a protective berm and wetland area. 4. MANAGEMENT RECOMMENDATION: Approve 6. Meeting Date: 8/7/2007 5. Departmental Category: C6C 9. Request Initiated 8. Requirement/Purpose: (specify) 7. Agenda: Commissioner: Statute Statute ■ The statute 125 Department: COUNTY LANDS Ordinance Consent Admin Code Division: No Divisions Karen Forsyth 1 Other By: 10. Background: Negotiated for: Parks and Recreation and Division of Natural Resources - In the early 1990's Lee County, with permission from the property owner, constructed a berm on this site for the purpose of flood protection and other public benefits. The successor in title has requested the County maintain the existing berm and also accept the additional wetland mitigation area for inclusion to the Six Mile Cypress Slough. This acquisition will provide a permanent location of the control dike for containing surface water within the Slough; provide flood protection benefits for properties to the south; help maintain the hydroperiod of the Slough; and provide permanent access for maintenance of the berm. Interest to Acquire: Fee Interest in 2.88 acres of vacant land. Property Details: Owner: Parkway Baptist Church of Lee County, Inc. (formerly Briarcliff Baptist Church, Inc.) Address: 6211 Briarcliff Road, Fort Myers STRAP No.: Part of 31-45-25-00-00002.1370 Purchase Details: Purchase Price: \$28,310 Costs to Close: Approximately \$500 Appraisal Information: An appraisal has not been obtained on this property. Justification Sheet is attached hereto. Staff Recommendation: The property owner originally required \$40,345 for the property. However, through negotiations, they have now agreed to accept \$28,310. Staff recommends Board approval. Account: 20851230100 Attachments: Justification Sheet, Original Purchase Agreement; In-House Title Report; Affidavit of Beneficial Interest; Sales History; Location Map 11. Required Review: Dawn Perry-Roland Ottolini Dinah Lewis John Yarbrough Emma Wolf Karen Forsyth Lehnert PARKS AND NATURAL COUNTY LANDS **Budget Analyst Budget Services** County Attorney RECREATION RESOURCES Peter Winton County Manager

12. Commission Action:

## Justification Sheet Blue Sheet No. 20070754

2.88 acres	Total Land to be conveyed
1.39	Onsite Wetland Mitigation
1.49 acres	Subtotal - Lands burdened by the Original Berm
0.43	Lands North of Original Berm
1.06 acres	Original Berm

The purchase price paid by current owner of \$19,000 per acre in 2002 was applied to the area of the original berm and lands North of the original berm (1.49 acres) to arrive at \$28,310 in compensation.

The additional 1.39 acres of onsite wetland mitigation lands are being included in the conveyance with the stipulation that Lee County will bear the cost and responsibility to monitor and maintain the property in accordance with South Florida Water Management District permit requirements. This cost and responsibility will be absorbed into the existing maintenance and management of Six Mile Cypress Slough Preserve.

#### Market Data Grid

STRAP	Recording Info	Sale Date	Sale Price	Acres	Price/Acre
05-46-25-00-00002,0120	2006000149845	4/06	\$499,000	5	\$99,800
31-45-25-01-00000.0300	4825/790	7/05	\$185,000	2.5	\$74,000
31-45-25-01-00000.0470	4709/1264	4/05	\$179,900	2.12	\$84,858
05-46-25-00-00001.0000 & .0090	2005000067181	11/05	\$1,300,000	19.3	\$67,358
05-46-25-00-00002.0000	4661/359	4/05	\$350,000	5	\$70,000

#### Mcneill, Michele

From: Ottolini, Roland E.

Sent: Wednesday, June 20, 2007 3:18 PM

To: Mcneill, Michele

Cc: Repenning, Robert W.

Subject: Berm north side of Briarcliff Baptist Church

The Division of Natural Resources recommends the acquisition of the property from Briarcliff Baptist Church for inclusion in the Six Mile Cypress Slough for the following reasons:

- Provides for a permanent location of the control dike for containing surface water within the Six Mile Cypress Slough.
- Provides flood protection benefits to properties south
- Helps maintain hydroperiod of the Six Mile Cypress Slough
- Provides permanent maintenance access

It is our understanding that the Parks and Recreation Department will absorb any cost for maintenance and monitoring into the existing Six Mile Cypress Slough Operating budget.

Let me know if you have any questions.

### Justification Sheet Blue Sheet No. 20070754

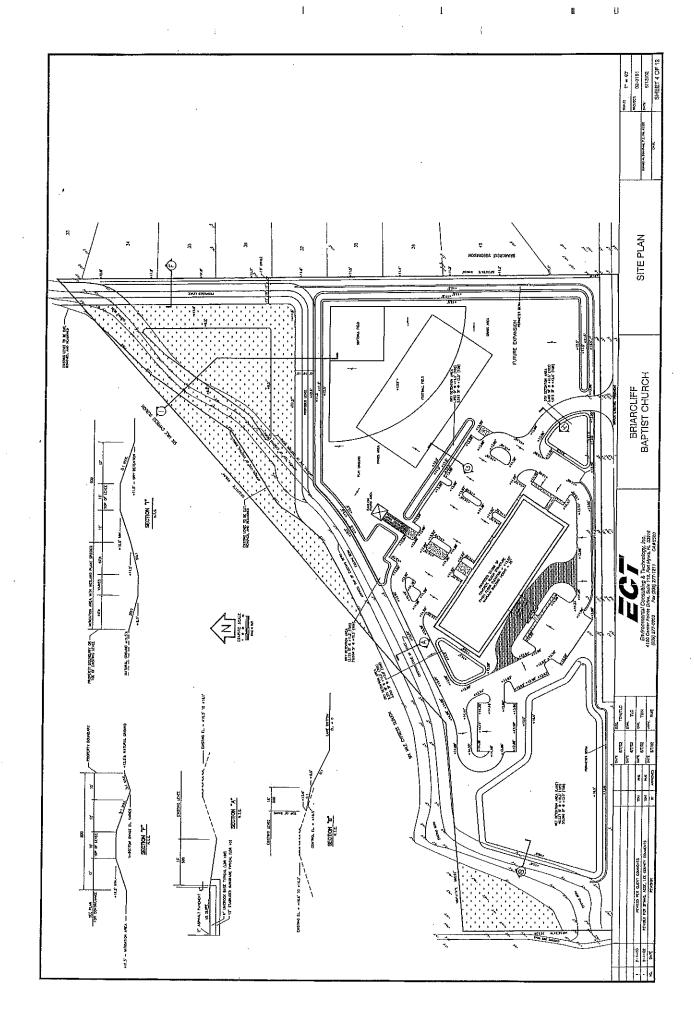
2.88 acres	Total Land to be conveyed
1.39	Onsite Wetland Mitigation
1.49 acres	Subtotal - Lands burdened by the Original Berm
0.43	Lands North of Original Berm
1.06 acres	Original Berm

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05-46-25-00-00002,0120	2006000149845	4/06	\$499,000	5	\$99,800
31-45-25-01-00000.0300	4825/790	7/05	\$185,000	2.5	\$74,000
31-45-25-01-00000.0470	4709/1264	4/05	\$179,900	2.12	\$84,858
05-46-25-00-00001.0000 & .0090	2005000067181	11/05	\$1,300,000	19.3	\$67,358
05-46-25-00-00002.0000	4661/359	4/05	\$350,000	5	\$70,000



### Appendix H: Eagle Lake Bluesheet

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•	<b>表京青仁主意名文社教会区通知思想要包含的</b>	LE COUNTY A	BOARD OF GENDA ITE	COUNT IN SUM	Y COMMITMARY	BLUE SHEET NO		
	1. REQUESTED HOTION: ACTION REQUESTED: Action in the Capital from Eagle Lake Esta Slough Preserve Mana	1		Dood	fnom Pag	the Lake Estate a Budget Ame of unanticipate of the Six 1-98 CIP Budget a	tos 1+d	the
	WHY ACTION IS NECESSA Estates a/k/a Voodla acre cypress slough	RY: The Son nd Walk Subdi parcel to Le	uth Flori ivision r e County	da Wa equir for p	ter Manag ed the de erpetual	ement permit veloper to de conservation.	for Eagl edicate a	e Lake 40.56
	WHAT THE ACTION ACCON County will own and \$17,250 from the dev	PLISHES: By be responsible loper vill	y accepta le for pe be placed	nce o rpetu in t	f the att			Lee The serve.
ı	2. DEPARTMENTAL CATEG							
	County Attorney COMMISSION DISTRICT	<i>i</i> 5		<b>*</b> _	1100	3. HEETING	-11-94	6
	4. AGENDA	5.REQUIREHE	T/PURPOS	=====		STOR OF INFOR	EFFFFFF	
	X CONSENT ADMINISTRATIVE	(Specify)			A. COMMI	SSIONER John	E. Albi	on
ı	ADMINISTRATIVE APPEALS	(Specify) STATUTE ORDINAL	NCE.		B. DEPAR	THENT County	Attorne	У
l	PUBLIC TIME REQUIRED:	X OTHER	CODE	200	c. DIVIS	ION Land Use	~	بر
ı		D.O.#9	,0 00 007		BY Jose	ph M. Madden,	Jr.	
l	7. BACKGROUND	******		1213		******	U	
	Eagle Lake Estates, I Subdivision, adjacent Hanagement Permit, to acceptance of the att be the responsible pa	td., the dev to Eagle Ri dedicate a ached Specia irty for cons	veloper o dge, is 40.56 ac il Warran ervation	f Eagl requir re cyp ty Dee of th	e Lake E ed by the ress slo d, the C is parce	states a/k/a eir South Flo ugh to Lee Co ounty will be l.	Woodland rida Wate unty. By owner an	Walk er V nd
	Lee County Division of Order obligations and determined that the swith both. Further, species removal and whas represented that developer.							ent , arker,
	Upon approval of the count #301-2510-572 rojects, Parks, Impr	Budget Amend 150-6540-000 ovement Cons	ment Resolution	Capit Six	n, funds al Improv Mile Mana	will be avai vement Fund, agement Proje	lable in Capital ct.	
1 :	Recommend approval.							******
	8. STANDING COMMITTEE							121
ļ	Date Reviewed by M&P	Committee			mmittee J	Review Not Re	quired	<u>X</u> ======
		9.	RECOMMENT				-0=====# <b>E</b> 1	*****
(	DEPARTHENT Department DIRECTOR Administration Purchasing	ve Services Human Kes.	Budget,	ce of Servi Risk		ER COUNTY ATTORNEY	ADMINIS	) TRATOF
-	10. COMMISSION ACTION:			10	70 - 72	The same of the sa	) กรร	
	APPROVED DENIED DEFERRED OTHER					RECYD BY OBS 4/28/19	FORMARDE TO CO. A	
-	(9631J/B)		_ = = = = = = = = = = = = = = = = = = =			RECVO 5 Local	CO. ATTY.	
						8:16Am	FORMARDED 10 CO. ADM	

B

# Appendix I: Six Mile Cypress Slough Preserve North Cattle Lease

### LICENSE AGREEMENT FOR CATTLE GRAZING

This AGREEMENT made this <u>Ond</u> day of <u>Feb</u>, 2012, by and between LEE COUNTY, a political subdivision and charter county of the State of Florida, whose address is P.O. Box 398, Fort Myers, Florida 33902-0398, ("Licensor"); and Darrell Prevatt, an individual, whose address is 2888 2<sup>nd</sup> Street, Fort Myers, FL 33901, ("Licensee").

WHEREAS, Licensor is the owner of property situated in Lee County and depicted and described in attached Exhibit A; and

WHEREAS, Licensor, in consideration of the fees paid and the covenants and agreements set forth herein to be kept and performed by the Licensee, does hereby grant to the Licensee a license solely for the grazing of cattle on Licensor's lands as depicted/described in attached Exhibit B ("Licensed Property").

NOW, THEREFORE, in consideration of the covenants and conditions set forth below, the parties agree as follows:

- 1. <u>Recitals</u>. The above recitals are true and correct and incorporated herein as though fully set forth below.
- 2. <u>License</u>. Licensor hereby grants to Licensee a revocable, non-exclusive License to graze cattle on the property described in attached Exhibit B.
- 3. <u>License Fee</u>. Licensee agrees to pay Lee County \$42.08 (prorated to be due 3/10/2014) per license term or portion thereof on September 15<sup>th</sup> of each year. Payment may be provided to the Conservation 20/20 Supervisor for appropriate processing.
- 4. <u>Term.</u> This License begins on the date it is fully executed and extends for an initial term of 2 years. The term of this license may be extended for one additional year, ending September 30, provided Licensor agrees.
- 5. <u>Revocation, Expiration, Termination or Cancellation</u>. Licensor may revoke the License at any time with 30 days written notice to Licensee. Upon termination of the License, Licensee must remove all cattle and return the property to Licensor in as good or better condition that when it was first licensed.

The parties understand and agree that this License Agreement may be canceled upon 48 hours' written notice to the Licensee, if any of the Licensee's cattle are not kept within the confines of the Licensed Property as described on Exhibit B. Cattle may be transferred between adjacent or adjoining property, provided the properties are both the subject of a cattle license held by or involving Licensee, but the cattle must remain within the confines of the perimeter fencing.

- Use of Licensed Property.
- a. Cattle grazing. Licensee understands and agrees the licensed property may only be used for cattle grazing and no other purpose.
- b. *Maximum number of cattle*. Licensee may not exceed <u>40</u> head of Cattle on the licensed property at any time.
- c. Land management activity. Licensee must obtain written approval from the Conservation 20/20 Land Stewardship Supervisor prior to performing any land clearing, controlled burns, fertilizing, exotic removal, chopping, chemical spraying, or other land management activities.
- d. Hog removal. In order to preserve the licensed property and its use for cattle grazing, Licensee may trap and remove feral hogs, at Licensee's sole cost and expense, in a manner complying with state and local laws and regulations.
- e. Public Use. Licensee has a non-exclusive right to use the Licensed Property. Licensee may not prevent the entry of members of the public on the Licensed Property for purposes of maintenance of the preserve areas/property and recreational enjoyment by hikers.

### 7. <u>Fencing.</u>

- a. During the term of this License, Licensee must maintain all perimeter and interior fencing necessary to keep livestock within the licensed area as follows:
  - 1. Along all road frontage the fencing must be, at minimum, a 5 strand barbed wire fence.
  - 2. Along non-road frontage license boundaries the fencing must be, at minimum, a 4 strand barbed wire fence.
  - 3. The fencing must be maintained in good repair and must effectively prevent cattle from roaming beyond the boundaries of the Licensed Property at all times during the term of this license.
- b. At the end of the license period stated in this Agreement, Licensee must turn over the Licensed Property with the fencing in good repair. In the event the fencing is not in good repair, Lee County may take one or more of the following actions: repair the fencing and send an invoice for the repair costs to Licensee; refuse to License County property to Licensee (including any

entity involving the Licensee) in the future; or, take any other action the County deems appropriate.

- 8. <u>Survey monuments</u>. All section corners, quarter corners, and other survey monuments lying in the premises will be properly flagged by the Licensor. Licensee agrees to bear any survey costs for resetting these monuments in the event they are disturbed by the Licensee in any way.
- 9. Indemnification. Lie use hereby indemnifies and releases the Licensor from any and all claims to the cattle grazing; and, holds Licensor harmless from all damages during the term of this Agreement to include all reasonable fees, costs and expenses incurred for litigation in any forum resulting from damage claimed by third parties as a result of the Licensee's use of the property described in Exhibit "B".
- 10. <u>Insurance</u>. Licensee must maintain Premises Liability Insurance coverage through the license term and provide proof of insurance to Lee County Parks and Recreation for the duration of the license. The policy must provide minimum limits of \$1,000,0000 (combined Single Limit of Bodily Injury and Property Damage). Lee County must be named as a Certificate Holder and Additional Insured on the insurance policy. (A copy of the insurance certificate is attached as Exhibit C.)
- 11. <u>Personal property taxes</u>. Licensee covenants and agrees to file an annual personal property tax return with the County of Lee, State of Florida, as required by law.
  - 12. <u>Assignment</u>. This License is not assignable to any other party.
  - 13. <u>Notices.</u> The contact information for the parties is as follows:

Lee County, Licensor Director of Parks and Recreation 3410 Palm Beach Boulevard Fort Myers, FL 33916 239-533-7275

<u>Darrell Prevatt</u>, Licensee 2888 2<sup>nd</sup> Street <u>Fort Myers</u>, FL 33901 (239) 872-7332

- 14. <u>Amendment.</u> This is the entire agreement between the parties and may only be amended in a writing executed with the same formality.
- 15. <u>Governing law</u>. This Agreement will be construed in accordance with the laws of the state of Florida. Venue for any court proceedings is in Lee County.

16. <u>Severability</u>. In the event any portion or provisions of this License Agreement is deemed invalid, the remaining provisions will not be affected and will remain in full force and effect.

Witness: POSSICO DULLY

Witness: Denise Potter

Print Name: Denise Potter

BONNIE PETERS

MY COMMISSION # DD 804184

EXPIRES: November 8, 2012

Bonded Thru Notary Public Underwriters

Witness: Cynthia C. Mitau

Print Name: Cynthia C. Mitar

Witness: Conta Slugo

Print Name: Carla Llay a

Lee County Parks and Recreation

David W. Harner, II, Deputy Director

Approved as to form:

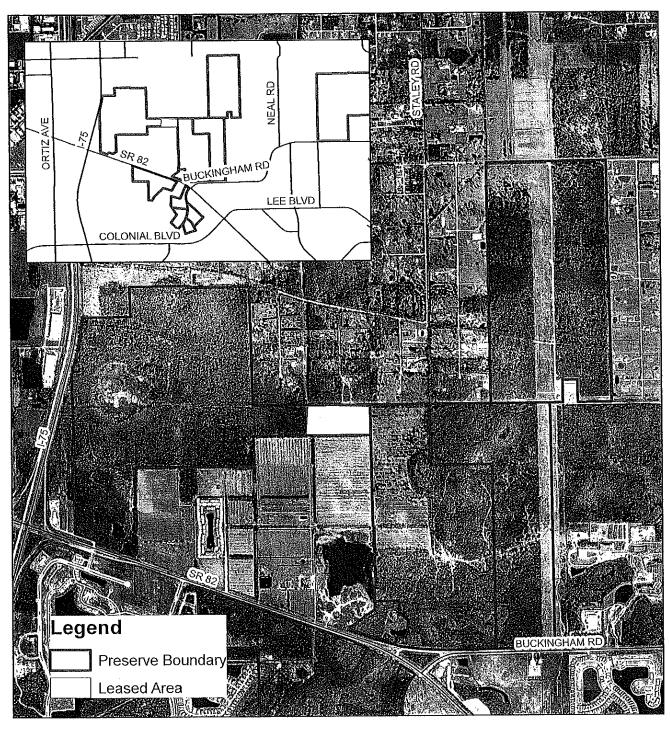
Lee County's Attorney's Office

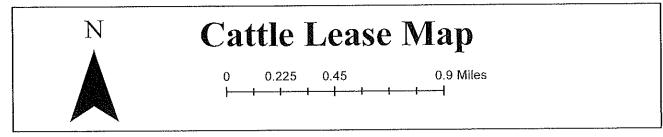
[The Board of County Commissioners delegated authority to the Director of Parks and Recreation to enter short term leases/licenses for cattle grazing on Conservation 2020 lands and other lands managed by Lee County pursuant to Bluesheet #19990807 adopted on August 17, 1999.]

# Six Mile North Preserve 20 Acres

Strap: 23-44-25-P1-00001.0030

Legal Description: W 25FT OF N 1345 FT OF E 1/2 OF SE 1/4





# Appendix J: Resolution 89-12-39

### resolution

### CONCERNING PENZANCE BOULEVARD

WHEREAS, it is agreed that the Penzance Boulevard Crossing of the Six Mile Cypress Slough Preserve will be left open for local traffic for local residents with a bridge crossing the Slough and other improvements made for wildlife, hydrology, safety and public recreation; and

WHEREAS. Penzance Boulovard east of Six Mile Cypress Parkway is a strong candidate for designation as a "scenic corridor" under Objective 2.10 of the Lee County Comprehensive Plen; and

WHEREAS, it is agreed that Penzance Boulevard east of Six Mile Cypress Parkway will be designated on future County maps as a local road; and

WHEREAS, it is agreed that road crossings of the Six Mile Cypress Slough Preserve shall be limited to those existing which include Colonial Boulevard, Interstate 75, Penzance Boulevard and Daniels Road; and

WHEREAS, it is agreed an upgrading of Palomino Road shall be made before Penzance Boulevard is upgraded by appropriate funding mechanisms, and the need for additional north/south corridors shall be identified.

NOW THEREFORE. BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF LEE COUNTY. FLORIDA, that the Penzance Boulevard Crossing of Six Mile Cypress Slough Preserve will be of a bridge across the Six Mile Cypress Slough Preserve which would be partially covered with a rural style covered bridge. That the County will continue an involvement with this issue with the residents of the Ranchette area, the environmental community and the local developers. That this resolution shall be in full force in effect immediately after its passage and approval in a manner provided by law.

approval in	y Wanner broat	.wow by				
THE	FOREGOING FUSSELL	RESOLUTION		who	fered moved	by its by
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Commissioner	Manning					
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Commissioner	: Hidelom					
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89-12-29 (1315v) 12/20/89 ATA

### Appendix K: Penzance Boulevard Bluesheet

LEE COUNTY BOARD OF COUNTY COMMISSIONERS AGENDA ITEM SUMMARY BLUE SHEET NO: 950806								
1. REQUESTED MOTION:  Action Requested: Hold first public hearing for a Resolution establishing four roadway crossings of the Six Mile Cypress Slough Preserve, amending Resolution 89-12-39 and replacing the Penzance Boulevard Crossing, with a crossing for Metropolitan Parkway South. After hearing, direct to second public hearing on Sept. 20, 1995 at 5:05 p.m.								
Why Action is Necessary: To publicly support and acknowledge the efforts by the Florida Dept. of Transportation to extend Metropolitan Parkway across the Six Mile Cypress Slough.								
	What Action Accomplishes: Establishes the official position of Lee County regarding the proposal by the Florida Department of Transportation.							
2. DEPARTMENT/ COMMISSION I						3. MEETING	DATE: Sept. 6, 1:	.m.q 30;3 ta 3ee
4. AGENDA  X CONSENT ADMINISTRA APPEALS PUBLIC TIME REQUIRE	* a	X OTHER	ITE ANCE L CODE	29 18	A. B. C.	COMMISSIO	FINFORMATION: NER John Albion NT Department of rawford	Transportation
On December 20, 1989, the Board of County Commissioners adopted Resolution 89-12-39, wherein the Board agreed that the number of road crossings of the Six Mile Cypress Slough would be limited to Colonial Boulevard, Interstate 75, Penzance Boulevard and Daniels Parkway. Subsequent to the adoption of that resolution, the South Florida Water Management District expressed the desire for the Penzance Crossing of the Slough to be removed since the roadway material was continually eroding and degrading the Slough. Also, since there was a demonstrated public need to extend Metropolitan Parkway South from its present terminus to cross the Slough and therefore provide relief to U.S. 41, the Water Management District indicated they would consider the extension of Metropolitan Parkway as a legitimate substitute for the Penzance Boulevard Crossing of the Slough. This indication is included in a Cooperative Agreement entered into on June 8, 1994, between the District and the County.  The Florida Department of Transportation is now performing a Project Development and Environmental Study as a prelude to the construction of the extension of Metropolitan Parkway across the Six Mile Cypress Slough. As part of this effort, and in consideration of the previous resolution of the Board (#89-12-39), FDOT is asking for a resolution from the County which designates the proposed Metropolitan Extension Crossing of the Slough as a substitute to the Penzance Crossing; thereby not exceeding the number of crossings of the Slough previously committed to and also to indicate the County's support of the project.								
	MMITTEE REVIEW: by M&P Committee		(	OR Com	mittee	Review Not R	equired	19
		9.	. RECOM	MENDED A	PPROV	AL.	7,-4, 4, 5	\\
DEPARTMENT DIRECTOR	Department of Administrative Services	Onic	e of Bud	get Services	5	OTHER	COUNTY ATTORNEY	COUNTY MANAGER
9/8/200	Purchasing Hum Res.	ВА	GC	Risk	Dir.			
10. COMMISSION ACTION:  _APPROVED _DENIED _DEFERRED _OTHER								

Resolution	No.	
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RESOLUTION ESTABLISHING FOUR ROADWAY CROSSINGS OF THE SIX MILE CYPRESS SLOUGH PRESERVE; AMENDING RESOLUTION 89-12-39 AND REPLACING THE PENZANCE BOULEVARD CROSSING WITH A CROSSING FOR METROPOLITAN PARKWAY SOUTH

WHEREAS, pursuant to Resolution #89-12-39, the Board of County
Commissioners acknowledged that the number of road crossings of the Six Mile
Cypress Slough Preserve will be limited to four to include Colonial Boulevard, Interstate
75, Penzance Boulevard and Daniels Parkway; and

WHEREAS, pursuant to the Cooperative Agreement with the South Florida Water Management District dated June 8, 1994, the District indicated their desire to remove the Penzance Boulevard Crossing of the Slough for environmental concerns and acknowledged that based on public need, the extension of Metropolitan Parkway across the Slough could be considered a legitimate substitute for crossing the Slough if the Penzance Boulevard Crossing was removed, thus keeping the total number of crossings at four; and

WHEREAS, the Board of County Commissioners approved the removal of the Penzance Boulevard Crossing at their regular weekly meeting on May 11, 1994, pursuant to the aforementioned Cooperative Agreement with South Florida Water Management District; and

WHEREAS, the Penzance Boulevard Crossing of the Slough was removed pursuant to the "Penzance Boulevard and Palomino Lane Road Improvements" project (Contract C-940804) on February 15, 1995; and

WHEREAS, the Florida Department of Transportation is currently studying the feasibility of extending Metropolitan Parkway South across the Six Mile Cypress Slough.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF LEE COUNTY, FLORIDA, that the County supports the efforts by the Florida Department of Transportation to extend Metropolitan Parkway; and

BE IT FURTHER RESOLVED THAT THE BOARD OF COUNTY COMMISSIONERS hereby considers the proposed extension across Six Mile Cypress Slough as a substitute for the previous Penzance Crossing of the Slough and thereby fulfills the commitment made under Resolution 89-12-39.

THE FOREGOING RESOLUTION moved its adoption. The motion was specing put to a vote, the result was as f	ON was offered by Commissioner, who seconded by Commissioner, and upon ollows:
John Albion John Manning Douglas St. Cerny Ray Judah Andrew Coy	
DULY PASSED AND ADOPTE	D this day of, 19
ATTEST: CHARLIE GREEN, CLERK	BOARD OF COUNTY COMMISSIONERS LEE COUNTY, FLORIDA
By: Deputy Clerk	By:Chairman
	APPROVED AS TO FORM:
	Office of County Attorney

# Appendix L: Resolution 91-11-22

### RESOLUTION NO. 91-11-22

A RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF LEE COUNTY, FLORIDA PLEDGING FINANCIAL AND OTHER SUPPORT TO THE FLORIDA BOARD OF REGENTS TO ENCOURAGE THE LOCATION OF THE NEW FOUR YEAR UNIVERSITY IN LEE COUNTY, FLORIDA.

WHEREAS, on May 3, 1991, House Bill 2497 was enacted into law providing for the location of a tenth university in Southwest Florida; and

WHEREAS, Lee County is the geographic center of the Southwest Florida region, and the center of population density for the region; and

WHEREAS, the economic, social, and cultural benefits of locating the university in Lee County are substantial both in the short term, and for many generations to come; and

WHEREAS, the location of the university in Lee County will provide an environment that will attract the types of business and industry to the County that only a fully accredited, four year university with graduate programs can engender; and

Statewide importance, including the Caloosahatchee River, significant open space preserves, and numerous special wildlife and plant species all of which can serve as components of an ideal natural laboratory setting for university students; and

- 1 -

11/25/41

WHEREAS, the County owns land in the county which may be suitable to augment the chosen university site for the purpose of establishing research stations and other support facilities; and

WHEREAS, the Board of County Commissioners is on record of committing to significant improvements to local infrastructure to maintain "concurrency" and improve other public transportation facilities, including the expansion of Regional Southwest Airport; and

WHEREAS, the present and foreseeable state of the economy requires all levels of government to use prudent judgment in the allocation of public revenue; and

WHEREAS, costs for acquisition, construction, and operation are vitally important to the successful siting of the university; and

UKEREAS, the siting of the university within Lee County, after considering all necessary candidate sites, will be economically advantageous to the Regents, in the short term, and faculty and students in the long term;

whereas, the Lee County Impact Fee Ordinances provide for the exemption from payment of all impact fees for roads, fire, Emergency Hedical Services and parks for the state-owned university facilities if located in unincorporated Lee County.

WHEREAS, it is in the best interest of Lee County and the University System to cost effectively use public revenue for specific projects necessary to serve the individual candidate site based upon analysis of community needs.

NOV, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY CONHISSIONERS OF LEE COUNTY, FLORIDA, that:

- 1. The Lee County Board of Commissioners vigorously and enthusiastically supports the Board of Regents and the Site Selection Committee in its efforts to select a Tenth University Site, and strongly encourages the selection of a Lee County site due to the obvious economic, physical and social advantages of Lee County.
- 2. Upon selection of a Lee County site, the Board of County Commissioners will provide the following assistance which is applicable to all sites, either directly by the Board or through existing, or to be proposed, Interlocal Agreements with the City of Fort Myers and other governmental agencies:
  - Amendments, and Zoning Ordinance Amendments necessary to encourage and promote the development of the university at the selected site in a manner consistent with the Comprehensive Plan and State Law.
  - b. Reaffirmation of its current policy and ordinance exempting all impact fees for roads, fire, Emergency Medical Service, and parks for the state owned university facilities.
  - c. Intention to consider the vaiving of all impact fees for affordable student housing and affordable housing for university administration and support staff.
  - d. Donation of a County owned site on Gulf or Bay Waters of up to 35 acres for the location of a Marine Research Station.

- Bonation of approximately 320 acres of land in either Six Hile Cypress Slough or the Flint Pen Strand as an environmental laboratory, to be protected by appropriate easements or covenants and management to protect the sensitive natural resources.
- University Site. Said monies shall be obtained from the previously scheduled termination of the existing 0.2 mil pledge for purchase of the Flint Pen Strand and reallocation of 0.1 mil to the University. Said monies shall be allocated to the sites for improvements which shall be in addition to those offered by the site owners, or the City of Fort Myers. The improvements listed below for each site are suggested improvements for which the monies may be expended. Others may be substituted subject to the limitations of this paragraph.
  - 1. Alico Sites No additional public funding required for internal improvements (see letter from Alico Representatives dated November 7, 1991.) For external road improvements, deduct subsidy from proportionate share requirements for the university (if any) under the DRI process.

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- Babcock Entrance Road
  - Vastewater Treatment Facility
- 3. Baucom Buckingham Road Improvements
  - Water and Sewer Supply upgrade costs and connection fee
  - 4. Chuni External Road Improvements to SR 02, SR 884, and Colonial Boulevard not otherwise scheduled in County CIP or by others.
  - 5. Westinghouse Gateway External Road Improvements to SR 82, SR 884, and Colonial Boulevard not otherwise scheduled in County CIP or by others.
- 3. Upon selection of a Lee County Site, the Board of County Commissioners will enter into negotiations which would result in signing of an Interlocal Agreement between the County and the Board of Regents to establish the amount, timing and method of revenue payments to be provided by the
- County.

  4. The Board of County Commissioners offers to the Site Selection Committee, the Board of Regents and the Southwest Florida Regional Planning Council, any county staff resources which could be of assistance to the site selection and planning process.

The foregoing Resolution was adopted by the Lee County Board of County Commissioners upon a motion by Commissioner Manning and seconded by Commissioner Judah and, upon being put to a vote, the result was as follows:

 John E. Manning
 Ave

 Douglas R. St. Cerny
 Ave

 Ray Judah
 Ave

 Vicki Lopez-Volfe
 Ave

 Donald D. Slisher
 Abeent

DULY PASSED AND ADOPTED this 25 day of Nov. , A.D., 1991.

ATTEST: CHARLIE GREEN, GLERK

BY: White Clerk

BOARD OF COUNTY CONHISSIONERS OF LEE COUNTY, FLORIDA

Douglas St. Cerny Chairman

Approved as to form by:

BY: James G. Yaeger County Attorney

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### Appendix M: Resolution 76-7-16

Resolution No. 76-7-16

RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS
OF LEE COUNTY, FLORIDA

MHEREAS, the Board of County Commissioners of Lee County, Florida, is vitally interested in preserving the matural beauty and environment of Lee County; and,

MMEREAS, the Six-Rile Cypress Swamp performs many functions which not only serve to enhance and preserve the sensitive environmental nature of Lee County, but also is witally important to the continued health and welfare of the citizens of Lee County; and,

County, Florida, will be served by the purchase of the Six-Rile Cypress Swamp in order to protect the swamp and to provide for water conservation, wildlife management and recreational facilities.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF LEE COUNTY, FLORIDA, that:

### SECTION ONE.

This property is being purchased to preserve the Six-Mile Cypress Swamp and to provide for water conservation, wildlife management and recreational facilities.

### SECTION TWO.

The boundaries of the proposed purchase of the Six-Mile Cypress Swamp consists of the following lands or portions thereof:

A strip or parcel of cypress land running Southeasterly-Northeasterly and varying in width from one thousand feet (1,000') to two thousand five hundred feet (2,500') lying in Sections 26, 27, 34 and 35, Township 44 South, Range 25 East and in Sections 3, 4, 8, 9, 17, 20, 29, 30 and 31, Township 45 South, Range 25 East; as shown on U.S. Geological Quadrangle map entitled "Fort Myers S.E., Pla." (N2630-W8145/7.5) 1958-photo revised 1972. Said parcel of land being commonly referred to as "The Six Mile Cypress".

### SECTION THREE.

# EXPENDITURE.

The maximum millage assessment shall be 0.5 mills per year for a maximum lavy of two consecutive years in order to purchase the

2/14/76

Six-Rile Cypress Swamp or such portions thereto, which said maximum millage assessment will allow and to provide for water conservation, wildlife management and recreational facilities. This millage assessment shall be in addition to the ten mill cap as set forth by the Florida Constitution for local taxes for all county purposes.

#### SECTION FOUR.

### EFFECTIVE DATE.

This Resolution shall be effective upon the affirmative wote of a majority of those voting in the General Election to be held on the 2nd day of November, 1976. All qualified electors in Lee County shall be entitled to participate.

### SECTION PIVE.

#### POLLING PLACE.

Said election shall be held at the polling places heretofore designated in Lee County, Florida.

#### SECTION SIX.

### HOURS OF ELECTION.

The polls shall be open at 7 o'clock a.m. and close at 7 o'clock p.m. Said election shall be conducted according to the requirements of law governing General Elections excepting as herein otherwise provided. Absentee voting shall be permitted upon compliance of applicable provisions of general law. The ballot to be used in said election shall be that portion of cardboard or paper or other material within the ballot frame of the voting machine which shall contain the question to be voted upon and which said ballot shall be in substantially the following form:

### OFFICIAL BALLOT.

### REPERENDUM ELECTION.

DO YOU FAVOR THE IMPOSITION OF A MILLAGE LEVY OF 9.5 MILLS PER YEAR FOR A MAXIMUM LEVY OF TWO COMSECUTIVE YEARS TO PURCHASE THE SIX-MILE CYPRESS SMAMP OR SUCH PORTIONS THEREOF WHICH CAN BE PURCHASED PURSUATT TO SAID MILLAGE LEVY, TO PROVIDE FOR WATER COMSERVATION, WILDLIFE MANAGEMENT AND RECREATIONAL FACILITIES.

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# **Appendix N: Legal Descriptions**

Conservation 20/20 Parcel #69

### DESCRIPTION

(OFFICIAL RECORD BOOK 3109, PAGE 2111)

# EXHIBIT "B" LAND TRUST AGREEMENT

THE SOUTH HALF (S-1/2) OF THE SOUTHEAST QUARTER (SE-1/4) OF SECTION 30, TOWNSHIP 45 SOUTH, RANGE 25 EAST, LESS AND EXCEPT THE FOLLOWING:

ALL THAT PART OF THE SOUTH HALF (S-1/2) OF THE SOUTHEAST QUARTER (SE-1/4), SECTION 30, TOWNSHIP 45 SOUTH, RANGE 25 EAST, LEE COUNTY, FLORIDA, LYING NORTHWESTERLY OF THE FOLLOWING DESCRIBED LINE:

FROM THE SOUTHWEST CORNER OF SAID FRACTION RUN N 88° 42′ 11″ E ALONG THE SOUTH LINE OF SAID FRACTION OF SAID SECTION FOR 255,69 FEET TO THE POINT OF BEGINNING. FROM THE POINT OF BEGINNING RUN N 62° 53′ 00″ E FOR 1,208.13 FEET; THENCE RUN N 40° 08′ 00″ E FOR 1,010 FEET; THENCE RUN N 34° 23′ 00″ E FOR 44.59 FEET TO AN INTERSECTION WITH THE NORTH LINE OF SAID FRACTION AND THE END OF THE HEREIN DESCRIBED LINE.

BEARINGS HEREINABOVE MENTIONED ARE PLANE COORDINATE FOR THE FLORIDA WEST ZONE BASED ON THE CENTERLINE SURVEY FOR SIX MILE CYPRESS PARKWAY.

Conservation 20/20 Parcel #216

Prepared by: Dena E. Weygant Tri-County Title Insurance Agency, Inc. 8660 College Pkwy., Suite 200 Fort Myers, Florida 33919

File Number: F12833

CONSERVATION LANDS PROGRAM

PARCEL 216

ACQUISITION APPROVED BY THE LEE COUTY BOARD OF COMMISSIONERS ON 3-11-2003 AND ACCEPTED ON BEHALF OF THE BOARD BY Faul R. Chungletton

6F THE BOAICD OF TOWN CE WITH General Warranty Deed 5-9-2003 IN ACORDANCE WITH General Warranty Deed BS# 20036169 ITEM A6A

Made this May 9, 2003 A.D. By TERRY TERLEP, INDIVIDUALLY AND AS TRUSTEE, whose address is: 13801 River Road, Fort Myers, Florida 33905, hereinafter called the grantor, to LEE COUNTY, A POLITICAL SUBDIVISION OF THE STATE OF FLORIDA, whose post office address is: , hereinafter called the grantee:

(Whenever used herein the term "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations)

Witnesseth, that the grantor, for and in consideration of the sum of Ten Dollars, (\$10.00) and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the grantee, all that certain land situate in LEE County, Florida, viz:

THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 10, TOWNSHIP 45 SOUTH, RANGE 25 EAST, LEE COUNTY, FLORIDA.

AND

THE SOUTH 1059.04 FEET OF THE SOUTHEAST 1/4 OF SECTION 10, TOWNSHIP 45 SOUTH, RANGE 25 EAST, LEE COUNTY, FLORIDA, LYING WEST OF INTERSTATE 75.

Parcel ID Number: 10-45-25-00-00006.1000

Together with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances except taxes accruing subsequent to December 31, 2002.

In Witness Whereof, the said grantor has signed and sealed these presents the day and year first above written.

Signed, sealed and delivered in our presence:

(Seal) TERRY TERLEP, INDIVIDUALLY AND AS TRUSTEE

(Seal)

Official Records BK 03937 PG 2523

RECORDED 05/19/2003 11:55:19 AM

CHARLIE GREEN, CLERK OF COURT

INSTR # 5827420

RECORDING FEE 6.00

DEED DOC 6,640.90

DEPUTY CLERK G Sherwood

LEE COUNTY

Address: 13801 River Road, Fort Myers, Florida 33905

Address:

Witness Printed Name

State of FLORIDA County of LEE

The foregoing instrument was acknowledged before me this 9th day of May, 2003, by TERRY TERLEP, INDIVIDUALLY AND AS TRUSTEE, who is/are personally known to me or who has produced FL DRIVERS LICENSE as identification.

DENA E WEYGANT MY COMMISSION # DD 069629 EXPIRES: November 4, 2005 -800-3-NOTARY Ft. Notary Service & Bonding, Inc.

DEED Individual Warranty Deed - Legal on Face Closers Choice

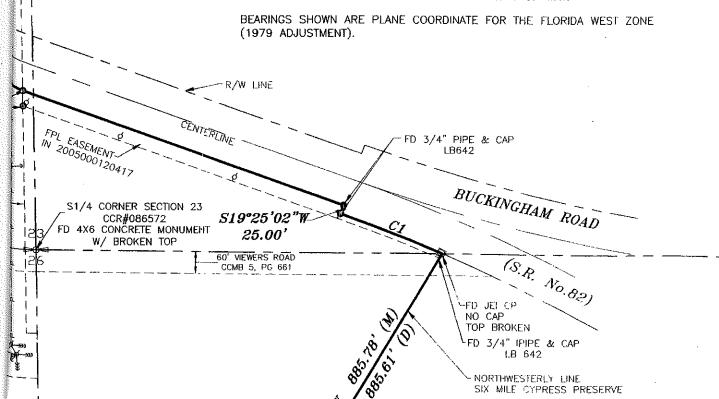
Votary Public mission Expires Conservation 20/20 Parcel #239

#### DESCRIPTION:

ALL THAT PART OF SECTIONS 23, TOWNSHIP 44 SOUTH, RANGE 25 EAST LYING SOUTH AND WEST OF IMMOKALEE ROAD (STATE ROAD No.82) AND A TRACT OR PARCEL OF LAND LYING IN SECTION 26, TOWNSHIP 44 SOUTH, RANGE 25 EAST, CITY OF FORT MYERS, LEE COUNTY, FLORIDA WHICH TRACT OR PARCEL IS DESCRIBED AS FOLLOWS:

FROM THE NORTHWEST CORNER OF SAID SECTION 26 RUN N 00'49'21" W FOR 1324.13 FEET TO THE SOUTHWESTERLY LINE OF IMMOKALEE ROAD (STATE ROAD No.82) (200 FEET WIDE); THENCE RUN S 70°34'58" E ALONG SAID SOUTHWESTERLY LINE FOR 3666.79 FEET; THENCE RUN S 19'25'02" W FOR 25.00 FEET; THENCE RUN SOUTHEASTERLY ALONG AN ARC OF A CURVE TO THE RIGHT OF RADIUS 4811.07 FEET (CHORD BEARING S 68'48'24" E) (CHORD 300.98 FEET) (DELTA 03'35'06") FOR 301.03 FEET TO AN INTERSECTION WITH THE NORTHWESTERLY LINE OF SIX MILE CYPRESS PRESERVE; THENCE RUN S 31'06'54" W ALONG SAID NORTHWESTERLY LINE FOR 885.61 FEET; THENCE RUN N 73°29'38" W FOR 730.00 FEET; THENCE RUN S 46.45'22" W FOR 1045.00 FEET; THENCE RUN S 31.30'21" W FOR 390.00 FEET; THENCE RUN N 84.59'38" W FOR 272.38 FEET TO AN INTERSECTION WITH THE EAST LINE OF THE WEST HALF (W-1/2) OF THE NORTHWEST QUARTER (NW-1/4) OF SAID SECTION 26; THENCE RUN N 00'52'08" W ALONG SAID NORTH LINE FOR 1593.40 FEET TO A POINT OF INTERSECTION WITH THE NORTH LINE OF SAID SECTION: THENCE RUN N 89'33'59" W ALONG SAID NORTH LINE FOR 1293.55 FEET TO THE POINT OF BEGINNING.

SUBJECT TO A FLORIDA POWER AND LIGHT RIGHT OF WAY.



Conservation 20/20 Parcel #298

keturn to: Name:

Executive Title Insurance Services, L.

Address:

This Instrument Prepared by:

Becky Anderson
Executive Title Insurance Services, Inc.
12800 University Drive Suite 175
Fort Myers, Florida 33907

as a necessary incident to the fulfillment of conditions contained in a title insurance commitment issued by it.

Property Appraisers Parcel I.D. (Folio) Number(s): 10-45-25-00-00006.0150

File No:2070099

INSTR # 2007000131211, Pages 1
Doc Type D, Recorded 04/23/2007 at 11:50 AM,
Charlie Green, Lee County Clerk of Circuit Court
Deed Doc. \$1750.00 Rec. Fee \$10.00
Deputy Clerk TSHERWOOD

#### WARRANTY DEED

This Warranty Deed Made the day of day of 2017, by Keith A. Johns, hereinafter called the grantor, whose post office address is: 1458 Xavier Ave, Fort Myers FL 33919

to Lee County A Political Subdivision of the State of Florida, whose post office address is: P.O. Box 398 Fort Myers, Florida, 33902 hereinafter called the grantee,

WITNESSETH: That said grantor, for and in consideration of the sum of \$10.00 Dollars and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the grantee, all that certain land situate in Lee County, Florida, viz:

The North half of the

The North ½ of the Southwest ¼ of the Southeast ¼ of the Southwest ¼ of Section 10, Township 45 South, Range 25 East, Lee County, Florida.

The property is not the homestead of the Grantor(s).

TOGETHER with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to \_\_\_\_\_\_\_, reservations, restrictions and easements of record, if any.

(The terms "grantor" and "grantee" herein shall be construed to include all genders and singular or plural as the context indicates.)

In Witness Whereof, Grantor has hereunto set grantor's hand and seal the day and year first above written.

SIGNED IN THE PRESENCE OF THE FOLLOWING WITNESSES

(TWO SEPARATE DISINTERESTED WITNESSES RECURED)

1st Witness Signature:

Printed Name:

2nd Witness Signature:

County of Coun

The foregoing instrument was acknowledged before me this Cday of Johns, who is/are personally known to me or who has/have produced Tonos knows (Momas identification, and who did / did not take an oath.

My Commission Expires:

SEAL

Holery Public State of Feeler Holery Public State of Feeler Hy Commission Expires Dat 1, 2804 Commission # DO 49680 Bonded By Malanai Hotery Assa.

Print Name: Seried Number

Acquisition approved by the Lee County Board of Commissioners action on  $\frac{MAR.13,2007}{1}$ 

and accepted on behalf of the board by

in accordance with BS 20070159

Conservation 20/20 Parcel #347

# DESCRIPTION RELEASE PARCEL NO. 8 SECTION 26, T. 44 S., R. 25 E. CITY OF FORT MYERS, LEE COUNTY, FLORIDA

A TRACT OR PARCEL OF LAND LYING IN THE NORTHEAST QUARTER (NE-1/4) OF SECTION 26, TOWNSHIP 44 SOUTH, RANGE 25 EAST, CITY OF FORT MYERS, LEE COUNTY, FLORIDA, WHICH TRACT OR PARCEL IS DESCRIBED AS FOLLOWS:

FROM THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER (SE-1/4) OF SAID SECTION 26 RUN NORTH 00°58'29" WEST ALONG THE WEST LINE OF SAID FRACTION FOR 125.00 FEET TO AN INTERSECTION WITH THE NORTH LINE OF COLONIAL BOULEVARD (STATE ROAD 884) (250 FEET WIDE); THENCE RUN NORTH 89°38'49" WEST ALONG SAID NORTH LINE FOR 1084.69 FEET TO AN INTERSECTION WITH THE SOUTHEASTERLY LINE OF SIX MILE CYPRESS PRESERVE; THENCE RUN NORTH 56°15'22" EAST ALONG SAID SOUTHEASTERLY LINE FOR 1132.02 FEET THENCE RUN NORTH 38°30'22" EAST FOR 570.00 FEET; THENCE NORTH 26°00'22" EAST FOR 660.00 FEET; THENCE NORTH 36°00'22" EAST FOR 710.00 FEET; THENCE NORTH 32°59'38" WEST FOR 710.00 FEET TO THE POINT OF BEGINNING.

FROM SAID POINT OF BEGINNING CONTINUE NORTH 32°59'38" WEST FOR 220.00 FEET; THENCE RUN NORTH 04°30'22" EAST FOR 800.00 FEET; THENCE RUN SOUTH 72°29'38"EAST FOR: 765.00 FEET; THENCE RUN NORTH 23°30'22" EAST FOR 1187.32 FEET TO AN INTERSECTION-WITH THE CURVED SOUTHWESTERLY LINE OF IMMOKALEE ROAD (STATE ROAD 82) (200 FEET WIDE); 4811.07 FEET (CHORD BEARING SOUTH 55°15'10" EAST) (CHORD 371.44 FEET) (DELTA 04°25'28") FOR 371.52 FEET; THENCE RUN SOUTH 36°57'34" WEST FOR 100.00 FEET TO A POINT OF CURVATURE; THENCE RUN SOUTHWESTERLY, SOUTHERLY AND SOUTHEASTERLY ALONG THE SOUTH 10°04'12" WEST) (CHORD 994.99 FEET) (DELTA 53°46'43") FOR 1032.48 FEET TO:A POINT OF REVERSE CURVATURE; THENCE RUN SOUTHEASTERLY AND SOUTHERLY ALONG THE ARC OF A CURVE TO THE LEFT OF RADIUS: 1100.00 FEET (CHORD BEARING OF REVERSE CURVATURE; THENCE RUN SOUTHEASTERLY AND SOUTHERLY ALONG THE ARC OF A CURVE TO THE RIGHT OF RADIUS 2200.00 FEET (CHORD BEARING SOUTH 07°23'16" EAST) (CHORD 720.91 FEET) (DELTA 18°51'37") FOR 724.18 FEET; THENCE NORTH 83°39'49" WEST FOR 1,318.05 FEET TO THE POINT OF BEGINNING.

BEARINGS HEREINABOVE MENTIONED ARE PLANE COORDINATE FOR THE FLORIDA WEST ZONE (1979 ADJUSTMENT).

Conservation 20/20 Parcel #348 and #53

### Exhibit 'A'

A tract or parcel of land lying in the West half (W 1/2) of Section 25 and the East half (E 1/2) Section 26, Township 44 South, Range 25 East, Lee County, Florida, which tract or parcel is described as follows:

From the Southwest corner of the Southeast quarter (SE 1/4) of said Section 26 run N. 00° 58'29" W. for 125.00 feet to an intersection with the North line of Colonial Boulevard (State Road 884) (250 feet wide); thence run S. 89° 38'47" E. along said North line for 1708.68 feet to a point of curvature; thence run Easterly and Northeasterly along the arc of a curve to the left of radius 2739.79 feet (chord bearing N. 77° 09'13" E.) (chord 1251.27 feet) (delta 26° 24'00") for 1262.40 feet; thence run N. 26° 02'47" W. for 1153.53 feet to the Point of Beginning. From said Point of Beginning continue N. 26° 02'47" W. for 214.48 feet to a point of curvature; thence run Northwesterly along the arc of a curve to the left of radius 1114.60 feet (chord bearing N. 46° 55'27" W.) (chord 794.43 feet) (delta 41° 45'20") for 812.29 feet to an intersection with a non-tangent curve; thence run Northeasterly and Northerly along the arc of a curve to the left of radius 2200.00 feet (chord bearing N.03° 41'39" E.) (chord 1396.42 feet) (delta 37° 00'27") for 1420.99 feet; thence run S. 46° 08'00" E. for 1896.61 feet; thence run S. 43° 52'00" W. for 1129.71 feet to the Point of Beginning.

### AND

A tract or parcel of land lying in the Northeast quarter (NE 1/4) and the Southeast quarter (SE 1/4) of Section 26, Township 44 South, Range 25 East, Lee County, Florida, which tract or parcel is described as follows:

From the Southwest corner of the Southeast quarter (SE 1/4) of said Section 26 run N. 00° 58'29" W. along the West line of said fraction for 125.00 feet to an intersection with the North line of Colonial Boulevard (State Road 884) (250 feet wide); thence run N. 89° 38'49" W. along said North line for 1084.69 feet to an intersection with the Southeasterly line of Six Mile Cypress Preserve; thence run N. 56° 15'22" E. along said Southeasterly line for 1132.02 feet; thence run N. 38° 30'22" E. for 570.00 feet; thence run N. 26° 00'22" E. for 660.00 feet to the Point of Beginning. From said Point of Beginning run N. 36° 00'22" E. along said Southeasterly line of Six Mile Cypress Preserve for 825.00 feet; thence run N. 32° 59'38" W. for 710.00 feet; thence run S. 83° 39'49" E. for 1318.05 feet to an intersection with a non-tangent curve; thence run Southerly and Southwesterly along the arc of a curve to the right of radius 2200.00 feet (chord bearing S. 27° 18'16" W.) (chord 1877.86 feet) (delta 50° 31'39") for 1940.12 feet; thence run N. 44° 46'38" W. for 776.52 feet to the Point of Beginning.

Acquisition approved by the Lee County Board of Commissioners action on 3/11/2008

and accepted on behalf of the board by \_\_\_\_\_\_\_

An accordance with B/S 20080/39 A/G/

Conservation 20/20 Parcel #352

### Exhibit

Northerly Portion of Parent Parcel 63:

A parcel of land located in the Southeast 1/4 of Section 26, Township 44 South, Range 25 East, Fort Myers, Lee County, Florida, being more particularly described as follows:

Commence at the Southwest corner of the Southeast 1/4 of Section 26, Township 44 South, Range 25 East, Lee County, Florida; thence run N. 00° 58'29" W. along the West line of said Southeast 1/4 of Section 26 to an intersection of the Northerly right-of-way line of Colonial Boulevard (State Road 884) 250.00 feet wide, for a distance of 125.00 feet; thence run S. 89° 38'47" E. along said right-of-way line for a distance of 1,708.68 feet; thence run N. 00° 21'13" E. for a distance of 735.00 feet to the Point of Beginning and the subject parcel of land; thence run N. 14° 11'48" W. for a distance of 887.08 feet to an intersection on a non-tangent circular curve concave to the Northwest, whose radius point bears N. 54° 13'39" W., a distance of 2,200.00 feet therefrom, thence run Northeasterly along the arc of said curve to the left, having a radius of 2,200.00 feet, through a delta of 13° 34'28", subtended by a chord of 520.00 feet, at a chord bearing of N. 28° 59'07" E., for an arc length of 521.22 feet to the end of said curve and to an intersection on a circular curve concave to the Southwest, whose radius point bears S. 22° 11'41" W., a distance of 1,114.60 feet therefrom, thence run Southeasterly along the arc of said curve to the right, having a radius of 1,114.60 feet, through a delta of 41° 45'20", subtended by a chord of 794.43 feet, at a chord bearing of S. 46° 55'27" E., for an arc length of 812.29 feet to the end of said curve; thence run S. 26 ° 02'47" E. for a distance of 553.92 feet; thence run S. 72° 15'00" W. for a distance of 900.83 feet to the Point of Beginning.

Acquisition approved by the Lee County Board of Commissioners action on 11-4-05 and accepted on behalf of the board by

T. Merth. Gome 2 on 12-4-05 in accordance with BS 20011306 - A6A

Project. Cons. 2020 - 6500 Parcel 352-

Conservation 20/20 Parcel #360

### ALHA OWNER'S POLICY

Order No.: 2080258 - 1002 Policy No.: O-2201-512273

### **EXHIBIT "A"**

The South ½ of the North ½ of the Southwest ¼ of the Southeast ¼ of the Southwest ¼ of Section 10, Township 45 South, Range 25 East, lying within Lee County Florida said Parcel of Land Being more particularly described as Follows:

Commence at the Southwest corner of the Southeast one-quarter (SE ¼) of the Southwest one-Quarter (SW ¼) of said section 10, Township 45 South Range 25 East;

Thence S.89 degrees 34'27"W., Along the South Line of the Southeast one-quarter (SE ¼) of the Southeast One-quarter (SE ¼) of the Southwest one-quarter (SW ¼) and the Easterly Projection of Penzance Boulevard, A distance of 645.07 feet to the Southwest Corner of the Southwest One-Quarter (SW ¼) of the Southwest One-Quarter (SE ¼) of the Southwest One-Quarter of said section 10.

Thence N. 00 degrees 19' 46" W., Along the East line of said southwest one-quarter (SW ¼) of the Southeast one-quarter (SE ¼) of the southwest one-quarter (SW ¼) of said section 10 and Morgan Hill Road, A distance of 330.42 feet to the point of beginning;

Thence continue N.00 degrees 19' 46" W., Along said east line, a distance of 165.21 feet to a point on the North lone of the South one-half (S 1/2) of the North one-half (N1/2) of the southwest one-quarter (SW 1/4) of the Southeast one-quarter (SE 1/4) of the southwest one-quarter (SW 1/4) of said section 10:

Thence S.89 degrees 33'3" W., Along said North Line, a distance of 646.93 feet to a point on the West line of said Southwest One-quarter (SW ½) of the Southeast One-quarter (SE ½) of the Southwest One-quarter (SW ½) of said section 10:

Thence S. 00 degrees 32'39" E., Along said west line, A Distance of 165.16 feet to a Point on the South Lone of the South one-half (S ½) of the North One-Half (N ½) of the Southwest One-Quarter (SW ¼) of the Southeast One-Quarter (SE ¼) of the Southwest One-quarter (SW ¼) of said section 10;

Thence N 89 degrees 33' 51" E., along said South Line of the South one-half (S ½) of the North one-half (N ½) A distance of 646.31 to the point of beginning.

Said Land Situate Within Lee County Florida containing 2.452 acres (106,810 square feet) more or less.

Page 3 of 3

Reg. D 0012 Rev. 01-05 " This Policy is not valid unless Schedule A and Schedule B are included."

STEWART TITLE GUARANTY COMPANY

### Conservation 20/20 SMCSPN

### Conservation Lands Program, Project No. 8800 Parcels 390, 410, and 422 Page 2 of 2

The Northerly 660 feet of the following described parcel:

· Parcel 11

A TRACT OF PARCEL OF LAND LINES IN THE EAST HALF (É 1/2) OF THE EAST HALF (É 1/2) OF SECTION 22, TOWNSLEP 24 SOUTH, NAMES 75 CAST, CITY OF FORT METAS, LEE COUNTY, FLOWDA, WHICH TRACT OR PARCEL IS DESCROUD AS FOULOUS, TROUT THE MORTHEAST CONVER OF SECTION 22 RUIT S COVATSA" E MONG THE EAST UNE ÓF SAID FRACTION FOR GOZZAT FET TO THE PORT OF DEGINERO, FROM SAID PORT OF DEGINERO, FROM SAID PORT OF DEGINERO, FROM NOT OF DEGINERO, SAID FRACTION, THE FOR STANDE ROAD NO. AND FRACTION, THE FOR STAND FOR TO AN INTERSECTION WITH THE WEST UNE OF SAID FRACTION, THEICE RUIT IN DIPASSOR IN ALUGE RUIT IN DIPASSOR. IN CAPITAL RECORD EXCHAUSE FOR 1316.29 FEET TO THE PORT OF RECORDS AND EXCEPTING THEIFER THE FOR TAIL OF SCHOOL RECORDS WEIGHNEST NUMBER 2007OCMISSES.

PARCEL 12

THE FOLLOWING PROPERTY IN LEE COUNTY, FLORIDA BETRUTHS AT A SECTION CORNER CONNENT TO SECTIONS 14, 15, 22 & 23, TOTALS OF ALS SOUTH, BANGE 25 EAST, LEE COUNTY, FLORIDA; THENCE SOUTH GOVER'S EAST, 68231 FEET ALONG THE SECTION LINE COUNTY OF SECTION 22, THENCE NORTH 1942/53" EAST, 1,315.21 FEET ALONG SAID SECTION LINE COUNTY OF DESIGNACE.

ELECEL 13

ALL THAT PART OF THE WEST LIKER (17 1/2) OF THE EAST HALF (E 1/2) OF SECTION 22, TOWNSHIP AN SOUTH, RANGE 25 EAST, LINIO HORTHERLY OF THE INTERSIME TO RANG (SINCE ROAD NO. 93) AND STATE HOLD NO. DZ (ANDERSON AVENUE), LESS AND EXCEPTING THEOGRAPH THAT PURITUAL DESCRIPTION OFFICIAL RECORDS RESTAURDED INVIDENCE ZOOTCOOTTERSO.

PARCEL TO

A TRACT OR PARCEL OF LAND LYBIG IN THE REGITHEST QUARTER (BY 1/4) OF THE NORTHWEST QUARTER (IN 1/4) OF SECTION 2X, TOWNSHIP 44 SOUTH, TANIES 28 EAS), LEE COUNTY, FLORIDA, WHICH TRAOT OR PARCEL IS DESCRIBED AS FOLLOWS:

EGGRINAN AT THE ROTTHEST CORNER OF SAID SECTION 23 RUN II REVISETY E ALONG THE HORTH LIDE OF SAID SECTION FOR GEGIO FEET, THENCE RUN S'OUYGIO! E PARALLE WITH THE WEST LINE OF SAID SECTION 23 FOR TAXEOT FEET TO AN INTERSECTION WITH THE SOUTH LINE OF THE HORTHWEST CONRER (NO 1/4) OF SAID SECTION 23 THENCE RUN S EGGISS. IN ALDIO SAID SOUTH LINE FOR GREATS FROM TO AN INTERSECTION WITH THE WEST LINE AT SAID SECTION 25 THENCE RUN IT OF BEGRAVING.

ALONG SAID WEST LINE FOR 1322.75 FEET TO THE POINT OF BEGRAVING.

PARCEL, 15

THAT PORTON LYMO EAST OF INTERSTATE TO (STATE ROAD NO. 93) OF THE BORTHEAST CUARTER (HE 1/4) OF THE SOUTHEAST CUARTER (SE 1/4) OF SECTION 15; TURNSHIP AA SOUTH, REVI. 28 EAST, LEE COUNTY, PLORIUM.

PARCEL 16

THE NEST HALF OF THE SOUTHWEST CHARTER IN SECTION 14, TOWNSHIP AS SOUTH, RANGE 25 EAST, LEE COUNTY, FLORDIA

LESS AND EXCEPT THE FOLLOWING DESCRIBED PARCEL:

FOND 101

PARCEL TOPO

THAT PORTING OF THE SOUTHEAST 1/4 OF SECTION 22, TOWNSHIP 49 SOUTH, TURKS OF EAST, LEE COUNTY, FLORDA.

REGULOT RA, LEFEROZATE RIPAR

CRIMENCE AT THE HORIMENST CONTINUE OF THE SAMINAST 1/4 OF SAMI SECTION 22, THORICE AND THE LESS THE OF SAMI SECTION 22, SOUTH DITARIOY FEST A DISTRICE OF TALINGS FEST TO THE SURVEY WAS THE OF STATE FOUR DE LONG HORIZON THE TO THE SURVEY WAS THE OF STATE FOUR DE LONG HORIZON THE TOTAL DESTRUCTORY THE SURVEY WAS THE HORIZON TO SURVEY DE LONG HORIZON THE TOTAL DESTRUCTORY THE CONTROL OF THE PROPERTY OF THE PROPERT

# Amended Exhibit "A"

# Conservation Lands Program, Project No. 8800 Parcels 390, 410, and 422 Page 1 of 2

A TRACT OF PARCEL OF LAND SUBJECT BY THE STRIFE OF FLORIDA, CANNEY OF LEE, LAND IN SECTIONS 13, 14, 15, 22, 25, 24, 25, AND 26, TOWNSHIP 44-SCOTT, WHICE 25 EAST, AND DON'D FURNISH DESCRIPED AS FULLOWS:

THE WEST 1/2 OF THE EAST 1/2 DUD THE EAST 1/2 OF THE WEST 1/2 SECTION 13, TOWNSHIP 22 SOUTH, RANKS 25 EAST, LESS THE EAST BUT HET OF THE WEST DEO FORT OF THE SOUTH 480 FEET OF THE SOUTHEAST 1/2 OF SAID SECTION 13, LES CENTLY, FLORIDA.

A TRACT OF PARCEL OF LAND LYNNE IN THE EAST HAVE (E 1/2) OF THE HORITHIEST QUARTER (NV 1/4) OF SECTION 23, TOTALSOF 44 SOUTH, BANGE 25 EAST, LEE COUNTY, FLORIDA, WHICH TRACT OR PARCEL IS DESCRIBED AS FOLLOWS:

TROIT THE MARTIMEST CORNER OF SAID SECTION 24 RUN II BOSS'20" E ALONO THE MORTH USE OF SAID SECTION FOR 1338-22 FEET TO THE MORTHWEST CORNER OF THE EAST HALF (E 1/2) OF THE MORTHWEST CORNER OF SAID SECTION 24 AND THE POINT OF HEBBRING FROM SAID POINT OF DECEMBLIC CORNINGE II SOCO 250 ROTHLUNG FOR 1/2) OF THE MORTHWEST QUARTER (HR 1/4) OF SAID SECTION 24, THE HEST OF THE EAST LINE OF THE NORTH EAST QUARTER (HR 1/4) OF SAID SECTION 24, THE HEST OF THE MORTH LINE FOR 127-27 FEET) THE HEST OF THE HORSE OF SAID SECTION 24 FOR 1293-33 FIRE TO AN INTERSECTION WITH THE FOR 117-27 FEET) THE MORTHEST QUARTER (NOT 1/4) OF SAID SECTION 24; THEREOF RUN II BOSS 1/20" IF ALONG SAID WEST LINE FOR 117-28 FEET TO THE FOR THE EAST HALF (E 1/2) OF THE MORTHWEST QUARTER (NOT 1/4) OF SAID SECTION 24; THEREOF RUN II BOSS 1/20" IV ALONG SAID WEST LINE FOR 117-28 FEET TO THE FOR THE EAST HALF (E 1/2) OF THE MORTHWEST QUARTER (NOT 1/4) OF SAID SECTION 24; THEREOF RUN III BOSS 1/20" IV ALONG SAID WEST LINE FOR 117-28 FEET TO THE FOR

PARCEL S

A TRACT OR PINOT, OF LAND LYNG IN ECOLORS 24 AND 25, TOWNEST 44, SOUTH, RANGE 25 EAST, LEE COUNTY, FLORIDA, WHICH TRAGT OR PARCEL IS DESCROOD AS FOLIGINAL AS TRACT OR PINOT, OF LAND LYNG IN ESPECIAL AS FRUIT IN BESIGNED AS FOLIGINAL BESIGNED AS FOLIGINAL

PRICEL 4

A THAT OR PARCEL OF LÂND LINE JI, SCHOOL 23 AND 26, TOTALSEP 24 SCUTH, TRAIGE 25 EAST, LEE COUNTY, FLORIDA, WHICH TRAIGE OR PARCEL 19 INSCHOOL OF THE HORTHWAST (STAND) OF THE HORTHWAST (STAND) OF THE HORTHWAST (STAND) OF THE HORTHWAST (STAND) OF THE HORTHWAST (MATTER) OF THE HORTHWAST (MATTER)

Conservation 20/20 Parcel #439

18-1 1050000

Prepared by and return to:
Thomas H. Gunderson
Attorney at Law
HENDERSON, FRANKLIN, STARNES & HOLT, P.A.
1715 Monroe St. P. O. Box 280
Fort Myers, FL 33902
239-344-1100
File Number: THG MORGAN LEE
Will Call No.: 35

Parcel Identification Numbers: 10-45-25-P3-00006.2000, 1010

INSTR # 2009000283978, Pages 2
Doc Type D, Recorded 10/21/2009 at 03:36 PM,
Charlie Green, Lee County Clerk of Circuit Court
Deed Doc. \$10500.00 Rec. Fee \$18.50
Deputy Clerk MNOLAN

[Space Above This Line For Recording Data]

# **Warranty Deed**

This Warranty Deed made this do of October, 2009 between Morgan Hill Investment, L.L.P., a Florida limited liability partnership, formerly known as Nature Walk Developers, L.L.P., a Florida limited liability partnership whose post office address is 2328 Hancock Bridge Parkway, #108, Cape Coral, FL 33990, grantor, and LEE COUNTY, a political subdivision of the State of Florida whose post office address is P.O. Box 398, Fort Myers, FL 33902-0398, grantee:

(Whenever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, trusts and trustees)

Witnesseth, that said grantor, for and in consideration of the sum of TENAND NO/100 DOLLARS (\$10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in Lee County, Florida to-wit:

The Southeast ¼ of Section 10, Township 45 South, Range 25 East, less the South 1617.50 feet thereof, all lying West of the I-75 Right-of-Way, Lee County, Florida.

And

The North 558.39 feet of the South 1617.50 feet of the Southeast ¼ of Section 10, Township 45 South, Range 25 East, all lying West of the I-75 Right-of-Way, Lee County, Florida.

Subject to taxes for 2009 and subsequent years; covenants, conditions, restrictions, easements, reservations and limitations of record, if any.

Together with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to December 31, 2008.

In Witness Whereof, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

Morgan Hill Investment, L.L.P., a Florida limited liability partnership, f/k/a Nature Walk Developers, L.L.P., a Florida

17/1//

Tad M. Yeatter, Partner

Witness Name: Clicky N. G. S. L.

Wendy M. Mattery Witness Name: WENDY M. MATTSON

Witness Name: Cristy N. Gibson

Thomas H. Gunderson, Partner

SFWMD Owned Parcels (550 acres)

# hang contained herein shall be continued as a waiver of sovereign

# 

A tract or parcel of land lying in the South half (S 1/2) of the Northeast quarter (NE 1/4), Section 17, Township 45 South, Range 25 East, Lee County, Florida which tract or parcel is described as follows:

If and when the DISTRICT completes, under S.O.R. or other land

From the northwest corner of said fraction run southerly along the west line of said fraction for 30 feet to the south line of a country road right-of-way as described in deed recorded in Official Record Book 1141 at page 1315, Lee County Records and the point of Beginning. From said Point of Beginning run easterly along said southerly line for 75.26 feet to an intersection with the westerly line of Six Mile Parkway (250 feet wide) as described in deed recorded in Official Record Book 1141 at page 1316 of said Public Records; thence run S 20° 01' 31" W along said westerly right-of-way line to an intersection with the west line of said fraction; thence run northerly along said west line for 205.36 feet to the point of beginning.

Containing 0.18 acre more or less. on a sund tank songs solved thos

The northeast quarter (NE 1/4) of the northeast quarter (NE 1/4) and all that part of the south half (S 1/2) of the northeast quarter (NE 1/4). Section 17' Township 45 South. Range 25 East, Lee County, Florida lying easterly of the right of way for SIX MILE PARKWAY (250 feet wide) as described in deed recorded in Official Record Book 1141 at page 1316, Lee County Records.

Containing 111.56 acres more or less.

STATE OF TO FOR

Bearings hereinabove mentioned are based on the centerline survey of Six Mile Parkway.

A tract or parcel of land lying in Section 4, Township 45 South, Range 25 East, Lee County, Florida which tract or Parcel is described as follows:

Beginning at the quarter (1/4) corner on the south line of said Section 4 run S  $88^{\circ}$  54' 33" W along the south line of the southwest quarter (SW 1/4) for 1333.88 feet to the southwest corner of the southeast quarter (SE 1/4) of said southwest quarter (SW 1/4); thence run N  $00^{\circ}$  39' 46" W along the west line of said fraction for 806.10 feet to an intersection with the southeasterly line of Six Mile Parkway (250 feet wide); thence run N  $35^{\circ}$  40' 10" E along said southeasterly line for 1961.51 feet; thence run S  $51^{\circ}$ 

49' 52" E for 126.50 feet; thence run N 52° 52' 58" E for 1397.72 feet; thence run N 50° 00' 12" E for 688.65 feet: thence run N 630 58' 51" E for 792.50 feet; thence run N 43° 45' 13" E for 85.07 feet to the south line of the northeast quarter (NE 1/4) of the northeast quarter (NE 1/4) of said Section 4; thence run N 89 $^{\rm O}$  O6 $^{\rm I}$  52 $^{\rm II}$  E along said south line for 303.10 feet to east line of said Section 4; thence run S 00° 44' 18" E along said east line for 2686.12 feet: thence run S 54° 05' 41" W for 115.77 feet; thence run S 730 00' 00" W for 140.00 feet; thence run S 550 10' 52" W for 58.82 feet; thence run N 860 54' 50" W for 285.36 feet; thence run S 550 29' 34" W for 156.24 feet; thence run S 71° 11' 29" W for 95.05 feet; thence run S 89° 11' 21" W for 322.80 feet; thence run S 06° 16' 04" W for 108.85 feet; thence run S 70° 16' 25" W for 105.12 feet; thence run S 85° 38' 37" W for 379.20 feet; thence run S 56° 35' 29" W for 169.92 feet; thence run S 180 14' 51" W for 91.84 feet; thence run S 370 53' 09" W for 246.16 feet; thence run S 01° 23' 55" E for 277.78 feet: thence run S 31° 38' 12" W for 261.19 feet to the south line of the southeast quarter (SE 1/4) of said Section 4; thence run S 88° 54' 33" W along said south line for 607.87 feet to the Point of Beginning.

Containing 209.02 acres more or less.

Bearings hereinabove mentioned are Plane Coordinate for the Florida West Zone.

A tract or parcel of land lying in the west half (W 1/2) of Section 3, Township 45 South, Range 25 East, Lee County, Florida, which tract or parcel is described as follows:

Beginning at the northwest recorner of said section run N 88° 37' 03" E along the north line of said section for 1947.00 feet; thence run S 35° 18' 33" W for 275.65 feet; thence run S 14° 53' 23" W for 323.53 feet; thence run S 270 12' 26" W for 210.15 feet; thence run S 120 09' 26" W for 251.79 feet; thence run S 04° 51' 27" E for 340.19 feet; thence run S  $18^{\rm O}$  42' 09" W for 150.86 feet; thence run S  $26^{\rm O}$  26' 39" W for 300.81 feet; thence run S 170 03' 20" W for 110.45 feet; thence run S 32° 54' 59" W for S 31° 07' 28" W for 155.78 feet; thence run 45° 09' 10" W for 305.01 feet; thence run S S 20° 55' 15" W for 183.23 feet; thence run 222.23 feet; thence run S 15° 41' 59" W for S 23° 59' 40" W for 368.41 feet; thence run 62° 35' 10" E for 476.74 feet; thence run S S 440 41' 03" W for 105.53 feet: thence run 147.83 feet; thence run S 10° 07' 57" W for 139.90 feet; thence run S 27° 24' 50" W for

106.63 feet; thence run S 05° 09' 54" W for 54.09 feet; thence run N 850 03' 36" N for 211.24 feet; thence run S 67° 21' 52" W for 230.59 feet; thence run S 24° 05' 48" W for 100.09 feet; thence run S 10° 33' 57" W for 104.79 feet to the west line of said Section 3; thence run N 00° 44' 18" W for 4004.55 feet to the Point of Beginning.

Containing 104.49 acres more or less.

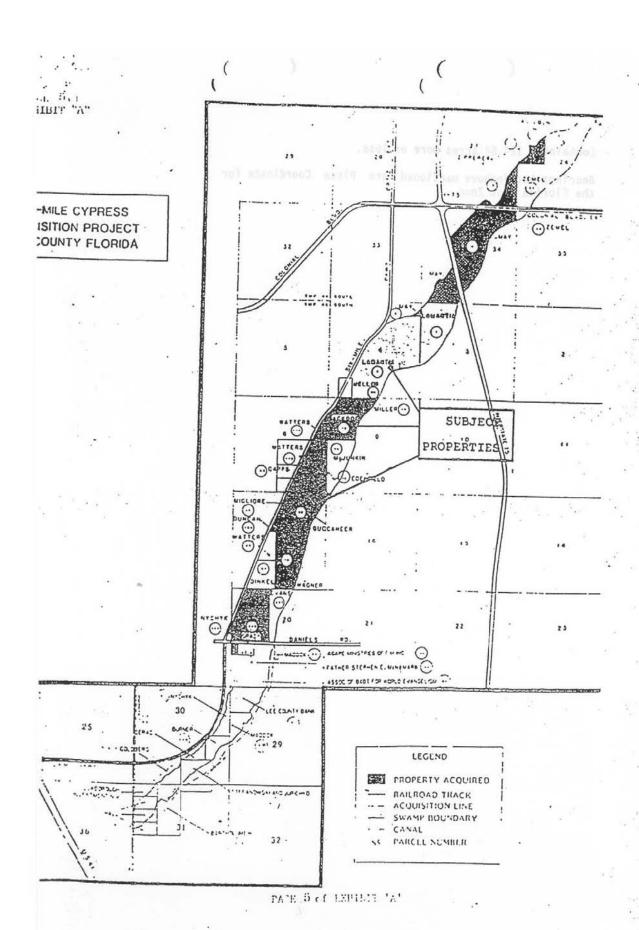
Bearings hereinabove mentioned are Plane Coordinate for the Florida West Zone.

A tract or parcel of land lying in the northwest quarter (NW 1/4) of Section 9, Township 45 South, Range 25 East, Lee County, Florida which tract or parcel is described as follows: gent protes and with

Beginning at the northeast corner of said fraction run S 01° 17' 12" E along the east line of said fraction for 445 feet; thence run S 540 15' W for 138 feet; thence run S  $23^{\circ}$  38' W for 156 feet; thence run S  $32^{\circ}$  50' W for 333 feet; thence run S 45° 48' W for 116 feet; thence run S 10° 11' 22" W for 145.26 feet; thence run S 35° 11' 22" W for 391.20 feet; thence run S 42° 54' W for 198 feet; thence run S 16° 37' W for 137 feet; thence run S 18° 19' E for 116 feet; thence run S 64° 29' 06" E for 374.25 feet; thence run S 17° 28'. 25" W for 620.57 feet; thence run N 76° 21' 58" W for 268.08 feet; thence run S 69° 31' 50" W for 105.28 feet; thence run S 69 51 50 % 189.83 feet to an intersection with the south line of said fraction; thence run S 88 48 54 W along said south line for 1502.99 feet to the southwest corner of said fraction; thence run N 010 42' 49" W along the west line of said fraction and said section for 1631.64 feet to an intersection with the southeasterly line of Six Mile Parkway (250 feet wide); thence run northeasterly, along said southeasterly line along the arc of a curve to the right of radius 5604.58 feet (chord bearing N 32° 45′ 28″ E) for 569.60 feet to a point of tangency; thence continue along said southeasterly line N 35° 40' 10" E for 684.23 feet to an intersection with the north line of said fraction and said section; thence run N 880 54' 33" E along said north line for 1930.02 feet to the Point of Beginning.

Containing 124.84 acres more or less.

Bearings hereinabove mentioned are Plane Coordinate for the Florida West Zone.



# **Appendix O- Expended and Projected Costs and Funding Sources**

# **PROJECTED**\$

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RESOURCE	Ennancemen	t and Protection

Item	Possible Funding Sources	SMCSP	SMCSP (C20/20)	SMCSPN (C20/20)
Initial invasive exotic plant removal	LCPR, C20/20, FDEP, USFWS,			
•	SFWMD, future mitigation	\$5,000	\$186,745	\$786,950
Mechanical brush reduction	LCPR, C20/20, FFS	\$4,500	\$0	\$0
Additional fireline installation	LCPR, C20/20, FF3	\$2,500	\$17,589	\$3,863
Pasture restoration permitting/design	C20/20, agency grants	n/a	n/a	\$95,000
Pasture restoration work	C20/20, agency grants	n/a	n/a	\$205,000
Total Cost Estimate		\$12,000	\$204 334	\$1,090,813

### **Overall Protection**

Item	Possible Funding Sources	SMCSP	SMCSP (C20/20)	SMCSPN (C20/20)
Fencing	LCPR, C20/20	\$2,500	\$0	\$27,900
Boundary signs	LCPR, C20/20	\$560	\$315	\$70
Total Cost Estimate		\$3,060	\$315	\$27,970

**Grand Total Cost Estimate** \$15,060 \$204,649 \$1,118,783

### Site Management and Maintenance

Item	Possible Funding Sources	SMCSP	SMCSP (C20/20)	SMCSPN (C20/20)
Exotic plant control	LCPR, C20/20, mitigation	\$35,000	\$22,400	\$60,950
Prescribed fire regime (annually)	LCPR, C20/20, FFS	\$1,000	\$5,000	\$1,000
Exotic animal removal	LCPR,C20/20	\$5,000	\$4,200	\$0
Fence repairs	LCPR, C20/20	\$300	\$0	\$1,000
Variable Made Communication		<b>\$44.000</b>	<b>#04.000</b>	<b>\$00.050</b>

Yearly Maintenance Estimate \$41,300 \$31,600 \$62,950

# **EXPENDED \$**

### Resource Enhancement and Protection

Item	Funding Source	SMCSP Costs	SMCSP (C20/20)	SMCSPN (C20/20)
Initial Exotic Plant Control	LCPR, C20/20, mitigation	\$995,601	\$71,315	\$4,184
	Grants, donations	\$38,000	\$6,271	
Maintenance Exotic Plant Control	LCPR, C20/20, mitigation	\$6,162	\$1,518	
Monitoring	Mitigation	\$160,134		
Hydrological Monitoring/Pasture Restoration Design	C20/20			\$517
Permitting (exotics, pasture restoration)	LCPR, C20/20	\$600	\$300	
Exotic animal removal (hog trapping)	LCPR, C20/20	\$43,860	\$2,280	
total		\$1,244,357	\$81,684	\$4,701

### **Overall Protection**

Item	Funding Source	Costs	SMCSP (C20/20)	SMCSPN (C20/20)
Fence installation	LCPR, C20/20	\$18,371	\$26,970	\$18,985
Trash disposal	LCPR, C20/20	\$134	\$147	\$28
Boundary signs	LCPR, C20/20	\$1,937	\$140	\$798
total		\$20,442	\$27,257	\$19,811

### **Interpretive Facilities**

ltem	Funding Source	Costs	SMCSP (C20/20)	SMCSPN (C20/20)
Building	LCPR	\$5,343,060	\$0	\$0
Boardwalk	LCPR	\$1,180,448	\$0	\$0
Parking area	LCPR	\$54,789	\$0	\$0
total		\$6 578 297	\$0	\$0