



# Phifer Flatwoods Preserve Management Plan

Approved April 10, 2012



**Alachua County  
Environmental Protection Department  
408 West University Avenue, Suite 106  
Gainesville, FL 32601**



**Phifer Flatwoods Preserve  
Management Plan  
FCT Project # 07-115-FF7**

**Submitted By:**

**Alachua County  
Environmental Protection Department  
408 West University Avenue, Suite 106  
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## TABLE OF CONTENTS

I. INTRODUCTION .....	1
LOCATION & ADJACENT USES.....	1
ACQUISITION HISTORY .....	1
NATURAL RESOURCES SUMMARY.....	2
PREVIOUS USES .....	2
RECREATION .....	2
II. PURPOSE .....	3
PRIORTIZED MANAGEMENT OBJECTIVES.....	3
COMPREHENSIVE PLAN CONSISTENCY .....	3
LAND USE AND ZONING.....	4
III. NATURAL AND CULTURAL RESOURCES .....	5
SOILS .....	5
WATER RESOURCES .....	5
NATURAL COMMUNITIES .....	6
INVASIVE EXOTIC PLANTS.....	13
FERAL ANIMAL PROGRAM.....	15
NATURAL COMMUNITY RESTORATION.....	15
WILDFIRE AND PRESCRIBED FIRE MANAGEMENT .....	16
LISTED SPECIES PROTECTION .....	18
INVENTORY OF BIOTA AND NATURAL COMMUNITIES .....	19
CULTURAL RESOURCES .....	20
IV. FOREST RESOURCES .....	20
V. SITE DEVELOPMENT AND IMPROVEMENT.....	23
ACKNOWLEDGEMENT SIGN.....	23
EXISTING PHYSICAL IMPROVEMENTS .....	23
PROPOSED PHYSICAL IMPROVEMENTS .....	23
WETLAND BUFFER.....	24
PARKING.....	24
STORMWATER FACILITIES .....	25
HAZARD MITIGATION .....	25
EDUCATION SIGNS.....	25
PERMITS.....	25
EASEMENTS, CONCESSIONS, AND LEASES .....	25
VI. MANAGEMENT NEEDS.....	26
COOPERATIVE MANAGEMENT .....	26
GREENWAYS .....	26
PUBLIC INVOLVEMENT .....	27
MAINTENANCE .....	27
SECURITY .....	28
STAFFING .....	28
VII. MONITORING AND REPORTING .....	28
VII. REFERENCES .....	29
VIII. MANAGEMENT PLAN IMPLEMENTATION CHART .....	30
EXHIBIT A: LOCATION MAP AND SURROUNDING CONSERVATION LANDS .....	33
EXHIBIT B: PHIFER FLATWOODS PRESERVE SOILS MAP .....	34

EXHIBIT C: PHIFER FLATWOODS PRESERVE NATURAL COMMUNITIES MAP .....	35
EXHIBIT D: FLORIDA EXOTIC PEST PLANT COUNCIL 2011 LIST OF INVASIVE SPECIES ...	36
EXHIBIT E: FLORIDA NATURAL AREAS INVENTORY REPORT FORMS .....	41
EXHIBIT F: PHIFER FLATWOODS PRESERVE ANIMAL SPECIES LIST .....	44
EXHIBIT G: PHIFER FLATWOODS PRESERVE PLANT SPECIES LIST .....	47
EXHIBIT H: PHIFER FLATWOODS PRESERVE CONCEPTUAL SITE PLAN.....	52
EXHIBIT I: FLORIDA ECOLOGICAL GREENWAYS NETWORK .....	53
EXHIBIT J: ALACHUA COUNTY EMERALD NECKLACE .....	54
EXHIBIT K: PUBLIC INVOLVEMENT .....	55
EXHIBIT L: AGENCY COMMENTS.....	58
APPENDIX A: DECLARATION OF RESTRICTIVE COVENANTS	
APPENDIX B: COPIES OF DEEDS	
APPENDIX C: SOIL DESCRIPTIONS	

## **Phifer Flatwoods Preserve Management Plan Summary**

**Date of Plan:** April 10, 2012

**Management Area:** 969.76 acres (Phifer Flatwoods 644.52 ac; Phifer Addition 325.24 ac)

**Location:** Southeast Alachua County, between Gainesville and Hawthorne

**Acquisition date and cost:** Phifer Flatwoods was acquired on February 10, 2006 for \$2,882,293; Phifer Addition was acquired on December 15, 2009 for \$1,170,864

**Funding Source:** Phifer Flatwoods was purchased with Alachua County Forever Bond Proceeds (60%) and a Florida Communities Trust grant (40%). Phifer Addition was purchased with Wild Spaces and Public Places Surtax proceeds.

### Summary:

Phifer Flatwoods Preserve is located in southeast Alachua County, between Gainesville and Hawthorne. The Preserve is composed of two separate tracts – Phifer Flatwoods and Phifer Addition. Phifer Flatwoods is composed of 644.52 acres and is located south of the intersection of State Road 20 and County Road 325, and north of the Gainesville-Hawthorne State Trail and the Lochloosa Wildlife Management Area. It was acquired with funds from Alachua County and a Florida Communities Trust (FCT) Grant. Phifer Addition is 325.24 acres and is located south of County Road 2082 and east of County Road 325. It was acquired with funds from the Wild Spaces and Public Places Surtax. The lands within Phifer Flatwoods Preserve consist of a mosaic of pine-dominated forests interspersed with herbaceous and forested wetlands. The Preserve will be managed to protect, preserve and enhance the unique natural and cultural resources found on the property and to provide an enjoyable and educational passive recreational experience.

### Key Management Objectives:

1. Maintain or enhance existing natural communities where feasible and appropriate.
2. Inventory natural features of the site, including flora, fauna and natural communities.
3. Protect populations of significant and listed plant and animal species.
4. Develop and implement a prescribed fire management plan.
5. Protect water resource values from adverse impacts, and enhance values where feasible.
6. Effectively and responsibly manage cultural resources.
7. Promote public outdoor recreation and environmental education consistent with preserving the natural and cultural resources of the site.

### Resource Management Issues:

- **RESTORATION / ENHANCEMENT-** Restore/enhance approximately 596 acres of disturbed pine forests and approximately 15 acres of disturbed wetland communities.
- **FIRE MANAGEMENT** - Implement a prescribed fire management plan to aid in restoration and enhancement of natural communities, to discourage non-fire tolerant vegetation and to maintain open habitat for listed species.
- **INVASIVE PLANTS** - Control or eradicate invasive, non-native plant species.
- **CULTURAL RESOURCES** - Protect known cultural resources from disturbance, and coordinate with Florida Department of State, Division of Historic Resources to identify and protect cultural resource sites.

- **MONITORING** - Monitor property through field inspections and photopoints to determine relative success of management strategies and impacts of public use on the resources.

#### Site Development and Maintenance

- **PHYSICAL IMPROVEMENTS** - Maintain roads, trails, fences, gates, firebreaks, and a parking area; construct additional grass parking area.
- **RECREATION** – Maintain trails, trailheads and trailside amenities; construct wildlife observation platform on basin marsh.
- **EDUCATION** – Maintain existing interpretive exhibits (kiosks and trail signs), and develop additional exhibits as needed.
- **MAINTENANCE** - Maintain all improvements.
- **SECURITY** - perform regular security patrols, install informational and regulatory signage, and install additional access control as needed.

## **I. INTRODUCTION**

Phifer Flatwoods Preserve is owned and managed by Alachua County as part of the Alachua County Environmental Protection Department's (EPD) Land Conservation Program. The Preserve is composed of two separate tracts – Phifer Flatwoods and Phifer Addition. Phifer Flatwoods was acquired with funds from the Alachua County Forever (ACF) Bond, and grant funding from the Florida Communities Trust (FCT). Phifer Addition was acquired with funds from the Alachua County Wild Spaces Public Places (WSPP) Surtax.

This management plan was developed to ensure that Phifer Flatwoods Preserve will be managed and developed in accordance with the goals of the ACF Program, the FCT Grant Declaration of Restrictive Covenants (Appendix A), and WSPP Surtax referendum. The requirements imposed by other grant program funds that may be sought for activities associated with the project site shall not conflict with the terms and conditions of the FCT Grant.

### LOCATION & ADJACENT USES

Phifer Flatwoods Preserve is located in southeast Alachua County between Gainesville and Hawthorne. The Preserve is composed of two separate tracts – Phifer Flatwoods and Phifer Addition (Exhibit A). Phifer Flatwoods (644.52 acres) is bounded on the north by State Road 20, on the south by County Road 2082 and the Gainesville-Hawthorne State Trail, and is located between County Road 234 to the west, and County Road 20-A to the east. County Road 325 extends south from State Road 20, bisecting Phifer Flatwoods. Phifer Addition (325.24 acres) is located east of County Road 325 and south of County Road 2082, surrounded on three sides by lands within the Lochloosa Wildlife Conservation Area. Operational access to both properties is provided through several gates located along property boundaries. Visitor entry to Phifer Flatwoods is provided through two trailheads adjacent to the Gainesville-Hawthorne Trail, and one trailhead adjacent to County Road 2082. Because Phifer Addition is not currently open to the public, visitor entry to the tract is limited to staff-guided access through a gate on County Road 2082.

The 16,610-acre Lochloosa Conservation Easement and the 10,338-acre Lochloosa Wildlife Conservation Area are located immediately south of the Phifer Flatwoods tract, and surround the Phifer Addition tract on three sides. In addition, the Alachua Conservation Trust Prairie Creek Preserve is located approximately within two miles west, and Paynes Prairie Preserve State Park is located approximately three miles west of the Phifer Flatwoods tract. All of these conservation lands are connected to the Preserve by the Gainesville-Hawthorne State Trail (Exhibit A).

Land use adjacent to Phifer Flatwoods Preserve is predominately conservation, resource-based recreation, agricultural timber production, and rural residential. The surrounding Lochloosa conservation lands provide recreational hunting to the public on a seasonal basis, and hunting also occurs on surrounding private lands.

### ACQUISITION HISTORY

The lands within Phifer Flatwoods Preserve were evaluated for the County's ACF Program on November 6, 2002, as part of the Lochloosa Creek Flatwoods (LCR) project. Alachua County placed the LCR project on the ACF Active Acquisition List on March 22, 2005.

Plum Creek Timber offered the Phifer Flatwoods property for sale by auction in 2005, however Alachua County could not feasibly purchase the property within the time constraints associated with the auction sale. Alachua Conservation Trust (ACT), a local private land trust,

raised private funds and purchased the fee simple interest in the Phifer Flatwoods property from Plum Creek on July 29, 2005 for \$2,860,000. Alachua County purchased the property (parcels 18027-001-000, 18035-002-000, 18144-001-001, 18113-001-002, 18111-001-000, 18105-001-000, and 18105-002-000) from ACT on February 10, 2006 for \$2,882,293. In 2007, Alachua County applied to Florida Communities Trust for grant funding to recover some of the purchase costs of the property. FCT awarded the grant on January 31, 2008, which reimbursed 40 percent of the purchase price.

The Phifer Addition tract (parcels 18235-000-000 and 18108-002-000) was purchased on December 15, 2009 from Roberts Land & Timber Company for \$1,170,864.

#### NATURAL RESOURCES SUMMARY

Phifer Flatwoods Preserve is a mosaic of pine forests and wetlands that is part of a regional wildlife corridor that connects the Ocala National Forest to the Okefenokee Swamp. Located in the Ocklawaha River watershed, the Preserve contains eleven distinct upland and wetland natural communities in addition to three human-altered landcover types; mesic pine flatwoods is the dominant community type. Wetlands within the Preserve contribute to Lochloosa Creek, which flows into Lake Lochloosa. The Preserve contains habitat that is utilized by thirteen listed or tracked animal species, and five listed plant species are known to occur on the property.

#### PREVIOUS USES

Although no formal archaeological survey has occurred on Phifer Flatwoods Preserve, one documented archaeological site exists within the Preserve, consisting of a pre-historic lithic scatter.

A 1936 map of the area and abundant physical evidence on the property indicates the Phifer Flatwoods tract may have been a part of the Phifer family's turpentine and naval stores operation. Analyses of historic aerial images of the area show a large area of open pinelands surrounding a settlement with houses in rows near a railroad and major roadway. More recent aerials indicate that intensive silvicultural management has occurred there since the 1960's, including bedding, planting and harvesting of pines, as well as harvesting of hardwoods from wetlands.

Historic aerial photographs indicate the Phifer Addition tract was likely used as a homestead and for farming. A brick and stone well and remnant foundations on the property support this. More recent uses of the Phifer Addition tract include timber harvesting and recreational hunting.

#### RECREATION

Recreational features of the Phifer Flatwoods Preserve are currently established and maintained on the Phifer Flatwoods tract, and include three nature trails, two of which adjoin the Gainesville-Hawthorne State Trail, several log benches, a covered bench, a covered bench-swing, a bicycle rack, wildlife observation areas, and a geo-caching course. The trails are available to hikers, bicyclists, and equestrians. In addition, an interpretive kiosk and sign system educates visitors about the site's natural history and ecological importance.

Recreational features anticipated for the Phifer Addition tract include interpretive trails and wildlife observation areas. Recreational hunting is currently allowed on Phifer Addition by a License Agreement in exchange for site security and maintenance services. General public access to Phifer Addition will be limited to staff-lead guided walks by appointment.

## **II. PURPOSE**

The purpose of the Phifer Flatwoods Preserve project is to protect, preserve, and enhance the unique natural and cultural resources found within the Preserve and to provide an enjoyable and educational passive recreational experience. Phifer Flatwoods Preserve will be managed only for the conservation, protection and enhancement of natural resources, and for public outdoor recreation that is compatible with the conservation, protection and enhancement of the site.

Management goals are aimed at improving the condition of natural communities on the Preserve. Natural communities that are in good to excellent condition will be maintained. Those that are in less than good condition will be improved using management activities including but not limited to invasive exotic plant removal, prescribed fire, forest thinning, and re-vegetation.

Phifer Flatwoods Preserve will be identified in all literature and advertising as having been acquired with funds from Alachua County Forever bond revenues, the Florida Communities Trust, and the Wild Spaces Public Places surtax, and operated as a natural conservation area offering outdoor nature-based recreation.

### PRIORTIZED MANAGEMENT OBJECTIVES

- Maintain and enhance natural communities.
  - Apply prescribed fire to fire-dependent natural communities to manage fuel loads and to promote healthy functioning natural systems.
  - Pursue restoration of degraded natural communities.
  - Manage altered communities such that future restoration potential is enhanced or not degraded.
  - Remove feral animals.
  - Remove invasive exotic plants.
- Monitor and document effects of management activities.
  - Ensure that management activities do not harm listed species.
- Inventory flora and fauna.
- Protect water quality and soil resources.
- Document, protect, and monitor cultural resources.
- Provide opportunities for passive and educational recreational experiences.
  - Maintain a parking area and trailheads to provide public access.
  - Maintain a network of trails.
  - Maintain interpretive materials.
- Implement creative solutions to accomplish basic stewardship needs such as staffing, security and maintenance.

### COMPREHENSIVE PLAN CONSISTENCY

Alachua County Comprehensive Plan directives that will be furthered by managing the site as proposed include but are not limited to the following (Alachua County Department of Growth Management. 2011):

- Policies and objectives in the Comprehensive Plan establish a level of service standard for recreation. Objective 1.1 and Policy 1.1.2 of the Recreation Element require Alachua County to maintain 5.0 acres (minimum) of improved resource-based recreation sites per 1,000 persons in the unincorporated area of Alachua County.

- Historic Preservation Element Objective 3.1 directs the County to evaluate, and where appropriate, conserve, protect, or acquire sites and areas of archaeological significance. Policy 3.1.2 directs that significant archaeological sites shall be protected from destruction.
- Policies 2.2.1, 2.2.2, and 2.2.5 of the Conservation and Open Space Element require the County to encourage environmental stewardship and provide educational programs concerning natural resource issues, including native vegetative communities, exotic species control, and natural areas protection.
- Objective 3.2 of the Conservation and Open Space Element directs the establishment of a preservation land use category to protect natural resources within publicly owned lands in the County, and Policy 3.2.3 provides criteria by which management plans should be developed for each preservation area.
- Objective 4.9 of the Conservation and Open Space Element directs the County to maintain and enhance biodiversity by protecting significant habitats, providing habitat corridors, and preventing habitat fragmentation.
- Policies 4.10.1 and 4.10.4 of the Conservation and Open Space Element direct the County to conserve and develop management strategies for strategic ecosystems, including land acquisition and resource management. The Phifer Flatwoods tract lies within the Lochloosa Forest Additions Strategic Ecosystem, and the Phifer Addition tract lies within the Lochloosa Creek Strategic Ecosystem, both identified in the Alachua County Ecological Inventory Project (KBN 1996).
- Policy 5.4.13 of the Conservation and Open Space Element requires the County to accommodate the use of prescribed fire for maintaining ecosystem health and wildfire prevention.
- Objective 6.3 of the Conservation and Open Space Element directs the County to develop a linked open space network, or greenways system, for the protection, enhancement and restoration of functional and connected natural systems while providing unique opportunities for recreation, multi-modal transportation, and economic development. Conservation and Open Space Policies 6.3.2, 6.3.3, and 6.3.6 detail the components of the greenways system.
- Policies 6.6.5 and 6.6.6 of the Conservation and Open Space Element direct Alachua County to restore and enhance degraded natural areas on County-owned preservation, conservation and recreation lands, including removal of invasive non-native plants and animals, reforestation, re-establishment of fire regimes for fire-adapted ecosystems, and restoration of shorelines and natural hydrology, as needed.

#### LAND USE AND ZONING

Currently, the future land use for all of the tax parcels within the Phifer Flatwoods tract (parcel numbers 18027-001-000, 18035-002-000, 18144-001-001, 18113-001-002, 18111-001-000, 18105-001-000, and 18105-002-000) is designated as “Preservation.” In addition, these parcels are currently zoned “Agricultural.”

Currently the future land use for the tax parcels within the Phifer Addition tract (parcel numbers 18108-002-000 and 18235-000-000) is “Rural/Agriculture” and the zoning is “Agricultural.” Staff will initiate proceedings to change the future land use for these parcels to “Preservation” during the first large scale Comprehensive Plan amendment after approval of the updated Phifer Flatwoods Preserve Management Plan. Upon completion of changes to the future

land use designations, staff will initiate the procedure to change the zoning for each of these parcels from “Agricultural” to “Preservation.”

#### Land Use and Zoning Strategies

- Amend Future Land Use of parcels 18108-002-000 and 18235-000-000 from “Rural/Agriculture” to “Preservation.”
- Change zoning on all parcels from “Agricultural” to “Preservation.”

### **III. NATURAL AND CULTURAL RESOURCES**

#### SOILS

Sixteen soil types, defined and mapped by the Natural Resources Conservation Service, occur within Phifer Flatwoods Preserve (Exhibit B, Thomas et al. 1985). The dominant soil type within the Preserve is Pomona sand.

The soil types found within Phifer Flatwoods Preserve are briefly described in Appendix B. All of the identified soils are generally described as nearly level, with sandy surface layers and loamy or clayey lower layers. Most of the soils identified are described as somewhat poorly drained to very poorly drained, with the exception of the Millhopper and Tavares sand units, which are moderately well drained. Soil units which are depressional or saturated may limit recreational or other development in their specific areas of the Preserve.

There is currently some evidence of limited soil erosion on the Phifer Addition property, a result of land clearing and ditching on a hillside by the previous landowner. Repair of this erosion will be addressed later in the Management Plan. Land management activities will follow generally accepted best management practices to prevent soil erosion and conserve soil and water resources within the Preserve.

Although no mining activities are known to have occurred within the Preserve, sand was extracted on adjacent lands for road base material for the widening of State Road 20. There are no known mineral deposits of commercial value within the Preserve.

#### WATER RESOURCES

Phifer Flatwoods Preserve lies within the Orange Creek Basin of the Ocklawaha River watershed. Little Lochloosa Creek flows through the Phifer Flatwoods tract, near its eastern boundary, for approximately 800 feet. Lochloosa Creek flows approximately 1000 feet from the eastern boundary of the Phifer Addition tract, emptying into Lake Lochloosa approximately 2.5 miles farther downstream. During seasonal flooding, wetlands within both tracts of the Preserve flow into these creeks, thereby contributing to Lake Lochloosa. During dry periods, Little Lochloosa Creek ceases to flow.

Three aquifer systems are present beneath the Preserve, the surficial, intermediate and Floridan (Clark, et al. 1964). The Floridan aquifer is the primary source of water for the region. The lands within and around Phifer Flatwoods provide relatively high surficial aquifer recharge. The Floridan aquifer is largely confined in this area, and it is considered to be an area of low vulnerability to potential contamination of that aquifer (Baker et al. 2005).

A groundwater well is located on the Phifer Flatwoods tract, which was part of the former Plum Creek operation. Groundwater levels in this well are currently monitored by the St. Johns River Water Management District, as part of their groundwater monitoring network.

## NATURAL COMMUNITIES

Based upon current vegetation, topographic and soil characteristics, and referencing habitat classifications published by the Florida Natural Areas Inventory (FNAI) (2010), ACF staff identified eleven distinct natural community types and three human-altered landcover types within Phifer Flatwoods Preserve (Exhibit C, Table 1). The natural and altered areas are briefly described below.

The natural communities within Phifer Flatwoods Preserve shall be managed to ensure their long-term viability. Restoration or enhancement of previously disturbed communities will be implemented where feasible. As management progresses, the delineation of the natural communities will be further refined.

The Phifer Flatwoods tract is best described as a mosaic of fire-dependent, pine-dominated flatwoods, interspersed with depression and basin wetlands. The property has a long history of human disturbance, currently evident in the silvicultural beds, windrows, and densely planted pine plantations. The Phifer Addition tract also shows signs of prolonged human disturbance – primarily timber harvesting throughout the tract, and long-term, intensive agriculture in the northwestern corner.

### Mesic Hammock

Approximately 83.1 acres of mesic hammock exists within Phifer Flatwoods Preserve, occurring in scattered patches throughout the Phifer Flatwoods tract, and in two localized areas along the northern and eastern boundaries of the Phifer Addition tract. Within the Phifer Flatwoods tract, mesic hammock occurs adjacent to roads, historic property boundary lines, and mesic pine flatwoods which have been managed for silviculture for several decades. These areas are in fair condition because they are disturbed to varying degrees – there is evidence of soil disturbance associated with the adjacent pine silviculture, the groundcover is often absent or sparse, and the tree canopy, while fairly diverse, appears relatively young. It is likely that some portions of the mesic hammock within the Phifer Flatwoods tract were once part of the adjacent mesic flatwoods, and over time succeeded to hammock. Today, these areas of hardwood forest are dominated by live oak (*Quercus virginiana*) and cabbage palm (*Sabal palmetto*) growing among scattered slash pine (*Pinus elliotii*), laurel oak (*Q. laurifolia*), water oak (*Q. nigra*), sweetgum (*Liquidambar styraciflua*), and American holly (*Ilex opaca*). Shrubs are sparse to patchy, and include beautyberry (*Callicarpa americana*), wax myrtle (*Myrica cerifera*), rusty blackhaw (*Viburnum rufidulum*), yaupon (*Ilex vomitoria*), and occasional saw palmetto (*Serenoa repens*). Groundcover in the mesic hammock areas within the Phifer Flatwoods tract is mostly absent, likely due to past ground disturbance and heavy shading from the overstory. Where present, the groundcover includes wood oats (*Chasmanthium laxum*), slimleaf pawpaw (*Asimina angustifolia*), greenbrier (*Smilax spp.*), partridgeberry (*Mitchella repens*) and seedlings of overstory trees and shrubs.

The mesic hammock within the Phifer Addition tract is located in two distinct areas along the northern and eastern boundaries of the property. The mesic hammock along the northern boundary is in good condition, dominated by large live oak trees, with scattered Carolina laurel cherry (*Prunus caroliniana*), pignut hickory (*Carya glabra*), common persimmon (*Diospyros virginiana*) and southern magnolia (*Magnolia grandiflora*), and a very few southern red oak (*Q. falcata*) red bay (*Persea borbonia*) and camphor (*Cinnamomum camphora*). Shrub species present include beautyberry, wax myrtle, winged sumac (*Rhus copallinum*) coralbean (*Erythrina herbacea*) and smallflower pawpaw (*Asimina parviflora*). Groundcover is patchy, depending

upon overstory shading, but where present includes switchgrass (*Panicum virgatum*), maidencane (*P. hemitomon*), wood oats, greenbrier, fireweed (*Erechtites hieracifolius*), muscadine (*Vitis rotundifolia*), and Virginia creeper (*Parthenocissus quinquefolia*). Analyses of historic aerial photographs indicate this area may have been pine dominated in the early 20<sup>th</sup> century, and the presence of remnant southern red oak and coralbean support this. In recent decades, the area was grazed and subsequently mowed to keep the understory open.

The mesic hammock along the eastern boundary of the Phifer Addition tract lies within the transition between mesic flatwoods and a narrow band of hydric hammock associated with the Lochloosa Creek floodplain. This area of hammock appears to be much more mature and diverse than the previously described areas within the rest of the Preserve, and is considered to be in very good condition. It contains abundant groundcover and far less ground disturbance. The overstory is dominated by large live oaks and soaring cabbage palms growing among scattered laurel oak, pignut hickory, winged elm (*Ulmus alata*), loblolly pine (*P. taeda*), red cedar (*Juniperus virginiana*), American hornbeam (*Carpinus caroliniana*), red bay and wild olive (*Osmanthus americanus*). Many of the large live oaks host Bartram's airplant (*Tillandsia bartramii*) and dense mats of resurrection fern (*Pleopeltis polypodioides* var. *michauxiana*) and green-fly orchid (*Epidendrum conopseum*). Shrub species include beautyberry, wax myrtle, groundsel tree (*Baccharis halimifolia*), coontie (*Zamia pumila*), and Walter's viburnum (*Viburnum obovatum*). Groundcover consists largely of dense patches of wood oats and beaked panicum (*P. anceps*) with occasional bracken fern (*Pteridium aquilinum*) and Partridgeberry.

#### Wet Flatwoods

There are approximately 15.7 acres of wet flatwoods in both tracts of Phifer Flatwoods Preserve. The wet flatwoods are in fair condition. Disturbance is evident in the wet flatwoods of both tracts; likely the result of timber harvesting and subsequent site preparation. Within the Phifer Flatwoods tract, the area classified as wet flatwoods (approximately 6 acres) was clearcut and double-bedded in the early 1990's for slash pine production, along with the adjacent mesic flatwoods. A hardwood swamp located on the west side of the wet flatwoods was logged in the late 1990's. Extensive ground disturbance resulted from the logging and the double-bed planting. Today, this area of wet flatwoods is characterized by fairly large slash pine planted in beds, with volunteer red maple (*Acer rubrum*), swamp bay (*Persea palustris*) and loblolly bay (*Gordonia lasianthus*) in the overstory, and wax myrtle, fetterbush (*Lyonia lucida*), and swamp doghobble (*Eubotrys racemosa*) occupying the midstory of higher, bedded areas. Groundcover consists of large patches of *Sphagnum*, interspersed with bushy bluestem (*Andropogon glomeratus*), Virginia chain fern (*Woodwardia virginica*), netted chainfern (*W. areolata*), and redroot (*Lachnathes caroliniana*).

Within the Phifer Addition tract, the area classified as wet flatwoods (approximately 10 acres) was clearcut in 2003 or 2004 for timber revenue, and subsequently roller-chopped, then allowed to regenerate naturally. This area of wet flatwoods is characterized by very few pines with small-statured red maple, swamp bay and loblolly bay in the overstory, and wax myrtle, saw palmetto and fetterbush shrubs present in dense patches in the midstory. Groundcover species present include abundant bushy bluestem and redroot, Virginia chain fern and occasional patches of *Sphagnum* moss.

The wet flatwoods within the Preserve will be restored through the use of prescribed fire, exotic plant control as needed, and natural regeneration. Supplemental planting of slash pine and pond pine (*Pinus serotina*) may be necessary for the wet flatwoods on Phifer Addition, and

periodic thinning of the planted pines will be conducted within this community on the Phifer Flatwoods tract.

### Mesic Flatwoods

Mesic flatwoods is the dominant natural community type within Phifer Flatwoods Preserve, covering approximately 580.3 acres. Within the Phifer Flatwoods tract, most of this community type has been harvested repeatedly, bedded and planted with slash or loblolly pine. Desirable flatwoods species are still present, however, including saw palmetto, gallberry (*Ilex glabra*), highbush blueberry (*Vaccinium corymbosum*), running oak (*Q. pumila*), deerberry (*V. stamineum*), shiny blueberry (*V. myrsinites*), silkgrass (*Pityopsis graminifolia*), and blazing star (*Liatris tenuifolia*). Most of the pine plantation units are in poor to fair condition. The pine density and presence of native groundcover is improved in the areas which have been thinned and burned. Furthermore, supplemental plantings with containerized wiregrass and longleaf pine seedlings in 2009 also improved approximately 53 acres of mesic flatwoods. However, they are still considered to be only in fair condition, owing to the presence of beds and windrows, and the absence of many desirable flatwoods species. Exotic plants including camphor tree (*Cinnamomum camphora*), mimosa tree (*Albizia julibrissin*), air potato (*Dioscorea bulbifera*), coral ardisia (*Ardisia crenata*), Chinese tallowtree (*Sapium sebiferum*), Chinaberry (*Melia azedarach*), Japanese climbing fern (*Lygodium japonicum*), Japanese honeysuckle (*Lonicera japonica*), tropical soda apple (*Solanum viarum*), and cogongrass (*Imperata cylindrica*) are sporadically present within the mesic flatwoods, primarily along the edges or in areas subjected to past ground disturbance. All known infestations have been treated to date, and follow up treatments as well as monitoring for new infestations are ongoing.

Within the Phifer Addition tract, most of the mesic flatwoods were clearcut of pines and roller-chopped in 2004, and allowed to regenerate naturally. In spite of the recent management activities, these flatwoods are considered in good condition, which should improve greatly with the application of prescribed fire. Live oak, laurel oak, water oak, and other hardwoods were left intact. The roller-chopping appears to have negatively impacted some of the live oaks, as many of them are showing signs of decline and extensive crown die-back. In areas where unharvested loblolly pines were growing upslope, this species is regenerating rapidly. Otherwise, natural regeneration of pines is occurring fairly slowly or not at all. Appropriate flatwoods shrub and groundcover species are present, including saw palmetto, wax myrtle, winged sumac, highbush blueberry, gallberry, broomsedge, maidencane, bottlebrush threeawn (*Aristida spiciformis*), shiny blueberry and bracken fern. The shrub layer is not as dense as would be expected with a clearcut area, presumably because of the recent roller-chopping, however this has promoted a very abundant groundcover. The application of prescribed fire and supplemental planting with longleaf pine seedlings began in 2011, on approximately 44 acres in the southwest corner of the property.

The mesic flatwoods communities throughout the Preserve will be restored through the use of prescribed fire, exotic plant control, natural regeneration, direct seeding with appropriate understory and ground cover plants, planting longleaf pines and understory species as necessary, hardwood control, and periodic thinning of the plantations. All proceeds resulting from timber removal will be used for resource management activities on Phifer Flatwoods Preserve.

### Sinkhole

A small sinkhole (approximately 0.1 acre) is located on the Phifer Addition tract. It is a round, steep-sided sinkhole which appears to contain water in most historic aerial photographs.

The water completely evaporated during the summer of 2011, and has likely done so in past drought years. The water in the sinkhole is typically dark and tannin-stained, with scattered floating water spangles (*Salvinia minima*) and algae, and no emergent plants. The edges of the sinkhole show some signs of erosion, probably a result of past cattle grazing activity. They are vegetated with relatively young trees including swamp tupelo (*Nyssa sylvatica* var. *biflora*), water oak, live oak, slash pine, saw palmetto, and shrubs such as buttonbush (*Cephalanthus occidentalis*) and beautyberry. The side slopes are generally bare. When the bottom of the sinkhole is exposed due to draw-down, vegetation consists of rapidly-growing pioneer species such as dogfennel (*Eupatorium capillifolium*) and fireweed (*Erechtites hieraciifolius*). Wood ducks (*Aix sponsa*) have been observed in the sinkhole when it contains water. Numerous animal tracks around the sinkhole indicate wildlife visit it frequently, including white-tailed deer (*Odocoileus virginianus*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), hog (*Sus scrofa*) and a variety of wading birds. The sinkhole is in fair condition, owing to the remaining effects of cattle grazing

### Depression Marsh

Several isolated depression marshes are scattered throughout the Preserve, collectively covering approximately 15.4 acres in land area, and ranging in condition from fair to good. These depressions are typically edged with dahoon holly (*Ilex cassine*), red maple, swamp tupelo, buttonbush, fetterbush, swamp doghobble, and gallberry, with dense groundcover consisting of maidencane, Virginia chain fern, netted chain fern, redroot, softtrush (*Juncus effusus* subsp. *solutus*), and *Sphagnum* moss. The depression marsh communities on the Phifer Flatwoods tract have been affected by past timber management activities, as evidenced by deep ruts created by logging equipment, spoil piles created during site preparation, and raised beds on which slash pine were planted. In general, the slash pines planted within the depression marshes are stunted or declining. As adjacent timber stands are harvested for restoration, pines planted in the depression marshes will be considered for removal, if it can be accomplished without heavy rutting or damage to the marshes. The depression marsh located on the Phifer Addition tract is also impacted by recent logging, in addition to site preparation and ditch construction on the adjacent uplands. Unlike the marshes on the Phifer Flatwoods tract, pines were not planted in this marsh after harvesting.

The depression marsh communities within the Preserve will be restored primarily through the application of prescribed fire and natural regeneration. In addition, exotic plant control, removal of planted pines where feasible and planting of native vegetation will be considered as needed.

### Basin Marsh

Approximately 5.2 acres of basin marsh community occur within a large basin swamp on the Phifer Flatwoods tract. This marsh is largely undisturbed and considered in very good condition, containing open water, floating islands, and abundant emergent aquatic plants. Species present in the basin marsh include buttonbush, Virginia sweetspire (*Itea virginica*), swamp tupelo, coastalplain willow (*Salix caroliniana*), and red maple, with maidencane, smartweed (*Polygonum* sp.), and marsh marigold (*Bidens laevis*) on the higher edges; pickerelweed (*Pontederia cordata*), duck potato (*Sagittaria lancifolia*), and cattail (*Typha* sp.) in the emergent zone; and spatterdock (*Nuphar advena*), white waterlily (*Nymphaea odorata*), frog's bit (*Limnobiium spongia*), water spangles and waterfern (*Azolla filiculoides*) in the floating-leaved zone.

### Dome Swamp

Seven dome swamps are scattered throughout Phifer Flatwoods Preserve – six within the Phifer Flatwoods tract and one within the Phifer Addition tract. All are less than one acre in size, and together they cover approximately 3.7 acres. The current condition of the dome swamps ranges from fair to very good. All of the dome swamps have been logged at some time in the past, and the remaining impacts from those activities affect their current condition. One dome swamp, which has an open pond in the center, is in very good condition, and lacked only fire along its edges until the surrounding flatwoods were burned in 2009. All of the dome swamps on the Preserve have a typical canopy dominated by pond cypress (*Taxodium ascendens*), with swamp tupelo, red maple and swamp bay (*Persea palustris*) also present. Shrub species within the dome swamps include buttonbush, wax myrtle, fetterbush and Virginia sweetspire. Groundcover is typically dense in the more shallow domes, and may be absent or only present on elevated hummocks in the deeper domes, where water stands for long periods of time. Where present, groundcover in the dome swamps includes Virginia chain fern, royal fern (*Osmunda regalis*), cinnamon fern (*Osmunda cinnamomea*), maidencane, various species of beaksedge (*Rhynchospora spp.*), lizard's tail (*Saururus cernuus*), redroot, false nettle (*Boehmeria cylindrica*), and *Sphagnum* moss.

Restoration of the dome swamps will focus on applying prescribed fire to the surrounding flatwoods communities and allowing it to burn into the edges of the swamps. In addition, the dome swamps will be monitored for the presence of exotic plant or animal species, and appropriate control methods will be implemented as necessary. Because sufficient native plant species are present, the dome swamps will be allowed to regenerate naturally.

### Basin Swamp

Phifer Flatwoods Preserve contains five distinct areas of basin swamp community totaling approximately 185.2 acres. Most of this community type has been impacted to some degree by past silvicultural practices within the present-day boundaries of the Preserve. The largest area of this community type is dominated by mature pond cypress, swamp tupelo, buttonbush, doghobble, and fetterbush, with slash pine on the higher edges. This area was part of a larger swamp system bisected by State Road 20. In spite of the road construction and the impacts associated with harvesting and bedding the adjacent pine forests, this natural community is in good to very good condition, providing a breathtaking visual example of a typical basin swamp community. Because of fire exclusion and silvicultural practices, the edges of this swamp are densely vegetated with shrub species, creating a nearly impenetrable ecotone. Prescribed fire should be applied to the adjacent flatwoods when this swamp contains water, and the fire should be allowed to burn into the edges of the swamp to help restore its natural ecotone.

The four other areas within the Preserve classified as basin swamp are in fair to poor condition, owing to deep rutting and ditching associated with past land management practices. In these areas, pond cypress occurs as a less dominant canopy species along with red maple, slash pine, swamp bay, loblolly bay, and sweetbay magnolia (*Magnolia virginiana*). Dense midstory vegetation consists of fetterbush, titi, doghobble, poison ivy (*Toxicodendron radicans*) and greenbrier, with patchy areas of ferns and sedges in more open areas.

### Floodplain Swamp

A narrow finger of the Lochloosa Creek floodplain swamp (approximately 3.3 acres) extends into the northeast corner of the Phifer Addition tract. This natural community is in fair to good condition. In 2010, this area was inundated with tannic waters from Lochloosa Creek,

and in the 1845 survey of the Arredondo Grant, the surveyor notes crossing a branch in this area of the section line. It appears portions of this natural community were logged simultaneously with timber harvesting in the surrounding uplands in 2004, and the floodplain swamp now consists of a dense patches of young swamp tupelo, red maple and Carolina ash interspersed with large open patches of herbaceous vegetation including spike rush (*Eleocharis sp.*), woolgrass (*Scirpus cyperinus*), water hoarhound (*Lycopus rubellus*), leathery rush (*Juncus coriaceus*), and creeping primrosewillow (*Ludwigia repens*). Dense thickets of shrubs occur in the transition areas between the open, marsh-like patches, and the more forested areas, with species including fetterbush, swamp rose (*Rosa palustris*), silverling saltbush (*Baccharis glomeruliflora*), and winged sumac. Adjacent to the northern boundary of the property, the floodplain swamp community appears undisturbed by the recent timber activity, although some very old cut stumps and an old fenceline are evident. In this area, string lily (*Crinum americanum*) occurs in wet pockets among raised hummocks with royal fern and assorted sedges, all beneath a large, closed canopy of swamp tupelo, maple and Carolina ash.

#### Hydric Hammock

Within the mesic hammock community near the eastern boundary of the Phifer Addition tract, hydric hammock occurs in several tiny, isolated patches, and in a few distinct fingers, ranging in condition from fair to very good. Because of their small size and difficulty in defining the boundaries between the two community types, most of the hydric hammock is classified as mesic hammock on the natural community map. Only the larger, distinct portions of the hydric hammock are represented on the map, totaling approximately 2.5 acres. Where it is intact, the hydric hammock canopy is dominated by swamp laurel oak, with water oak, live oak, cabbage palm, sweetbay, red cedar, red maple, American hornbeam and loblolly pine also present. Walter's viburnum, dwarf palmetto (*Sabal minor*), wax myrtle and beautyberry are dominant shrub species, while wood oats occupy dense patches of the groundcover, interspersed with small patches of lizard's tail in wetter, ponded areas. The southernmost finger of hydric hammock has been impacted by logging in the adjacent basin swamp. Significant rutting is apparent in some locations, and large areas of mature trees are missing, leaving coppiced Carolina ash trees and saplings of red maple, swamp laurel oak and American hornbeam, interspersed with marshy patches dominated by fireweed and canna lilies (*Canna flaccida*).

#### Blackwater Stream

A short reach of Little Lochloosa Creek, a tributary of Lochloosa Creek, which flows into Lake Lochloosa, crosses the Phifer Flatwoods tract near the eastern property boundary, covering approximately 0.6 acres. The natural streambed has been channelized and is in fair condition. Surrounding uplands have been impacted by logging and timber management. Because the creek is very narrow and channelized, the vegetation is largely limited to what is growing on the creek banks, and species composition is typical of the surrounding natural communities. Where the creek traverses mesic flatwoods, the creek bank vegetation consists largely of slash pine, water oak, red maple, saw palmetto and wax myrtle; where it crosses basin swamp, the vegetation shifts to favor pond cypress, swamp tupelo buttonbush and water oak; and where the creek flows through mesic hammock, the creek bank vegetation is dominated by sweetgum, laurel oak, live oak, wax myrtle and cabbage palm. Aquatic vegetation is absent, and groundcover on the creek banks consists largely of netted chain fern, Virginia chain fern, wood oats and greenbrier.

## FNAI Human-altered Landcover Types

### **Improved Pasture**

Approximately 19.4 acres of improved pasture exist within the Phifer Addition tract. This is an irregularly-shaped area located in higher elevations adjacent to mesic flatwoods. The vegetation in this area is dominated by large, mature live oaks underlain by bahiagrass (*Paspalum notatum*) pasture. Gopher tortoises (*Gopherus polyphemus*) inhabit this area, encouraged by the abundant grass and deep, sandy soils. Turkey (*Meleagris gallopavo*) and northern bobwhite (*Colinus virginianus*) have also been observed in this altered habitat. Portions of this altered community type are maintained as open, grassy areas with periodic mowing.

### **Semi-improved Pasture**

Approximately 45.6 acres of semi-improved or “rough” pasture are located in the northwest corner of the Phifer Addition tract. This is the highest topographic area on the property, with deep, sandy and nutrient-poor soils. Based upon historic aerial analysis, this area was cleared prior to 1937, and evidence of agricultural use is clear in that year, as well as in 1949 and 1968. A historic stone and brick well is located within this area, adjacent to remnants of structural foundations.

Most of the semi-improved pasture is now characterized by scattered patches of bahia, centipedegrass (*Eremochloa ophiuroides*) and broomsedge, interspersed with remnant groundcover plants native to sandhill and mesic flatwoods. The native groundcover species present are quite diverse, and include narrowleaf silkgrass (*Pityopsis graminifolia*), pinewoods milkweed (*Asclepias humistrata*), wiregrass (*Aristida stricta* var. *beyrichiana*), bottlebrush threeawn (*A. spiciformis*), slender scratchdaisy (*Croptilon divaricatum*), pricklypear (*Opuntia humifusa*), coastalplain daisy (*Stylisma patens*), scurf hoarypea (*Tephrosia chrysophylla*), Elliott’s lovegrass (*Eragrostis elliotii*), pinebarren flatsedge (*Cyperus ovatus*), pineland scalypink (*Stipulicida setacea*), powderpuff (*Mimosa strigillosa*), and dwarf pawpaw (*Asimina pygmaea*). Mature and seedling longleaf pine occur sporadically in the semi-improved pasture, with abundant live oak, sand live oak, and occasional loblolly and slash pine. Turkey oak is present as short-statured seedlings in a portion of this altered habitat, probably a result of repeated mowing. Active gopher tortoise burrows, both mature and immature size classes, are abundant throughout.

### **Road**

Significant areas of improved roads within Phifer Flatwoods Preserve are included on the Natural Community Map. These are to be distinguished from the many forest roads within the Preserve, which are typically clearings at natural grade with no or only minor improvements. The improved roads consist of nearly 2 acres within the Phifer Addition tract, and 7.6 acres within the Phifer Flatwoods tract. The road within Phifer Addition is crowned with adjacent swales, and is completely vegetated with bahiagrass. The road within Phifer Flatwoods is a County-maintained road (County Road 2082), which is crowned, contains roadside ditches and culverts, and was recently topped with a modified asphalt mix for road surface stabilization.

**Table 1.** A summary of natural communities, acreages, condition and community rarity within Phifer Flatwoods Preserve.

Phifer Flatwoods Preserve Natural Communities				
Community type	Acre <sup>s</sup> *	% of Area	Quality	FNAI Ranking**
Mesic Hammock	83.1	8.6	Fair - Very Good	G3/S3?
Wet Flatwoods	15.7	1.6	Fair	G4/S4
Mesic Flatwoods	580.3	59.8	Poor - Good	G4/S4
Sinkhole	0.1	<1	Fair	G2/S2
Depression Marsh	15.4	1.6	Fair - Good	G4/S4
Basin Marsh	5.2	<1	Very Good	G4/S3
Dome Swamp	3.7	<1	Fair - Very Good	G4/S4
Basin Swamp	185.2	19.1	Poor - Very Good	G4/S3
Floodplain Swamp	3.3	<1	Fair - Good	G4/S4
Hydric Hammock	2.5	<1	Fair -Very Good	G4/S4
Blackwater Stream	0.6	<1	Fair	G4/S2
<b>FNAI Human-altered Landcover Types</b>				
Improved Pasture	19.4	2	---	---
Semi-improved pasture	45.6	4.7	---	---
Road	9.6	<1	---	---

\*Acre<sup>s</sup> are approximate

\*\* (FNAI 2010)

### Red Bay and Swamp Bay Mortality Note

Red bay and Swamp Bay trees throughout the Preserve are dead or dying from a fungal pathogen (*Raffaelea* sp.), introduced to host plants by a non-native ambrosia beetle (*Xyleborus glabratus*). This species, which is native to Asia, was first detected and confirmed to be affecting red bays in northeast Florida in 2005, and is now known to also affect other host plants in the Lauraceae family. The beetle and its associated fungus are commonly referred to collectively as “laurel wilt” (Mayfield et al. 2009). Affected host trees wilt and die within a few weeks or months of infection, and often sprout new shoots from the roots. In all natural communities of the Preserve where red and swamp bay once thrived, persisting or surviving bays are now noticeably less dominant in the forest canopy and more dominant in the shrub layer and groundcover.

### INVASIVE EXOTIC PLANTS

Twelve exotic plants designated as Florida Exotic Pest Plant Council (FLEPPC) Category I or II Species, are currently known to occur within Phifer Flatwoods Preserve (see Table 2 and Exhibit D). To date, initial treatments have begun on all known infestations within the Preserve, and routine follow up treatments are ensuring effective control. Most of the species are dispersed by animals and wind, or have been discarded on the property by humans.

Invasive exotic plants are known to alter native plant communities by displacing native species, changing community structure or ecological functions. An ongoing monitoring and control program for invasive vegetation including exotic (non-native) and nuisance native plant species has been implemented within the Preserve. The objective of this program is to eliminate

invasive exotic plant infestations and maintain a diverse cover of native vegetation. This will be accomplished through an integrated pest management program that includes physical removal, chemical control, bio-control as applicable and public education. Control techniques for invasive exotic plants follow accepted control technologies, and treatment sites are monitored on a yearly or more frequent interval to evaluate control methods.

The most problematic exotic plant species within Phifer Flatwoods Preserve are air potato, cogongrass, camphor tree and skunkvine (*Paederia foetida*). Air potato and cogongrass are only known to occur on the Phifer Flatwoods tract. Control of the air potato population began in 2007, with the treatment of approximately four acres. Treatment of the cogongrass infestation began in 2008. Skunkvine was first observed in one dense patch on the Phifer Addition tract in 2011, and treatment began later that year. Camphor tree occurs on both tracts. Initial treatment began on the Phifer Flatwoods tract in 2007 and on the Phifer Addition tract in 2011.

Japanese honeysuckle, Chinese tallowtree, Chinaberry, coral ardisia, tropical soda apple, mimosa and Japanese climbing fern also occur within the Phifer Flatwoods tract, but have not been observed on the Phifer Addition tract to date. These species were initially treated in 2007, concurrent with the initial air potato treatments.

Alligatorweed (*Alternanthera philoxeroides*) occurs in scattered dense patches in the wetter areas of the roadside swale on State Road 20. In some locations, these areas are in close proximity to isolated depression marsh communities on the Phifer Flatwoods boundary. The plants appear to be effectively controlled by an insect pathogen, presumably one of several species which were introduced to control the weed. At this time, alligatorweed does not pose an immediate risk to the marsh communities on the Preserve.

Invasive Exotic Plant Strategies

- Continue treatment of invasive plant infestations using appropriate techniques.
- Monitor treated sites and follow-up as needed.

**Table 2.** Invasive exotic plants occurring at Phifer Flatwoods Preserve.

<b>Phifer Flatwoods Preserve Exotic Plants</b>			
<b>Common Name</b>	<b>Latin Name</b>	<b>FLEPPC Category</b>	<b>Abundance and Frequency Observed</b>
Mimosa	<i>Albizia julibrissin</i>	I	infrequent individuals
Alligatorweed	<i>Alternanthera philoxeroides</i>	II	infrequent dense patches
Coral ardisia	<i>Ardisia crenata</i>	I	infrequent individuals
Camphor tree	<i>Cinnamomum camphora</i>	I	scattered individuals
Air potato	<i>Dioscorea bulbifera</i>	I	infrequent dense patches
Cogongrass	<i>Imperata cylindrica</i>	I	scattered small patches
Japanese honeysuckle	<i>Lonicera japonica</i>	I	scattered small patches
Japanese climbing fern	<i>Lygodium japonicum</i>	I	scattered individuals
Chinaberry	<i>Melia azedarach</i>	II	scattered individuals
Skunkvine	<i>Paederia foetida</i>	I	individual dense patch
Tropical soda apple	<i>Solanum viarum</i>	I	scattered individuals
Chinese tallowtree	<i>Sapium sebiferum</i>	I	infrequent individuals

## FERAL ANIMAL PROGRAM

Evidence of feral hogs has been observed within the Phifer Flatwoods tract and the Phifer Addition tract, typically as rooting in wetlands. Feral hogs are reported to migrate throughout the forests and floodplains in the area surrounding Phifer Flatwoods Preserve (Bill Schlitzkus, personal comm.) Staff regularly monitors the Phifer Flatwoods tract for the presence of feral hogs, and a License Agreement licensee monitors the Phifer Addition tract monthly. To date, no hogs have been removed from either property.

Given the Preserve's proximity to urban areas, it is likely that domestic dogs and cats may occur there periodically. The presence of these species is of concern because of their potential to cause a variety of negative ecological impacts through habitat degradation, predation on native species, and competition with native species.

Staff will continually monitor the Preserve for the presence feral animal species. If feral animals are discovered on the property, appropriate control measures will be taken to humanely remove them.

### Feral Animal Program Strategies

- Monitor and remove feral animal species.

## NATURAL COMMUNITY RESTORATION

Approximately 657 acres within Phifer Flatwoods Preserve are identified for varying levels of ecological restoration or enhancement, including nearly 596 acres of pine flatwoods and approximately 15 acres of depression marsh. General strategies for restoring the ecological function of these natural communities are briefly outlined below. These strategies provide logical, initial steps for the long-term restoration of the biological structure and function of the target areas. The strategies will be assessed and refined as needed during the restoration process to achieve long-term restoration success.

### Adaptive Restoration of Pine-dominated Forests (mesic and wet flatwoods)

Nearly all of the pine forests within the Preserve have been degraded by past silvicultural practices, including bedding, fire suppression, high-density plantings and timber harvesting. In addition, the pine forests on the Phifer Addition tract have been impacted by decades of cattle grazing, and ditch construction. The long-term restoration goal for these areas is to convert low-diversity pine plantations, grazed and clear-cut areas to more natural stands of uneven aged slash and longleaf pine with native groundcover. Restoration will be implemented in phases over a period of several years, using a combination of prescribed fire, exotic plant control, thinning of the pine overstory, removal of offsite hardwood species, planting and seeding of wiregrass and other native groundcover, and planting of longleaf pine trees. Revenue generated from thinning operations and hardwood removal will be used to fund some of these restoration activities.

Since 2007, staff have successfully applied prescribed fire to approximately 230 acres, implemented initial and follow-up exotic plant control on about 16 acres within the Preserve. In addition, containerized wiregrass and longleaf pine tubelings were planted on approximately 50 acres within the Phifer Flatwoods tract in 2009, and longleaf pine was planted on approximately 44 acres within the Phifer Addition tract in 2011. Pine timber thinning on approximately 196 acres is anticipated for early 2012, and additional native vegetation replanting is planned for approximately 269 acres of uplands and 5 acres of wetlands.

In addition to major alterations in the Preserve's forest structure, two upland ditches constructed by the previous landowner on the Phifer Addition tract are impacting the

surrounding uplands, and require restoration. The ditches appear to have been constructed to convey water from a depression marsh to a basin swamp located downslope. While the impacts to the associated wetlands are not immediately apparent, the impacts to the surrounding uplands are. In addition to conveying surface water during wet seasons, one of the ditches has also been observed conveying subsurface flow from an adjacent hillside, which is causing extensive erosion to the hillside. Complete restoration would entail backfill of the ditches, however no spoil associated with ditch construction remains onsite, therefore it may be cost prohibitive to fill the ditches with imported fill material. If this is the case, a series of ditch blocks may be considered as an alternative to alleviate the unnatural drainage and erosion in the impacted areas.

#### Pine Flatwoods Restoration Strategies

- Implement prescribed fire.
- Control invasive species.
- Develop long-term timber thinning plans.
- Plant native groundcover and longleaf pine on approximately 269 acres of mesic flatwoods.
- Backfill or install ditch blocks to alleviate drainage and erosion caused by the ditches on the Phifer Addition tract.
- Revise plan as necessary to meet restoration goals.

#### Restoration of Basin and Depression Marshes

Past timber management within the Phifer Flatwoods tract resulted in bedding and planting of the flatwoods-marsh ecotones and many of the smaller, isolated marsh communities. Removal of planted and offsite pines, and reestablishment of native tree and groundcover species are long-term restoration goals for these areas. Restoration will be implemented in phases over a period of several years, using a combination of prescribed fire, pine removal, and planting of native marsh vegetation as needed. Wherever practical, planted pines will be removed from the depression marshes when pine timber harvesting is occurring in adjacent flatwoods. Site managers will ensure this work only occurs if the marshes are dry, so that deep soil rutting and erosion will not result.

#### Basin and Depression Marsh Restoration Strategies

- Implement prescribed fire.
- Monitor for and control invasive species as needed.
- Remove planted pines.
- Plant native marsh species on approximately 5 acres.
- Revise plan as necessary to meet restoration goals.

#### WILDFIRE AND PRESCRIBED FIRE MANAGEMENT

In order to facilitate emergency wildfire response on Phifer Flatwoods Preserve, staff created an emergency response map book which was provided to Florida Forest Service (FFS), Fish and Wildlife Conservation Commission (FWC) and the Alachua County Public Safety Department. The map book includes aerial maps of the parcels marked with site access points, firebreaks, and Alachua County staff emergency contact numbers. This map book will be periodically updated to reflect changes in site conditions, and made available to appropriate response agencies.

Prescribed fire is utilized within the Preserve to enhance groundcover diversity in all of the fire-dependent natural communities, to help restore natural community structure, to reduce encroachment of offsite hardwoods and to reduce fuel loads thereby decreasing the risk of catastrophic wildfire.

Both tracts of Phifer Flatwoods Preserve contain fire-dependent natural communities. The Phifer Addition tract also contains human-altered communities which will be managed with prescribed fire. The Phifer Flatwoods tract contains mesic and wet flatwoods, depression marsh and basin marsh, while the Phifer Addition tract contains mesic and wet flatwoods, and depression marsh, in addition to improved and semi-improved pasture. Together, the fire-managed acres within the Preserve total approximately 676 acres.

Fires naturally occur at a frequency of 2 to 10 years within mesic and wet flatwoods, while natural fire return intervals in depression and basin marsh communities are largely dependent upon the hydrologic conditions within those wetlands as well as the occurrence of fire in surrounding uplands (FNAI 2010). No guidelines are available for fire return intervals on semi-improved and improved pasture. For the purposes of controlling woody vegetation and encouraging growth and regeneration of grasses and forbs, a fire return interval similar to sandhill (1-3 years) or dry prairie (1-2 years) will be considered sufficient for these altered communities until management objectives for them change. Assuming an average three-year fire return interval for all fire-dependent habitats within the Preserve, prescribed burning should be conducted on a minimum of 225 acres per year to maintain a natural fire frequency.

Beginning in 2009, dormant-season prescribed fire was introduced to the mesic flatwoods and depression marsh communities within the Phifer Flatwoods tract, and subsequent dormant- and growing-season fires were conducted there since. In addition, growing-season fire was introduced to the roller-chopped mesic flatwoods on the Phifer Addition tract in 2011 to prepare this community for longleaf pine planting. Because most of the flatwoods communities are long fire-suppressed and contain heavy fuel accumulations, it is anticipated that prescribed fires in both tracts will be prioritized to occur during dormant seasons for the foreseeable future, to prepare the fire-dependent communities for safe growing-season burning. When this is achieved, growing-season fire will be applied where and when possible.

In April 2011, a wildfire occurred in densely planted pines on the Phifer Flatwoods tract, resulting from a neighbor's escaped trash fire. This fire affected approximately 1.75 acres within the pine plantation and a depression marsh. The fire was suppressed by local FFS staff, and County staff followed up with mop-up and fireline rehabilitation.

Annual notifications are mailed to neighbors of the Preserve to inform them about prescribed fire activities planned for the upcoming year, and why prescribed fire is used as a management tool.

County staff develop seasonal prescribed fire plans and detailed burn prescriptions for fire-dependent communities within Phifer Flatwoods Preserve. Seasonal fire plans prioritize individual burn management units, and the desired seasons, conditions under which they should be burned, and anticipated fire break preparation. Burn prescriptions describe burn objectives for each unit, the fuel types and loads within the target areas, the installation and/or maintenance of fire breaks, desired ignition techniques, and smoke management concerns for the property. Prescribed fires are conducted in cooperation with the Florida Forest Service.

#### Wildfire and Prescribed Fire Management Strategies

- Periodically update wildfire response information.

- Plan and prepare at least 225 acres for burning annually.
- Participate in the North Central Florida Prescribed Fire Working Group.
- Coordinate prescribed fire activities with the Florida Forest Service and Preserve neighbors.
- Educate neighbors and visitors about the natural role of fires in Florida.

#### LISTED SPECIES PROTECTION

Within Alachua County, listed species are those species of plants and animals listed as endangered, threatened, rare, or species of special concern by an official state or federal plant or wildlife agency, or the Florida Natural Areas Inventory (FNAI). These species are targeted for protection for a number of reasons, e.g. they are in imminent danger of extinction, are rapidly declining in number or habitat, or have an inherent vulnerability to habitat modification, environmental alteration, or human disturbance which puts them at risk of extinction (Alachua County Department of Growth Management. 2011). Listed plant and animal species known to occur within Phifer Flatwoods Preserve are discussed below.

#### Listed Plant Species

Currently, three plant species listed as Threatened by the State of Florida are known to occur within Phifer Flatwoods tract. The hooded pitcher plant (*Sarracenia minor*) and southern lady fern (*Athyrium filix-femina*) were reported during pre-acquisition site visits by Alachua Conservation Trust staff. County staff observed Giant orchid (*Pteroglossaspis ecristata*) while conducting wiregrass planting in the mesic flatwoods. In addition, royal fern and cinnamon fern (*Osmunda regalis* and *O. cinnamomea*), both listed as Commercially Exploited by the State, are also documented for the Preserve. Further inventory of the Preserve is likely to reveal additional listed species present.

Protecting populations of listed species is a primary management concern. To accomplish this, staff will continue to survey the Preserve for listed species and manage their natural communities appropriately. Observations of FNAI tracked species will be reported to FNAI using the Field Reporting Form, Exhibit E. Management activities to protect listed species will include invasive species control, prescribed fire where appropriate, minimizing human impacts, and future restoration of disturbed areas. Management activities will be analyzed to determine potential impacts on listed species (i.e., location of trails and physical improvements, timing of prescribed burns, timber harvests and planting).

#### Listed Animal Species

Twelve listed or FNAI-tracked animal species have been observed utilizing habitats within Phifer Flatwoods Preserve, including bald eagle (*Haliaeetus leucocephalus*), Florida sandhill crane (*Grus canadensis pratensis*), tri-colored heron (*Egretta tricolor*), wood stork (*Mycteria americana*), and gopher tortoise (*Gopherus polyphemus*) (see Table 4). Other listed species may utilize the Preserve's habitats, as indicated by the property's connectivity and proximity to the vast preservation areas. All of the natural communities of the Preserve could support listed species, and the matrix of wetland-upland transitional areas provide excellent habitat for amphibian and reptile species (see Table 4 and Exhibit F).

The Preserve shall be managed in a manner that protects and enhances habitat for listed wildlife species that utilize or potentially utilize the project site.

**Table 4.** Listed and FNAI-tracked species observed in Phifer Flatwoods Preserve

Common Name	Scientific Name	Federal/ State Status*	FNAI Global and State Rank**
<b>Birds</b>			
Bald Eagle	<i>Haliaeetus leucocephalus</i>	-/-	G5/S3
Florida sandhill crane	<i>Grus canadensis pratensis</i>	-/T	G5T2T3/S2S3
Great egret	<i>Ardea alba</i>	-/-	G5/S4
Little blue heron	<i>Egretta caerulea</i>	-/SSC	G5/S4
Snowy egret	<i>Egretta thula</i>	-/SSC	G5/S3
Tri-colored heron	<i>Egretta tricolor</i>	-/SSC	G5/S4
White ibis	<i>Eudocimus albus</i>	-/SSC	G5/S4
Wood stork	<i>Mycteria americana</i>	E/E	G4/S2
Osprey	<i>Pandion haliaetus</i>	-/-	G5/S3S4
<b>Reptiles</b>			
E. diamondback rattlesnake	<i>Crotalus adamanteus</i>	-/-	G4/S3
Gopher tortoise	<i>Gopherus polyphemus</i>	-/T	G3/S3
<b>Amphibians</b>			
Gopher frog	<i>Lithobates capito</i>	-/SSC	G3/S3

\*E = Endangered; SSC = Species of Special Concern; T = Threatened

\*\* G3 = Either very rare and local throughout its range (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors; G4 = Apparently secure globally (may be rare in parts of range); G5 = Demonstrably secure globally; G#T# = Rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1). S2 = Imperiled in Florida because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor; S3 = Either very rare and local in Florida (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors; S4 = Apparently secure in Florida (may be rare in parts of range).

### Listed Species Strategies

- Survey Phifer Flatwoods Preserve for listed species and document population locations and habitats.
- Report listed and tracked species occurrence data to FNAI using the appropriate Field Reporting Form (Exhibit E).

### INVENTORY OF BIOTA AND NATURAL COMMUNITIES

Surveys of animals, plants and natural communities within Phifer Flatwoods Preserve are ongoing, and species lists are continually updated (see Exhibits F and G). Tracked and listed species observed within the Preserve will be reported to FNAI using the data forms provided (Exhibit E). Surveys conducted by volunteer plant and wildlife experts will be encouraged through educational events on the property, including research projects, organized seasonal bird counts, and fieldtrips conducted by local natural history organizations such as the Florida Native Plant Society.

Photomonitoring is the primary method of tracking natural community changes that result from management and restoration activities. Site-specific baseline photographs are made prior to initiating major management activities. Photopoints are established and monitored on an annual basis, or as needed. Photopoint monitoring locations are mapped using a Geographic Information System (GIS), and monitoring data are maintained in paper and electronic format.

### Inventory Strategies

- Survey animals, plants and natural communities.
- Encourage surveys by volunteer plant and wildlife experts and local natural history organizations.
- Establish baseline photo data and photopoints, and monitor annually or as needed.

### CULTURAL RESOURCES

Phifer Flatwoods Preserve contains one Florida Master Site File location on the Phifer Flatwoods tract. In addition, a brick and stone well, which appears to be very old, and masonry foundation remnants are located on the Phifer Addition tract, within the area that appears to be cleared for agriculture in the 1937 aerial. These features will be submitted to the Florida Master Site File. The Preserve is also in close proximity to the historic Scott-Phifer house location, once owned and inhabited by the Phifer family, who owned a turpentine operation on lands included within the present-day Preserve boundary. In addition, the Preserve is adjacent to the Atlantic Coastline Railroad site, the historic railway connecting Gainesville and Hawthorne.

Protection of known and undiscovered cultural resources within the Preserve is a management priority. In general, the following protection measures will be followed, in coordinated effort with the Department of State, Division of Historical Resources (DHR):

1. Cultural resources within the Preserve will be protected pursuant to Alachua County Code Chapter 116 Sections 1-9 and Florida Statutes Chapter 267, specifically Sections 267.061 2(a) and (b).
2. Collection of artifacts or the disturbance of archaeological or historical sites, including for research purposes, is prohibited unless prior authorization has been obtained from the County and DHR.
3. Staff will maintain records and maps of all known cultural sites on the property, such that management staff has access to information about sites. Locations of known sites will not be identified on public maps of the property.
4. Staff will monitor known sites for disturbance annually, or more frequently if warranted.
5. Archaeological testing shall be performed for any area within the project site proposed for development prior to the commencement of proposed development activities in that area. All planned activities involving known archaeological sites or identified site areas shall be closely coordinated with DHR in order to prevent the disturbance of significant sites.
6. Newly discovered sites will be documented and recorded in the Florida Master Site File.

### Cultural Resource Protection Strategies

- Monitor cultural resource sites annually, or as needed, for signs of disturbance.
- Survey areas for cultural or historical resources before any ground disturbing activities occur.
- Document newly discovered sites in the Florida Master Site File.

## **IV. FOREST RESOURCES**

Controlling or manipulating the overstory in pine forests is an important tool in the maintenance or restoration of natural community structure. The density of the overstory influences the health and diversity of understory species. If the overstory becomes too dense, both the overstory and understory species begin to suffer. In cases where the overstory remains

crowded for long periods, desirable understory plant species begin to disappear. Often seeds of these plants will remain dormant in the soil. Thinning individual trees from an overcrowded stand allows more light, moisture and nutrients to be available for groundcover plants. This often allows dormant plants to reoccupy their former sites, thereby restoring a more natural state and condition to the forest floor.

Most of the pine forests on Phifer Flatwoods Preserve have been managed for timber production for several decades. The Phifer Flatwoods tract contains pine plantation stands which are of varying age, composition, density and merchantability (see Table 5). One slash pine stand, planted in 1986, was heavily thinned prior to purchase of the property, and this area was planted with wiregrass and longleaf pine tubelings in 2009. The remaining stands on the tract will require multiple thinning over time, as indicated in Table 5.

The Phifer Addition tract does not contain pine plantation stands, however the natural pines on that property were heavily harvested in 2004, leaving very few desirable seed trees for natural regeneration. Loblolly pines located on adjacent property have invaded the site, and are regenerating. In 2011, 44 acres of the harvested area were burned and replanted with longleaf pine tubelings. Natural regeneration of slash and longleaf pine on the remaining harvested area is slow, and supplemental plantings of longleaf pine are anticipated.

In an effort to restore, enhance and preserve the ecological values of the pine forests in Phifer Flatwoods Preserve, future forest management will focus on converting the remaining pine plantations and harvested areas to uneven-aged, open pine forests with a diverse, native understory. Restoration will occur in phases over a period of many years, and will utilize forest thinning, offsite hardwood and exotic species control, application of prescribed fire, planting and seeding of native tree and groundcover species. Revenue generated from forest management within Phifer Flatwoods Preserve will be used to fund restoration activities within the Preserve.

#### Forest Management Strategies

- Periodically thin pine plantations according to schedule in Table 5.
- Control offsite hardwoods and exotic species.
- Apply prescribed fire.
- Plant native tree and groundcover species.
- Place revenues generated from forest management in a fund specifically designated for Phifer Flatwoods Preserve to fund restoration activities within the Preserve.

**Table 5.** Pine Plantation Timber Stand Summary for Phifer Flatwoods Preserve

<b>Stand Type</b>	<b>Acres</b>	<b>RMUs</b>	<b>Year to Thin</b>	<b>Timber Class</b>
1951 Slash plantation	19.60	1H, 1J	Thinning not needed	
1986 Slash plantation	51.74	1C	Thinning not needed	
1991 Slash plantation	182.53	2B, 2C, 2E, 2F, 2G, 2H, 2J	2012 (20%)	Pulpwood Chip & Saw
			2016 (20%)	Pulpwood Chip & Saw
1996 Slash plantation	112.69	1A, 1H	2012 (20%)	Pulpwood Chip & Saw
			2017 (20%)	Pulpwood Chip & Saw
1998 Slash plantation	28.96	1B, 1G	2013 (20%)	Pulpwood Chip & Saw
			2018 (20%)	Pulpwood Chip & Saw
1999 Slash plantation	55.38	1D, 1E, 1H, 2A	2015 (20%)	Pulpwood Chip & Saw
			2020 (20%)	Pulpwood Chip & Saw
2001 Loblolly plantation	17.41	1F	2016 (20%)	Pulpwood Chip & Saw
			2021 (20%)	Pulpwood Chip & Saw

## V. SITE DEVELOPMENT AND IMPROVEMENT

### ACKNOWLEDGEMENT SIGN

Kiosks and signs were constructed at the entrance areas of Phifer Flatwoods Preserve in 2008. A sign, which states that the Preserve was purchased with funds from Alachua County and the Florida Communities Trust Program, was incorporated as part of the large interpretive kiosk installed at the primary trailhead. If the current acknowledgement sign is replaced, the new sign should be at least three feet by four feet.

### EXISTING PHYSICAL IMPROVEMENTS

Existing physical improvements in Phifer Flatwoods Preserve include approximately 16 miles of unpaved forest roads and firebreaks, and 15 gates (see Exhibit H). A functional pole barn is located on the Phifer Addition tract. The existing system of roads in the Preserve will be maintained and used for multi-use hiking/biking trails, firebreaks, resource management and authorized vehicular access. Gates and fencing will be maintained as necessary to secure the site.

In addition to the internal operational roads described above, a large section of County Road 2082 lies within the Phifer Flatwoods tract, just inside the south boundary and west of County Road 325. This road is maintained by the Alachua County Public Works Department. County Road 325 extends south from State Road 20, bisecting the Preserve; however, this road is not within the boundaries of the Preserve.

Recreational amenities constructed or installed within the Preserve to date are all located within the Phifer Flatwoods tract, and include two nature trails entering the Preserve from the Gainesville-Hawthorne State Trail, and one nature trail entering from County Road 2082. The multi-use trails vary in length and difficulty, providing a rewarding outdoor nature experience for different levels of hikers, cyclists and equestrians. A grass parking area is located at the corner of County Roads 2082 and 325.

The Marsh Trail and Swamp Trail each have trail heads connecting to the adjacent Gainesville-Hawthorne State Trail. The Marsh Trail trailhead includes a covered swinging bench, a large kiosk, and bicycle racks. This 0.6-mile loop trail features a wildlife viewing area overlooking a large depression marsh, a camphor-log bench, multiple interpretive and directional signs, and a geo-cache course. The 1-mile Swamp Trail includes a trailhead with a camphor-log bench, a covered bench and a small kiosk. The Swamp Trail features a wildlife viewing area at the edge of a large cypress swamp, two camphor-log benches, several interpretive and directional signs, and a geo-cache course. The Turpentine Loop is a 1.3-mile trail which enters the Preserve from County Road 2082, and currently contains interpretive and directional signs and two log bridges.

#### Existing Physical Improvement Strategies

- Maintain existing internal roads.
- Maintain gates and fencing.
- Maintain trailheads, existing trails, and trail amenities and signs.

### PROPOSED PHYSICAL IMPROVEMENTS

Proposed physical improvements for the Phifer Flatwoods tract include a grass parking area, a trailhead and two foot bridges for the Turpentine Loop, and an additional trail and boardwalk with an observation platform for viewing wildlife on the basin marsh community (see Exhibit H). Construction of the basin marsh boardwalk and observation platform will be subject

to the availability of funds and the ability to obtain required permits. One culvert and one low water crossing are proposed for the Phifer Flatwoods tract, in the approximate locations depicted in Exhibit H. Additional firebreaks are also anticipated on the Phifer Flatwoods tract, to enhance prescribed fire management, however their exact locations have not been determined.

Proposed physical improvements for the Phifer Addition tract include a marked interpretive trail, a trailhead with an interpretive kiosk, interpretive and directional signs, stationary benches, a wildlife viewing area, and additional firebreaks with low water crossings to enhance prescribed fire management. In addition, existing culverts on the Phifer Addition tract may be replaced with new culverts or with low water crossings (see Exhibit H).

Site development will be designed to ensure protection, restoration, and preservation of the natural communities and listed species. All facilities are situated to blend with surroundings and developed in a manner that allows the general public reasonable access for observation and appreciation of the natural resources on the project site without causing harm to those resources.

Trash receptacles are not anticipated for the Preserve, as visitors are encouraged to pack out their trash by appropriate signage. If unwanted disposal of trash by visitors becomes a management issue, trash receptacles or other methods of trash control will be considered.

A review of proposed development sites with significant ground disturbance shall be sought from DHR prior to the commencement of proposed development activities in that area. Development will be sited to the greatest extent possible to avoid known archaeological sites.

#### Improvement Strategies

- Construct additional firebreaks and low water crossings as needed to enhance fire management.
- Construct a trailhead and grass parking area for the Turpentine Loop.
- Construct a trailhead on the Phifer Addition tract.
- Complete the depression marsh loop trail on the Phifer Addition tract.
- Construct wildlife viewing area on the Phifer Addition tract depression marsh.
- Construct a trail and boardwalk from the Marsh Trail to the basin marsh on the Phifer Flatwoods tract.
- Design, permit, and construct a wildlife observation platform on the Phifer Flatwoods tract basin marsh.
- Investigate alternative construction opportunities (i.e. Scouts, community service).

#### WETLAND BUFFER

A 100-foot buffer will be provided between any wetlands and major facilities, except wildlife observation platforms and boardwalks.

#### PARKING

A grass parking area is located within the Phifer Flatwoods tract boundary, at the southwest corner of the intersection of County Road 325 and CR 2082. An additional grass parking area, which does not require visitors to cross County Road 2082 to reach the western parcel of the Phifer Flatwoods tract, is proposed for the southwest corner of the Preserve, as funding permits (see Exhibit H).

### STORMWATER FACILITIES

Stormwater facilities are not anticipated for the Preserve. Should stormwater facilities be required for future site development, they will be designed with shallow slopes and provide recreational open space or wildlife habitat in a park-like setting, and will not be fenced.

### HAZARD MITIGATION

Policy 5.6.8 of the Conservation and Open Space Element of the Alachua County Comprehensive Plan directs the County to implement a fuels management program to eliminate or minimize wildfire hazards. The implementation of a prescribed fire plan at Phifer Flatwoods Preserve will further this directive, and the directives in the Local Mitigation Strategy (approved by Florida Department of Community Affairs and FEMA in 2004) by mitigating wildfire hazards in the wildland/urban interface.

### EDUCATION SIGNS

Interpretive signage is provided at trailheads and along existing nature trail routes, to educate visitors about the natural environment of the Preserve and the cultural and ecological significance of the general area.

### PERMITS

There are several potential permits for proposed development and restoration work that may be conducted within the Preserve. These include:

- General building permit from Alachua County for construction of the scenic overlook.
- Development order issued by the Alachua County Development Review Committee for any activities not specifically exempted by the Unified Land Development Code.
- Noticed General Environmental Resources Permit issued by the St. Johns River Water Management District in conjunction with the Florida Department of Environmental Protection for wetland restoration activities.
- Nationwide Permit 27 for wetland restoration activities issued by the U.S Army Corps of Engineers.

As part of the FCT grant conditions, and to ensure that other requirements are not missed, ACF staff will also contact the following agencies prior to initiating any site development activities:

- Florida Fish and Wildlife Conservation Commission.
- Florida Department of Environmental Protection.
- Florida Department of State, Division of Historic Resources.

#### Permit Strategies

- Apply for required permits prior to initiating physical improvements and restoration activities.

### EASEMENTS, CONCESSIONS, AND LEASES

There are no concessions on Phifer Flatwoods Preserve, nor are there any proposed for the property.

There are two ingress/egress easements on the Phifer Flatwoods tract, which were in place prior to acquisition, and which run with the land. One easement extends from State Road 20 to the White Construction Property, approximately 600 feet long by 50 feet wide, and one

easement extends from SR 20 to the Kendrick property, approximately 556 feet long by 30 feet wide.

A formal conservation easement is in place on the lower 80 acres of the Phifer Addition tract. The Phifer Addition tract was purchased without FCT funds, therefore approval of this easement with FCT was not required. The conservation easement is owned by the St. Johns River Water Management District, and was purchased by the Gainesville Alachua County Regional Airport Authority to fulfill wetland mitigation requirements enforced by the water management district under ERP 4-001-15593-10 and ERP 40-001-15593-18. The conservation easement limits development within the boundaries of the easement in perpetuity. Forest management, including prescribed fire, timber management, and restoration are allowed within the easement boundary, as well as passive recreation and limited trail construction. The Alachua County Board of County Commissioners approved the conservation easement on April 13, 2010.

A formal license agreement is in place for the Phifer Addition tract. This Agreement allows Licensees limited hunting privileges in exchange for site security and maintenance activities. The agreement is considered for renewal every two years.

For the portion of Phifer Flatwoods Preserve which was purchased with FCT funds, Alachua County will provide FCT with 60-days written notice and information regarding lease of any interest, the operation of any concession, any sale or option, the granting of any management contracts, and any use by any person other than in such person's capacity as a member of the general public, and no document will be executed without the prior written approval of FCT. Research and collecting permits may be issued by Alachua County for scientific research.

## **VI. MANAGEMENT NEEDS**

### COOPERATIVE MANAGEMENT

Alachua County will communicate with land managers of adjacent and nearby public lands—the Gainesville Hawthorne State Trail, Lochloosa Wildlife Conservation Area, Alachua Conservation Trust's Prairie Creek Preserve, and Paynes Prairie Preserve State Park—to avoid conflicting management activities, and to improve effective management of the Preserve within the larger ecological corridor.

#### Cooperative Management Strategies

- Communicate with land managers of adjacent public lands.
- Cooperate with Paynes Prairie Preserve State Park regarding common operation and maintenance issues.

### GREENWAYS

Phifer Flatwoods Preserve lies within the Lochloosa Forest Additions and the Lochloosa Creek Strategic Ecosystems, as identified in the Alachua County Ecological Inventory Project (KBN 1996). The Preserve also lies within a Priority 3 Linkage in the Florida Ecological Greenways Network (Exhibit I). The Florida Ecological Greenways Network is a decision support model to help identify the best opportunities to protect ecological connectivity statewide. It was developed by the University of Florida for the Florida Department of Environmental Protection's Office of Greenways and Trails. GIS data on land use and significant ecological areas were integrated in a process that identified a statewide Ecological Greenways Network containing all of the largest areas of ecological and natural resource significance and the

landscape linkages necessary to link these areas together in one functional statewide network (Hoctor et al. 2002).

Phifer Flatwoods is also an important component in completing the Gainesville – Hawthorne connection within the County’s designated Emerald Necklace greenway system (Exhibit J). The Alachua County Emerald Necklace Land Conservation Initiative seeks to create a publicly accessible, connected, and protected network of trails, greenways, open spaces, and waterfronts surrounding the Gainesville urban area. The Emerald Necklace Conservation Initiative is composed of large public conservation areas that are imperative to the protection of Alachua County’s natural resources and smaller tracts of lands with high conservation value that provide linkages between existing large conservation lands as well as linking natural areas to urban centers. Public lands in the Emerald Necklace include Paynes Prairie State Preserve, Lochloosa Wildlife Conservation Area, San Felasco Hammock, Murphree Wellfield Conservation Area, Balu Forest, and Austin Cary Memorial Forest. The Emerald Necklace is one of Alachua County’s legislative priorities; the County is continuing to acquire significant tracts throughout the Necklace to create new and enhanced greenways and recreational trail systems as part of a municipal defining greenbelt.

Phifer Flatwoods adjoins the Gainesville-Hawthorne State Trail and Lochloosa Wildlife Management Area to the south, which in turn adjoins Paynes Prairie Preserve State Park to the west, totaling over 52,000 acres of contiguous conservation lands. The Preserve lies in close proximity to the Old Florida Heritage Highway, a network of scenic roads including a portion of U.S. 441 and its connecting loop and spur roads, which together are designated a Florida Scenic Highway Corridor by the Florida Department of Transportation and Alachua County (FDOT 2008, Old Florida Heritage Highway, Inc. 2001 and 2011). County Road 325, which bisects the Phifer Flatwoods tract, is a spur road of the Old Florida Heritage Highway, and serves as one of its northern gateways.

#### PUBLIC INVOLVEMENT

Public involvement and local government participation was sought in the development of the Phifer Flatwoods Preserve Management Plan through a noticed public meeting and public review period for the draft management plan. See Exhibit K for the Alachua County Phifer Flatwoods Preserve Management Planning Meeting Minutes and the Summary of Comments Received.

#### MAINTENANCE

Alachua County will coordinate maintenance activities through County staff, volunteers and contractors. Maintenance activities include solid waste removal, maintenance of firebreaks, trails, fences, gates, locks, and signs.

##### Maintenance Strategies

- Conduct maintenance activities using County staff, volunteers, contractors, and partners as possible.
- Remove solid waste.
- Maintain (mow, trim, clear, mark) firebreaks and trails.
- Maintain fences, gates, locks, and signs.
- Maintain trails, roads, culverts, and low water crossings.
- Maintain benches, kiosks, signs, and trail amenities.

## SECURITY

Alachua County Forever staff will cooperate with Alachua County Sheriff's Office (ASO), Florida Fish and Wildlife Conservation Commission (FWC), contractors, volunteers, and neighbors on any security issues that may arise.

Unauthorized access will be evaluated as it occurs, and appropriate measures to discourage it will be implemented. These may include additional or more secure fencing or gates, placement of boulders or bollards and additional security patrols. Informational and regulatory signage is posted on the site. Design and placement of these signs was coordinated with the ASO and FWC law enforcement staff.

### Security Strategies

- Provide regular security patrols.
- Maintain informational and regulatory signage.

## STAFFING

Alachua County Forever staff will coordinate the management of Phifer Flatwoods Preserve, with assistance from other County departments, contractors, and volunteers.

## **VII. MONITORING AND REPORTING**

Alachua County Forever staff will prepare an Annual Stewardship Report on or before July 31<sup>st</sup> of each year. This report will evaluate the prior year's progress in the implementation of the Management Plan.

Any proposed modification to the Management Plan and/or undertaking any site alterations or physical improvements that are not addressed in the Phifer Flatwoods Preserve Approved Management Plan requires prior FCT review and approval.

## VII. REFERENCES

- Alachua County Department of Growth Management. 2011. Alachua County Comprehensive Plan 2011-2030, Effective July 22, 2011.
- FLEPPC. 2011. List of Invasive Plant Species. Florida Exotic Pest Plant Council. Internet: <http://www.fleppc.org/list/11list.htm>.
- Florida Department of Transportation. 2008. Old Florida Heritage Highway Master Plan, 203 pages. Online at: <http://www.scenicus441.com>.
- Florida Natural Areas Inventory (FNAI). 2010. Guide to the natural communities of Florida: 2010 edition. Florida Natural Areas Inventory, Tallahassee, FL.
- Hector, T.S., J. Teisinger, M.G. Carr., P.C, Zwick. 2002. Identification of Critical Linkages Within the Florida Ecological Greenways Network. Final Report. Office of Greenways and Trails, Florida Department of Environmental Protection. Tallahassee, Florida.
- KBN, A Golder Associates Company. 1996. Alachua County Ecological Inventory Project. Prepared for Alachua County Department of Growth Management, Office of Planning and Development. Gainesville, Florida.
- Mayfield, A.E. III, and M.C. Thomas. 2004. Pest Alert: The Redbay Ambrosia Beetle, *Xyleborus glabratus* Eichhoff (Scolytinae: Curculionidae). Revised by G. Hodges and J. Eickwort 2009. <http://www.freshfromflorida.com/pi/enpp/ento/x.glabratus.html>. Accessed December 16, 2011.
- Old Florida Heritage Highway, Inc. 2001. Old Florida Heritage Highway Five Year Corridor Management Plan. Online at: <http://www.scenicus441.com>.
- Old Florida Heritage Highway, Inc. 2011. Old Florida Heritage Highway Five Year Corridor Management Plan Update. Online at: <http://www.scenicus441.com>.
- Thomas, B.P., E. Cummings and W.H. Wittstruck. 1985. Soil Survey of Alachua County, Florida. USDA Soil Conservation Service.

### VIII. MANAGEMENT PLAN IMPLEMENTATION CHART

<b>Task</b>	<b>Target Date</b>	<b>Estimated Cost</b>	<b>Funding Source</b>	<b>Potential Cooperators</b>
<b><u>Land Use and Zoning</u></b>				
Amend Future Land Use of parcels 18108-002-000 and 18235-000-000 from "Rural/Agriculture" to "Preservation."	06/12	Staff time	ACF	ACGMD
Change zoning on all parcels from "Agricultural" to "Preservation."	09/12	Staff time	ACF	ACGMD
<b><u>Natural Resource Protection</u></b>				
Survey flora, fauna and natural communities.	Ongoing	Staff time	ACF	Volunteers, FNPS, ACT
Survey for listed species and document population locations and habitats.	Ongoing	Staff time	ACF	Volunteers, FNPS, ACT
Report listed and FNAI tracked species occurrence data to FNAI.	Ongoing	Staff time	ACF	FNAI
Implement established monitoring protocols, including photo-monitoring throughout the Preserve.	Ongoing	Staff time	ACF	Volunteers
<b><u>Invasive Plant Strategies</u></b>				
Survey and monitor invasive plants on the Preserve.	Ongoing	Staff time	ACF	FNAI
Treat invasive plant infestations using appropriate techniques.	Ongoing	Staff time \$1,000/yr	ACF/Grants	FWC, volunteers, contractors
Monitor treated sites and maintain a follow-up treatment program.	Ongoing	Staff time	ACF	FWC, volunteers, contractors
<b><u>Restoration</u></b>				
Implement prescribed fire.	Ongoing	(estimated in Rx Fire)	ACF	FFS
Control invasive species.	Ongoing	(estimated in invasive plants)	ACF	FWC, Contractors, Volunteers
Develop long-term timber thinning plans.	Ongoing	Staff time	ACF	FFS
Remove planted pines from depression marshes, during adjacent pine harvesting if practical.	Ongoing	Staff time	ACF	Contractors
Plant native groundcover and longleaf pine on approximately 269 acres of mesic flatwoods.	Early 2013	Staff time \$25,000	ACF/Timber revenues	Contractors, Volunteers
Plant native marsh species on approximately 5 acres of depression marsh.	Early 2013	Staff time \$500	ACF/Timber revenues	Contractors, Volunteers
Backfill or install ditch blocks to alleviate drainage and erosion caused by the ditches on the Phifer Addition tract.	April 2012	Staff time \$8,000	ACF, Grants, Wetland mitigation	Contractors, SJRWMD, License Agreement Licensee

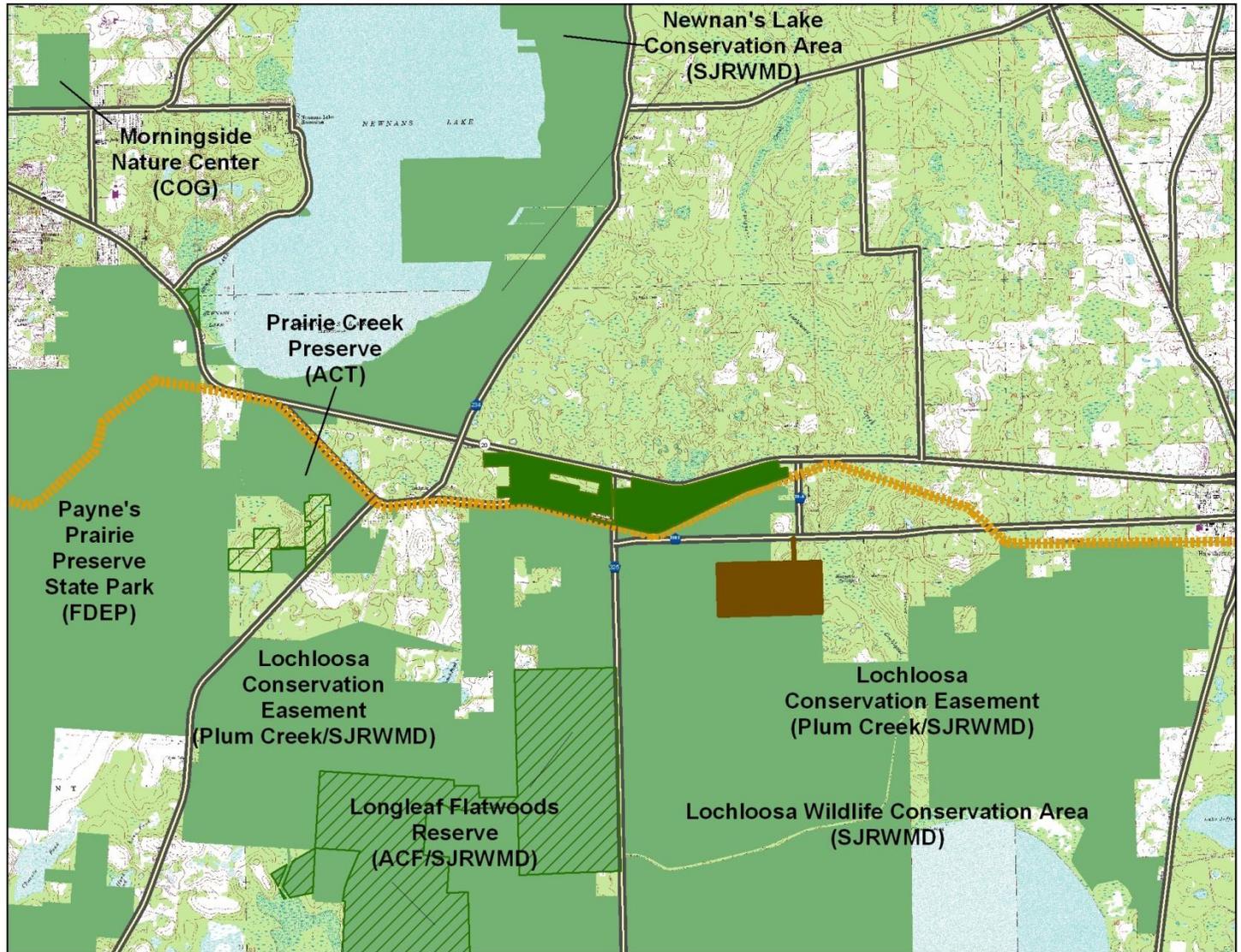
<b>Task</b>	<b>Target Date</b>	<b>Estimated Cost</b>	<b>Funding Source</b>	<b>Potential Cooperators</b>
Revise plans as necessary to meet restoration goals.	Ongoing	Staff time	ACF	Contractors
<b><u>Prescribed Fire</u></b>				
Periodically update wildfire response information.	Annually	Staff time	ACF	ACFRD, FFS
Maintain (mow, harrow) boundary firebreaks (approximately 7.2 miles)	Annually in Fall	Staff time	ACF	FFS, Contractors
Plan and prepare at least 225 acres for burning annually (harrow 7- 9 miles).	Fall and/or Spring	Staff time	ACF	FFS
Implement prescribed burning on at least 225 acres per year if weather and site conditions permit.	Winter and/or Summer	Staff time and up to \$5,625/year	ACF	FFS
Coordinate prescribed fire activities with the Florida Forest Service and notify Preserve neighbors.	Ongoing	Staff time and \$75/year	ACF	FFS, Neighbors
Participate in the North Central Florida Prescribed Fire Working Group.	Ongoing	Staff time	ACF	Working Group members
<b><u>Feral Animals</u></b>				
Monitor and remove feral animal species.	Ongoing	Staff time	ACF	ACAS, USDA, or Licensee
<b><u>Cultural Resource Protection</u></b>				
Monitor cultural resource sites annually, or as needed, for signs of disturbance.	Ongoing	Staff time	ACF	DHR
Survey areas for cultural or historical resources before significant ground disturbing activities occur.	As needed	TBD	ACF	DHR, Contractors
Document newly discovered sites in the Florida Master Site File.	As needed	Staff time	ACF	DHR
<b><u>Forest Resources</u></b>				
Periodically thin pine plantations according to schedule in Table 5.	2011 - 2021	(Revenue generating)	ACF	Contractors
Control offsite hardwoods and exotic species.	Ongoing	(estimated in invasive plants)	ACF	FWC, Contractors
Apply prescribed fire.	Ongoing	(estimated in Rx Fire)	ACF	FFS
Plant native tree and groundcover species.	Ongoing	TBD	ACF	Contractors, Volunteers
Utilize revenues generated from forest management to fund restoration activities.	As generated	TBD	ACF	Contractors
<b><u>Site Development &amp; Improvement</u></b>				
Construct additional firebreaks as needed to enhance fire management.	As needed	TBD	ACF	FFS, Contractors
Construct a trailhead and grass parking area for the Turpentine Loop.	April 2012	\$1,500 Staff time	ACF	Contractors

<b>Task</b>	<b>Target Date</b>	<b>Estimated Cost</b>	<b>Funding Source</b>	<b>Potential Cooperators</b>
Construct a trail from the Marsh Trail to the basin marsh platform site.	March 2013	\$250 Staff time	ACF	Volunteers
Design, permit, and construct a boardwalk and wildlife observation platform on the basin marsh, funding permitting.	April 2013	\$50,000	Timber revenues	ACGMD, ACPWD, SJRWMD, ACOE Contractors
Construct a trailhead on the Phifer Addition tract.	April 2015	\$1,300 Staff time	ACF	Contractors
Construct the depression marsh loop trail and wildlife viewing area on the Phifer Addition tract.	April 2015	\$250 Staff time	ACF	Volunteers
Apply for required permits prior to initiating physical improvements and restoration activities.	As needed	\$500 Staff time	ACF	ACGMD, SJRWMD, ACOE
<b><u>Management Needs</u></b>				
Communicate with land managers of adjacent public lands.	Ongoing	Staff time	ACF	FWC, FDEP, ACT
<b><u>Maintenance</u></b>				
Conduct maintenance activities using County staff, volunteers, contractors, and partners as possible.	Ongoing	TBD	ACF	Volunteers, Licensee, Contractors
Remove solid waste.	Ongoing	Staff time	ACF	Volunteers, Licensee, Contractors
Maintain (mow, trim, clear) existing roads and trails.	Ongoing	\$2,000/yr Staff time	ACF	Volunteers, Licensee, Contractors
Maintain fences, gates, locks, and signs.	Ongoing	Staff time	ACF	Licensee
Maintain trails, roads, culverts, and low water crossings.	Ongoing	Staff time	ACF	Licensee
Maintain benches, kiosks, signs, and trail amenities.	Ongoing	Staff time	ACF	Licensee
<b><u>Security</u></b>				
Provide regular security patrols.	Ongoing	Staff time	ACF	Volunteers, Licensee, FWC, ACSO, FDEP
Maintain informational & regulatory signage.	Ongoing	Staff time	ACF	Volunteers, Public Works, community service, contractors

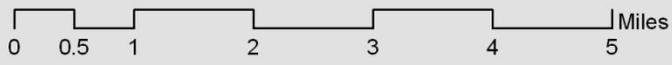
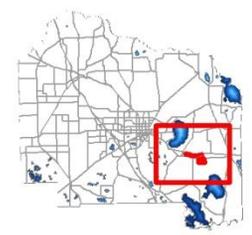
ACAS Alachua County Animal Services  
 ACF Alachua County Forever  
 ACFRD Alachua County Fire Rescue Department  
 ACGMD Alachua County Growth Management Department  
 ACOE United States Army Corps of Engineers  
 ACPWD Alachua County Public Works Department  
 ACSO Alachua County Sheriff's Office  
 DHR Department of State Division of Historic Resources

FDEP Florida Department of Environmental Protection  
 FFS Florida Forest Service  
 FNAI Florida Natural Areas Inventory  
 FNPS Florida Native Plant Society  
 FWC Florida Fish and Wildlife Conservation Commission  
 SJRWMD St. Johns River Water Management District  
 USDA United States Department of Agriculture

# Exhibit A - Phifer Flatwoods Preserve Location Map

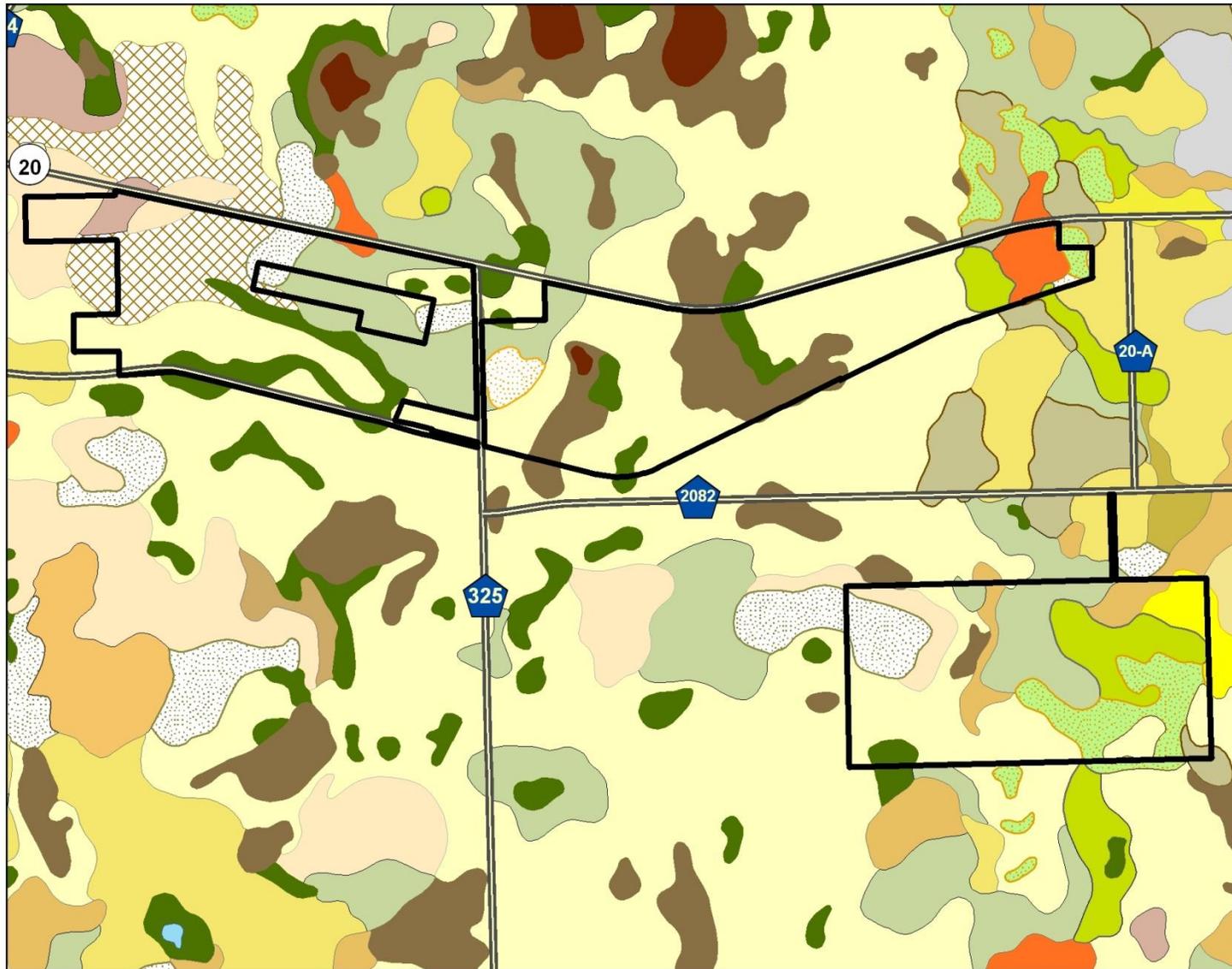


- Phifer Flatwoods Tract
- Phifer Addition Tract
- Alachua County Conservation Lands
- Conservation Lands
- Gainesville - Hawthorne Trail
- Major Roads

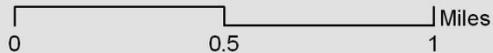


DISCLAIMER: This map and the spatial data it contains are made available as a public service, to be used for reference purposes only. The Alachua County Environmental Protection Department provides this information AS IS without warranty of any kind. The quality of the data is dependent on the various sources from which each data layer is obtained.

# Exhibit B - Phifer Flatwoods Preserve Soils Map

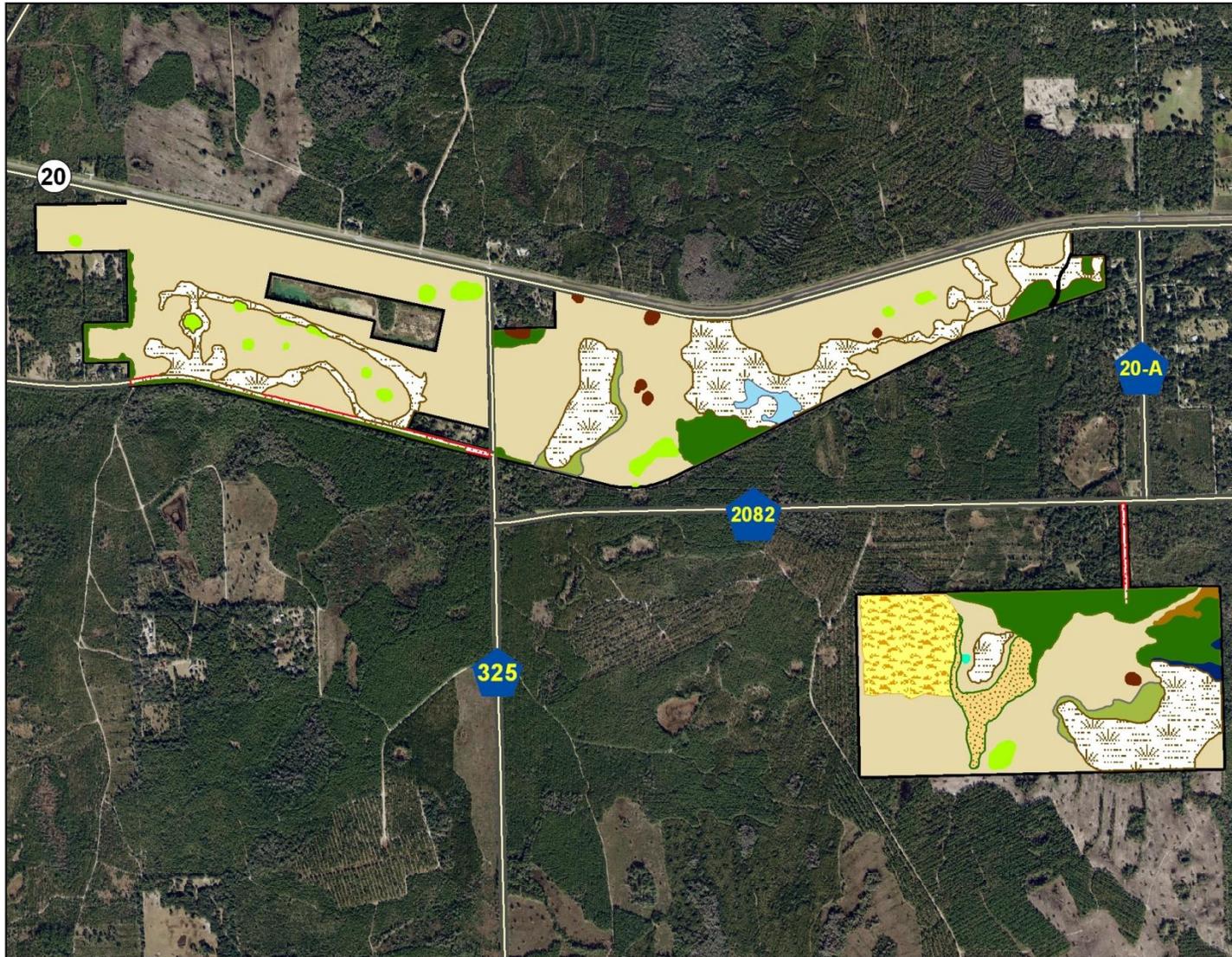


- Preserve Boundary
- Chipley sand
- Lochloosa fine sand
- Martel sandy clay loam
- Millhopper sand
- Montecocha loamy sand
- Newnan sand
- Pelham sand
- Plummer fine sand
- Pomona sand
- Pomona sand, depressional
- Pottsburg sand
- Samsula muck
- Sparr fine sand
- Surrency sand
- Tavares sand
- Wauchula sand

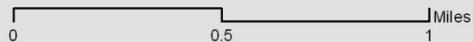


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# Exhibit C - Phifer Flatwoods Preserve Natural Communities Map



- Preserve Boundary
- Basin Marsh (5.2 ac)
- Basin Swamp (185.2 ac)
- Blackwater Stream (0.6 ac)
- Depression Marsh (15.4 ac)
- Dome Swamp (3.7 ac)
- Floodplain Swamp (3.3 ac)
- Hydric Hammock (2.5 ac)
- Improved Pasture (19.4 ac)
- Mesic Flatwoods (580.3 ac)
- Mesic Hammock (83.1 ac)
- Road (9.6 ac)
- Semi-improved Pasture (45.6 ac)
- Sinkhole (0.1 ac)
- Wet Flatwoods (15.7 ac)



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**EXHIBIT D: FLORIDA EXOTIC PEST PLANT COUNCIL 2011 LIST OF INVASIVE SPECIES**

# Florida Exotic Pest Plant Council's 2011 List of Invasive Plant Species

**Purpose of the List:** *To focus attention on —*

- ▶ the adverse effects exotic pest plants have on Florida's biodiversity and native plant communities,
- ▶ the habitat losses in natural areas from exotic pest plant infestations,
- ▶ the impacts on endangered species via habitat loss and alteration,
- ▶ the need for pest-plant management,
- ▶ the socio-economic impacts of these plants (e.g., increased wildfires or flooding in certain areas),
- ▶ changes in the severity of different pest plant infestations over time,
- ▶ providing information to help managers set priorities for research and control programs.

## CATEGORY I

Invasive exotics that are altering native plant communities by displacing native species, changing community structures or ecological functions, or hybridizing with natives. *This definition does not rely on the economic severity or geographic range of the problem, but on the documented ecological damage caused.*

Scientific Name	Common Name	FLEPPC Cat.	Gov. List	Reg. Dist.
<i>Abrus precatorius</i>	rosary pea	I	N	C, S
<i>Acacia auriculiformis</i>	earleaf acacia	I		C, S
<i>Albizia julibrissin</i>	mimosa, silk tree	I		N, C
<i>Albizia lebbek</i>	woman's tongue	I		C, S
<i>Ardisia crenata</i> ( <i>A. crenulata</i> misapplied)	coral ardisia	I		N, C, S
<i>Ardisia elliptica</i> ( <i>A. humilis</i> misapplied)	shoebutton ardisia	I	N	C, S
<i>Asparagus aethiopicus</i> ( <i>A. sprengeri</i> ; <i>A. densiflorus</i> misapplied)	asparagus-fern	I		N, C, S
<i>Bauhinia variegata</i>	orchid tree	I		C, S
<i>Bischofia javanica</i>	bishopwood	I		C, S
<i>Calophyllum antillanum</i> ( <i>C. calaba</i> and <i>C. inophyllum</i> misapplied)	santa maria, mast wood, Alexandrian laurel	I		S
<i>Casuarina equisetifolia</i>	Australian-pine, beach sheoak	I	P, N	N, C, S
<i>Casuarina glauca</i>	suckering Australian-pine, gray sheoak	I	P, N	C, S
<i>Cinnamomum camphora</i>	camphor tree	I		N, C, S
<i>Colocasia esculenta</i>	wild taro	I		N, C, S
<i>Colubrina asiatica</i>	lather leaf	I	N	S
<i>Cupaniopsis anacardioides</i>	carrotwood	I	N	C, S
<i>Deparia peterseii</i>	Japanese false spleenwort	I		N, C
<i>Dioscorea alata</i>	winged yam	I	N	N, C, S
<i>Dioscorea bulbifera</i>	air-potato	I	N	N, C, S
<i>Eichhornia crassipes</i>	water-hyacinth	I	P	N, C, S
<i>Eugenia uniflora</i>	Surinam cherry	I		C, S
<i>Ficus microcarpa</i> ( <i>F. nitida</i> and <i>F. retusa</i> var. <i>nitida</i> misapplied) <sup>1</sup>	laurel fig	I		C, S
<i>Hydrilla verticillata</i>	hydrilla	I	P, U	N, C, S
<i>Hygrophila polysperma</i>	green hygro	I	P, U	N, C, S
<i>Hymenachne amplexicaulis</i>	West Indian marsh grass	I		N, C, S
<i>Imperata cylindrica</i> ( <i>I. brasiliensis</i> misapplied)	cogon grass	I	N, U	N, C, S
<i>Ipomoea aquatica</i>	water-spinach	I	P, U	C
<i>Jasminum dichotomum</i>	Gold Coast jasmine	I		C, S
<i>Jasminum fluminense</i>	Brazilian jasmine	I		C, S
<i>Lantana camara</i> (= <i>L. strigocamara</i> )	lantana, shrub verbena	I		N, C, S
<i>Ligustrum lucidum</i>	glossy privet	I		N, C
<i>Ligustrum sinense</i>	Chinese privet, hedge privet	I		N, C, S
<i>Lonicera japonica</i>	Japanese honeysuckle	I		N, C, S
<i>Ludwigia peruviana</i>	Peruvian primrosewillow	I		N, C, S
<i>Lumnitzera racemosa</i>	kripa; white-flowered mangrove; black mangrove	I		S
<i>Luziola subintegra</i>	Tropical American water grass	I		S
<i>Lygodium japonicum</i>	Japanese climbing fern	I	N	N, C, S
<i>Lygodium microphyllum</i>	Old World climbing fern	I	N, U	C, S

<sup>1</sup>Does not include *Ficus microcarpa* subsp. *fuyuensis*, which is sold as "Green Island Ficus"

## FLEPPC List Definitions:

**Exotic** – a species introduced to Florida, purposefully or accidentally, from a natural range outside of Florida.

**Native** – a species whose natural range includes Florida.

**Naturalized exotic** – an exotic that sustains itself outside cultivation (it is still exotic; it has not "become" native).

**Invasive exotic** – an exotic that not only has naturalized, but is expanding on its own in Florida native plant communities.

## Abbreviations:

Government List (Gov. List):  
P = Prohibited aquatic plant by the Florida Department of Agriculture and Consumer Services;

N = Noxious weed listed by Florida Department of Agriculture & Consumer Services;

U = Noxious weed listed by U.S. Department of Agriculture.

Regional Distribution (Reg. Dist.):  
N = north, C = central, S = south, referring to each species' current distribution in general regions of Florida (not its potential range in the state). Please refer to the map below.



## Changes to the 2011 List:

### New Listings to Category I:

#### *Deparia petersenii*

(Japanese false spleenwort)  
Documented in numerous near exotic-free ravines in the central panhandle, it is displacing native flora and likely insect populations because it forms extremely dense colonies. Documented in seven Florida counties.

#### *Lumnitzera racemosa*

(black mangrove)  
This Asian mangrove has spread abundantly following plantings at Fairchild Tropical Botanical Garden in Miami-Dade County between 1966 and 1971. The species subsequently spread into mangrove forests at Fairchild and the adjacent Matheson Hammock Park, infesting 19 acres with stem densities exceeding that of native mangrove species. Looks very similar to the protected native white mangrove (*Laguncularia racemosa*).

#### *Phymatosorus scolopendria*

(serpent fern, wart fern)  
This fern, native to tropical Asia, Africa, and Polynesia, has been documented naturalizing in three south Florida counties. It is invading rockland hammocks and forested wetlands where it displaces native understory species including endangered ferns.

### New Listings to Category II:

#### *Ardisia japonica* (Japanese ardisia)

*Ardisia japonica* is a plant species from Japan. Thirteen populations have been located in San Felasco Hammock in Alachua County, two more at the Loblolly Nature Center in Gainesville, and another one containing 3,000 to 4,000 plants in Florida Caverns State Park in the Florida panhandle. All of the infestations are in undisturbed mature upland hardwood forest with healthy, diverse ground cover that is displaced as it spreads by underground rhizomes. Fruits collected from these populations produced viable seedlings.

Scientific Name	Common Name	FLEPPC Cat.	Gov. List	Reg. Dist.
<i>Macfadyena unguis-cati</i>	cat's claw vine	I		N, C, S
<i>Manilkara zapota</i>	sapodilla	I		S
<i>Melaleuca quinquenervia</i>	melaleuca, paper bark	I	P, N, U	C, S
<i>Melinis repens</i> (= <i>Rhynchelytrum repens</i> )	Natal grass	I		N, C, S
<i>Mimosa pigra</i>	catclaw mimosa	I	P, N, U	C, S
<i>Nandina domestica</i>	nandina, heavenly bamboo	I		N, C
<i>Nephrolepis brownii</i> (= <i>N. multiflora</i> )	Asian sword fern	I		C, S
<i>Nephrolepis cordifolia</i>	sword fern	I		N, C, S
<i>Neyraudia reynaudiana</i>	Burma reed, cane grass	I	N	S
<i>Nymphoides cristata</i>	snowflake	I		C, S
<i>Paederia cruddasiana</i>	sewer vine, onion vine	I	N	S
<i>Paederia foetida</i>	skunk vine	I	N	N, C, S
<i>Panicum repens</i>	torpedo grass	I		N, C, S
<i>Pennisetum purpureum</i>	Napier grass	I		N, C, S
<i>Phymatosorus scolopendria</i>	serpent fern, wart fern	I		S
<i>Pistia stratiotes</i>	water-lettuce	I	P	N, C, S
<i>Psidium cattleianum</i> (= <i>P. littorale</i> )	strawberry guava	I		C, S
<i>Psidium guajava</i>	guava	I		C, S
<i>Pueraria montana</i> var. <i>lobata</i> (= <i>P. lobata</i> )	kudzu	I	N	N, C, S
<i>Rhodomyrtus tomentosa</i>	downy rose-myrtle	I	N	C, S
<i>Rhynchelytrum repens</i> (See <i>Melinis repens</i> )				
<i>Ruellia simplex</i> <sup>2</sup>	Mexican petunia	I		N, C, S
<i>Salvinia minima</i>	water spangles	I		N, C, S
<i>Sapium sebiferum</i> (= <i>Triadica sebifera</i> )	popcorn tree, Chinese tallow tree	I	N	N, C, S
<i>Scaevola taccada</i> (= <i>Scaevola sericea</i> , <i>S. frutescens</i> )	scaevola, half-flower, beach naupaka	I	N	C, S
<i>Schefflera actinophylla</i> (= <i>Brassia actinophylla</i> )	schefflera, Queensland umbrella tree	I		C, S
<i>Schinus terebinthifolius</i>	Brazilian-pepper	I	P, N	N, C, S
<i>Scleria lacustris</i>	Wright's nutrush	I		C, S
<i>Senna pendula</i> var. <i>glabrata</i> (= <i>Cassia coluteoides</i> )	climbing cassia, Christmas cassia, Christmas senna	I		C, S
<i>Solanum tampicense</i> (= <i>S. houstonii</i> )	wetland nightshade, aquatic soda apple	I	N, U	C, S
<i>Solanum viarum</i>	tropical soda apple	I	N, U	N, C, S
<i>Syngonium podophyllum</i>	arrowhead vine	I		N, C, S
<i>Syzygium cumini</i>	jambolan plum, Java plum	I		C, S
<i>Tectaria incisa</i>	incised halberd fern	I		S
<i>Thespesia populnea</i>	seaside mahoe	I		C, S
<i>Tradescantia fluminensis</i>	small-leaf spiderwort	I		N, C
<i>Urena lobata</i>	Caesar's weed	I		N, C, S
<i>Urochloa mutica</i> (= <i>Brachiaria mutica</i> )	Para grass	I		C, S

## CATEGORY II

Invasive exotics that have increased in abundance or frequency but have not yet altered Florida plant communities to the extent shown by Category I species. *These species may become ranked Category I, if ecological damage is demonstrated.*

Scientific Name	Common Name	FLEPPC Cat.	Gov. List	Reg. Dist.
<i>Adenanthera pavonina</i>	red sandalwood	II		S
<i>Agave sisalana</i>	sisal hemp	II		C, S
<i>Aleurites fordii</i> (= <i>Vernicia fordii</i> )	tung oil tree	II		N, C
<i>Alstonia macrophylla</i>	devil tree	II		S
<i>Altemanthera philoxeroides</i>	alligator weed	II	P	N, C, S
<i>Antigonon leptopus</i>	coral vine	II		N, C, S
<i>Ardisia japonica</i>	Japanese ardisia	II		N
<i>Aristolochia littoralis</i>	calico flower	II		N, C, S
<i>Asystasia gangetica</i>	Ganges primrose	II		C, S
<i>Begonia cucullata</i>	wax begonia	II		N, C, S

<sup>2</sup>Many names are applied to this species in Florida because of a complicated taxonomic and nomenclatural history. Plants cultivated in Florida, all representing the same invasive species, have in the past been referred to as *Ruellia brittoniana*, *R. tweediana*, *R. caerulea*, and *R. simplex*.

Scientific Name	Common Name	FLEPPC Cat.	Gov. List	Reg. Dist.
<i>Blechnum pyramidatum</i> (see <i>Ruellia blechnum</i> )				
<i>Broussonetia papyrifera</i>	paper mulberry	II		N, C, S
<i>Bruguiera gymnorhiza</i>	large-leaved mangrove	II		S
<i>Callisia fragrans</i>	inch plant, spironema	II		C, S
<i>Callistemon viminalis</i> (= <i>Melaleuca viminalis</i> )	bottlebrush, weeping bottlebrush	II		C, S
<i>Casuarina cunninghamiana</i>	river sheoak, Australian-pine	II	P	C, S
<i>Cecropia palmata</i>	trumpet tree	II		S
<i>Cestrum diurnum</i>	day jessamine	II		C, S
<i>Chamaedorea seifrizii</i>	bamboo palm	II		S
<i>Clematis temiflora</i>	Japanese clematis	II		N, C
<i>Cocos nucifera</i>	coconut palm	II		S
<i>Cryptostegia madagascariensis</i>	rubber vine	II		C, S
<i>Cyperus involucratus</i> ( <i>C. alternifolius</i> misapplied)	umbrella plant	II		C, S
<i>Cyperus proflifer</i>	dwarf papyrus	II		C, S
<i>Dactyloctenium aegyptium</i>	Durban crowfootgrass	II		N, C, S
<i>Dalbergia sissoo</i>	Indian rosewood, sissoo	II		C, S
<i>Elaeagnus pungens</i>	silverthorn, thorny olive	II		N, C
<i>Elaeagnus umbellata</i>	silverberry, autumn olive	II		N
<i>Epipremnum pinnatum</i> cv. Aureum	pothos	II		C, S
<i>Ficus altissima</i>	false banyan, council tree	II		S
<i>Flacourtia indica</i>	governor's plum	II		S
<i>Hemarthria altissima</i>	limpo grass	II		C, S
<i>Hibiscus tiliaceus</i> (See <i>Talipariti tiliaceum</i> )				
<i>Hyparrhenia rufa</i>	jaragua	II		N, C, S
<i>Ipomoea carnea</i> ssp. <i>fistulosa</i> (= <i>I. fistulosa</i> )	shrub morning-glory	II	P	C, S
<i>Kalanchoe pinnata</i> (= <i>Bryophyllum pinnatum</i> )	life plant	II		C, S
<i>Koelreuteria elegans</i> ssp. <i>formosana</i> (= <i>K. formosana</i> ; <i>K. paniculata</i> misapplied)	flamegold tree	II		C, S
<i>Landoltia punctata</i> (= <i>Spirodela punctata</i> )	Spotted duckweed	II		N, C, S
<i>Leucaena leucocephala</i>	lead tree	II	N	N, C, S
<i>Limnophila sessiliflora</i>	Asian marshweed	II	P, U	N, C, S
<i>Livistona chinensis</i>	Chinese fan palm	II		C, S
<i>Melia azedarach</i>	Chinaberry	II		N, C, S
<i>Melinis minutiflora</i>	Molassesgrass	II		C, S
<i>Merremia tuberosa</i>	wood-rose	II		C, S
<i>Mikania micrantha</i>	mile-a-minute vine	II	N, U	S
<i>Murraya paniculata</i>	orange-jessamine	II		S
<i>Myriophyllum spicatum</i>	Eurasian water-milfoil	II	P	N, C, S
<i>Panicum maximum</i> (= <i>Urochloa maxima</i> , <i>Megathyrsus maximus</i> )	Guinea grass	II		N, C, S
<i>Passiflora biflora</i>	two-flowered passion vine	II		S
<i>Pennisetum setaceum</i>	green fountain grass	II		S
<i>Phoenix reclinata</i>	Senegal date palm	II		C, S
<i>Phyllostachys aurea</i>	golden bamboo	II		N, C
<i>Pittosporum pentandrum</i>	Philippine pittosporum, Taiwanese cheesewood	II		S
<i>Pteris vittata</i>	Chinese brake fern	II		N, C, S
<i>Ptychosperma elegans</i>	solitaire palm	II		S
<i>Rhoeo spathacea</i> (see <i>Tradescantia spathacea</i> )				
<i>Ricinus communis</i>	castor bean	II		N, C, S
<i>Rotala rotundifolia</i>	roundleaf toothcup, dwarf <i>Rotala</i> , redweed	II		S
<i>Ruellia blechnum</i>	green shrimp plant, Browne's blechnum	II		N, C, S
<i>Sansevieria hyacinthoides</i>	bowstring hemp	II		C, S
<i>Sesbania punicea</i>	purple sesban, rattlebox	II		N, C, S
<i>Solanum diphyllum</i>	two-leaf nightshade	II		N, C, S

### ***Bruguiera gymnorhiza***

(large-leaved mangrove)

This mangrove from the Old World tropics is established at the Kampong, a botanical garden in Miami-Dade County where it was planted in 1940. The leaves and propagules of this species bear a strong resemblance to the native red mangrove (*Rhizophora mangle*). In a 2008 survey it was found naturalized in mangrove forest on the property, where 86 individuals were observed and recruitment rates were higher than for native species. There is a strong chance that it will disperse to other nearby mangrove forests.

### ***Cocos nucifera*** (coconut palm)

Coconut palm, ubiquitous along Florida's coastlines, is thought to be native to the Malay Peninsula or the South Pacific. This species has been found invading beach dune and coastal grassland communities in extreme south Florida and the Florida Keys. Plants form thick clusters and shed leaves that form dense layers on the ground, displacing native species. Impacted species include the federally threatened Garber's spurge (*Chamaesyce garberi*) in the Cape Sable area of Everglades National Park and nickerbean (*Caesalpinia bonduc*), the host plant for the endangered Miami Blue butterfly at Bahia Honda State Park.

### ***Mikania micrantha***

(mile-a-minute vine)

This vine of the American tropics is listed on the Federal Noxious Weed List because of invasiveness in other tropical regions. *M. micrantha* was first observed in Florida in 2008 in Miami-Dade County. It has since been observed at over two dozen sites throughout the Redland area of Miami-Dade County. It is primarily associated with agricultural sites, particularly container nurseries and tree farms, but has been found within the interiors of two rockland hammock fragments. It is a threat to other natural areas in Miami-Dade County, and poses a very high risk of dispersing to other counties.

### ***Syzygium jambos***

(Malabar plum, rose apple)

This species was downgraded from the Category II list in 2009 because of a lack of data in EDDMapS, herbaria, and observations of committee members. However, data compiled by FNAI shows 62 records in 9 counties in mesic and wet flatwoods, basin and floodplain wetlands. It has been reinstated as a Category II.

### **Category Changes**

*Jasminum sambac* and *Solanum jamaicense* removed from Category II based on lack of data in natural areas. *Urena lobata* moved from Category II to Category I.

# Use of the FLEPPC List

The FLEPPC List of Invasive Plant Species is not a regulatory list. Only those plants listed as Federal Noxious Weeds, Florida Noxious Weeds or in local ordinances are regulated by law. FLEPPC encourages use of the Invasive Species List for prioritizing and implementing management efforts in natural areas, for educating lay audiences about environmental issues, and for supporting voluntary invasive plant removal programs. For more information on using the FLEPPC List of Invasive Plant Species, see *Wildland Weeds* Summer 2002 issue (Vol. 5, No. 3), pp. 16-17, or <http://www.fleppc.org/list/list.htm>

**NOTE:** Not all exotic plants brought into Florida become pest plants in natural areas. The FLEPPC List of Invasive Plant Species represents only about 11% of more than 1,400 exotic species that have been introduced into Florida and have subsequently established outside of cultivation. Most escaped exotics usually present only minor problems in highly disturbed areas (such as roadsides). And there are other exotics cultivated in Florida that are “well-behaved” — that is, they don’t escape cultivation at all.

Scientific Name	Common Name	FLEPPC Cat.	Gov. List	Reg. Dist.
<i>Solanum torvum</i>	susumber, turkey berry	II	N, U	N, C, S
<i>Sphagneticola trilobata</i> (= <i>Wedelia trilobata</i> )	wedelia	II		N, C, S
<i>Stachytarpheta cayennensis</i> (= <i>S. urticifolia</i> )	nettle-leaf porterweed	II		S
<i>Syagrus romanzoffiana</i> (= <i>Arecastrum romanzoffianum</i> )	queen palm	II		C, S
<i>Syzygium jambos</i>	Malabar plum, rose-apple	II		N, C, S
<i>Talipariti tiliaceum</i> (= <i>Hibiscus tiliaceus</i> )	mahoe, sea hibiscus	II		C, S
<i>Terminalia catappa</i>	tropical-almond	II		C, S
<i>Terminalia muelleri</i>	Australian-almond	II		C, S
<i>Tradescantia spathacea</i> (= <i>Rhoeo spathacea</i> , <i>Rhoeo discolor</i> )	oyster plant	II		S
<i>Tribulus cistoides</i>	puncture vine, burr-nut	II		N, C, S
<i>Vitex trifolia</i>	simple-leaf chaste tree	II		C, S
<i>Washingtonia robusta</i>	Washington fan palm	II		C, S
<i>Wedelia</i> (see <i>Sphagneticola</i> above)				
<i>Wisteria sinensis</i>	Chinese wisteria	II		N, C
<i>Xanthosoma sagittifolium</i>	malanga, elephant ear	II		N, C, S

### Citation example:

FLEPPC. 2011. List of Invasive Plant Species. Florida Exotic Pest Plant Council. Internet: <http://www.fleppc.org/list/11list.htm> or *Wildland Weeds* Vol. 14(3-4):11-14. Summer/Fall 2011.

### The 2011 list was prepared by the FLEPPC Plant List Committee:

Keith A. Bradley – Chair (2006-present), The Institute for Regional Conservation, 22601 SW 152<sup>nd</sup> Ave., Miami, FL 33170, (305) 247-6547, [bradley@regionalconservation.org](mailto:bradley@regionalconservation.org)

Janice A. Duquesnel, Florida Park Service, Florida Department of Environmental Protection, P.O. Box 1052, Islamorada, FL 33036, (305) 664-8455, [Janice.Duquesnel@dep.state.fl.us](mailto:Janice.Duquesnel@dep.state.fl.us)

David W. Hall, Private Consulting Botanist, 3666 NW 13<sup>th</sup> Place, Gainesville, FL 32605, (352) 375-1370

Roger L. Hammer, Retired Naturalist and Author, 17360 Avocado Drive, Homestead, FL 33030, [kaskazi44@comcast.net](mailto:kaskazi44@comcast.net)

Patricia L. Howell, Broward County Parks, Environmental Section, 950 NW 38<sup>th</sup> St., Oakland Park, FL 33309, (954) 357-8137, [phowell@broward.org](mailto:phowell@broward.org)

Colette C. Jacono, USDA/APHIS/PPQ, 1911 SW 34<sup>th</sup> Street, Gainesville, FL 32608, (352) 258-4458, [Colette.C.Jacono@aphis.usda.gov](mailto:Colette.C.Jacono@aphis.usda.gov)

Kenneth A. Langeland, University of Florida-IFAS, Center for Aquatic and Invasive Plants, 7922 NW 71<sup>st</sup> St., Gainesville, FL 32653, (352) 392-9614, [gator8@ufl.edu](mailto:gator8@ufl.edu)

Chris Lockhart, Florida Natural Areas Inventory, c/o P.O. Box 243116, Boynton Beach, FL 33424-3116, (561) 738-1179, [chris@lockharts.org](mailto:chris@lockharts.org)

Gil Nelson, Gil Nelson Associates, 157 Leonard's Dr., Thomasville, GA 31792, [gil@gilnelson.com](mailto:gil@gilnelson.com)

Robert W. Pemberton, Research Associate, Florida Museum of Natural History and Fairchild Tropical Botanic Garden, 2121 SW 28<sup>th</sup> Terrace, Fort Lauderdale, FL 33312, [rpemberton5@gmail.com](mailto:rpemberton5@gmail.com)

Jimi L. Sadle, Everglades National Park, 40001 State Road 9336, Homestead, FL 33034, (305) 242-7806, [Jimi\\_Sadle@nps.gov](mailto:Jimi_Sadle@nps.gov)

Robert W. Simons, 1122 SW 11<sup>th</sup> Ave., Gainesville, FL 32601-7816

Daniel B. Ward, Department of Botany, University of Florida, 220 Bartram Hall, Gainesville, FL 32611

Richard P. Wunderlin, Institute for Systematic Botany, Dept. of Biological Sciences, University of South Florida, Tampa, FL 33620, (813) 974-2359, [rwunder@cas.usf.edu](mailto:rwunder@cas.usf.edu)

**FLEPPC Database** – The Florida Exotic Pest Plant Database contains over 211,000 sight records of infestations of FLEPPC Category I and Category II species in Florida public lands and waters. 143 species are recorded. Nearly all of the records are from local, state, and federal parks and preserves; a few records document infestations in regularly disturbed public lands such as highways or utility rights-of-way. Natural area managers and other veteran observers of Florida’s natural landscapes submit these records, with many supported further by voucher specimens housed in local or regional herbaria for future reference and verification. New and updated observations can be submitted online at [www.eddmaps.org/florida/](http://www.eddmaps.org/florida/). This database, along with other plant data resources such as the University of South Florida Atlas of Florida Vascular Plants at [www.plantatlas.usf.edu](http://www.plantatlas.usf.edu), the Florida Natural Areas Inventory database at [www.fnai.org](http://www.fnai.org), and The Institute for Regional Conservation Floristic Inventory of South Florida database at [www.regionalconservation.org](http://www.regionalconservation.org), provides important basic supporting information for the FLEPPC List of Invasive Plant Species.

**Images of FLEPPC-listed species** may be found at one or more of the following websites: University of South Florida Atlas of Florida Vascular Plants, [www.plantatlas.usf.edu](http://www.plantatlas.usf.edu); the University of Florida Herbarium collection catalog, <http://www.flmnh.ufl.edu/herbarium/cat/>, and image gallery, <http://www.flmnh.ufl.edu/herbarium/cat/imagesearch.asp>; at Fairchild Tropical Botanic Garden’s Virtual Herbarium, [www.virtualherbarium.org/vhportal.html](http://www.virtualherbarium.org/vhportal.html), The Robert K. Godfrey Herbarium at Florida State University, <http://herbarium.bio.fsu.edu/index.php>; the University of Florida’s IFAS Center for Aquatic and Invasive Plants, <http://plants.ifas.ufl.edu>, and the USDA PLANTS database, <http://plants.usda.gov/>. Please note that greater success and accuracy in searching for plant information is likely if you search by scientific name rather than common name. Common names often vary in cultivation and across regions.



[www.fleppc.org](http://www.fleppc.org)

**EXHIBIT E: FLORIDA NATURAL AREAS INVENTORY REPORT FORMS**



## FLORIDA NATURAL AREAS INVENTORY

Field Report Form for Occurrences of Rare Plants, Animals, and Natural Communities

Report original field observations regarding a single species or community, at one location, and for (preferably) a single date. Use the back of the form or other sheets as necessary, and if you have any questions please call FNAI at 850-224-8207.

Please send completed form to: Florida Natural Areas Inventory, 1018 Thomasville Rd., Suite 200-C, Tallahassee, FL 32303  
THANK YOU!

### REQUIRED DATA

Your name: \_\_\_\_\_ Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

Address: \_\_\_\_\_ Date Submitted: \_\_\_\_\_

Name of observer(s): \_\_\_\_\_

Date of observation (m/d/yyyy): \_\_\_\_\_

Scientific name: \_\_\_\_\_ Common name: \_\_\_\_\_

Basis for identification: Personal knowledge  Reference key  Field guide  Museum specimen  Expert  Other method

Name of reference key/guide/museum/expert: \_\_\_\_\_ Other ID method \_\_\_\_\_

County: \_\_\_\_\_

Latitude \_\_\_\_\_ N Longitude \_\_\_\_\_ W (if unknown, please attach a map or detailed description of the location)

Quantity seen (number of individuals, nests, burrows, or clumps, etc., or area occupied) \_\_\_\_\_

FNAI will include the location of this occurrence in publicly available data products unless you specifically request that we do not. If you want to make this request, please provide your reason for regarding the data "sensitive" (e.g. species subject to collection) \_\_\_\_\_

### OPTIONAL DATA (all of the information below is optional – enter as time and data resources permit)

#### IDENTIFICATION

Photograph taken? Yes  No  (If possible, please attach a copy of the photo)

Specimen collected? Yes  No  Deposited at museum/herbarium? Yes  No  Repository \_\_\_\_\_ Collection # \_\_\_\_\_

Do you think your identification requires confirmation? Yes  No

#### LOCATION

Site or place name (if known): \_\_\_\_\_

Precise directions to the occurrence that use a readily locatable and relatively permanent landmark on or near the site (such as a road intersection, bridge, or natural landform) as the starting point. Include distances and directions from landmarks, as appropriate. Please note – neither the directions nor the coordinate information will be provided to the general public if the data are to be considered sensitive, as indicated above.

For latitude/longitude only: Datum: NAD27  WGS84/NAD83  Unknown

Source of latitude/longitude coordinates? GPS  Other  If other, describe \_\_\_\_\_

If GPS: Make \_\_\_\_\_ model \_\_\_\_\_ accuracy \_\_\_\_\_ m DGPS? Yes  No  Unknown  WAAS? Yes  No  Unknown

If possible, mark the site on a copy of a DOQQ photograph or a USGS 7.5' topographic map and attach to this form. Otherwise, using the back side of the form, please provide a sketch of the vicinity showing the occurrence in relation to towns, roads, landforms, water bodies, and other natural features, including ecological communities. Please include also an indication of scale and a North arrow.

## OBSERVATION INFORMATION

Time of day \_\_\_\_\_ Estimate of total area observed \_\_\_\_\_ m<sup>2</sup> or \_\_\_\_\_ acres. Percent of this area actually occupied by the population or community: \_\_\_\_\_%. Approximate dimensions of the area occupied: length \_\_\_\_\_ m width \_\_\_\_\_ m

How did you collect the data? (e. g., visually observed from road, trap or capture methods, walking a path through community, formal survey, etc.)

Is there other suitable habitat (unobserved) in the vicinity? Yes  No  Don't know  Extent? (e.g., acres, miles) \_\_\_\_\_

Have you been to this location before? Yes  No  If so, when? \_\_\_\_\_

Did you previously observe this species or community? Yes  No  Did not look for it  If you have previously seen the population or community, do you think there is now more?  less?  about the same amount as before?  or no way to compare .

General description. Please provide a description or "word picture" of the area where this occurrence is located (i.e., the physical setting and ecological context), including habitat, dominant plant species, topography, hydrology, soils, adjacent communities, and surrounding land use.

For animals: Estimated total no. of individuals in population: \_\_\_\_\_ Basis? \_\_\_\_\_ Age structure \_\_\_\_\_

Ecological & behavioral notes (e.g. reproductive stage, activity type [feeding, flying, nesting, etc.]): \_\_\_\_\_

For plants: Flowering? Yes  No  Fruiting? Yes  No  In bud? Yes  No  In leaf? Yes  No  Dormant? Yes  No

For communities: For each of three strata (tree, shrub, and ground layers), please list the dominant species comprising the stratum, together with an estimate of the height and percent cover for each stratum. (use the back of this form or another sheet, if necessary, to list additional species)

Stratum height % cover Species

Stratum	height	% cover	Species
Tree			
Shrub			
Ground			

Describe species dominance relationships, vegetation heterogeneity, succession stage/dynamics, and any other unique aspects of the community or additional noteworthy species (including animals).

## MANAGEMENT

Owner of site (if known): \_\_\_\_\_

Is the owner or manager protecting or managing the property for this species or community? Yes  No  Don't know

Are there disturbances or threats (e. g., urban development, agriculture, vehicle use, forestry, logging, fire suppression, ditching/drainage, impoundment, exotic species, and natural disturbance) in the vicinity of the site? Yes  No  Don't know

If so, please describe type and severity: \_\_\_\_\_

Is there evidence (e.g., fire breaks, scorching) of the use of fire at the site? Yes  No  Don't know  Describe and give dates of recent fires, if known \_\_\_\_\_

Comments on management history or needs: \_\_\_\_\_

## OTHER

Additional comments concerning the population or community, its ecological conditions, contact information for other knowledgeable people, etc.:

**EXHIBIT F: PHIFER FLATWOODS PRESERVE ANIMAL SPECIES LIST**

## Animal Species of Phifer Flatwoods Preserve

Group	Common Name	Scientific Name	FWC	FWS	FNAI	Status
Birds	Wood Duck	<i>Aix sponsa</i>				
	Great Egret	<i>Ardea alba</i>	N	N	S4	
	Tufted Titmouse	<i>Baeolophus bicolor</i>				
	Cedar Waxwing	<i>Bombycilla cedrorum</i>				
	Red-shouldered Hawk	<i>Buteo lineatus</i>				
	Northern Cardinal	<i>Cardinalis cardinalis</i>				
	Turkey Vulture	<i>Cathartes aura</i>				
	Common Ground-Dove	<i>Columbina passerina</i>				
	Black Vulture	<i>Coragyps atratus</i>				
	American Crow	<i>Corvus brachyrhynchos</i>				
	Palm Warbler	<i>Dendroica palmarum</i>				
	Pine Warbler	<i>Dendroica pinus</i>				
	Pileated Woodpecker	<i>Dryocopus pileatus</i>				
	Gray Catbird	<i>Dumetella carolinensis</i>				
	Little Blue Heron	<i>Egretta caerulea</i>	SSC	N	S4	
	Snowy Egret	<i>Egretta thula</i>	SSC	N	S3	
	Tricolored Heron	<i>Egretta tricolor</i>	SSC	N	S4	
	White Ibis	<i>Eudocimus albus</i>	SSC	N	S4	
	Common Yellowthroat	<i>Geothlypis trichas</i>				
	Florida Sandhill Crane	<i>Grus canadensis pratensis</i>	T	N	S2S3	
	Bald Eagle	<i>Haliaeetus leucocephalus</i>	N	N	S3	
	Red-bellied Woodpecker	<i>Melanerpes carolinus</i>				
	Wild Turkey	<i>Meleagris gallopavo</i>				
	Wood Stork	<i>Mycteria americana</i>	E	E	S2	
	Osprey	<i>Pandion haliaetus</i>	SSC*	N	S3S4	
	Northern Parula Warbler	<i>Parula americana</i>				
	Downy Woodpecker	<i>Picoides pubescens</i>				
	Eastern Towhee	<i>Pipilo erythrophthalmus</i>				
	Carolina Chickadee	<i>Poecile carolinensis</i>				
	Carolina Wren	<i>Thryothorus ludovicianus</i>				
	American Robin	<i>Turdus migratorius</i>				
	White-eyed Vireo	<i>Vireo griseus</i>				
	Mourning Dove	<i>Zenaida macroura</i>				
	Mammals	Coyote	<i>Canis latrans</i>			
Nine-banded Armadillo		<i>Dasypus novemcinctus</i>				Introduced
White-tailed Deer		<i>Odocoileus virginianus</i>				
Raccoon		<i>Procyon lotor</i>				
Gray Squirrel		<i>Sciurus carolinensis</i>				
Wild Pig		<i>Sus scrofa</i>				Introduced

**Reptiles and  
Amphibians**

Florida Cricket Frog	<i>Acris gryllus dorsalis</i>			
Green Anole	<i>Anolis carolinensis</i>			
Southern Racer	<i>Coluber constrictor priapus</i>			
Eastern Diamondback Rattlesnake	<i>Crotalus adamanteus</i>	N	N	S3
Gopher Tortoise	<i>Gopherus polyphemus</i>	T	N	S3
Green Treefrog	<i>Hyla cinerea</i>			
Gopher Frog	<i>Lithobates capito</i>	SSC		S3
Florida Box Turtle	<i>Terrapene carolina bauri</i>			

**FWC** = Florida Fish and Wildlife Conservation Commission; **FWS** = U.S. Fish and Wildlife Service; **FNAI** = Florida Natural Areas Inventory; **E** = Endangered species; **SSC** = Species of special concern; **SSC\*** = Species of special concern in Monroe County only; **T** = Threatened species; **N** = Not currently listed, nor currently being considered for listing; **S2** = Imperiled in Florida; **S3** = Very rare or locally restricted in Florida; **S4** = apparently secure in Florida.

**EXHIBIT G: PHIFER FLATWOODS PRESERVE PLANT SPECIES LIST**

## Plant Species of Phifer Flatwoods Preserve

Scientific Name	Common Name	Origin	FDAC*	FWS	FNAI**
<i>Acer rubrum</i>	RED MAPLE				
<i>Albizia julibrissin</i>	SILKTREE	Exotic			
<i>Ampelopsis arborea</i>	PEPPERVINE				
<i>Andropogon glomeratus</i>	BUSHY BLUESTEM				
<i>Andropogon glomeratus</i> var. <i>glaucopsis</i>	PURPLE BLUESTEM				
<i>Andropogon virginicus</i>	BROOMSEDEGE BLUESTEM				
<i>Ardisia crenata</i>	SCRATCHTHROAT	Exotic			
<i>Aristida</i> sp.	WIREGRASS				
<i>Aristida spiciformis</i>	BOTTLEBRUSH THREEAWN				
<i>Aristida stricta</i>	WIREGRASS				
<i>Asclepias humistrata</i>	PINEWOODS MILKWEED				
<i>Asclepias pedicellata</i>	SAVANNAH MILKWEED				
<i>Asclepias perennis</i>	SWAMP MILKWEED				
<i>Asclepias tuberosa</i>	BUTTERFLY MILKWEED				
<i>Asimina angustifolia</i>	SLIMLEAF PAWPAW				
<i>Asimina parviflora</i>	SMALLFLOWER PAWPAW				
<i>Asimina pygmaea</i>	DWARF PAWPAW				
<i>Asimina reticulata</i>	NETTED PAWPAW	Endemic			
<i>Asplenium platyneuron</i>	EBONY SPLEENWORT				
<i>Baccharis glomeruliflora</i>	SILVERLING				
<i>Baccharis halimifolia</i>	GROUNDSEL TREE				
<i>Bidens alba</i> var. <i>radiata</i>	BEGGARTICKS				
<i>Bidens mitis</i>	SMALLFRUIT BEGGARTICKS				
<i>Callicarpa americana</i>	AMERICAN BEAUTYBERRY				
<i>Campsis radicans</i>	TRUMPET CREEPER				
<i>Canna flaccida</i>	BANDANA-OF-THE-EVERGLADES				
<i>Carex glaucescens</i>	CLUSTERED SEDGE				
<i>Carex</i> sp.	SEDGE				
<i>Carex striata</i>	WALTER'S SEDGE				
<i>Carpinus caroliniana</i>	AMERICAN HORNBEAM				
<i>Carya glabra</i>	PIGNUT HICKORY				
<i>Celtis laevigata</i>	SUGARBERRY				
<i>Centella asiatica</i>	SPADELEAF				
<i>Cephalanthus occidentalis</i>	COMMON BUTTONBUSH				
<i>Chasmanthium laxum</i>	SLENDER WOODOATS				
<i>Chasmanthium</i> sp.	WOODOATS				
<i>Chionanthus virginicus</i>	OLD-MANS'S BEARD				
<i>Cinnamomum camphora</i>	CAMPHORTREE	Exotic			
<i>Cirsium horridulum</i>	PURPLE THISTLE				
<i>Cnidioscolus stimulosus</i>	TREAD-SOFTLY				
<i>Croptilon divaricatum</i>	SLENDER SCRATCHDAISY				
<i>Croton michauxii</i>	RUSHFOIL				
<i>Cyperus retrorsus</i>	PINEBARREN FLATSEDEGE				
<i>Dichantheium aciculare</i>	NEEDLELEAF WITCHGRASS				
<i>Dioscorea alata</i>	WHITE YAM	Exotic			

<i>Dioscorea bulbifera</i>	AIR-POTATO	Exotic
<i>Diospyros virginiana</i>	COMMON PERSIMMON	
<i>Eleocharis baldwinii</i>	BALDWIN'S SPIKERUSH	
<i>Epidendrum conopseum</i>	GREEN-FLY ORCHID	C
<i>Eragrostis elliotii</i>	ELLIOTT'S LOVEGRASS	
<i>Erechtites hieraciifolius</i>	FIREWEED	
<i>Eremochloa ophiuroides</i>	CENTIPEDEGRASS	Exotic
<i>Erythrina herbacea</i>	CORALBEAN	
<i>Eupatorium capillifolium</i>	DOGFENNEL	
<i>Eupatorium compositifolium</i>	YANKEEWEEED	
<i>Fraxinus caroliniana</i>	POP ASH	
<i>Froelichia floridana</i>	COTTONWEED	
<i>Galactia volubilis</i>	DOWNY MILKPEA	
<i>Gaylussacia frondosa</i> var. <i>toментosa</i>	BLUE HUCKLEBERRY	
<i>Gelsemium sempervirens</i>	YELLOW JESSAMINE	
<i>Gordonia lasianthus</i>	LOBLOLLY BAY	
<i>Helianthemum corymbosum</i>	PINEBARREN FROSTWEED	
<i>Ilex cassine</i>	DAHOON	
<i>Ilex glabra</i>	GALLBERRY	
<i>Ilex opaca</i>	AMERICAN HOLLY	
<i>Itea virginica</i>	VIRGINIA SWEETSPIRE	
<i>Juncus coriaceous</i>	LEATHERY RUSH	
<i>Juncus effusus</i>	SOFT RUSH	
<i>Juncus scirpoides</i>	NEEDLEPOD RUSH	
<i>Juniperus virginiana</i>	RED CEDAR	
<i>Lachnanthes caroliana</i>	CAROLINA REDROOT	
<i>Leucothoe racemosa</i>	SWAMP DOGHOBLE	
<i>Liquidambar styraciflua</i>	SWEETGUM	
<i>Lonicera japonica</i>	JAPANESE HONEYSUCKLE	Exotic
<i>Ludwigia repens</i>	CREEPING PRIMROSEWILLOW	
<i>Lycopus rubellus</i>	TAPERLEAF WATERHOREHOUND	
<i>Lygodium japonicum</i>	JAPANESE CLIMBING FERN	Exotic
<i>Lyonia lucida</i>	FETTERBUSH	
<i>Magnolia grandiflora</i>	SOUTHERN MAGNOLIA	
<i>Magnolia virginiana</i>	SWEETBAY	
<i>Melia azedarach</i>	CHINABERRYTREE	Exotic
<i>Mimosa strigillosa</i>	POWDERPUFF	
<i>Myrica cerifera</i>	WAX MYRTLE	
<i>Nuphar advena</i>	SPATTERDOCK	
<i>Nyssa sylvatica</i>	BLACKGUM	
<i>Nyssa sylvatica</i> var. <i>biflora</i>	SWAMP TUPELO	
<i>Oldenlandia uniflora</i>	CLUSTERED MILLE GRAINES	
<i>Opuntia humifusa</i>	PRICKLYPEAR	
<i>Osmanthus americanus</i>	WILD OLIVE	
<i>Osmunda cinnamomea</i>	CINNAMON FERN	C
<i>Panicum anceps</i>	BEAKED PANICUM	
<i>Panicum hemitomon</i>	MAIDENCANE	
<i>Panicum virgatum</i>	SWITCHGRASS	

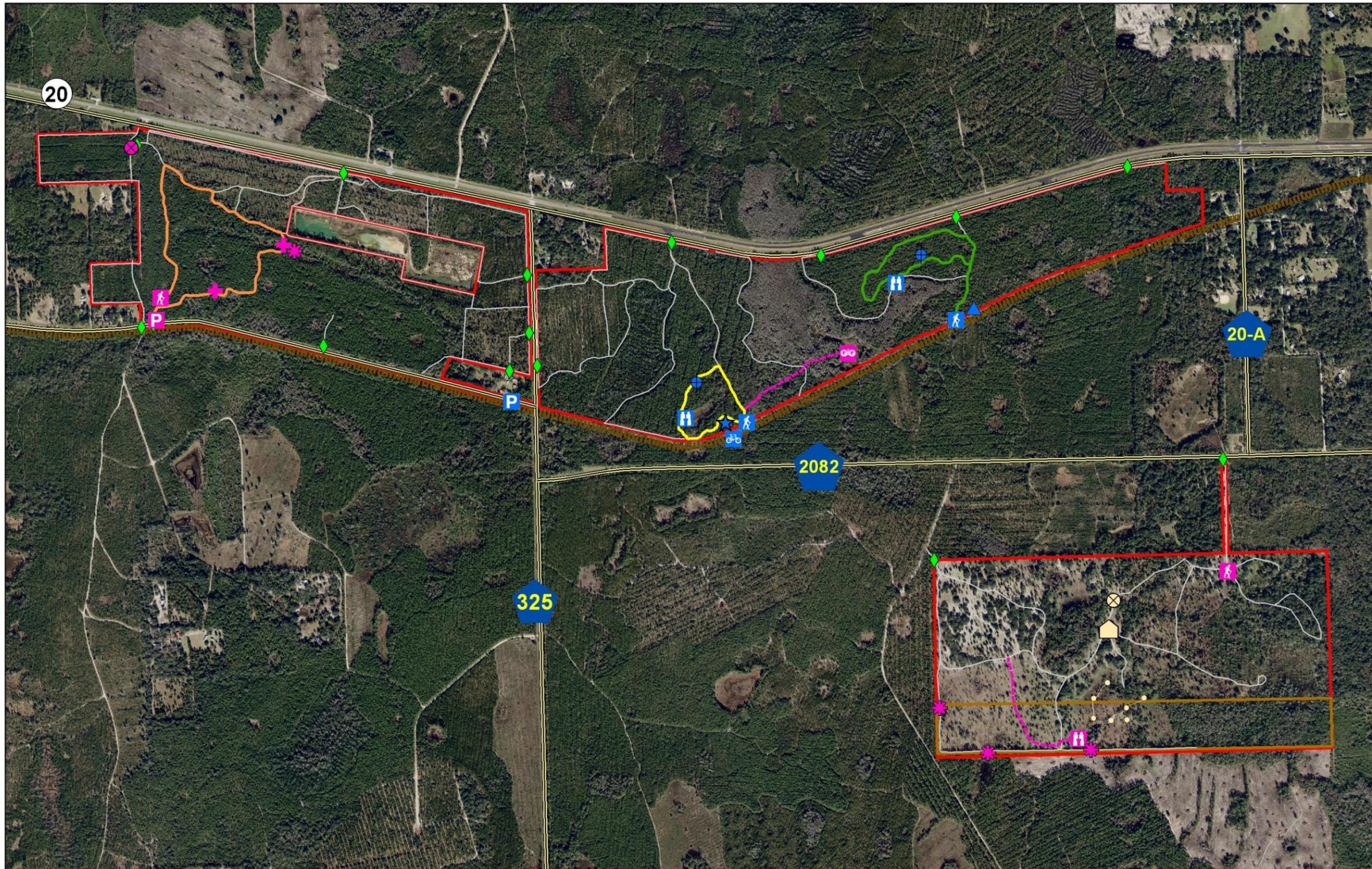
<i>Parthenocissus quinquefolia</i>	VIRGINIA CREEPER		
<i>Paspalum notatum</i>	BAHIAGRASS	Exotic	
<i>Paspalum urvillei</i>	VASEYGRASS	Exotic	
<i>Passiflora incarnata</i>	PURPLE PASSIONFLOWER		
<i>Peltandra sp.</i>	ARROW ARUM		
<i>Persea borbonia</i>	RED BAY		
<i>Persea palustris</i>	SWAMP BAY		
<i>Pinus elliotii</i>	SLASH PINE		
<i>Pinus palustris</i>	LONGLEAF PINE		
<i>Pinus serotina</i>	POND PINE		
<i>Pinus taeda</i>	LOBLOLLY PINE		
<i>Pityopsis graminifolia</i>	NARROWLEAF SILKGRASS		
<i>Pleopeltis polypodioides var. michauxiana</i>	RESURRECTION FERN		
<i>Polygala lutea</i>	ORANGE MILKWORT		
<i>Polygala violacea</i>	SHOWY MILKWORT		
<i>Polypremum procumbens</i>	RUSTWEED		
<i>Pontederia cordata</i>	PICKERELWEED		
<i>Prunus serotina</i>	BLACK CHERRY		
<i>Pteridium aquilinum var. pseudocaudatum</i>	TAILED BRACKEN		
<i>Pterocaulon pycnostachyum</i>	BLACKROOT		
<i>Pteroglossaspis ecristata</i>	GIANT ORCHID	T	S2
<i>Quercus falcata</i>	SOUTHERN RED OAK		
<i>Quercus geminata</i>	SAND LIVE OAK		
<i>Quercus laevis</i>	TURKEY OAK		
<i>Quercus laurifolia</i>	LAUREL OAK		
<i>Quercus nigra</i>	WATER OAK		
<i>Quercus virginiana</i>	LIVE OAK		
<i>Rhexia mariana</i>	PALE MEADOWBEAUTY		
<i>Rhus copallinum</i>	WINGED SUMAC		
<i>Rhynchospora corniculata</i>	SHORTBRISTLE HORNED BEAKSEGE		
<i>Rosa palustris</i>	SWAMP ROSE		
<i>Rubus sp.</i>	BLACKBERRY		
<i>Rubus trivialis</i>	SOUTHERN DEWBERRY		
<i>Sabal palmetto</i>	CABBAGE PALM		
<i>Sacciolepis striata</i>	AMERICAN CUPSCALE		
<i>Salix caroliniana</i>	CAROLINA WILLOW		
<i>Salvinia minima</i>	WATER SPANGLES		
<i>Sapium sebiferum</i>	CHINESE TALLOWTREE	Exotic	
<i>Sarracenia minor</i>	HOODED PITCHERPLANT		T
<i>Saururus cernuus</i>	LIZARD'S TAIL		
<i>Scirpus cyperinus</i>	WOOLGRASS		
<i>Scoparia dulcis</i>	LICORICEWEED		
<i>Serenoa repens</i>	SAW PALMETTO		
<i>Smilax sp.</i>	GREENBRIER		
<i>Solanum viarum</i>	TROPICAL SODA APPLE	Exotic	
<i>Solidago sp.</i>	GOLDENROD		
<i>Sphagnum sp.</i>	SPHAGNUM MOSS		

<i>Stachys floridana</i>	FLORIDA BETONY	
<i>Stipulicida setacea</i>	PINELAND SCALYPINK	
<i>Stylisma patens</i>	COASTALPLAIN DAWNFLOWER	
<i>Syngonanthus flavidulus</i>	YELLOW HATPINS	
<i>Taxodium ascendens</i>	POND CYPRESS	
<i>Tephrosia chrysophylla</i>	SCURF HOARYPEA	
<i>Tillandsia bartramii</i>	BARTRAM'S AIRPLANT	
<i>Toxicodendron radicans</i>	EASTERN POISON IVY	
<i>Tradescantia ohiensis</i>	OHIO SPIDERWORT	
<i>Ulmus alata</i>	WINGED ELM	
<i>Vaccinium corymbosum</i>	HIGHBUSH BLUEBERRY	
<i>Vaccinium myrsinites</i>	SHINY BLUEBERRY	
<i>Vaccinium stamineum</i>	DEERBERRY	
<i>Viburnum obovatum</i>	WALTER'S VIBURNUM	
<i>Viburnum rufidulum</i>	RUSTY BLACKHAW	
<i>Vitis rotundifolia</i>	MUSCADINE	
<i>Woodwardia areolata</i>	NETTED CHAIN FERN	
<i>Woodwardia virginica</i>	VIRGINIA CHAIN FERN	
<i>Xyris caroliniana</i>	CAROLINA YELLOWEYED GRASS	
<i>Xyris fimbriata</i>	FRINGED YELLOWEYED GRASS	
<i>Zamia pumila</i>	COONTIE	C

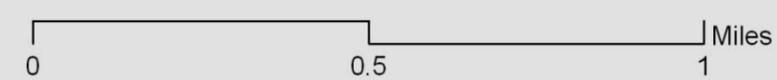
\***FDAC** (Florida Department of Agriculture and Consumer Services): **C** = Commercially Exploited; **T** = Threatened

\*\***FNAI** (Florida Natural Areas Inventory): **S2** = Imperiled in Florida because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.

# Exhibit H - Phifer Flatwoods Preserve Conceptual Site Plan



- Preserve Boundary
- Conservation Easement Boundary
- Roads, Trails & Firebreaks
- Marsh Loop
- Swamp Loop
- Turpentine Loop
- Gates
- Existing Parking
- Existing Trailhead
- Existing Wildlife Viewing Area
- Covered Bench
- Swinging Bench
- Bike Rack
- Geocache
- Pole Barn
- Existing Culvert
- Existing Ditches (remove/restore)
- Proposed Trails/Boardwalks
- Proposed Footbridges
- Proposed Parking
- Proposed Trailheads
- Proposed Wildlife Viewing Area
- Proposed Observation Platform
- Proposed Culvert
- Proposed Low Water Crossing
- Gainesville - Hawthorne Trail
- Major Roads

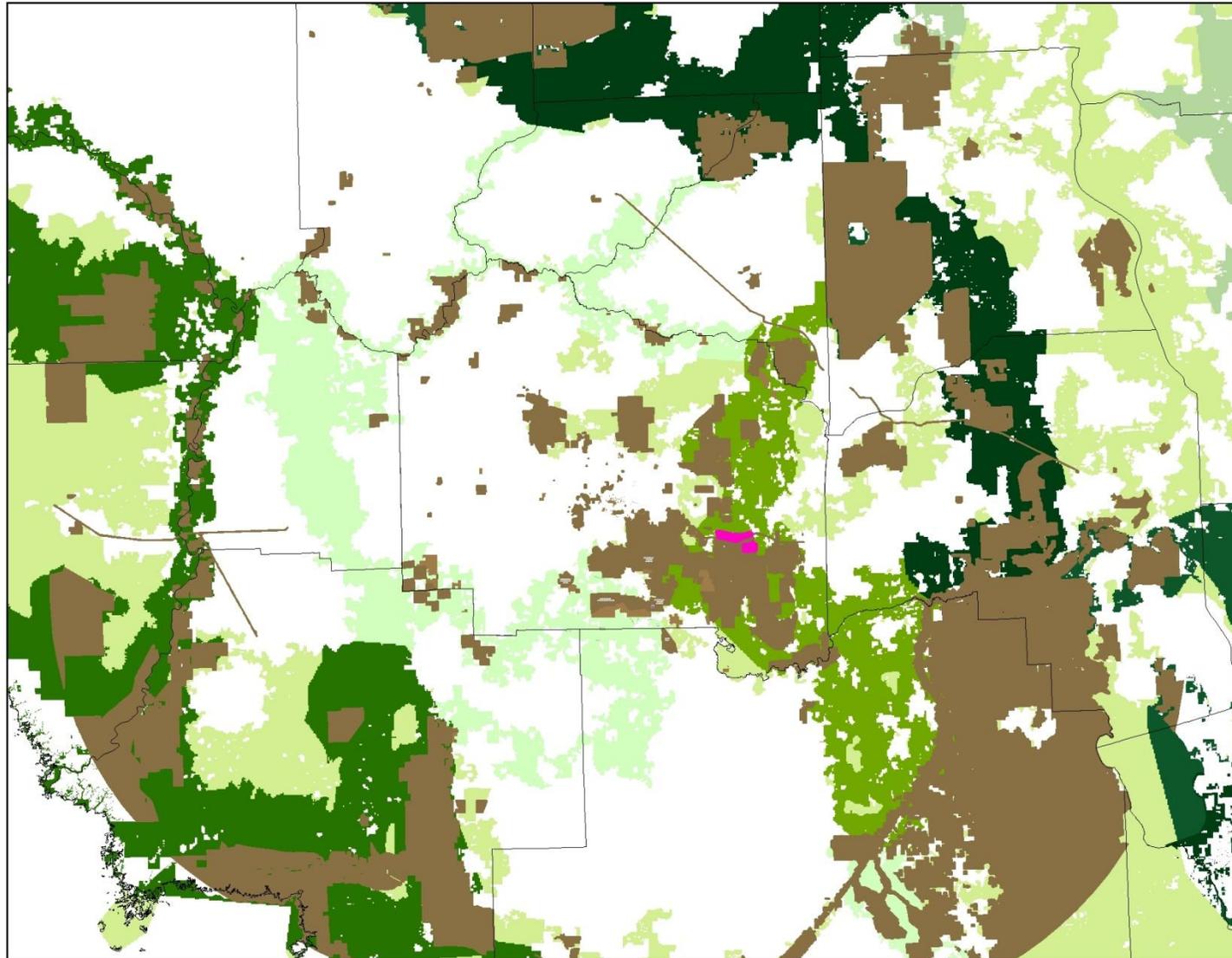


DISCLAIMER: This map and the spatial data it contains are made available as a public service, to be used for reference purposes only. The Alachua County Environmental Protection Department provides this information AS IS without warranty of any kind. The quality of the data is dependent on the various sources from which each data layer is obtained.

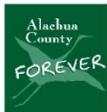
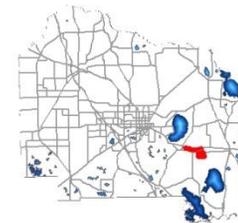
# Exhibit I - Florida Ecological Greenways Network



Alachua County,  
Florida  
Environmental  
Protection



- Phifer Flatwoods Preserve
- County Boundaries
- Conservation Lands
- Critical linkage
- Priority 2
- Priority 3
- Priority 4
- Priority 5
- Priority 6
- Priority 7

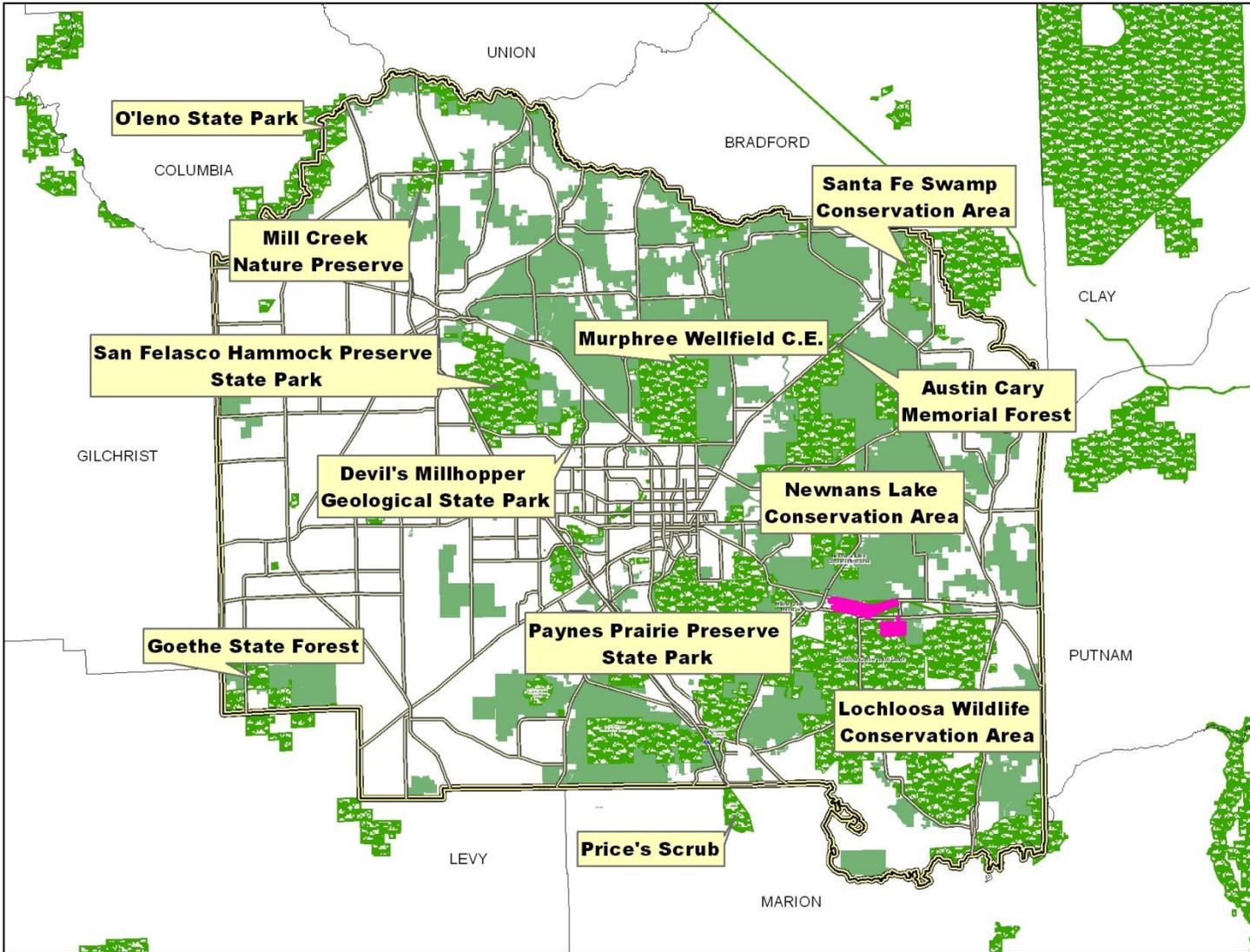


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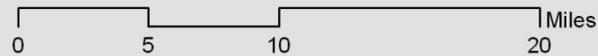
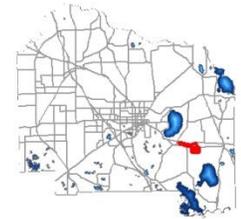
# Exhibit J - Alachua County Emerald Necklace



Alachua County, Florida  
Environmental Protection



- Phifer Flatwoods Preserve
- County Boundaries
- Conservation Lands
- Emerald Necklace
- Major Roads



DISCLAIMER: This map and the spatial data it contains are made available as a public service, to be used for reference purposes only. The Alachua County Environmental Protection Department provides this information AS IS without warranty of any kind. The quality of the data is dependent on the various sources from which each data layer is obtained.

**EXHIBIT K: PUBLIC INVOLVEMENT**

## **SUMMARY OF COMMENTS RECEIVED**

### **Kathleen Pagan (Alachua County Growth Management Planning and Development)**

Susie,

It will be helpful to efforts on the Old Florida Heritage Highway, a state FDOT designated scenic byway in SE Alachua County, if the byway can be mentioned in the Phifer Flatwoods Management Plan.

You will see Rochelle is mentioned in this online tour: <http://www.dialanddiscover.com/>

More information about the byway is also on this website:

<http://www.scenicus441.com/Pages/default.aspx>

If you have any questions or would like to know more about the efforts for this public/private partnership program, including recent application for a non-profit byway organization, please let me know. Thank you very much. Kathleen

Kathleen Pagan, AICP, Sr. Planner, 352-374-5249

## **PUBLIC MEETING SUMMARY**

### Alachua County Forever Phifer Flatwoods Preserve Management Planning Meeting

**Date:** January 10, 2012  
**Location:** Alachua County Health Department, Main Auditorium, 224 SE 24<sup>th</sup> Street, Gainesville, Florida  
**Present:** Sandra Vardaman, Susie Hetrick, Jim Burry, Holly Banner, Herman Nelson

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1. Welcome and introduction by Sandra Vardaman
2. Site overview, natural resources and land management overview, recreational opportunities and Conceptual Site Plan presented by Susie Hetrick
3. Public Comments – An informal discussion between attendees covered exotic species control, fire management, and hunting within the Preserve. Mr. Nelson offered some historic information about the Phifer and Rochelle area, and inquired about nominating his family's land to the ACF program. No written public comments were submitted at the meeting.
4. Meeting adjourned

**EXHIBIT L: AGENCY COMMENTS**



## Florida Department of Environmental Protection

Rick Scott  
Governor

Jennifer Carroll  
Lt. Governor

Herschel T. Vinyard Jr.  
Secretary

March 19, 2012

Susie Hetrick  
Senior Environmental Specialist  
Alachua County Environmental Protection Department  
Land Conservation Division  
408 West University, Suite 106  
Gainesville, Florida 32601

RE: Modification to the Management Plan  
Phifer Flatwoods  
FCT Project # 07-116-FF7

Dear Ms. Hetrick:

This is in response to your March 15, 2012, email requesting management plan modifications. Florida Communities Trust staff reviewed the proposed modification to the management plan for consistency with the original application, the Grant Award Agreement, and the approved management plan.

We find the proposed changes are consistent with the approved project.

If you have any questions concerning this matter, please contact Cheri Albin at (850) 245-2886 or [cheri.albin@dep.state.fl.us](mailto:cheri.albin@dep.state.fl.us).

Sincerely,

A handwritten signature in cursive script, appearing to read "Grant Gelhardt".

Grant Gelhardt  
Environmental Administrator

GG/ca

**APPENDIX A: DECLARATION OF RESTRICTIVE COVENANTS**

This document prepared by:  
Kristen L. Coons, Esq.  
Florida Communities Trust  
Department of Community Affairs  
2555 Shumard Oak Blvd.  
Tallahassee, FL 32399

FLORIDA COMMUNITIES TRUST  
FF7 AWARD #07-115-FF7  
FCT Contract #08-Ct-C1-07-F7-J1-115  
PHIFER FLATWOODS

### **DECLARATION OF RESTRICTIVE COVENANTS**

THIS AGREEMENT is entered into by and between the FLORIDA COMMUNITIES TRUST ("FCT"), a nonregulatory agency within the State of Florida Department of Community Affairs, and ALACHUA COUNTY, a local government of the State of Florida ("Recipient").

THIS AGREEMENT IS ENTERED INTO BASED ON THE FOLLOWING FACTS:

WHEREAS, the intent of this Agreement is to impose terms and conditions on the use of the proceeds of certain bonds, hereinafter described, and the lands acquired with such proceeds, as described in Exhibit "A" attached hereto and made a part hereof ("Project Site"), that are necessary to ensure compliance with applicable Florida law and federal income tax law and to otherwise implement the provisions of Sections 259.105, 259.1051 and Chapter 380, Part III, Florida Statutes;

WHEREAS, Chapter 380, Part III, Fla. Stat., the Florida Communities Trust Act, creates a non-regulatory agency within the Department of Community Affairs ("Department") that will assist local governments in bringing into compliance and implementing the conservation, recreation and open space, and coastal elements of their comprehensive plans or in conserving natural resources and resolving land use conflicts by providing financial assistance to local governments and nonprofit environmental organizations to carry out projects and activities authorized by the Florida Communities Trust Act;

WHEREAS, FCT is funded through either Section 259.105(3)(c), Fla. Stat. of the Florida Forever Act, which provides for the distribution of twenty-two percent (22%), less certain reductions, of the net Florida Forever Revenue Bond proceeds to the Department, or any other revenue source designated by the Florida Legislature, to provide land acquisition grants to local governments and nonprofit environmental organizations for the acquisition of community-based projects, urban open spaces, parks and greenways to implement local comprehensive plans;

WHEREAS, the Florida Forever Revenue Bonds are issued as tax-exempt bonds, meaning the interest on the Bonds is excluded from the gross income of bondholders for federal income tax purposes;

WHEREAS, Rule 9K-7.009(1), Florida Administrative Code (“F.A.C.”), authorizes FCT to impose conditions for funding on those FCT applicants whose projects have been selected for funding;

WHEREAS, FCT has approved the terms under which the Project Site was acquired and the deed whereby the Recipient acquired title to the Project Site. The deed shall contain such covenants and restrictions as are sufficient to ensure that the use of the Project Site at all times complies with Section 375.051, Florida Statutes and Section 9, Article XII of the State Constitution and it shall contain clauses providing for the conveyance of title to the Project Site to the Board of Trustees of the Internal Improvement Trust Fund (“Trustees”) upon the failure of the Recipient to use the Project Site acquired thereby for such purposes; and

WHEREAS, the purpose of this Agreement is to set forth the covenants and restrictions that are imposed on the Project Site subsequent to disbursing FCT Florida Forever funds to the Recipient for Project Costs.

NOW THEREFORE, in consideration of the mutual covenants and undertakings set forth herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, FCT and the Recipient do hereby contract and agree as follows:

**I. PERIOD OF AGREEMENT**

1. This Agreement shall begin upon execution by both parties. The covenants and restrictions contained herein shall run with the Project Site and shall bind, and the benefit shall inure to, FCT and the Recipient and their respective successors and assigns.

**II. MODIFICATION OF AGREEMENT**

1. Either party may request modification of the provisions of this Agreement at any time. Changes which are mutually agreed upon shall be valid only when reduced to writing and duly signed by each of the parties hereto. Such amendments shall be incorporated into this Agreement.

**III. RECORDING AND APPROVAL OF DECLARATION OF RESTRICTIVE COVENANTS**

1. Upon execution by the parties hereto, the Recipient shall cause this Agreement to be recorded and filed in the official public records of **Alachua County, Florida**, and in such manner and in such other places as FCT may reasonably request. The Recipient shall pay all fees and charges incurred in connection therewith.

2. The Recipient and FCT agree that the State of Florida Department of Environmental Protection shall forward this Agreement to the Department of Environmental Protection Bond Counsel for review. In the event Bond Counsel opines that an amendment is required to this Agreement so that the tax-exempt status of the Florida Forever Bonds is not jeopardized, FCT and the Recipient shall amend the Agreement accordingly.

#### **IV. NOTICE AND CONTACT**

1. All notices provided under or pursuant to this Agreement shall be in writing and delivered either by hand delivery or first class, certified mail, return receipt requested, to the addresses specified below. Any such notice shall be deemed received on the date of delivery if by personal delivery or upon actual receipt if sent by registered mail.

FCT: Florida Communities Trust  
Department of Community Affairs  
2555 Shumard Oak Blvd.  
Tallahassee, FL 32399-2100  
ATTN: Program Manager

Recipient: Alachua County Board of County Commissioners  
P.O. Box 2877  
Gainesville, Florida 32602  
ATTN: Randall H. Reid, County Manager

2. In the event that a different representative or address is designated for paragraph 1. above after execution of this Agreement, notice of the change shall be rendered to FCT as provided in paragraph 1. above.

#### **V. PROJECT SITE TITLE REQUIREMENTS IMPOSED BY CHAPTER 259, CHAPTER 375 AND CHAPTER 380, PART III, FLA. STAT.**

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1. Any transfer of the Project Site shall be subject to the approval of FCT and FCT shall enter into a new agreement with the transferee containing such covenants, clauses or other restrictions as are sufficient to protect the interest of the State of Florida.

2. The interest acquired by the Recipient in the Project Site shall not serve as security for any debt of the Recipient.

3. If the existence of the Recipient terminates for any reason, title to the Project Site shall be conveyed to the Trustees unless FCT negotiates an agreement with another local

government, nonprofit environmental organization, the Florida Division of Forestry, the Florida Fish and Wildlife Conservation Commission, the Department of Environmental Protection or a Water Management District who agrees to accept title and manage the Project Site.

4. In the event that the Project Site is damaged or destroyed or title to the Project Site, or any part thereof, is taken by any governmental body through the exercise or the threat of the exercise of the power of eminent domain, the Recipient shall deposit with FCT 40% of any insurance proceeds or any condemnation award and shall promptly commence to rebuild, replace, repair or restore the Project Site in such manner as is consistent with the Agreement. FCT shall make any such insurance proceeds or condemnation award moneys available to provide funds for such restoration work. In the event that the Recipient fails to commence or to complete the rebuilding, repair, replacement or restoration of the Project Site after notice from FCT, FCT shall have the right, in addition to any other remedies at law or in equity, to repair, restore, rebuild or replace the Project Site so as to prevent the occurrence of a default hereunder.

Notwithstanding any of the foregoing, FCT shall have the right to seek specific performance of any of the covenants and restrictions of this Agreement concerning the construction and operation of the Project Site.

## **VI. MANAGEMENT OF PROJECT SITE**

1. The Project Site shall be managed only for the conservation, protection and enhancement of natural and historical resources and for compatible passive, natural resource-based public outdoor recreation, along with other related uses necessary for the accomplishment of this purpose. The proposed uses for the Project Site are specifically designated in the Management Plan approved by FCT.

2. The Recipient shall ensure that the future land use designation assigned to the Project Site is for a category dedicated to open space, conservation or outdoor recreation uses, as appropriate. If an amendment to the applicable comprehensive plan is required, the amendment shall be proposed at the next comprehensive plan amendment cycle available to the Recipient.

3. The Recipient shall ensure, and provide evidence thereof to FCT, that all activities under this Agreement comply with all applicable local, state, regional and federal laws and regulations, including zoning ordinances and the adopted and approved comprehensive plan for the jurisdiction, as applicable. Evidence shall be provided to FCT that all required licenses and permits have been obtained prior to the commencement of any construction.

4. The Recipient shall, through its agents and employees, prevent the unauthorized use of the Project Site or any use thereof not in conformity with the Management Plan approved by FCT.

5. FCT staff or its duly authorized representatives shall have the right at any time to inspect the Project Site and the operations of the Recipient at the Project Site.

6. All buildings, structures, improvements and signs shall require the prior written approval of FCT as to purpose. Further, tree removal, other than non-native species, and major land alterations shall require the written approval of FCT. The approvals required from FCT shall not be unreasonably withheld by FCT upon sufficient demonstration that the proposed structures, buildings, improvements, signs, vegetation removal or land alterations will not adversely impact the natural resources of the Project Site. FCT's approval of the Recipient's Management Plan addressing the items mentioned herein shall be considered written approval from FCT.

7. If archaeological and historic sites are located on the Project Site, the Recipient shall comply with Chapter 267, Fla. Stat. The collection of artifacts from the Project Site or the disturbance of archaeological and historic sites on the Project Site shall be prohibited unless prior written authorization has been obtained from the Department of State, Division of Historical Resources.

8. As required by Rule 9K-7.013, F.A.C., each year after FCT reimbursement of Project Costs the Recipient shall prepare and submit to FCT an annual stewardship report that documents the progress made on implementing the Management Plan.

## **VII. SPECIAL MANAGEMENT CONDITIONS**

The Management Plan for the project site is mentioned throughout this Agreement, and is particularly described in Section IV. above. In addition to the various conditions already described in this Agreement, which apply to all sites acquired with FCT funds, the Management Plan shall address the following conditions that are particular to the project site and result from either representations made in the application that received scoring points or observations made by the FCT staff during the site visit described in Rule 9K-7.009(1), F.A.C.:

1. The following recreational facilities including a bench swing, wildlife observation platform, tetherball court, and geocaching course shall be provided. The facilities shall be developed in a manner that allows the general public reasonable access for observation and appreciation of the natural resources on the project site without causing harm to those resources.

2. A permanent recognition sign, at a minimum size of 3' x 4', shall be maintained at the entrance area of the project site. The sign shall acknowledge that the project site was purchased with funds from the Florida Communities Trust Program and Alachua County.

3. Interpretive kiosks shall be provided on the project site to educate visitors about the area's natural resources.

4. The natural communities that occur on the project site shall be preserved and appropriately managed to ensure the long-term viability of these communities.

5. The project site shall be managed in a manner that protects and enhances the listed and non-listed native wildlife species and their habitat. Periodic surveys shall be conducted of listed species using the project site.
6. Exotic vegetation shall be removed from the project site.
7. A significant portion of the upland area on the project site shall be planted with native vegetation.
8. A significant portion of the wetland area on the project site shall be planted with native vegetation.
9. The development and management of the project site shall be coordinated with agencies managing multi-jurisdictional recreational trails in Alachua County to ensure the project site is managed as part of a linked land-based trail system.
10. The project site shall be protected and managed as part of an ecological corridor within the County's designated Emerald Necklace Greenway.
11. The location and design of any parking facility shall be designed to have minimal impacts on natural resources. The parking area shall incorporate pervious materials wherever feasible.
12. An ongoing monitoring and control program for invasive vegetation including exotic (non-native) and nuisance native plant species shall be implemented at the project site. The objective of the control program shall be the elimination of invasive exotic plant species and the maintenance of a diverse association of native vegetation. The management plan shall reference the Exotic Pest Plant Council's List of Florida's Most Invasive Species to assist in identifying invasive exotics on the project site.
13. A feral animal removal program shall be developed and implemented for the project site as necessary.
14. An archaeological survey shall be preformed for any area within the project site proposed for development prior to the commencement of proposed development activities in that area. All planned activities involving known archaeological sites or identified site areas shall be closely coordinated with the Department of State, Division of Historical Resources in order to prevent the disturbance of significant sites. A protection plan shall be developed and implemented in conjunction with the Division of Historical Resources for the protection of known historic sites located on the project site.
15. Bike racks shall be installed to provide an alternative to automobile transportation to the project site.

16. A nature trail of at least ¼ mile shall be provided on the project site.

### **VIII. OBLIGATIONS OF THE RECIPIENT RELATING TO THE USE OF BOND PROCEEDS**

1. FCT is authorized by Section 380.510, Fla. Stat. to impose conditions for funding on the Recipient in order to ensure that the project complies with the requirements for the use of Florida Forever Bond proceeds including, without limitation, the provisions of the Internal Revenue Code and the regulations promulgated thereunder as the same pertain to tax exempt bonds.

2. The Recipient agrees and acknowledges that the below listed transactions, events, and circumstances, collectively referred to as the “disallowable activities,” may be disallowed on the Project Site as they may have negative legal and tax consequences under Florida law and federal income tax law. The Recipient further agrees and acknowledges that these disallowable activities may be allowed up to a certain extent based on guidelines or tests outlined in the Federal Private Activity regulations of the Internal Revenue Service:

- a. any sale or lease of any interest in the Project Site to a governmental agency or a non-governmental person or organization;
- b. the operation of any concession on the Project Site by a non-governmental person or organization;
- c. any sales contract or option to buy or sell things attached to the Project Site to be severed from the Project Site with a non-governmental person or organization;
- d. any use of the Project Site by a non-governmental person other than in such person’s capacity as a member of the general public;
- e. any change in the character or use of the Project Site from that use expected at the date of the issuance of any series of Bonds from which the disbursement is to be made;
- f. a management contract for the Project Site with a non-governmental person or organization; or
- g. such other activity or interest as may be specified from time to time in writing by FCT to the Recipient.

3. If the Project Site, after its acquisition by the Recipient and/or the Trustees, is to remain subject to any of the disallowable activities, the Recipient shall provide notice to FCT, as

provided for in paragraph III.1. above, at least sixty (60) calendar days in advance of any such transactions, events or circumstances, and shall provide FCT such information as FCT reasonably requests in order to evaluate for approval the legal and tax consequences of such disallowable activities.

4. In the event that FCT determines at any time that the Recipient is engaging, or allowing others to engage, in disallowable activities on the Project Site, the Recipient shall immediately cease or cause the cessation of the disallowable activities upon receipt of written notice from FCT. In addition to all other rights and remedies at law or in equity, FCT shall have the right to seek temporary and permanent injunctions against the Recipient for any disallowable activities on the Project Site.

DELEGATIONS AND CONTRACTUAL ARRANGEMENTS BETWEEN THE RECIPIENT AND OTHER GOVERNMENTAL BODIES, NONPROFIT ENTITIES OR NON GOVERNMENTAL PERSONS FOR USE OR MANAGEMENT OF THE PROJECT SITE WILL IN NO WAY RELIEVE THE RECIPIENT OF THE RESPONSIBILITY TO ENSURE THAT THE CONDITIONS IMPOSED HEREIN ON THE PROJECT SITE AS A RESULT OF UTILIZING BOND PROCEEDS TO ACQUIRE THE PROJECT SITE ARE FULLY COMPLIED WITH BY THE CONTRACTING PARTY.

#### **IX. RECORDKEEPING; AUDIT REQUIREMENTS**

1. The Recipient shall maintain financial procedures and support documents, in accordance with generally accepted accounting principles, to account for the receipt and expenditure of funds under this Agreement. These records shall be available at all reasonable times for inspection, review or audit by state personnel, FCT and other personnel duly authorized by FCT. "Reasonable" shall be construed according to the circumstances, but ordinarily shall mean the normal business hours of 8:00 a.m. to 5:00 p.m., local time, Monday through Friday.

2. If the Recipient expends a total amount of State financial assistance equal to or in excess of \$500,000 in any fiscal year of such Recipient, the Recipient must have a State single or project-specific audit for such fiscal year in accordance with Section 215.97, Fla. Stat., the applicable rules of the Executive Office of the Governor and the Comptroller and Chapter 10.550 (local government entities) or Chapter 10.650 (nonprofit organizations), Rules of the Auditor General. In determining the State financial assistance expended in its fiscal year, the Recipient shall consider all sources of State financial assistance, including State funds received from FCT, other state agencies and other non-state entities. State financial assistance does not include Federal direct or pass-through awards and resources received by a non-state entity for Federal program matching requirements. The funding for this Agreement was received by FCT as a grant appropriation.

In connection with the audit requirements addressed herein, the Recipient shall ensure that the audit complies with the requirements of Section 215.97(7), Fla. Stat. This includes submission of a

reporting package as defined by Section 215.97(2)(d), Fla. Stat. and Chapter 10.550 (local government entities) or 10.650 (nonprofit organizations), Rules of the Auditor General.

3. If the Recipient expends less than \$500,000 in State financial assistance in its fiscal year, an audit conducted in accordance with the provisions of Section 215.97, Fla. Stat. is not required. If the Recipient elects to have an audit conducted in accordance with the provisions of Section 215.97, Fla. Stat., the cost of the audit must be paid from non-State funds (i.e., the cost of such an audit must be paid from Recipient funds not obtained from a State entity).

4. The annual financial audit report shall include all management letters, the Recipient's response to all findings, including corrective actions to be taken, and a schedule of financial assistance specifically identifying all Agreement and other revenue by sponsoring agency and agreement number. Copies of financial reporting packages required under this Article shall be submitted by or on behalf of the Recipient directly to each of the following:

Department of Community Affairs (at each of the following addresses):

Office of Audit Services  
2555 Shumard Oak Boulevard  
Tallahassee, Florida 32399-2100

and

Florida Communities Trust  
2555 Shumard Oak Boulevard  
Tallahassee, Florida 32399-2100

State of Florida Auditor General at the following address:

Auditor General's Office  
Room 401, Claude Pepper Building  
111 West Madison Street  
Tallahassee, Florida 32302-1450

5. If the audit shows that any portion of the funds disbursed hereunder were not spent in accordance with the conditions of this Agreement, the Recipient shall be held liable for reimbursement to FCT of all funds not spent in accordance with the applicable regulations and Agreement provisions within thirty (30) days after FCT has notified the Recipient of such non-compliance.

6. The Recipient shall retain all financial records, supporting documents, statistical records and any other documents pertinent to this Agreement for a period of five years after the date of submission of the final expenditures report. However, if litigation or an audit has been initiated prior to the expiration of the five-year period, the records shall be retained until the litigation or audit findings have been resolved.

7. The Recipient shall have all audits completed in accordance with Section 215.97, Fla. Stat. performed by an independent certified public accountant (“IPA”) who shall either be a certified public accountant or a public accountant licensed under Chapter 473, Fla. Stat. The IPA shall state that the audit complied with the applicable provisions noted above.

## **X. DEFAULT; REMEDIES; TERMINATION**

1. If any essential term or condition of the Declaration of Restrictive Covenants is violated by the Recipient or by some third party with the knowledge of the Recipient, the Recipient shall be notified of the violation by written notice given by personal delivery, registered mail or registered expedited service. The recipient shall diligently commence to cure the violation or complete curing activities within thirty (30) days after receipt of notice of the violation. If the curing activities can not be reasonably completed within the specified thirty (30) day time frame, the Recipient shall submit a timely written request to the FCT Program Manager that includes the status of the current activity, the reasons for the delay and a time frame for the completion of the curing activities. FCT shall submit a written response within thirty (30) days of receipt of the request and approval shall not be unreasonably withheld. It is FCT’s position that all curing activities shall be completed within one hundred twenty (120) days of the Recipient’s notification of the violation. However, if the Recipient can demonstrate extenuating circumstances exist to justify a greater extension of time to complete the activities, FCT shall give the request due consideration. If the Recipient fails to correct the violation within either (a) the initial thirty (30) day time frame or (b) the time frame approved by FCT pursuant to the Recipient’s request, fee simple title to all interest in the Project Site shall be conveyed to the Trustees unless FCT negotiates an agreement with another local government, nonprofit environmental organization, the Florida Division of Forestry, the Florida Fish and Wildlife Conservation Commission, the Department of Environmental Protection or a Water Management District, who agrees to accept title and manage the Project Site. FCT shall treat such property in accordance with Section 380.508(4)(e), Fla. Stat.

## **XI. STANDARD CONDITIONS**

1. This Agreement shall be construed under the laws of the State of Florida, and venue for any actions arising out of this Agreement shall lie in Leon County. If any provision hereof is in conflict with any applicable statute or rule, or is otherwise unenforceable, then such provision shall be deemed null and void to the extent of such conflict and shall be severable, but shall not invalidate any other provision of this Agreement.

2. No waiver by FCT of any right or remedy granted hereunder or failure to insist on strict performance by the Recipient shall affect or extend or act as a waiver of any other right or remedy of FCT hereunder, or affect the subsequent exercise of the same right or remedy by FCT for any further or subsequent default by the Recipient.

3. The Recipient agrees to comply with the Americans With Disabilities Act (Public Law 101-336, 42 U.S.C. Section 12101 et seq.), if applicable, which prohibits discrimination by public and private entities on the basis of disability in the areas of employment, public accommodations, transportation, State and local government services, and in telecommunications.

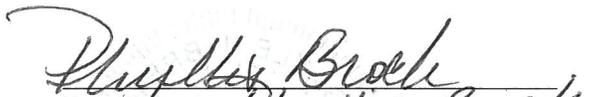
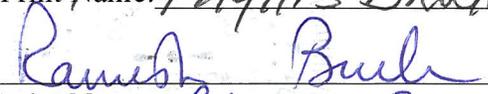
4. A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime or on the discriminatory vendor list may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit lease 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 a public entity, and may not transact business with any public entity in excess of Category Two for a period of 36 months from the date of being placed on the convicted vendor list or on the discriminatory vendor list.

5. No funds or other resources received from FCT in connection with this Agreement may be used directly or indirectly to influence legislation or any other official action by the Florida Legislature or any state agency.

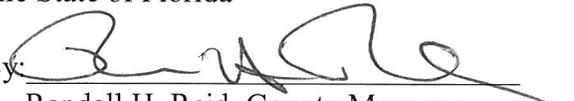
This Agreement including Exhibit "A" embodies the entire agreement between the parties.

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement.

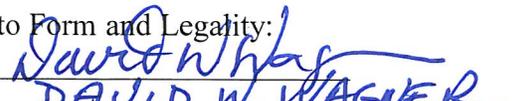
Witness:

  
Print Name: Phyllis Brock  
  
Print Name: RAMESH BOUCH

ALACHUA COUNTY, a local government of the State of Florida

By:   
Randall H. Reid, County Manager

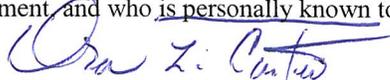
Date: 9/30/08

Approved as to Form and Legality:  
By:   
Print Name: DAVID W. WAGNER

STATE OF FLORIDA  
COUNTY OF ALACHUA

The foregoing instrument was acknowledged before me this 30th day of September, 2008, by Randall H. Reid on behalf of the Local Government, and who is personally known to me.



  
Notary Public  
Print Name: ORAL L. CARTER

DRC\07-115-FF7  
9/24/2008

Commission No. \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

Witness:

**FLORIDA COMMUNITIES TRUST**

*Bryan Wersck*  
Print Name: BRYAN WERSCK

By: *Ken Reecy*  
Ken Reecy, Community Program Manager  
Florida Communities Trust

*Gayle H. Brett*  
Print Name: GAYLE H. BRETT

Date: 10-24-08

Approved as to Form and Legality:

By: *Kristen L. Coons*  
Kristen L. Coons, Trust Counsel

STATE OF FLORIDA  
COUNTY OF LEON

The foregoing instrument was acknowledged before me this 24<sup>th</sup> day of October, 2008, by Ken Reecy, Community Program Manager, Florida Communities Trust. He is personally known to me.

*Gayle H. Brett*  
Notary Public

Print Name: \_\_\_\_\_

Commission No. \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

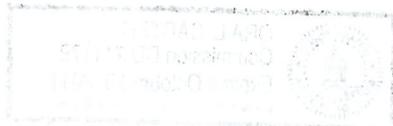
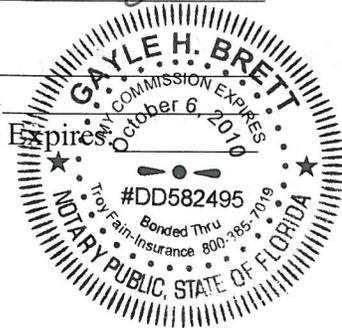


EXHIBIT A

The property described below is located within Township 10 South, Range 21 East.

Section 21: South ½ of SE ¼ of SE ¼.

AND

Section 22: That part lying South of State Road 20.

AND

Section 25: The West ½ of Section 25 , Township 10 South , Range 21 East , Alachua County, Florida that lies south of the south right of way line of State Road 20 and north of the north right of way line of the old Atlantic Coastline Railroad ( now the Gainesville-Hawthorne State Trail); and also,

That part of the East ½ of said Section 25 that lies west of the west right of way line of Green Street in the Grove Park subdivision, as per plat recorded in plat book "A ", page 5 of the public records of said Alachua County and that lies south of the said south right of way line and north of the said north right of way line; and also,

That part of said Grove Park subdivision that lies south of the said south right of way line and north of the said north right of way line, and is more particularly described as follows: Blocks 5 , 6 , 7 , 14 and 15 ; and also, Green Street ; and also, Central Street , west of Jefferson Street ; and also, Desoto Street , west of said Jefferson Street , less and except the north ½ from said Jefferson Street west to the centerline of Jasper Street ; and also, said Jasper Street , less and except, the east ½ from said State Road 20 south to the centerline of said Desoto Street.

AND

Section 26: All of said section, except West ½ Lot 7 and Lot 8 as per plat recorded in Deed Book O, Page 623, lying South of State Road 20 and North of Atlantic Coast Line Railroad right-of-way (now Gainesville-Hawthorne Bike Path).

AND

Section 27: That part lying South of State Road 20 and North of Atlantic Coast Line Railroad right-of-way (now Gainesville-Hawthorne Bike Path), less and except the properties conveyed as follows:

- (a) to Williston Timber Company as recorded in O.R. Book 2130, page 2590; and
- (b) to White Construction Company, Inc., as recorded in O.R. Book 2239, page 695, and further subject to Easement to White Construction Company, Inc., as recorded in O.R. Book 2239, page 691.

AND

Section 28: Lot 9 of the W.S. Perry Estate as recorded in Plat Book A, page 37, Public Records of Alachua County, Florida.

END OF LEGAL DESCRIPTION

DRC\07-115-FF7

9/24/2008

## **APPENDIX B: COPIES OF DEEDS**

2006 FEB 14 01:59 PM BK 3314 PG 1447

J. K. "BUDDY" IRBY  
CLERK OF CIRCUIT COURT  
ALACHUA COUNTY, FLORIDA  
CLERK12 Receipt#271718

Doc Stamp-Deed: 20,176.10

THIS INSTRUMENT PREPARED BY:  
RONALD A. CARPENTER  
CARPENTER & PARRISH, P.A.  
5608 NW 43rd Street  
Gainesville, Florida 32653

20178-8  
20,176.10  
20,176.55

**SPECIAL WARRANTY DEED**

THIS WARRANTY DEED, made and executed this 10 day of February, 2006, by **ALACHUA CONSERVATION TRUST, INC.**, a Florida not-for-profit corporation, hereinafter referred to as GRANTOR\*, to **ALACHUA COUNTY**, a political subdivision of the State of Florida, hereinafter referred to as GRANTEE\*, whose post office address is P.O. Box 2877, Gainesville, Florida 32602.

**WITNESSETH:** That the GRANTOR for and in consideration of the sum of Ten Dollars (\$10.00) and other good and valuable consideration, receipt whereof is hereby acknowledged, by these presents does grant, bargain, sell, alien, remise, release, convey and confirm unto the GRANTEE, all that certain land situate in Alachua County, Florida, to wit:

See Exhibit "A" attached hereto.

**SUBJECT TO** and together with easements and restrictions of record.

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, except as set forth herein, that at the time of delivery of this deed, the land was free from all encumbrances made by it, and that it will warrant and defend the title to said land and will defend the same against the lawful claims of all persons claiming by, through or under the GRANTOR, but against none other.

\*"GRANTOR" and "GRANTEE" are used for singular or plural, as context requires.

IN WITNESS WHEREOF the GRANTOR has caused these presents to be executed in its name, the day and year first above written.

Signed, sealed and delivered  
in our presence as witnesses:

GRANTOR:

**ALACHUA CONSERVATION TRUST, INC.**,  
a Florida not-for-profit corporation,

  
Printed Name RON CARPENTER

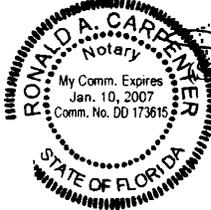
By:   
A. Lauren Day, Executive Director

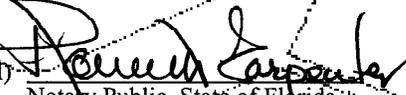
  
Printed Name DAVID F. MENET

STATE OF FLORIDA  
COUNTY OF ALACHUA

I HEREBY CERTIFY that on this day, before me, an officer duly authorized in the State aforesaid and in the County aforesaid to take acknowledgments, personally appeared **A. Lauren Day, Executive Director of ALACHUA CONSERVATION TRUST, INC.**, a Florida not-for-profit corporation, who is  personally known to me to be the person described in, or  presented \_\_\_\_\_ as proof of identification, and who under oath, executed the foregoing instrument and he acknowledged before me that he executed the same on behalf of the corporation.

WITNESS my hand and official seal in the County and State last aforesaid this 10<sup>th</sup> day of February, 2006.



  
Notary Public, State of Florida



LEGAL DESCRIPTION

AS SURVEYED

TOWNSHIP 10 SOUTH, RANGE 21 EAST

Section 21: S 1/2 of SE 1/4 of SE 1/4

Section 22: That part lying South of State Road 20

Section 25: All that tract or parcel of land located in Section 25, Township 10 South, Range 21 East, Alachua County, Florida, being more particularly described as follows:

Blocks 5, 6, 7 and part of Blocks 14 and 15 as per plat of GROVE PARK, as recorded in Plat Book A, page 5 of the Public Records of Alachua County, Florida; lying North of the North right-of-way line of Atlantic Coast Line Railroad right-of-way (now Gainesville-Hawthorne State Trail) and South of the South right-of-way line of State Road 20, together with that portion of Desoto Street lying northerly and adjacent to Block 7.

Section 26: All of said section, except W 1/2 Lot 7 and Lot 8 as per plat recorded in Deed Book O, Page 623, lying South of State Road 20 & North of Atlantic Coast Line Railroad right-of-way (now Gainesville-Hawthorne Bike Path).

Section 27: That part lying South of State Road 20 & North of Atlantic Coast Line Railroad right-of-way (now Gainesville-Hawthorne Bike Path), less and except the properties conveyed as follows:  
(a) to Williston Timber Company as recorded in O.R. Book 2130, page 2590; and  
(b) to White Construction Company, Inc. as recorded in O.R. Book 2239, page 695; and further subject to Easement to White Construction Company, Inc. as recorded in O.R. Book 2239, page 691.

Section 28: Lot 9 of the W.S. Perry Estate as recorded in Plat Book A, page 37, Public Records of Alachua County, Florida

INSTRUMENT # 2214178

2 PGS

Dec 16, 2009 07:48 AM  
BOOK 3925 PAGE 1267

J. K. IRBY  
Clerk Of Circuit Court  
Alachua County, Florida  
CLERK13 Receipt # 429165

Doc Stamp-Deed: \$8,196.30

Recording  
Doc Stamps  
Intangible Tax  
Total

\$ 35.50  
\$ 8196.30  
\$ 0  
\$ 8231.80

*mf*

Prepared by and return to:

Melissa Jay Murphy, Esq.  
Attorney at Law  
Salter, Feiber, Murphy, Hutson, & Menet, P.A.  
3940 NW 16th Blvd., Bldg B  
Gainesville, FL 32605

File Number: 09-0998.4

[Space Above This Line For Recording Data]



2546046 4 PGS

## Warranty Deed

**This Warranty Deed** made on December 15, 2009 between Roberts Land & Timber Investment Corp., a Florida corporation whose post office address is PO Box 233, Lake Butler, FL 32054, grantor, and Alachua County, a Political Subdivision of the State of Florida whose post office address is P. O. Box 1188, Gainesville, FL 32602-1188, 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 TEN AND 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 Alachua County, Florida to-wit:

See Attached Exhibit "A"

Parcel Identification Number: 18235-000-000 & 18108-002-000

Subject to 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.

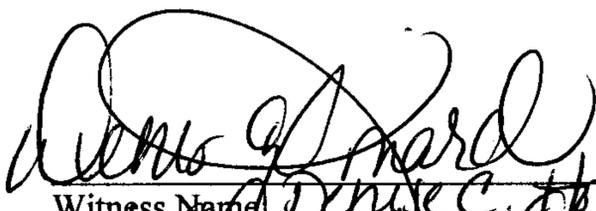
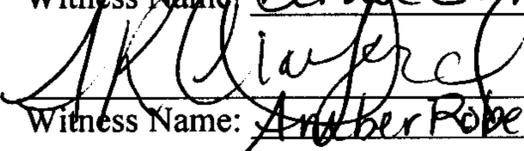
**And** the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to December 31, 2009.

SFMH&M



**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:

  
Witness Name: Denise C. Howard  
  
Witness Name: Amber Roberts-Crawford

Roberts Land & Timber Investment Corp., a Florida corporation  
By:   
Avery C. Roberts, President

(Corporate Seal)

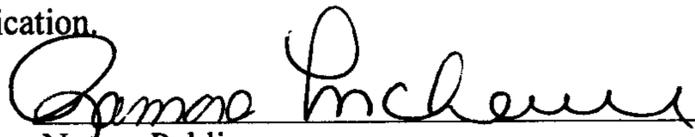


State of Florida  
County of Alachua

The foregoing instrument was acknowledged before me this 15th day of December, 2009 by Avery C. Roberts, President of Roberts Land & Timber Investment Corp., a Florida corporation, on behalf of the corporation. He/she  is personally known to me or  has produced a driver's license as identification.

[Notary Seal]



  
Notary Public

Printed Name: \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

INSTRUMENT # 2546046 4 PGS

Nov. 18, 2009

Roberts Land & Timber sale to Alachua County

Project No. 08-0370

#### LEGAL DESCRIPTION

The North Half (N. 1/2) of Section 36, Township 10 South, Range 21 East, Alachua County, Florida, being more particularly described as follows:

For the POINT OF BEGINNING , Commence at a four inch square concrete monument and cap stamped "PRM LB5075" at the proven location of the Northwest corner of Section 36, Township 10 South, Range 21 East as established by the Henry Washington and David H. Burr Survey and division of the Arredondo Grant dated February 9, 1846, and as depicted in Florida Department of Environmental Protection Certified Corner Record Document # 095505, and having Florida North Zone State Plane Coordinate values in North American Datum of 1983, 2007 adjustment of: Northing 220,553.219 feet and Easting 2,708,363.920 feet; thence run N.88°38'40"E., (State Plane Grid Bearings), along the North line of said Section 36, a distance of 5303.34 feet to a four inch square unidentified concrete monument accepted at the Northeast corner of said Section 36, and as depicted in Florida Department of Environmental Protection Certified Corner Record Document # 070595, and having Florida North Zone State Plane Coordinate values of: Northing 220,678.668 feet and Easting 2,713,665.776 feet; thence run S.01°35'57"E., along the East line of said Section 36, a distance of 2648.83 feet to a four inch square concrete monument and cap stamped "LB6888" at an old fence corner and being the proven location of the Half Mile Post (Quarter Section Corner) on the East line of said Section 36, and as depicted in Florida Department of Environmental Protection Certified Corner Record Document # 070597, and having Florida North Zone State Plane Coordinate values of: Northing 218,030.868 feet and Easting 2,713,739.703 feet; thence run S.88°36'37"W., along the South line of the North Half (N. 1/2) of said Section 36, and along an old fence line more or less, a distance of 5330.02 feet to a four inch square concrete monument and cap stamped "PRM LB5075" at an old fence corner and being the proven location of the Quarter Section Corner on the West line of said Section 36, and as depicted in Florida Department of Environmental Protection Certified Corner Record Document # 095506, and having Florida North Zone State Plane Coordinate values of: Northing 217,901.593 feet and Easting 2,708,411.254 feet; thence run N.01°01'22"W., along the West line of said Section 36, a distance of 2652.05 feet to the aforementioned POINT OF BEGINNING.

Together with and including the Easterly 60 feet of the following described property:

For a point of reference, commence at the Southeast corner of the Southwest 1/4 of the Southeast 1/4 of Section 25, Township 10 South, Range 21 East, said point also being the POINT OF BEGINNING; thence run West on the Southerly line of the aforementioned Southwest 1/4 of the Southeast 1/4, a distance of 517.75 feet; thence departing said Southerly line, run North parallel to the Easterly line of the aforementioned Southwest 1/4 of the Southeast 1/4 a distance of 1262 feet, more or less, to the Southerly right of

way line of County Road No. 2082; thence run East, on said Southerly right of way line of County Road No. 2082, a distance of 517.75 feet to the aforementioned Easterly line of the Southwest 1/4 of the Southeast 1/4; thence departing said Southerly right of way line, run South on said Easterly line of the Southwest 1/4 of the Southeast 1/4, a distance of 1262 feet, more or less to the POINT OF BEGINNING.

## **APPENDIX C: SOIL DESCRIPTIONS**

### Chipley sand

This is a nearly level, and somewhat poorly drained soil which occurs in small areas of flatwoods, and in transition zones between flatwoods and uplands. The surface and underlying layers are primarily sandy with rapid permeability to a depth of more than 80 inches. During normal years, the water table in this soil type is 20 to 40 inches below surface for 2 to 4 months, receding well below this during dry periods, and briefly rising to 15 to 20 inches below surface during very wet periods.

### Lochloosa fine sand, 0 to 2 percent slopes

This nearly level, somewhat poorly drained soil occurs in rolling uplands and in slightly convex areas of flatwoods. The surface layer is fine sand, with a subsurface layer of loamy sand or sand. The subsoil is sandy loam and sandy clay loam. In normal years this soil type has a seasonal high water table at a depth between 30 and 40 inches below surface for 1 to 4 months. The water table rises to 20 to 30 inches below surface for 1 to 3 weeks.

### Martel sandy clay loam

This nearly level, very poorly drained soil is in wet depressional areas within the flatwoods. The surface layer is sandy clay loam with moderate permeability; the upper and lower subsoil layers are sandy clay of varying colors and very slow permeability. This soil has a water table that is within 10 inches of the surface for 6 to 12 months during most years. Most areas are covered with water for 6 months or more, and runoff is slow.

### Millhopper sand, 0 to 5 percent slopes

This nearly level to gently sloping, moderately well drained soil typically occurs in 10- to 250-acre areas on uplands and on slightly rolling knolls in the broad flatwoods. The soils have rapidly permeable sandy surface and subsurface layers. The subsoil has moderately rapid permeability in the upper loamy sand layer, and moderately slow permeability in the mid subsoil sandy clay loam and lower subsoil sandy loam layers. The water table is at a depth of 40 to 60 inches for 1 to 4 months most years, and at a depth of 60 to 72 inches for 2 to 4 months.

### Monteocha loamy sand

This nearly level, very poorly drained soil is in wet ponds and shallow depressional areas of about 5 to 35 acres in the flatwoods. The surface layer is rapidly permeable loamy sand; the subsurface and upper subsoil layers are moderately rapid to rapidly permeable sand, with moderately slow to moderately permeable fine sandy loam over sand in the lower subsoil. This soil has a water table that is within 10 inches of the surface for more than 6 months during most years. Most areas are covered with water for more than 4 months.

### Newnan sand

This is a nearly level somewhat poorly drained soil occurring on nearly level to slightly convex slopes in broad areas within the flatwoods ranging from about 10 to 250 acres. The water table is at a depth of 18 to 30 inches for one to two months, and 30 to 60 inches for 2 to 5 months during most years. It recedes to more than 60 inches below the surface during drier periods.

### Pelham sand

This nearly level, poorly drained soil is in small and large areas in pine flatwoods. The surface layer is sand, underlain by sand, sandy loam, and sandy clay loam. Permeability is rapid in the sandy layers, becoming more moderate in the loamy layers. Pelham sand has a water table

less than 10 inches below surface for 1 to 4 months during most years, which recedes below 40 inches during dry periods.

#### Plummer fine sand

This nearly level, poorly drained soil is in areas of flatwoods with nearly smooth slopes ranging from 0 to 2 percent. The surface and subsurface layers are composed of fine sands, underlain by subsoils of fine sandy loam and sandy clay loam. The water table is less than 10 inches below surface for 1 to 3 months, and may recede to 10 to 40 inches for 3 to 4 months during most years.

#### Pomona sand

These are nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They are dominantly sandy with a loamy subsoil layer. In normal years the water table is within 10 inches of the surface for 1 to 3 months, and is at or near the surface in wet periods. During dry seasons the water table recedes to a depth of more than 40 inches.

#### Pomona sand, depressional

These nearly level, very poorly drained soils are found in shallow depressional areas and along narrow drainage ways in the flatwoods. These areas are irregularly shaped or elongated and range from about 10 to 35 acres. They have sandy surface and subsurface layers and sandy loam in the lower part of the subsoil layers. The underlying material is sandy loam and loamy sand. In this soil, the water table is less than 10 inches below the surface for about 6 months or more. These soils are subject to frequent ponding, water is on the surface for 4 months or more during most years.

#### Pottsburg sand

This is a nearly level, poorly drained soil in the broad areas of the flatwoods. All layers of this soil are sandy to a depth of 86 inches or more. The areas are usually irregular in shape and range from about 15 to 250 acres. These soils have a water table that is at a depth of less than 12 inches for 1 to 4 months and is at a depth of 12 to 40 inches for 4 months or longer during most years.

#### Samsula muck

This nearly level, very poorly drained organic soil is typical of swamps, marshes and ponded areas within flatwoods. Slopes are slightly concave, and the areas may either be circular, irregular or elongated, both small and large in size. The surface layer is dark muck, underlain by sands ranging from dark gray to light brownish-gray to light gray. Samsula muck has water at or on the surface for more than 6 months during most years, and within 10 inches of the surface for the remaining months, except during long dry periods.

#### Sparr fine sand

This map unit consists of nearly level and gently sloping, somewhat poorly drained soils on low ridges within the flatwoods and on nearly smooth to lightly convex slopes of the gently rolling uplands. They have rapidly permeable sandy layers to depths of more than 40 inches. The subsoil is loamy sand over fine sandy loam. These soils have a water table at a depth of between 20 and 30 inches for about 1 to 2 months and at a depth of 30 to 40 inches for about 2 to 3 months. During dry seasons it receded to a depth of more than 40 inches.

### Surrency sand

This nearly level, very poorly drained soil is in ponds and depressional areas in flatwoods and in areas of wet prairie within uplands. The areas are relatively small and range from about 10 to 40 acres. The surface and subsurface layers are sandy, over sandy clay loam subsoil. In normal years these hydric soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months or more. In other months the water table is usually below these depths. These soils are also ponded frequently for long duration with water approximately 2 feet above the surface. Most often ponding occurs in the winter and spring, but it may occur during any wet season.

### Tavares sand, 0 to 5 percent slopes

This is a nearly level to gently sloping, moderately well drained deep and sandy soil. It is on slightly convex slopes in broad areas of the flatwoods and along gentle slopes of the rolling uplands. The areas are irregular in shape, and range from about 10 to 125 acres. The water table is at a depth of 40 to 72 inches for a cumulative period of 6 months or more during most years. It recedes to more than 72 inches below the surface during droughty periods.

### Wauchula sand

This nearly level, poorly drained soil occurs in flatwoods with nearly smooth slopes. The surface and subsurface layers are composed of sands ranging from black to light brownish gray in color. The subsoil consists of sand in the upper part underlain by loamy, sandy loam, and loamy sand layers in the lower part. The water table in Wauchula sand is less than 10 inches below surface for 1 to 4 months, and 10 to 40 inches for 6 months in most years. During dry periods, the water table recedes below 40 inches.