



# Black Bear Wilderness Area

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Land Management Plan

2020

**BLACK BEAR WILDERNESS AREA  
LAND MANAGEMENT PLAN**

**TABLE OF CONTENTS**

**INTRODUCTION ..... 1**

**WILDERNESS AREA OVERVIEW ..... 1**

    REGIONAL SIGNIFICANCE ..... 1

    ACQUISITION HISTORY ..... 1

**NATURAL RESOURCES OVERVIEW ..... 3**

    NATURAL COMMUNITIES..... 3

*Table 1. Approximate acreage for each plant community and percent uplands and wetlands. .... 4*

    WILDLIFE ..... 6

    CULTURAL RESOURCES..... 6

    SOILS ..... 6

    WATER RESOURCES ..... 7

**IMPLEMENTATION..... 9**

    RULES AND REGULATIONS ..... 9

**RESOURCE MANAGEMENT PROGRAM..... 9**

    MONITORING ..... 9

    RESTORATION AND HABITAT ENHANCEMENT ..... 9

    FIRE MANAGEMENT ..... 10

    WILDLIFE ..... 10

    LISTED SPECIES ..... 10

    INVASIVE SPECIES ..... 11

    CULTURAL RESOURCES PROTECTION..... 12

**LAND USE MANAGEMENT ..... 12**

    PUBLIC ACCESS ..... 12

    RECREATION ..... 12

    ENVIRONMENTAL EDUCATION ..... 13

    SECURITY ..... 13

**REFERENCES..... 15**

**TABLE OF FIGURES**

FIGURE 1: LOCATION MAP ..... 2

FIGURE 2: NATURAL COMMUNITIES MAP ..... 5

FIGURE 3: SOIL MAP ..... 8

FIGURE 4: RECREATION MAP ..... 14

## LAND MANAGEMENT PLAN SUMMARY

### Black Bear Wilderness Area

**Acres:** 1650

**Location:** Sanford, Florida, Section 01, Township 19 South, Range 29 East

**Dates of Acquisition:** November 1985 and March 1993

#### **Key Resource Issues:**

This site's approximately 1650 acres in northwest Seminole County features a variety of wetland habitats within the floodplain of the St Johns River. Shallow marshes, hydric hammock and cypress swamps form a mosaic of habitat diversity which host wildlife such as the white-tailed deer, swallow-tailed kite and the Florida black bear. Its large size and proximity to other public lands, make this site an important piece in a puzzle connecting natural areas between the Wekiva / St. John's basins and the Ocala National Forest.

#### **GENERAL DESCRIPTION:**

- **Security** – Unlike some Natural Lands properties, there is no caretaker residing on this property. The Seminole County Sheriff's Office or the Florida Fish and Wildlife Conservation Commission are contacted when necessary.
- **Fire** – Much of the forested habitat on this site will only carry fire during times of extreme drought and may be challenging to manage with prescribed fire. The site will be periodically evaluated for potential fire management.
- **Wildlife and Plants** – This site is an important resource for a variety of wildlife including several listed species such as the Florida black bear and the wood stork.
- **Invasive and Exotic Species** – Many invasive (non-native) species of plants such as air potato (*Dioscorea bulbifera*), coral ardisia (*Ardisia crenata*), wild taro (*Colocasia esculenta*) and Ceasar's Weed (*Urena lobata*) are present on this property, and various control methods have been implemented.

#### **Key Land Use/Recreation Issues:**

Much of the trail system on the BBWA has been established on an historic levee and for the most part stays dry year round. However, this site is located within the floodplain of the St. Johns River and may experience significant flooding during the rainy season.

#### **General Description:**

- **Access** – The primary access is a park and walk entrance located at the Southern end of the property at the north end of New York Avenue in Sanford Fl. An additional walk thru community access has been established at the north end of Mallard Ave. in the Seminole Estates subdivision.
- **Public recreation** – This site is open for local equestrian use, hiking, non-motorized biking, wildlife viewing and fishing.

**Black Bear Wilderness Area  
Seminole County, Florida**

**LAND MANAGEMENT PLAN**

**INTRODUCTION**

This document provides guidelines for land management activities to be implemented within the Wilderness Area over the next ten years. Plans will be evaluated annually and updated if necessary.

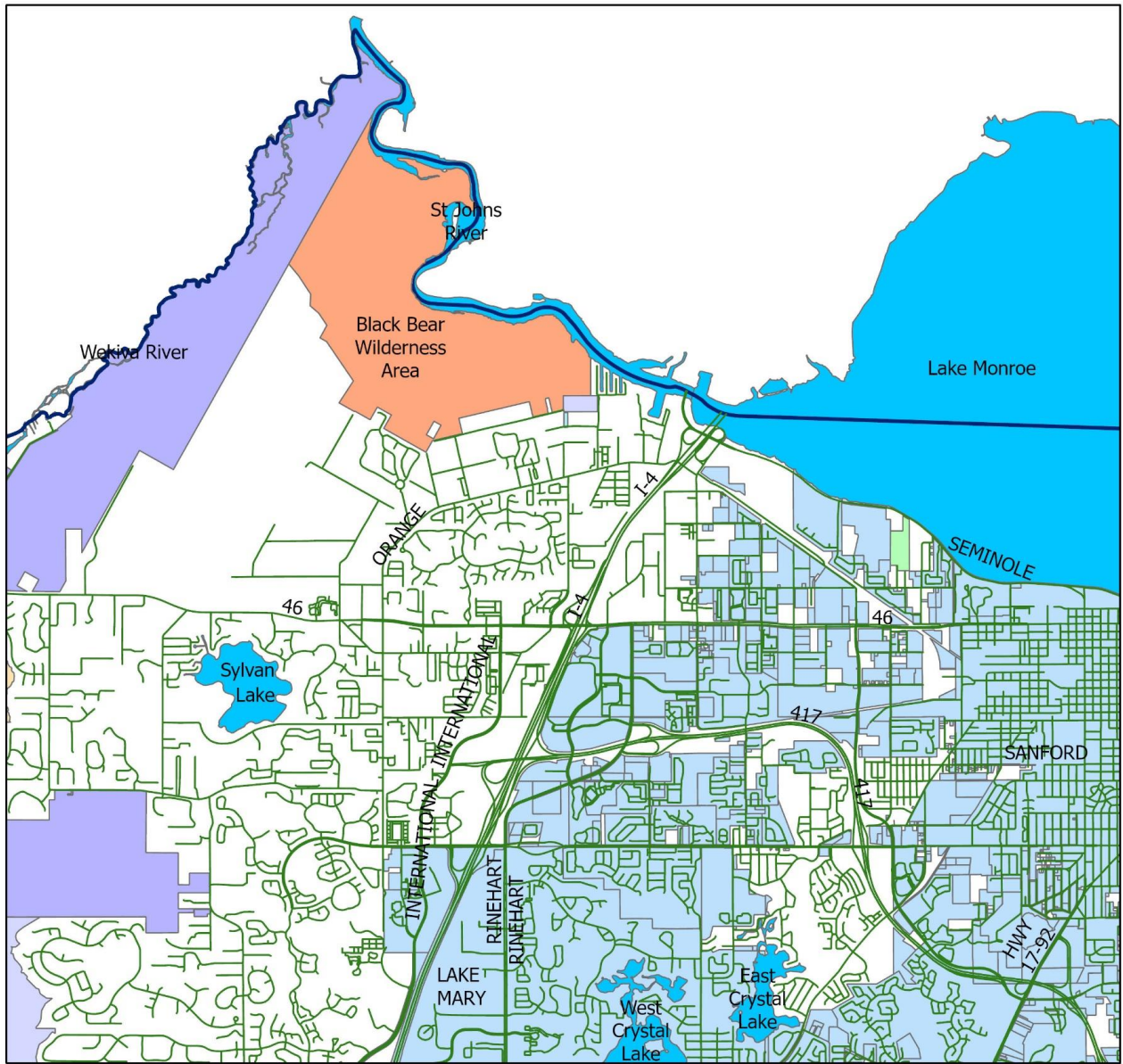
**WILDERNESS AREA OVERVIEW**

Regional Significance

The 1,650-acre Black Bear Wilderness Area is located in Northwest Seminole County, west of I-4. As a conservation corridor, this site connects critical habitat within the Wekiva River Basin. BBWA contains a variety of habitats and a levee trail system. The trail system takes visitors through the hydric hammock and onto an historic levee to its terminus at the St. Johns River. A great site for wildlife viewing, BBWA is home to countless species including the Florida black bear, American alligator, wood stork, and great blue heron. This area's remote nature, views of the St. Johns River and diverse wildlife population promise to make it one of the Natural Lands program's flagship wilderness areas.

Acquisition History

This property was purchased to preserve its diverse array of habitats which include Mixed Hardwood Swamp, Floodplain Swamp, Floodplain Marsh and Hydric Hammock. The acquisition of this site occurred through two efforts. The initial 300 acres was purchased in 1993 through the SCNLP and was initially known as the Riverside Ranch property. An additional 1300 acres was transferred to the SCNLP from the county's Environmental Services Department as part of the Wekiva Settlement agreement. An additional 20 acres along Michigan Ave. was donated in 2001.



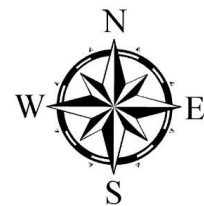
## Black Bear Wilderness Area

Figure 1: Location Map



### Legend

- |                                      |                            |
|--------------------------------------|----------------------------|
| Seminole County BCC Preserved Lands  | Streets                    |
| Seminole County Preserved Lands      | Water Bodies               |
| Seminole County/Parks and Recreation | City Limits                |
| DEP Preserved Lands                  | Black Bear Wilderness Area |
| SJRWMD Preserved Lands               |                            |



## NATURAL RESOURCES OVERVIEW

### Natural Communities

Black Bear Wilderness Area contains four distinct plant communities. These include cypress dome swamp, shallow marsh, hydric hammock and mixed hardwood forest. Plant community descriptions and fire regimes are taken from FNAI, 2010. A large portion of this site lies within the flood plain of the St. John's River, therefore the habitats present were historically maintained by rising and falling water levels as well as periodic fires. Over the years, levees, ditches and diversions of water along the St. John's River have altered the natural extremes and led to changes in these plant communities. As with all Seminole County Natural Lands, the primary management objective is to preserve and/or restore the natural, ecological functions of the land while providing a passive resource based recreational experience for citizens.

#### *Floodplain Swamp*

Floodplain swamps are heavily forested areas that occur along rivers or streams within the floodplain. Hydrophytic trees form a dense a canopy, including bald cypress (*Taxodium distichum*), black gum (*Nyssa sylvatica*), and red maple (*Acer rubrum*). These swamps serve as important filters and flood storage areas for water making its way to the St. John's River.

The floodplain swamp at Black Bear Wilderness Area borders the river in some areas, and is intermixed with the floodplain marsh in other areas. As with the rest of the natural communities, it has suffered from hydrologic alteration. Management activities will mainly focus on invasive species removal in this community.

#### *Floodplain Marsh*

Floodplain marshes are wetlands of herbaceous vegetation and low shrubs that occur in river floodplains. Emergent grasses, herbs, and shrubs that dominate this community include sand cordgrass (*Spartina bakeri*), maidencane (*Panicum hemitomom*), and coastalplain willow (*Salix carolinana*). This plant community is maintained by both regimes of fire and water. Fires burn on a one to five year basis under natural conditions and maintain the open herbaceous community by restricting shrub invasion.

This community has been hydrologically altered, and woody brush has encroached on the marsh in many areas. During a dry season, mechanical treatment may be possible, and even prescribed fire may become necessary at some point, but due to access issues and hydrology, fire is not a priority at BBWA at this time.

#### *Hydric Hammock*

This habitat often exists in association with hardwood swamps, forming a transition to higher upland habitats or on areas of slightly higher elevation in broad flood plains. Tree species found in this habitat include the cabbage palm (*Sabal palmetto*), hackberry (*Celtis occidentalis*), live oak (*Quercus virginiana*), water oak (*Quercus nigra*), and Sweet gum (*Liquidambar styraciflua*).

Groundcover could include several ferns and vines such as cinnamon fern (*Osmunda cinnamomea*), virginia creeper (*Parthenocissus quinquefolia*), and trumpet vine (*Campsis radicans*). Hydric hammocks occur on low, flat, wet sites where limestone may be near the surface. Soil is mostly level and poorly drained but very rich in organic composition. A normal hydrologic regime is critical in the development and maintenance of this habitat.

The hydric hammock at BBWA is in decent condition. Hydrologic alterations and invasive species infestations have impacted the range and groundcover of this community.

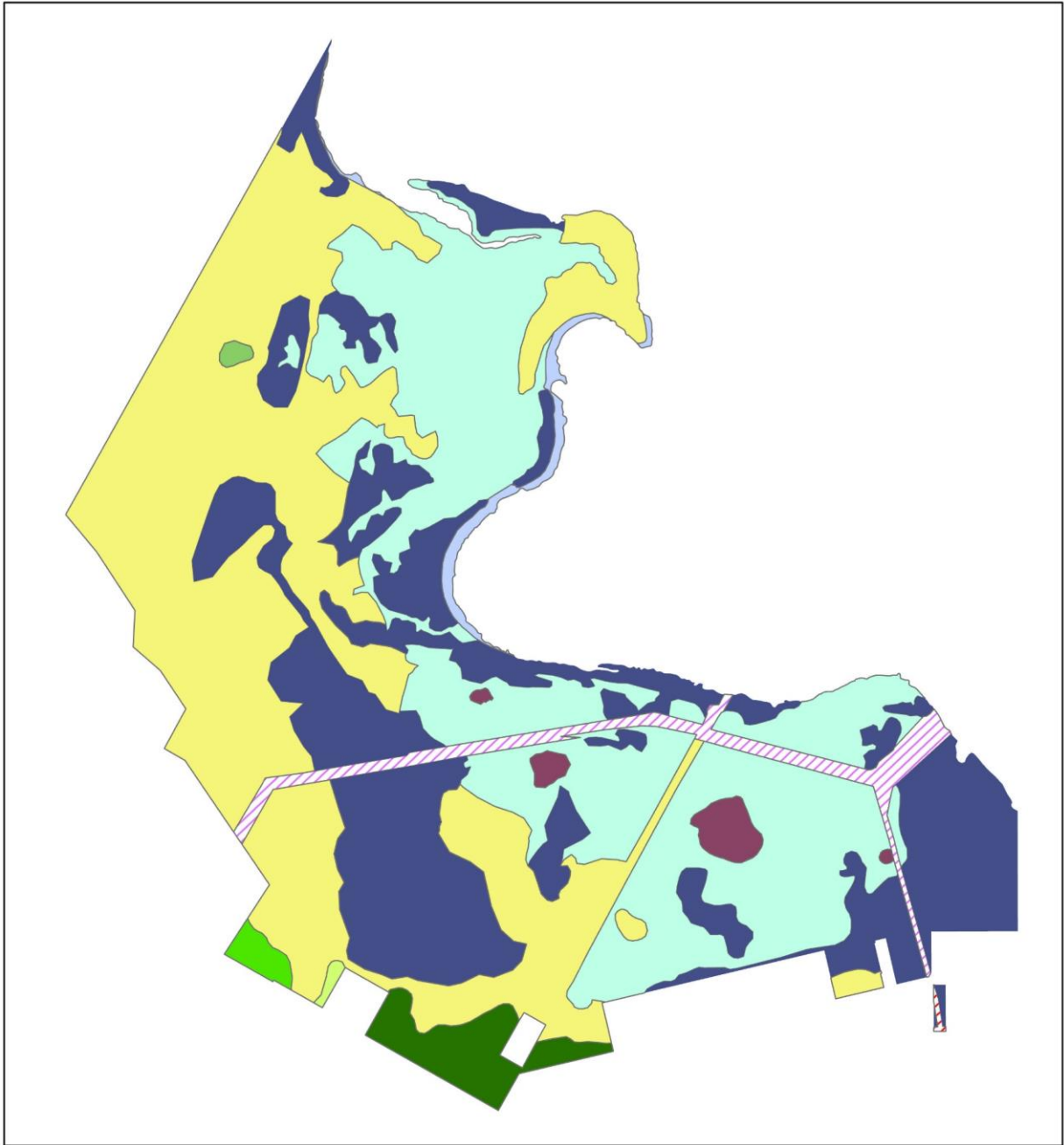
*Mesic Flatwoods*

Mesic flatwoods habitat is characterized as an open canopy forest of pine trees with little to no understory but a dense ground cover of herbs and shrubs. Typical plant species found in mesic flatwoods are the slash pine (*Pinus elliottii*), longleaf pine (*Pinus palustris*), saw palmetto (*Serenoa repens*), wiregrass (*Aristida stricta*), and gallberry (*Ilex glabra*). Fire is an important physical factor in mesic flatwoods. Several plant and animal species depend on fire for their continued existence, and without it, mesic flatwoods will succeed into hardwood dominated forests whose closed canopy can essentially eliminate the ground cover of herbs and shrubs.

The mesic flatwoods at BBWA are overgrown with oak trees and cabbage palms, and have few herbaceous species. Due to urban interface and hydrologic alterations, the community is not a priority for fire at the current time.

**Table 1. Approximate acreage for each plant community and percent uplands and wetlands.**

<b>Community Type</b>	<b>Acres</b>
Developed	0.9
Dome Swamp	17.9
Floodplain Marsh	522.4
Floodplain Swamp	449.4
Hydric Hammock	623.8
Mesic Flatwoods	41.6
Mesic Hammock	2.5
Riverine	17.1
Successional Hardwood Forest	2.1
Utility Corridor	49.0
Wet Flatwoods	8.5
<hr/>	
Percent Wetlands	94
Percent Uplands	6



**Black Bear Wilderness Area**  
**Figure 2: Natural Communities Map**

0 0.2 0.4 0.6 0.8 1 Miles



**FNAI Natural Communities**

- |                  |                              |
|------------------|------------------------------|
| Developed        | Mesic Hammock                |
| Dome Swamp       | Floodplain Swamp             |
| Floodplain Marsh | Utility Corridor             |
| Hydric Hammock   | Wet Flatwoods                |
| Mesic Flatwoods  | Riverine                     |
|                  | Successional Hardwood Forest |



## Wildlife

Due to the proximity of BBWA to the St. John's River and other conservation lands, there is a variety of wildlife that can be found throughout the property. This diverse ecosystem supports wildlife such as the Florida black bear (*Ursus americanus floridanus*), white-tailed deer (*Odocoileus virginianus*), swallow tailed kite (*Elanoides forficatus*), and river otter (*Lutra canadensis*). There are also a number of rare and state listed species, such as the American alligator (*Alligator mississippiensis*) and the wood stork (*Mycteria americana*).

## Cultural Resources

According to a 1994 survey by Ellis Archeology there are known cultural resources at this site, however, no site numbers have been issued. A review of the Master Site File quad sheets maintained by Department of State Division of Historical Resources indicates that the only cultural resource is the Resource Group of the Black Bear canal.

## Soils

### *Basinger*

The Basinger series consists of very deep, poorly drained and very poorly drained, rapidly permeable soils in sloughs, depressions, low flats, and poorly defined drainageways. They formed in sandy marine sediments.

### *Brighton*

The Brighton series consists of very deep, very poorly drained, moderately rapid to rapidly permeable organic soils in depressions, freshwater marshes, and swamps in peninsular Florida.

### *Felda*

The Felda series consists of very deep, poorly drained and very poorly drained soils that formed in sandy and loamy marine deposits. Felda soils are on flatwoods, low broad flats, drainageways, sloughs, depressions, and flood plains.

### *Immokalee*

The Immokalee series consists of very deep, very poorly and poorly drained soils that formed in sandy marine sediments. Immokalee soils are on flatwoods and low broad flats on marine terraces.

### *Manatee*

The Manatee series consists of very deep, very poorly drained, moderately permeable soils in depressions, broad drainageways, and on flood plains. They formed in sandy and loamy marine sediments.

### *Nittaw*

The Nittaw series consists of very poorly drained, slowly permeable soils that formed in thick deposits of clayey sediments of marine origin. These soils are in well defined drainageways,

broad, nearly level swamps, and marshes of central and southern peninsular Florida. They are subject to flooding and water standing above the soil surface for 6 months or more in most years during late spring, summer and fall.

#### *Pineda*

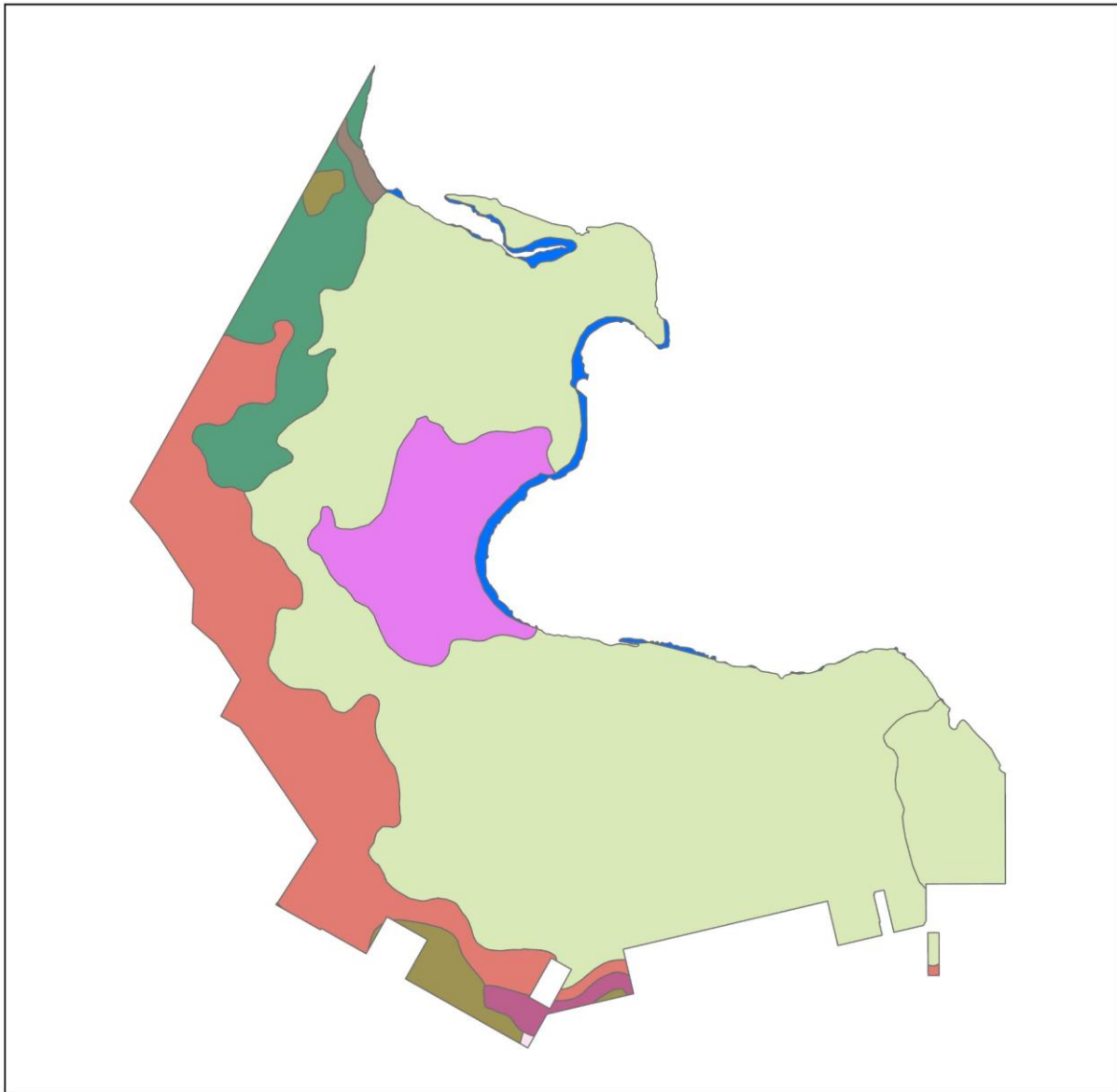
This very deep, nearly level, poorly drained soil is on broad low flats, hammocks, sloughs, depressions, poorly defined drainageways and flood plains in the Southern Florida Flatwoods and to a less extent in South Central Florida Ridge, Southern Florida Lowlands, Florida Everglades and Associated Areas, North Central Florida Ridge and Eastern Gulf Coast Flatwoods. They formed in thick beds of sandy and loamy marine sediments.

#### *Pompano*

The Pompano series consists of very deep, very poorly and poorly drained soils that formed in thick beds of sandy marine sediments. Pompano soils are on flatwoods, in low broad flats, and to a lesser extent, depressions, drainageways, and flood plains, on marine terraces.

#### Water Resources

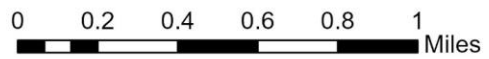
Black Bear Wilderness Area borders the St. John's River to the east, and is part of the Lake Monroe drainage basin. The very northern tip of the property is part of the Yankee Lake drainage basin. There have been a number of hydrologic alterations throughout the property, and the trail system was placed on a large levee that follows the river. While there are now a number of breaks in this levee for water to flow back into the marsh, there are still a few ditches on the property. Water levels on the property are influenced by the St. John's River, and the marsh will fluctuate between dry and flooded depending on the season.



**Black Bear Wilderness Area**  
**Figure 3: Soil Map**

**Legend**

- |  |   |   |
|--|---|---|
|  BASINGER |  IMMOKALEE |  PINEDA  |
|  BRIGHTON |  MANATEE   |  POMPANO |
|  FELDA    |  NITTAW    |  WATER   |



## **IMPLEMENTATION**

Integral to the goals and objectives for managing acquired lands in an acceptable manner are protection and restoration of those lands where feasible. An important element in protecting the resources is to prevent dumping, poaching, and other illegal activities. Appropriate land management activities, such as prescribed burning, forest management, and removal of exotics, should be continued to protect the viability of the site.

### Rules and Regulations

*Seminole County Code Chapter 190 Section 4* establishes the provisions relating to management and use of the properties acquired or managed by Seminole County Natural Lands Program.

## **RESOURCE MANAGEMENT PROGRAM**

### Monitoring

Monitoring natural resources is an important tool in gauging the overall health of an ecosystem. The SCNLP has developed a monitoring plan that encompasses all sites. From 1996 until June 2004, baseline monitoring was conducted on the property. This included herp arrays, drift fences, cover boards, bird surveys, photo points, small mammal trapping, fish and turtle traps and bird/bat boxes.

Currently, the Natural Lands program hosts a bioblitz twice a year on a different property. The first Black Bear Wilderness Area bioblitz occurred in fall 2019; the next one is scheduled for spring 2024.

### *Monitoring Accomplishments*

- Organized a bioblitz in 2019 - 68 new species were recorded

### *Monitoring Strategies*

- Continue organizing bioblitzes
- Continue monitoring invasive plant species.

### Restoration and Habitat Enhancement

The hydric hammock and mixed hardwood swamps have been altered in the past through human related activity. The effects will be assessed and possible restoration will be evaluated.

### *Restoration and Habitat Enhancement Strategies*

- Continue to evaluate the need for restoration activity

## Fire Management

Fire is an integral part of the Florida landscape. Before the influx of settlers, lightning fires would burn unimpeded through fire adaptive communities and landscapes until extinguished via changes in weather and/or fuel characteristics. Native Americans would also burn at various times of the year to attract wild game and to keep the landscape open for easy travel. Today, due to increased development pressures on conservation areas, fires must be managed under strict regulations and performed according to set criteria depending on the site.

Much of the forested habitat on this site will only carry fire during times of extreme drought and may be challenging to manage with prescribed fire. Use of prescribed fire on this site will be re-evaluated in the future.

### *Fire Strategies*

- Currently, there are no plans to use fire as a management tool on this property due to the inaccessibility of the site.

## Wildlife

Wildlife observations are on-going through the monitoring program and updates will be added to the Natural Lands database.

### *Wildlife Strategies*

- Continue to record wildlife observations.
- Continue land management activities.

## Listed Species

Surveys are conducted annually to verify the existence of listed plant and animal species.

### *Plants*

None recorded

### *Animals*

Listed animal species found in BBWA include the American Alligator (*A. mississippiensis*), Wood Stork (*M. americana*), Sandhill Crane (*Antigone Canadensis*), and Tricolored Heron (*Egretta tricolor*).

### *Listed Plant and Animal Strategies*

- Continue monitoring for listed species.
- Continue annual listed plant surveys.

## Invasive Species

Florida's climate is not only attractive to humans, but also to invasive exotic species. An invasive exotic species is defined as a species introduced to Florida, purposefully or accidentally, from a natural range outside of Florida with the ability to become established outside of cultivation and out-compete native species. Some examples of exotic species in Florida include Brazilian pepper (*Schinus terebinthifolia*), air potato (*Dioscorea bulbifera*), old world climbing fern (*Lygodium microphyllum*), cogongrass (*Imperata cylindrica*), feral hog (*Sus scrofa*), Cuban brown anole (*Anolis sagrei*), nine-banded armadillo (*Dasyopus novemcinctus*), Eurasian collared-dove (*Streptopelia decaocto*), Cuban treefrog (*Osteopilus septentrionalis*), and walking catfish (*Clarias batrachus*). The State of Florida spends millions of dollars per year either directly or indirectly through grants, trying to control invasive exotic species.

Since the impacts of invasive exotic species have both an environmental and economic impact, a non-governmental organization called the Florida Exotic Pest Plant Council (now the Florida Invasive Species Council) was formed. This organization provides a list of Florida's most invasive exotic species. The list is split into two categories: Category I species are those that are altering native plant communities by displacing native species and Category II species are those that have increased in abundance or frequency but have not yet altered Florida plant communities to the extent shown by Category I species. Black Bear Wilderness Area has invasive species from both categories.

### *Plants*

Many of the invasive plant species occur along the seven-mile trail, which is unsurprising due to the disturbed nature of the berm, as well as providing a constant vector due to human and wildlife travel. Caesar's weed (*Urena lobata*) occurs both along the entire trail and in high densities in many of the more upland areas of the property. Coral ardisia (*Ardisia crenata*) has been found along the southern boundary, and should have one of the higher priorities for treatment. Natal grass (*Melinis repens*) occurs along the shell road for the water treatment facility and along the trail in that area. There are also a number of other invasive species, such as lantana, camphor tree, wild taro, and lygodium.

While contractor treatment may be possible in some areas of the property, due to the inaccessibility of most sites by vehicle, and especially during the wet season, limit the ability to control invasive species. Staff treat along the trail about once per year, and contractors have treated the area around the parking lot for a few years. Staff should continue to monitor for new infestations as they patrol the property.

### *Animals*

The Natural Lands Program has contracted up to 6 nuisance feral hog removal agents at a time. Feral cats and dogs are trapped and turned over to Seminole County Animal Services when observed on the property.

### *Invasive Plant and Animal Accomplishments since 2010*

- 2 contracts for invasive plant removal for a total of 24 acres
- 10.7 acres treated by NLP staff

### *Invasive Plant and Animal Strategies*

- Keep all Category I invasive species under maintenance control
- Continue feral hog agent program.

### Cultural Resources Protection

The property should be considered for further archaeological surveying in the future, to identify any possible cultural resources. The currently identified cultural resource, the Black Bear canal, does not require any monitoring or protection.

## **LAND USE MANAGEMENT**

### Public Access

There is one park and walk entrance located at the Southern end of the property at the north end of New York Avenue in Sanford and one community access point at the north end of Mallard Ave. in the Seminole Estates subdivision.

### *Public Access Strategies*

- Continue regular maintenance on public access area.
- Maintain signs and kiosk.

### Recreation

Resource-based recreational opportunities provided on this property include hiking, biking, horseback riding, fishing, and wildlife viewing. Two new boardwalks have been designed for sections of the trail with serious erosion concerns, and have been proposed for construction in the next ten years. The property has also become very popular in the local community, and the parking lot is consistently full on the weekends.

### *Recreation Accomplishments*

- In 2015, an enhancement project was completed for this property that included a 7-mile loop trail, small foot bridges, a canoe pull-in and a primitive camping area.
- In partnership with Seminole County Public Safety, “safety” or “locator” signs have been installed every quarter mile to assist with emergency response.

### *Recreation Strategies*

- Continue regular maintenance on trails and campsites
- Expand parking lot to reduce pressure on neighbors

- Place new boardwalks along the St. John's River to traverse eroded sections of the trail, which will protect the trails from further erosion in these areas

### Environmental Education

While no educational facilities exist on this property, as with all Seminole County wilderness areas, BBWA can be used as a classroom for outdoor enthusiasts and students of all ages.

### Security

Unlike other Natural Lands properties, there is no caretaker residing on this property. The security of Black Bear Wilderness Area will continue to be addressed through the existing partnerships with Seminole County Sheriff's Office and Florida Fish and Wildlife Conservation Commission. All possible locations for access whether designated or not, are gated, regularly evaluated and methods for control considered. Security of the site will continue to be monitored and further corrective actions may be required.

### *Security Accomplishments*

- The parking lot gate is now opened and closed by a security company each morning and evening

### *Security Strategies*

- Continue with current security





## Black Bear Wilderness Area Figure 4: Recreation Map

0 0.2 0.4 0.6 0.8 1 Miles



### Legend

- |                     |                   |
|---------------------|-------------------|
| <b>Trails</b>       | Safety Markers    |
| Loop Trail          | <b>Facilities</b> |
| Mallard Drive Trail | Campsite          |
| Powerline Road      | Trailhead/Parking |

## References

Brooks, H.K. 1981. *Guide to the Physiographic Regions of Florida*. Institute of Food and Agricultural Services, University of Florida. Gainesville, FL.

Florida Natural Areas Inventory (FNAI). 2010. *Guide to the natural communities of Florida: 2010 edition*. Florida Natural Areas Inventory, Tallahassee, FL.

Myers, R.L. and John J. Ewel. 1990. *Ecosystems of Florida*. University of Central Florida Press. Gainesville, FL.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Official Soil Series Descriptions. Available online. Accessed 10/2020.

Wunderlin, R.P. 1998. *Guide to the Vascular Plants of Florida*. The Board of Regents of the State of Florida. Tallahassee, FL.