

PICAYUNE STRAND STATE FOREST
2020 LAND MANGEMENT PLAN

EXHIBITS

Exhibit A

Ten Year Management Accomplishment Summary

Picayune Strand State Forest
10-Year Accomplishments

Site Preparation	Chop Single Pass	No.	44
	Chop Double Pass	No.	55
Planting	Containerized South Florida Slash Pine	No.	27,368
		Acres	44
Seedling survival checks	Planting Checks	Acres	44
	Plots	No.	12
Timber Stand Improvement	Herbicide	Acres	44
Timber Sales	Palm Frond (Harvest)	Acres	16,502
Timber Inventory	Inventory Update	Acres	78,899
	New Inventory	Acres	13,243
	Plots	Acres	4,061
Invasive Control	Melaleuca	Acres	9,455
	Brazilian Pepper	Acres	3,065
	Exotic Grasses (Restoration)	Acres	2,137
	Caesar Weed	Acres	1,438
	Cogon Grass	Acres	676
	Downy Rose Myrtle	Acres	459
	Earleaf Acacia	Acres	457
	Misc. herb and woody species	Acres	206
	Java Plum	Acres	132
	Old World Climbing Fern	Acres	98
	Lead Tree	Acres	65
	Ficus Microcarpa	Acres	47
	Chinese Tallow	Acres	41
	Bamboo	Acres	9
	Air Potato	Acres	8
	Rosary Pea	Acres	8
	Australian Pine	Acres	3
	Wedelia	Acres	2
	Japanese Climbing Fern	Acres	1
	Lygodium	Acres	1

Fire	Wildfire	No.	75
		Acres	40,834
	Prescribed Burning	Acres	57,195

Recreation	Day Use Estimated Forest Visitors	No.	562,283
	Overnight Camping	No.	18,050
	Annual Entrance Passes	No.	1,205
	Commercial Vendor Permits	No.	7

Roadwork	Roads Graded	Miles	403
	Roads Rebuilt	Miles	35
	Roads Repaired	Miles	59
	Bridge Repaired	No.	54
	Culverts Installed	No.	6

Boundary Maintenance	Maintenance/Marking	Miles	83
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I&E Activities	Programs/Tours	No.	54
	Radio/TV Articles	No.	41
	Education/Research	No.	53

Other Activities	Translocated RCW's	No.	23
	Apiary Permits	No.	1
	Special Use Permits	No.	785

Exhibit B

Boundary and Road Maps



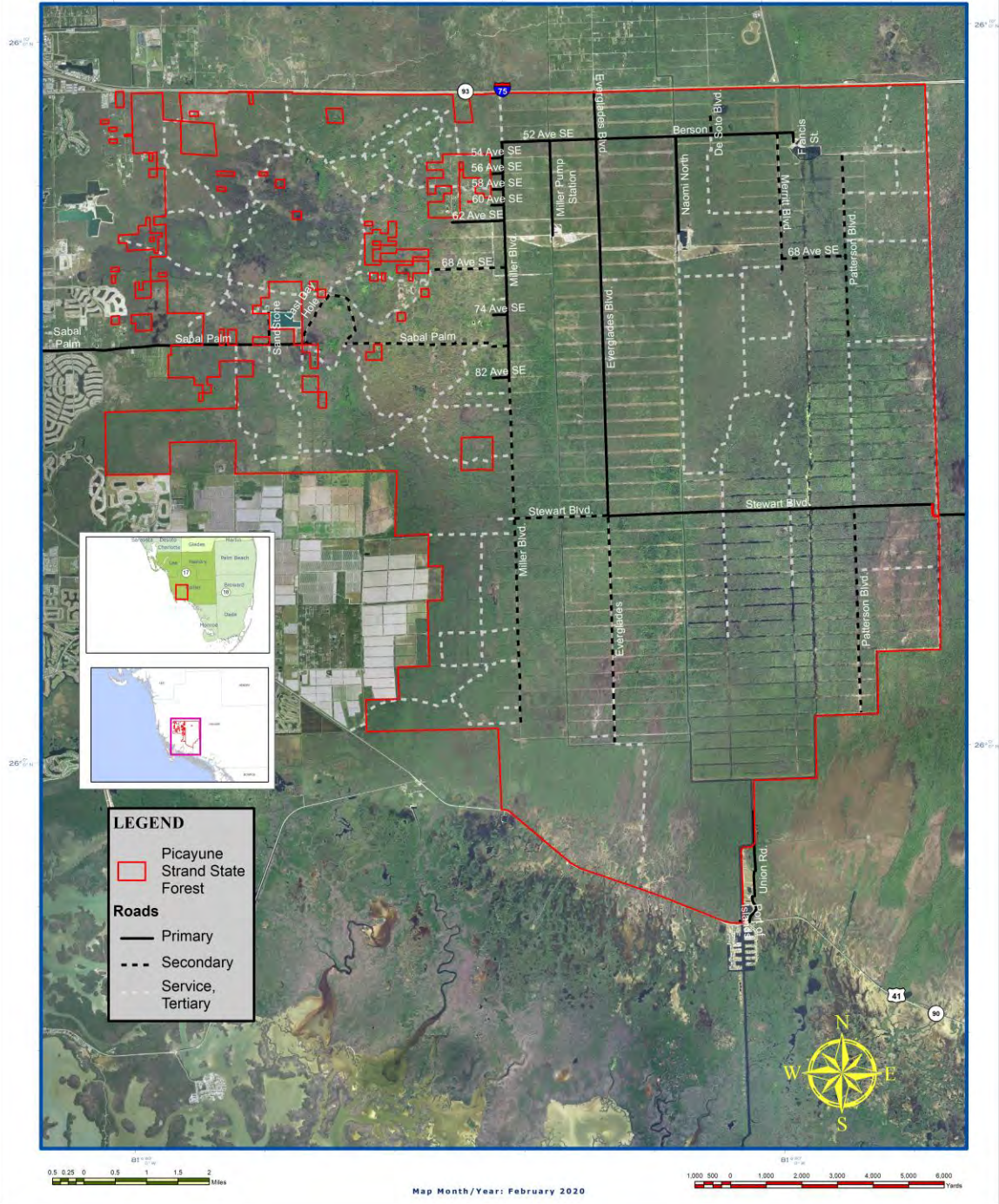
Florida Forest Service

Picayune Strand State Forest Boundary Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum
81° 00' 00"

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Reheated Area boundaries courtesy of
the Florida Natural Areas Inventory
Formerly Used Defense Sites (FUDS) from the
US Army Corps of Engineers





Florida Forest Service

Picayune Strand State Forest Road Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum
81° 00' 00" W

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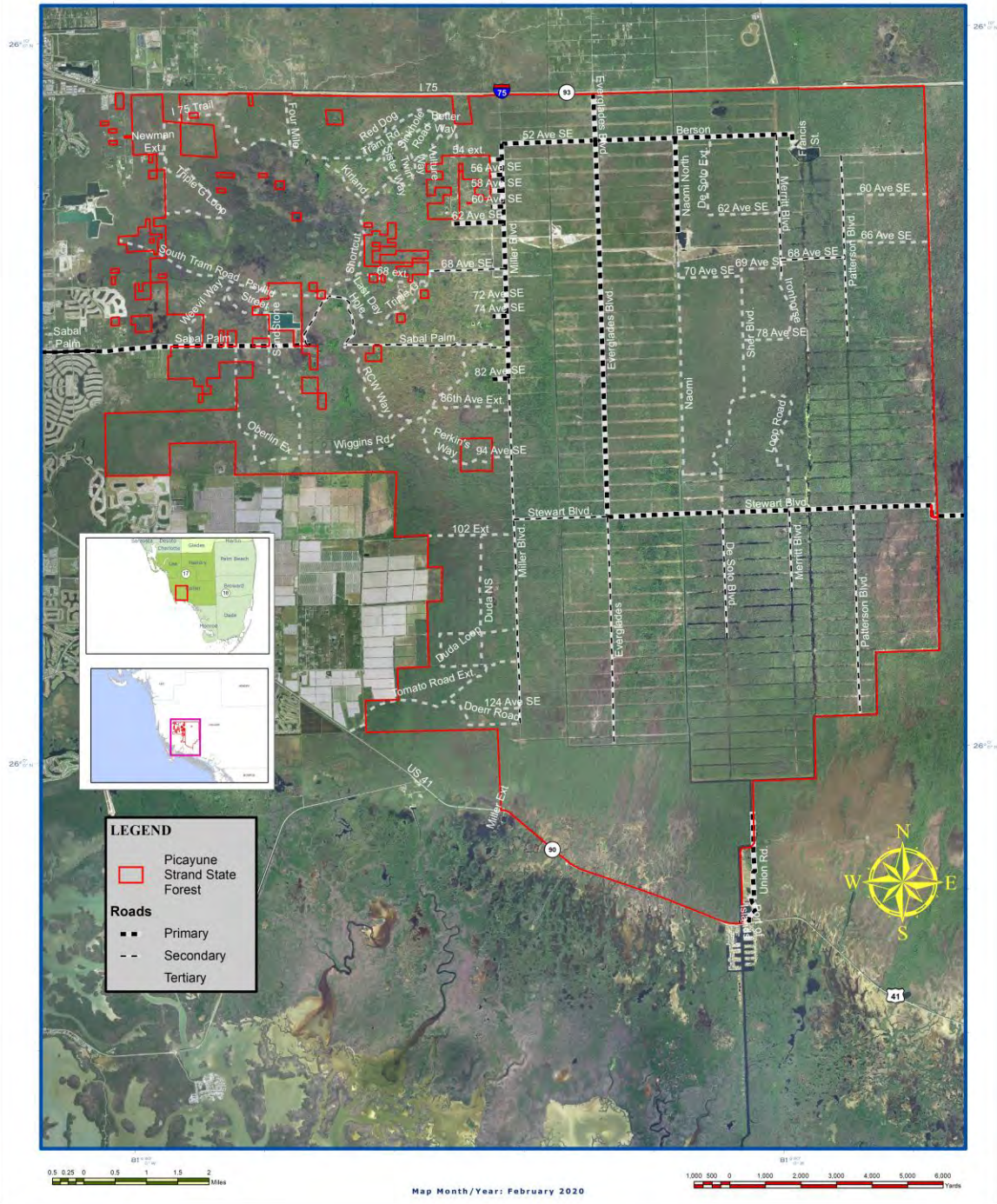


Exhibit C

Optimal Management Boundary Map



Florida Forest Service

Picayune Strand State Forest Optimal Management Boundary Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum
81° 27' 00" W

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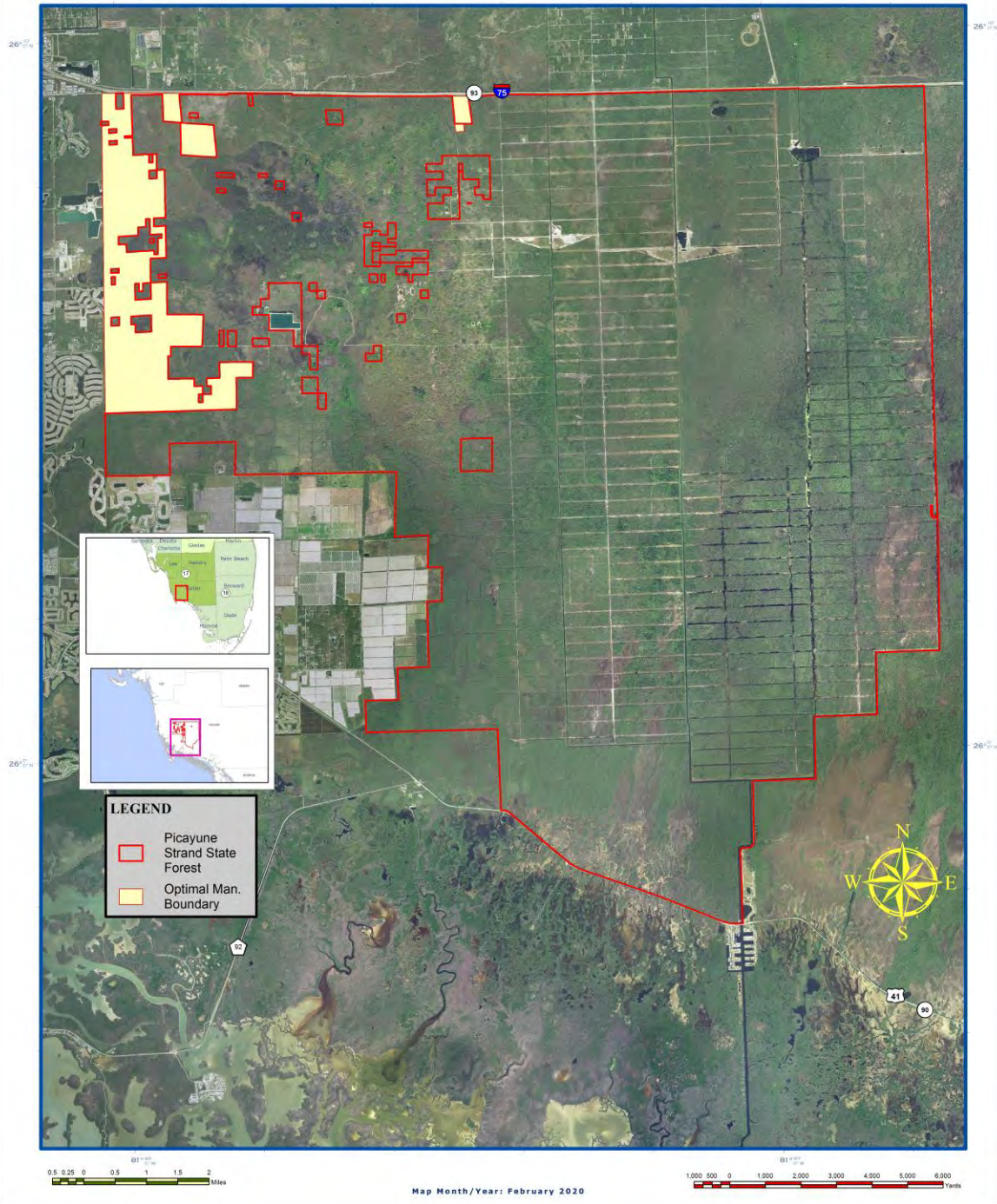


Exhibit D

Facilities, Recreation, and Improvements Map



Florida Forest Service

Picayune Strand State Forest Facilities, Recreation and Improvements Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum
81° 00' 00" W

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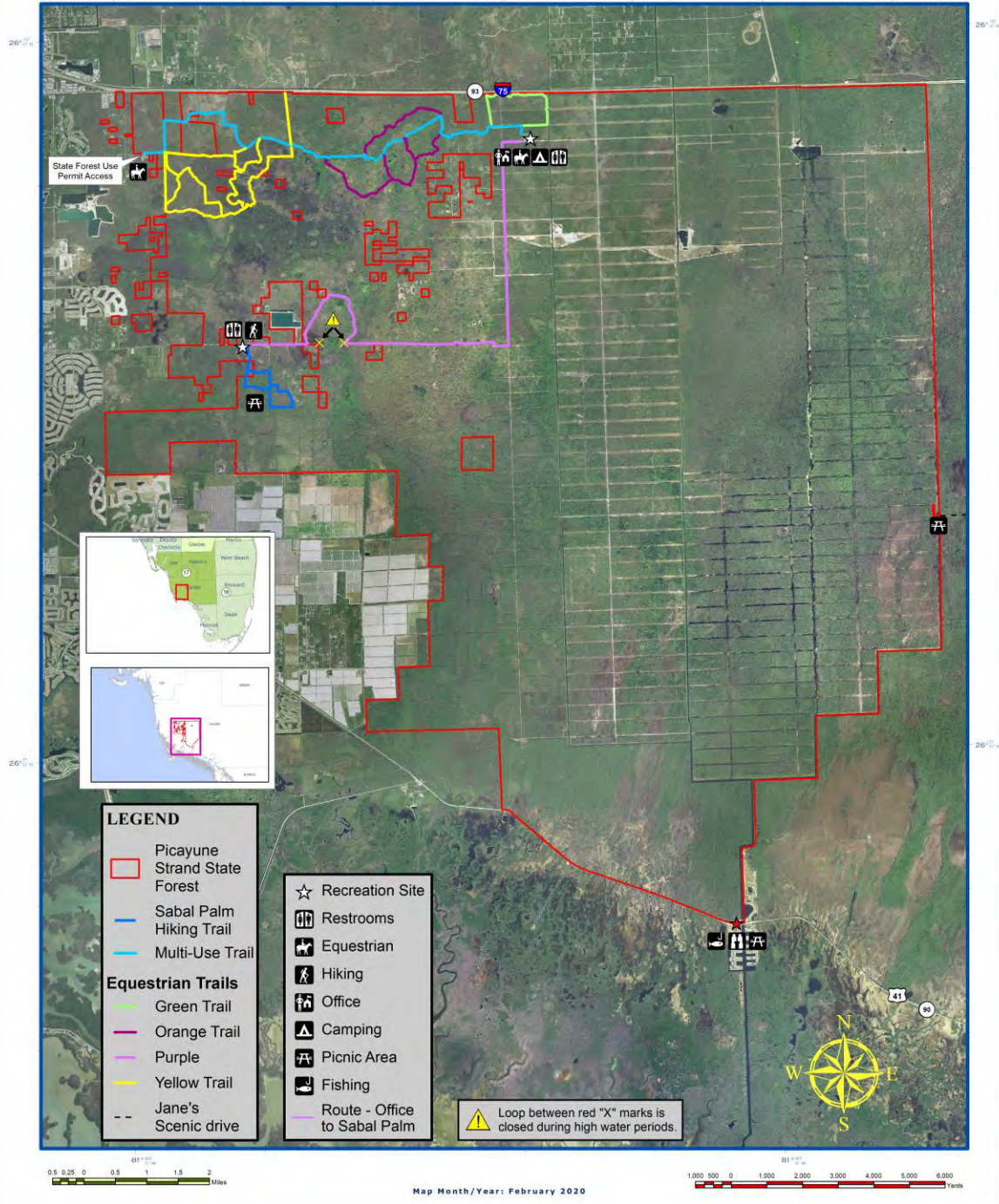


Exhibit E

Tract and Acreage Map



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Managed Area boundaries courtesy of
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Formerly Used Defense Sites (FUDS) from the
US Army Corps of Engineers

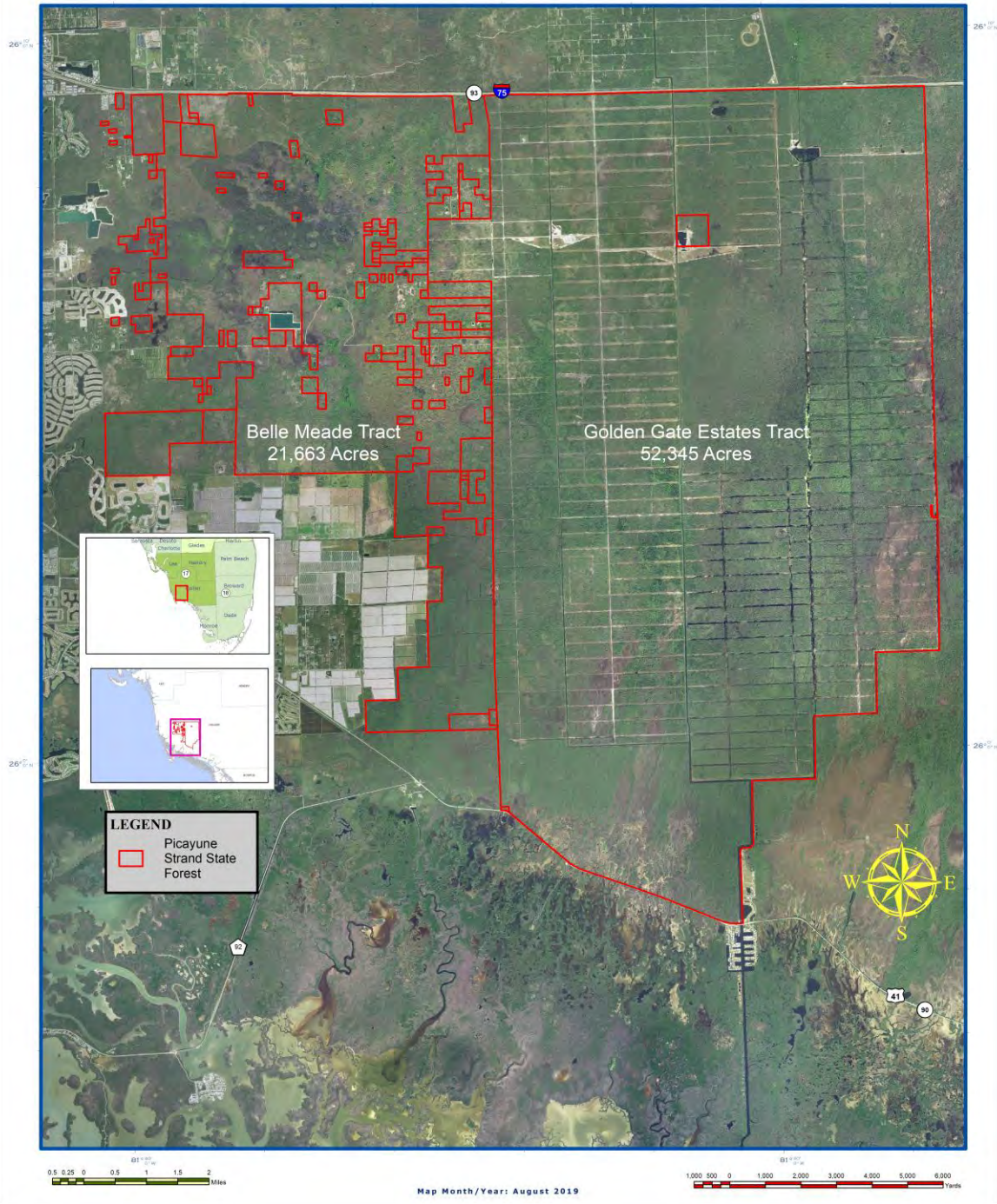


Exhibit F

Proximity to Significant Managed Lands



Florida Forest Service

Picayune Strand State Forest Proximity to Significant Managed Lands

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum

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Managed Area boundaries courtesy of
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Partially Used Defense Sites (PUDS) from the
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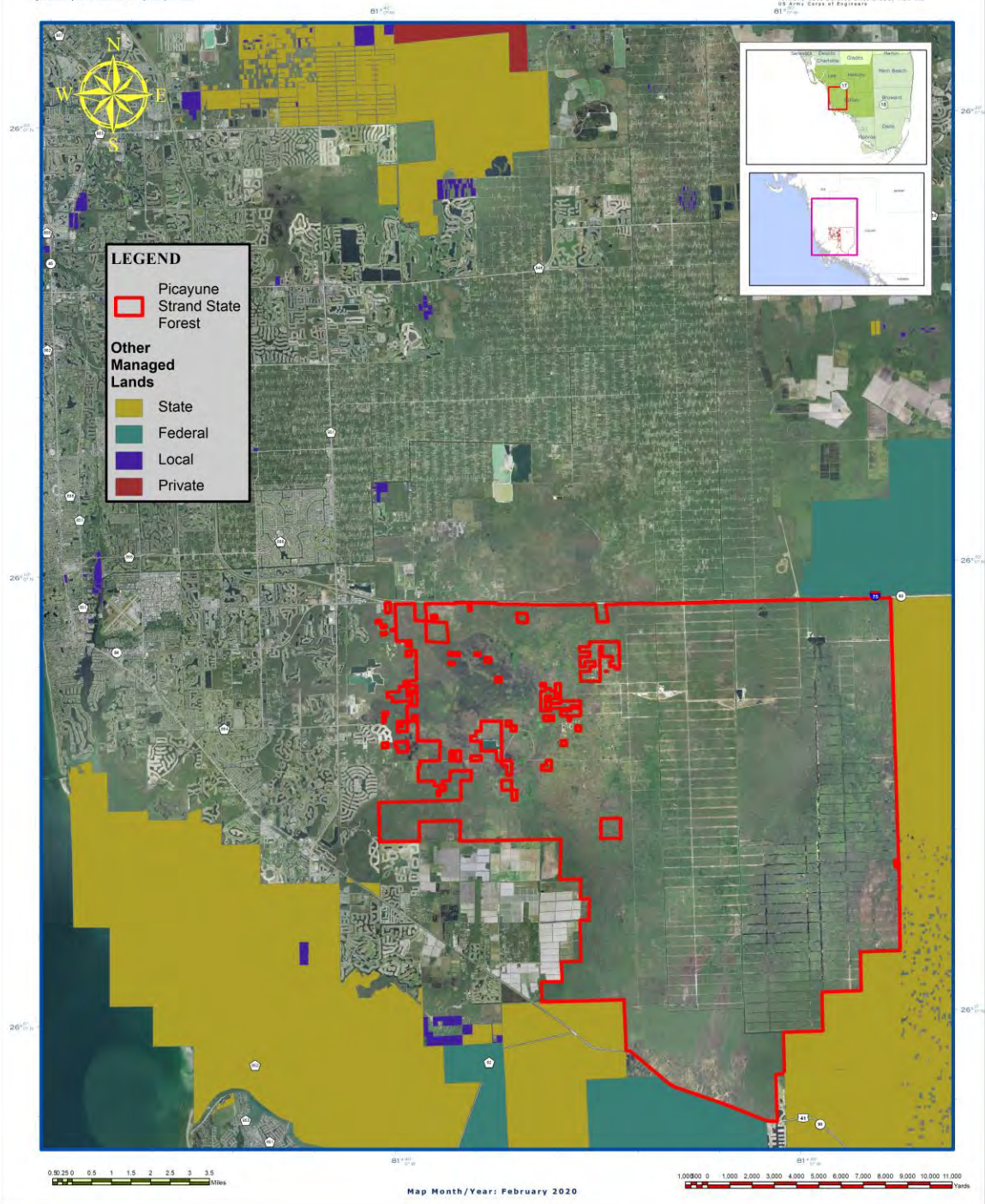


Exhibit G

Florida Forever Projects

Belle Meade

Collier County

Critical Natural Lands

Purpose for State Acquisition

The cypress swamps and old-growth slash pine flatwoods in the Belle Meade project, extending to the fast-developing suburbs of Naples, are important for such endangered wildlife as Florida panthers, red-cockaded woodpeckers, and Florida black bear. Belle Meade is also the watershed for Rookery Bay. The Belle Meade project will conserve the westernmost large natural area in southwest Florida, protect some of the southernmost populations of several rare animals, and help protect the quality of the subtropical estuary of Rookery Bay. It will also provide a large area for recreation in a natural environment to residents of, and visitors to, rapidly urbanizing southwest Florida.

Manager

Florida Department of Agriculture and Consumer Services Florida Forest Service (FFS).

General Description

This project includes some of the most extensive examples of old-growth wet flatwoods (hydric pine flatwoods) in southwest Florida, and high quality, undisturbed subtropical dwarf cypress savanna communities. It has a plant community type endemic to southern Florida that is not within other projects. The hydrology of the hydric pine flatwoods and dwarf cypress communities within the project is relatively intact. The project will protect habitat for at least 20 FNAI-listed plants and animals, including the Florida panther, red-cockaded woodpecker, and Florida black

bear. Three archaeological sites have been recorded within the project boundaries, and other sites may be present. The project is vulnerable to changes in the timing and amount of water flowing through it. Residential and commercial development spreading from Naples is the primary threat.

Public Use

The project will provide a state forest with uses such as hiking, hunting and nature appreciation. Uses will be limited during the wet seasons.

Acquisition Planning

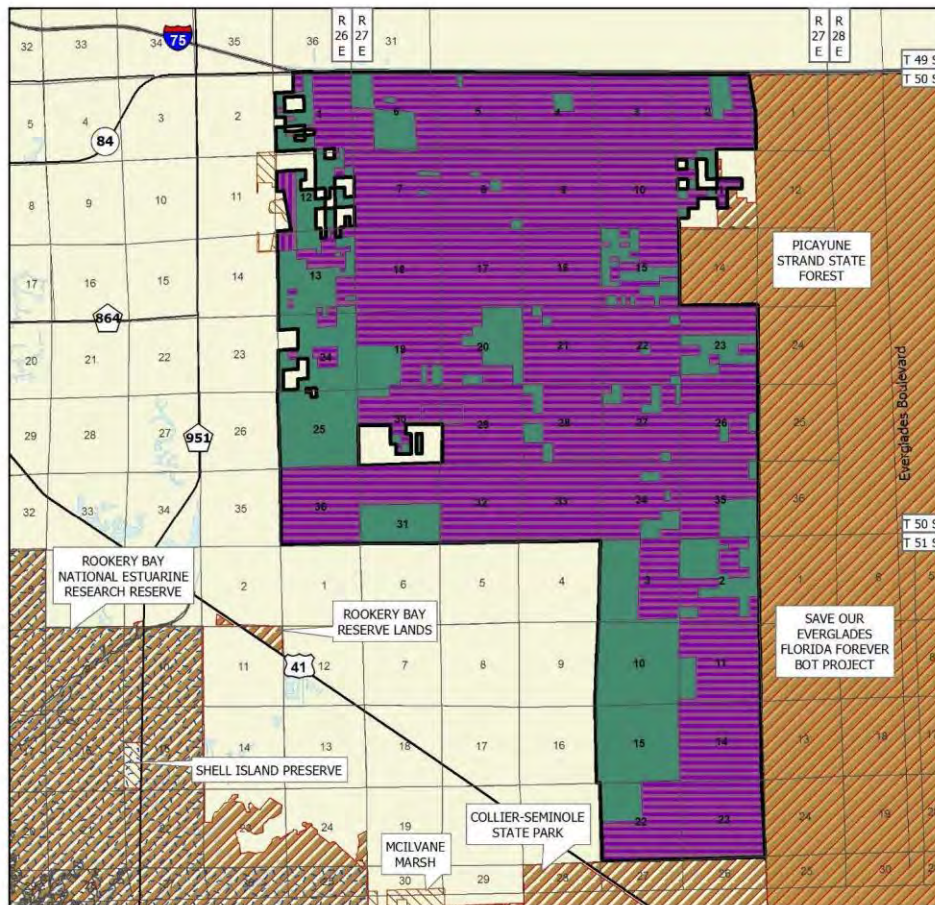
On December 10, 1992, the Land Acquisition Advisory Council (LAAC) added the Belle Meade project to the Conservation and Recreation Lands (CARL) Priority list. This fee-simple acquisition, sponsored jointly by what was then the Department of Natural Resources (DNR) and by the Conservancy, Inc., consisted of approximately 40,846 acres, 762 parcels, 504 landowners, and a 1991 taxable value of \$62,933,000.

On July 20, 1994 the LAAC deleted a $\pm$ 11,985-acre area of the project, at the request of DEP staff. The cut covers the area north of I-75 from the project. It also removes the Collier property and the property to the south adjacent to SR 951 from the project. The approximate taxable value of the deletion was \$18,465,769 based on the 1991 value. On December 7, 1994, the LAAC was presented with and approved the revised project boundary which reduced the total acreage of the current boundary from 23,500 to 17,800

Belle Meade FNAI Elements	
Florida Panther	G5T1/S1
Florida Black Bear	G5T2/S2
Red-cockaded Woodpecker	G3/S2
Ghost Orchid	G2G4/S2
Cowhorn Orchid	G5?/S1
Powdery Catopsis	G5?/S1
Tailed Strap Fern	G5/S1
Bald Eagle	G5/S3
8 rare species are associated with the project	

Placed on List	1993
Project Area (GIS Acres)	27,786
Acres Acquired (GIS)	20,628*
at a Cost of	\$38,391,158
Acres Remaining (GIS)	7,158
with Estimated (Tax Assessed) Value of \$14,082,600	

*Includes donations: 147 acres September 2007 (The Conservancy of Southwest Florida) and 650 acres (private group) October 2009



BELLE MEADE

COLLIER COUNTY

- Florida Forever BOT Project Boundary
- Acquired for Conservation (Fee Simple)
- Acquired for Conservation (Less-Than-Fee)
- Essential Parcel(s) Remaining
- Other Florida Forever BOT Projects
- State Owned Lands
- Other Conservation Lands
- State Aquatic Preserves



JANUARY 2015

acres. The revised boundary included two additions to the current project boundary, approximately 640 acres in the southwest corner and 160 acres in the southeast corner. Approximately 500 landowners remain in the revised boundary; close to 41 percent are owners of tracts 10 acres or less in size; 53 percent are owners of tracts between 10-40 acres; and 6 percent are owners of tracts greater than 100 acres.

On July 14, 1995 the LAAC approved a fee-simple, 2,220-acre addition to the project boundary. It was sponsored by the three landowners and consisted of 20 parcels. The acreage was included in the original project boundary, but later deleted during the redefinition of the project boundary by the Belle Meade Work Group appointed by the Council in 1994. The Work Group consisted of landowners, representatives of local government, the water management district, state agencies and others with local expertise. The boundary recommended by the Work Group included primarily willing sellers – approximately 500 ownerships.

On July 16, 1996, the LAAC approved a fee-simple, 1,240-acre addition to the project boundary. It was sponsored by eight landowners and consisted of 9 parcels. On October 30, 1996, LAAC approved a “Landowner Request Zone” (in effect, all tracts considered on July 16, 1996). The zone defined areas in which a landowner may request inclusion in the boundary in writing. Highest priority must be given to parcels within the LAAC approved December, 1994 boundaries. On June 9, 2006, the Acquisition and Restoration Council (ARC) moved this project from Group B to Group A on the August 2006 Florida Forever priority list. On November 20, 2006, FNAI removed 490 acres from the project boundary in compliance with the November 15, 2000 request of private landowners Howard N. Galbut and Gary R. Edwards (Galbut property data provided by Dan Jones of Southern Mapping Technology November 15, 2006, and Edwards property data derived from the February 14, 2000 removal request letter and property appraiser digital boundaries).

In September 2007, The Conservancy of Southwest Florida donated 147 acres (value of \$2,310,000). On October 9, 2009, approximately 650 acres were donated by Estates at TwinEagles, LTD (no value listed). FFS agreed to manage all acres. In October 10, 2009, Estates at Twin Eagles, LTD donated 650 acres. FFS agreed to manage this.

On August 13, 2010 ARC approved a 348-acre (\$19,232,935 just value) reduction to the boundary because of commercial development and infrastructure. In August 2011, Citigate Development donated 86.34 acres in Picayune Strand State Forest; a donation valued at \$274,785 that was to be managed by FFS.

On December 9, 2011, ARC placed this project into the Florida Forever category of Critical Natural Lands.

Coordination

Recent acquisition partners include The Conservancy of Southwest Florida.

Management Policy Statement

The primary goals of management of the Belle Meade project are to conserve and protect unaltered wet flatwoods and cypress swamps that provide significant habitat for many rare and endangered species of wildlife, including the Florida panther. Other goals are to conserve and restore these important ecosystems, their significant wildlife resources, and their critical hydrological connection to the Gulf Coast by fee-simple purchase because regulation cannot adequately protect them. The project will be managed under the multiple-use concept, with management activities directed toward protecting old-growth forests (using growing-season burns where necessary) and restoring natural surface water flows. The project, when completed, will link Collier-Seminole State Park and the future Picayune Strand State Forest and will approach the Rookery Bay National Estuarine Research Reserve; it will be large enough to achieve the primary management goals.

Management Prospectus

Qualifications for state designation The Belle Meade project has the forest resources (extensive areas of old-growth South Florida slash pine) and the location (twelve miles of common border with the Picayune Strand) to make it highly suitable for management as a state forest.

Manager The FFS is recommended as manager.

Conditions affecting intensity of management

Portions of the project may require hydrological restoration, but these activities will probably be conducted by the water management district. No other known disturbances that will require extraordinary attention are known. The FFS expects its management efforts to be typical for a state forest.

Timetable for implementing management and provisions for security and protection of infrastructure After the core area is acquired, the FFS will provide access for low intensity outdoor recreation. Initial activities include securing the site, providing public and fire management access, inventorying resources, and removing trash. The sites' natural resources and threatened and endangered plants and animals will be inventoried to develop a management plan. Long-range plans for this project are to restore disturbed areas to their original conditions, as far as possible, as well as protecting threatened and endangered species. Some of the pinelands have been degraded by timbering and require restoration. An all-season burning program will use, whenever possible, existing roads, black lines, foam lines and natural breaks to contain fires. Timber management will mostly involve improvement thinning and regeneration harvests. Plantations will be thinned and, where appropriate, reforested with species found in natural ecosystems. Stands will not have a targeted rotation age. Infrastructure will primarily be located in disturbed areas and will be the minimum required for management and public access. The Division will promote environmental education.

Revenue-generating potential The FFS will sell timber as needed to improve or maintain desirable ecosystem conditions. These sales will provide a variable source of revenue, but the FFS expects the revenue-generating potential for this project to be low.

Cooperators in management activities The FFS will cooperate with and seek the assistance of other state agencies, local government entities and interested parties as appropriate.

Management costs and sources of revenue Management funding for this project will be appropriated from the CARL management fund. Budget needs for interim management are covered under the Save Our Everglades/Golden Gate Project.

Updated February 22, 2016

Management Cost Summary

Category Source of Funds	Startup CARL	Recurring CARL
Salary	\$0	\$0
OPS	\$9,140	\$9,140
Expense	\$0	\$0
OCO	\$44,000	\$0
FCO	\$0	\$0
TOTAL	\$53,140	\$9,140



Save Our Everglades

Collier County

Substantially Complete

Purpose for State Acquisition

The Save Our Everglades project will conserve three large pieces of a landscape of cypress swamps, marshes, slash-pine flatwoods, and tropical hammocks, through which water slowly flows to the mangrove swamps of the Ten Thousand Islands, thereby connecting and extending existing conservation lands, helping to save the last of the Florida panthers and a host of other rare animals and tropical plants, preserving the flow of water to the rich estuaries of the Gulf coast, and allowing the public to enjoy this unique landscape for years to come. The Florida National Scenic Trail, a cross-Florida hiking and non-motorized trail, is also planned to cross this project. The trail is a congressionally designated national scenic trail.

Manager

National Park Service (NPS) will manage Big Cypress Addition; U.S. Fish and Wildlife Service (USFWS) will manage Florida Panther National Wildlife Refuge; Florida Department of Agriculture and Consumer Services - Florida Forest Service/FFS will manage all of the Golden Gate Estates South - less that portion east of the Fakaunion Canal to be managed by the Florida Department of Environmental Protection's Division of Recreation and Parks (DRP); and DRP will manage that portion of the Golden Gate Estates South lying east of the Fakaunion Canal - less the old resort hotel, its associated compound and the sewage treatment plant.

General Description

This project includes important hydrological connections among Big Cypress National Preserve, Fakahatchee Strand State Preserve, and Everglades National Park. It serves as the headwaters of the largest strand swamp in the nation—the Fakahatchee Strand. It is also an excellent natural area in its own right. Natural communities on the property include cypress forest, pine forest, hammock, mixed swamp forest, wet and dry prairies and freshwater marsh. The area is known to support many endangered, threatened or rare species including a large variety of rare orchids and other epiphytes, as well as the endangered Florida panther. There is believed to be good potential for archaeological sites here. The project is threatened by drainage and other changes in water flow through the area, by oil and gas exploration, and perhaps by limestone mining.

Public Use

The project will provide a preserve/reserve, wildlife and environmental area, and a forest, allowing such uses as fishing, hunting, hiking, camping and nature appreciation.

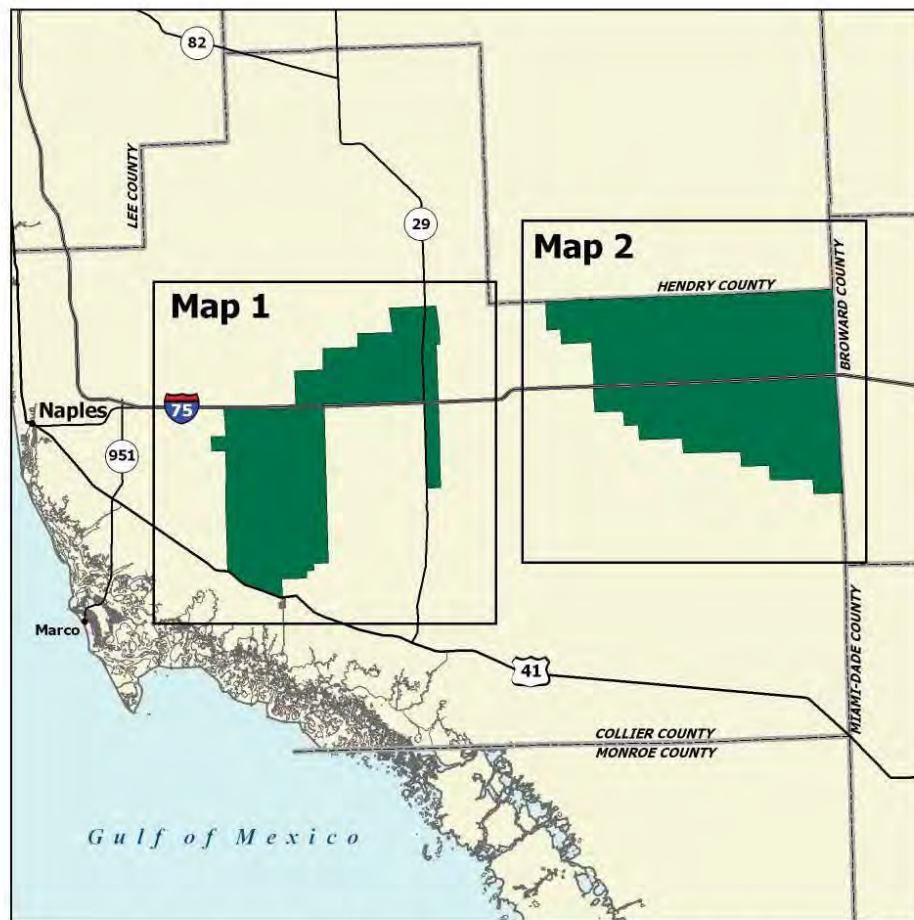
Acquisition Planning

Completing the Collier Exchange on December 18, 1996, resulted in public protection of an additional 83,070 acres in the Big Cypress Addition and an additional 4,110 acres in the Florida Panther National Wildlife Refuge.

On April 18, 2003 ARC transferred 1,615 acres in Hendry County to the Panther Glades Florida Forever project.

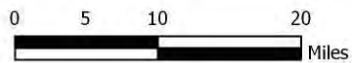
Save Our Everglades FNAI Elements	
Florida Panther	G5T1/S1
Florida Black Bear	G5T2/S2
Eastern Indigo Snake	G3/S3
Swallow-tailed Kite	G5/S2
Florida bonneted bat	G1/S1
Tampa Vervain	G2/S2
Clamshell Orchid	G4G5T2/S2
Pineland Jacquemontia	G2/S2
Florida Royal Palm	G2G3/S2
Narrow-leaved Carolina Scalystem	G4T2/S2
Fuzzy-wuzzy Air-plant	G4/S1
Many-flowered Catopsis	G3G5/S1
33 rare species are associated with the project	

Placed on List	1984
Project Area (GIS Acres)	217,680
Acres Acquired (GIS)	217,606
at a Cost of	\$132,018,455
Acres Remaining (GIS)	74
Estimated (Tax Assessed) Value of	\$4,050,796



SAVE OUR EVERGLADES: OVERVIEW

COLLIER COUNTY



MAY 2006

In 2006 ARC moved this project from the A, Small Parcels list for acquisition to the B, Small Parcels list.

The NPS continues to pursue consolidation efforts in the Big Cypress Preserve Addition. The Conservation and Recreation Lands (CARL) Program continues to focus on acquiring land in Golden Gate Estates South. The USFWS has acquired and manages 28,410 acres (including Collier Exchange lands). The CARL Program received \$25 million of Federal "Farm Bill" funds for the Golden Gate portion of this project. All of the acreage in this project is considered essential.

In June 2009, approximately 3 platted acres were purchased for \$8,276.

On December 9, 2011, ARC placed this project in the new Substantially Complete category of Florida Forever projects.

Coordination

The NPS, USFWS, U.S. Department of Agriculture (USDA), and DOT are all acquisition partners in this project area. Resolutions in support of this project include EO 88-25: Governor's Executive Directive for Interagency Joint Participation Agreement.

Management Policy Statement

The primary goals of management of the Save Our Everglades project are: to conserve and protect environmentally unique and irreplaceable lands that contain native, relatively unaltered flora and fauna representing a natural area unique to, or scarce within, a region of this state or a larger geographic area; to conserve and protect lands within areas of critical state concern; to conserve and protect significant habitat for native species or endangered and threatened species; and to conserve, protect, manage, or restore important ecosystems, landscapes, and forests to enhance or protect significant surface water, coastal, recreational, timber, fish or wildlife resources which local or state regulatory programs cannot adequately protect.

Management Prospectus

Qualifications for state designation The sensitive resources of the Big Cypress National Preserve qualify it as a state preserve. The extremely rare Florida panther and the undisturbed habitat needed to protect it qualify the Panther National Wildlife Refuge as a wildlife and environmental area. The size and diversity of Golden Gate Estates South, and its twelve miles of common

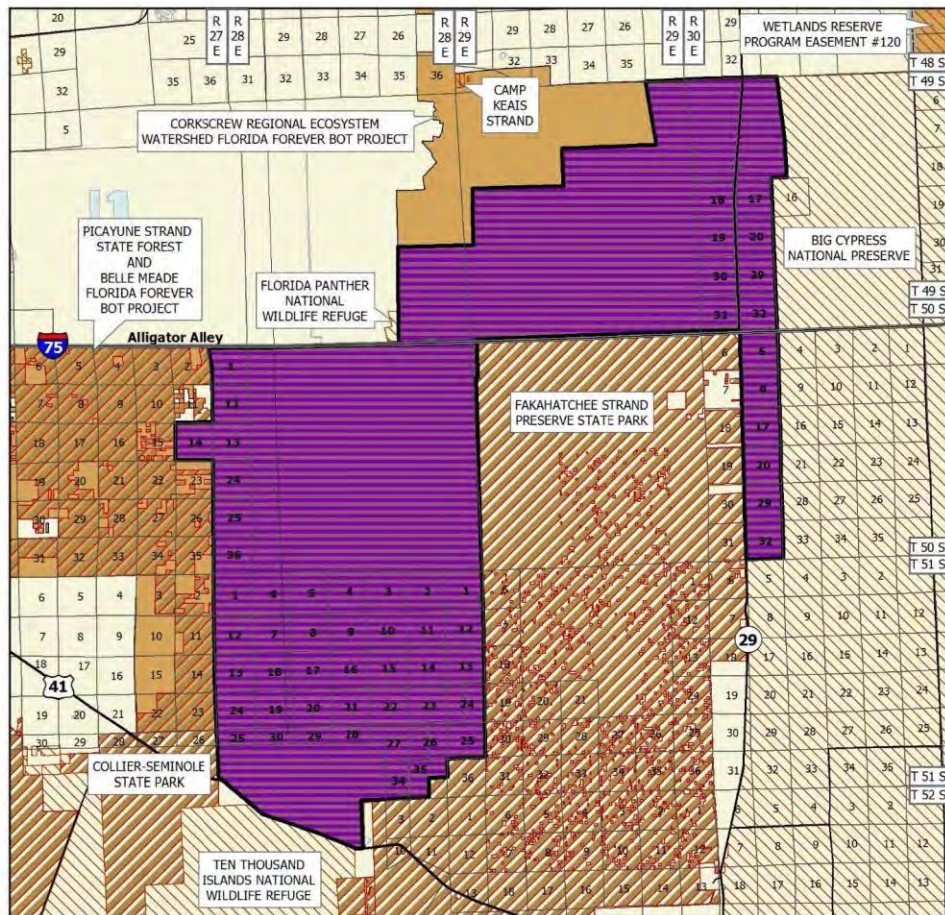
border with the Belle Meade project (to be managed by the FFS), make it highly suitable for use and management as a state forest.

Manager NPS, USFWS, FFS

Conditions affecting intensity of management The Florida Panther National Wildlife Refuge is a low-need management area, requiring basic resource management and protection. Portions of Golden Gate Estates may require hydrologic restoration, but the local water management district will probably conduct these activities. There is a major road network that might eventually require partial removal. If this restoration effort is attempted, it will probably require funding beyond what is typically expected for a state forest.

Timetable for implementing management and provisions for security and protection of infrastructure The Panther National Wildlife Refuge was established in 1989. In 1991, the USFWS began management programs of protection, prescribed burning and food plot management. The area is not open for public use. For the first four years, the refuge was burned to reduce accumulated fuel loads. Burns were confined to the winter and spring. The refuge will experiment with early summer burns in the future. Approximately 6,000 acres of Golden Gate Estates South have already been acquired within the project boundaries; however, this acreage is composed of thousands of lots scattered throughout the area so management for public access and use is not feasible at this time. Once sufficient area has been acquired, the FFS will provide public access for low-intensity, non-facilities-related outdoor recreation. Initial activities will include securing the access to the public while protecting sensitive resources. The project's natural resources and threatened and endangered plants and animals will be inventoried to provide the basis for a management plan. Long-range plans for this project will generally be to restore disturbed areas to their original conditions as fast as possible, as well as protecting threatened and endangered species.

Revenue-generating potential No revenue is expected from the Florida Panther National Wildlife Refuge. In Golden Gate Estates, the FFS will sell timber as needed to improve or maintain desirable ecosystem conditions. These sales will provide variable amounts of revenue.



SAVE OUR EVERGLADES: MAP 1 OF 2

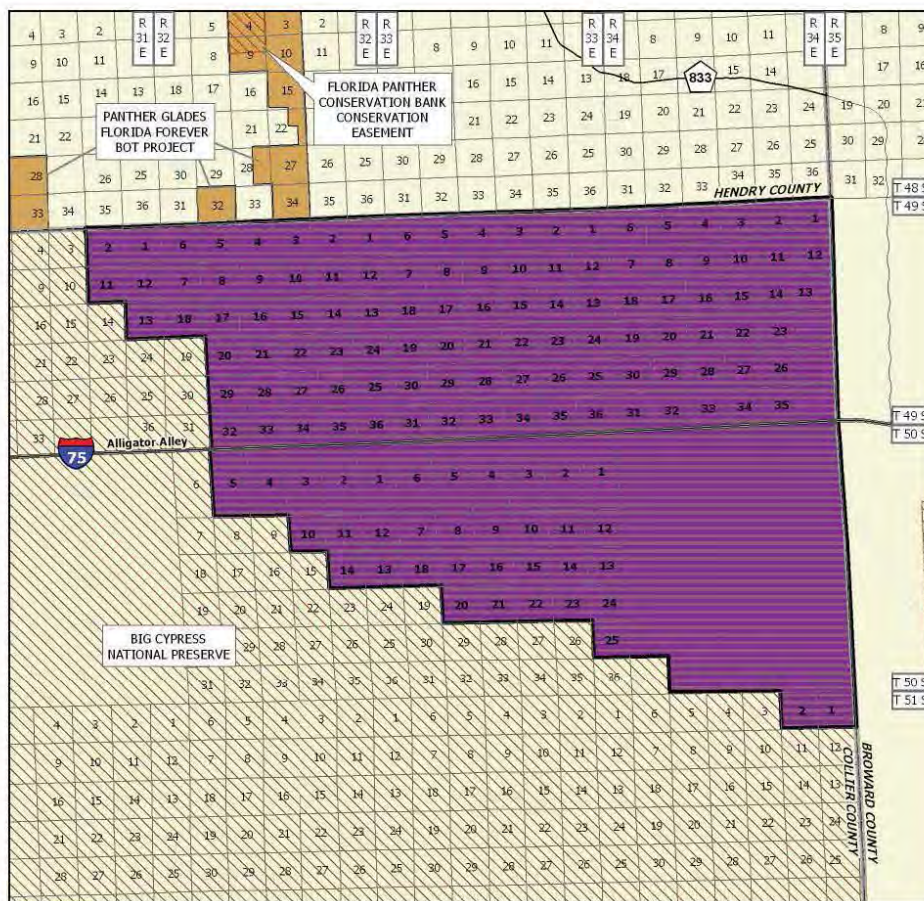
COLLIER COUNTY

-  Florida Forever BOT Project Boundary
-  Acquired for Conservation (Fee Simple)
-  Other Florida Forever BOT Projects
-  State Owned Lands
-  Other Conservation Lands

0 2 4 8
Miles



MAY 2014



SAVE OUR EVERGLADES: MAP 2 OF 2

COLLIER COUNTY

- Florida Forever BOT Project Boundary
- Acquired
- Other Florida Forever BOT Projects
- Other Conservation Lands



0 1 2 4
Miles



JUNE 2009

but the revenue-generating potential for this project is expected to be low.

Cooperators in management activities The Florida Fish and Wildlife Conservation Commission (FWC),

Florida Department of Environmental Protection Watershed (CREW), Collier County, and the NPS are cooperators in the Florida Panther National Wildlife Refuge.

Updated March 31, 2015

Management Cost Summary/FFS

Category	1995/96	1996/97	1997/98
Source of Funds	CARL	CARL	CARL
Salary	\$35,376	\$50,658	85,000
OPS	\$0	\$0	\$0
Expense	\$24,975	\$34,125	\$60,000
OCO	\$4,190	\$40,000	\$46,000
FCO	\$0	\$0	\$0
TOTAL	\$64,541	\$124,783	\$191,000

Management Cost Summary/NPS

Category	Startup	Recurring
Source of Funds	NPS	NPS
Salary	\$110,000	\$110,000
OPS	\$0	\$0
Expense	\$115,000	\$70,000
OCO	\$0	\$0
FCO	\$0	\$0
TOTAL	\$225,000	\$180,000

Management Cost Summary/SFWMD

Category	Startup	Recurring
Source of Funds	WMLTF	WMLTF
Salary	\$3,265	\$3,265
OPS	\$0	\$0
Expense	\$0	\$0
OCO	\$0	\$0
FCO	\$0	\$0
TOTAL	\$3,265	\$3,265

Management Cost Summary/USFWS

Category	1996/97	1997/98	1998/99
Source of Funds	FWS	FWS	FWS
Salary	N/A	N/A	N/A
OPS	N/A	N/A	N/A
Expense	N/A	N/A	N/A
OCO	N/A	N/A	N/A
FCO	N/A	N/A	N/A
TOTAL	\$642,600	\$747,300	N/A

(DEP), South Florida Water Management District (SFWMD), FFS, Corkscrew Regional Ecosystem

Exhibit H

Department of State Report on Archeological Sites and Historical Sites



This record search is for informational purposes only and does NOT constitute a project review. This search only identifies resources recorded at the Florida Master Site File and does NOT provide project approval from the Division of Historical Resources. Contact the Compliance and Review Section of the Division of Historical Resources at 850-245-6333 for project review information.

July 20, 2017

Alan L. Davis
Land Planning Coordinator
Florida DA&CS
3125 Conner Boulevard
Tallahassee, FL 32399-1650
E-mail: Alan.Davis@freshfromflorida.com



Re: Picayune Strand State Forest

In response to your inquiry of July 17, 2017, the Florida Master Site File lists 85 archeological sites and four resource group found at the designated area for Picayune Strand State Forest, Collier County, Florida.

When interpreting the results of our search, please consider the following information:

- This search area may contain *unrecorded* archaeological sites, historical structures or other resources even if previously surveyed for cultural resources.
- Because vandalism and looting are common at Florida sites, we ask that you limit the distribution of location information on archaeological sites.
- While many of our records document historically significant resources, the documentation of a resource at the Florida Master Site File does not necessarily mean the resource is historically significant.
- Federal, state and local laws require formal environmental review for most projects. This search **DOES NOT** constitute such a review. If your project falls under these laws, you should contact the Compliance and Review Section of the Division of Historical Resources at 850-245-6333.

Please do not hesitate to contact us if you have any questions regarding the results of this search.

Sincerely,

Eman M. Vovsi
Florida Master Site File
Eman.Vovsi@DOS.MyFlorida.com

Exhibit I

Management Procedures for Archaeological and Historical Sites and Properties on State Owned or Controlled Lands

**Management Procedures for Archaeological and Historical Sites and Properties on
State-Owned or Controlled Properties**
(revised September 2019)

These procedures apply to state agencies, local governments, and non-profits that manage state-owned properties.

A. General Discussion

Historic resources are both archaeological sites and historic structures. Per Chapter 267, Florida Statutes, *'Historic property' or 'historic resource' means any prehistoric district, site, building, object, or other real or personal property of historical, architectural, or archaeological value, and folklife resources. These properties or resources may include, but are not limited to, monuments, memorials, Indian habitations, ceremonial sites, abandoned settlements, sunken or abandoned ships, engineering works, treasure trove, artifacts, or other objects with intrinsic historical or archaeological value, or any part thereof, relating to the history, government, and culture of the state.'*

B. Agency Responsibilities

Per State Policy relative to historic properties, state agencies of the executive branch must allow the Division of Historical Resources (Division) the opportunity to comment on any undertakings, whether these undertakings directly involve the state agency, i.e., land management responsibilities, or the state agency has indirect jurisdiction, i.e. permitting authority, grants, etc. No state funds should be expended on the undertaking until the Division has the opportunity to review and comment on the project, permit, grant, etc.

State agencies shall preserve the historic resources which are owned or controlled by the agency

Regarding proposed demolition or substantial alterations of historic properties, consultation with the Division must occur, and alternatives to demolition must be considered.

State agencies must consult with Division to establish a program to location, inventory and evaluate all historic properties under ownership or controlled by the agency.

C. Statutory Authority

Statutory Authority and more in-depth information can be found at:

<https://dos.mvflorida.com/historical/preservation/compliance-and-review/regulations-guidelines/>

D. Management Implementation

Even though the Division sits on the Acquisition and Restoration Council and approves land management plans, these plans are conceptual. Specific information regarding individual projects must be submitted to the Division for review and recommendations.

Managers of state lands must coordinate any land clearing or ground disturbing activities with the Division to allow for review and comment on the proposed project. Recommendations may include, but are not limited to: approval of the project as submitted, cultural resource assessment survey by a qualified professional archaeologist, modifications to the proposed project to avoid or mitigate potential adverse effects.

Projects such as additions, exterior alteration, or related new construction regarding historic structures must also be submitted to the Division of Historical Resources for review and comment by the Division's architects. Projects involving structures fifty years of age or older, must be submitted to this agency for a significance determination. In rare cases, structures under fifty years of age may be deemed historically significant. These must be evaluated on a case by case basis.

Adverse impacts to significant sites, either archaeological sites or historic buildings, must be avoided. Furthermore, managers of state property should make preparations for locating and evaluating historic resources, both archaeological sites and historic structures.

E. Minimum Review Documentation Requirements

In order to have a proposed project reviewed by the Division, certain information must be submitted for comments and recommendations. The minimum review documentation requirements can be found at:

https://dos.myflorida.com/media/31392/minimum_review_documentation_requirements.pdf

* * *

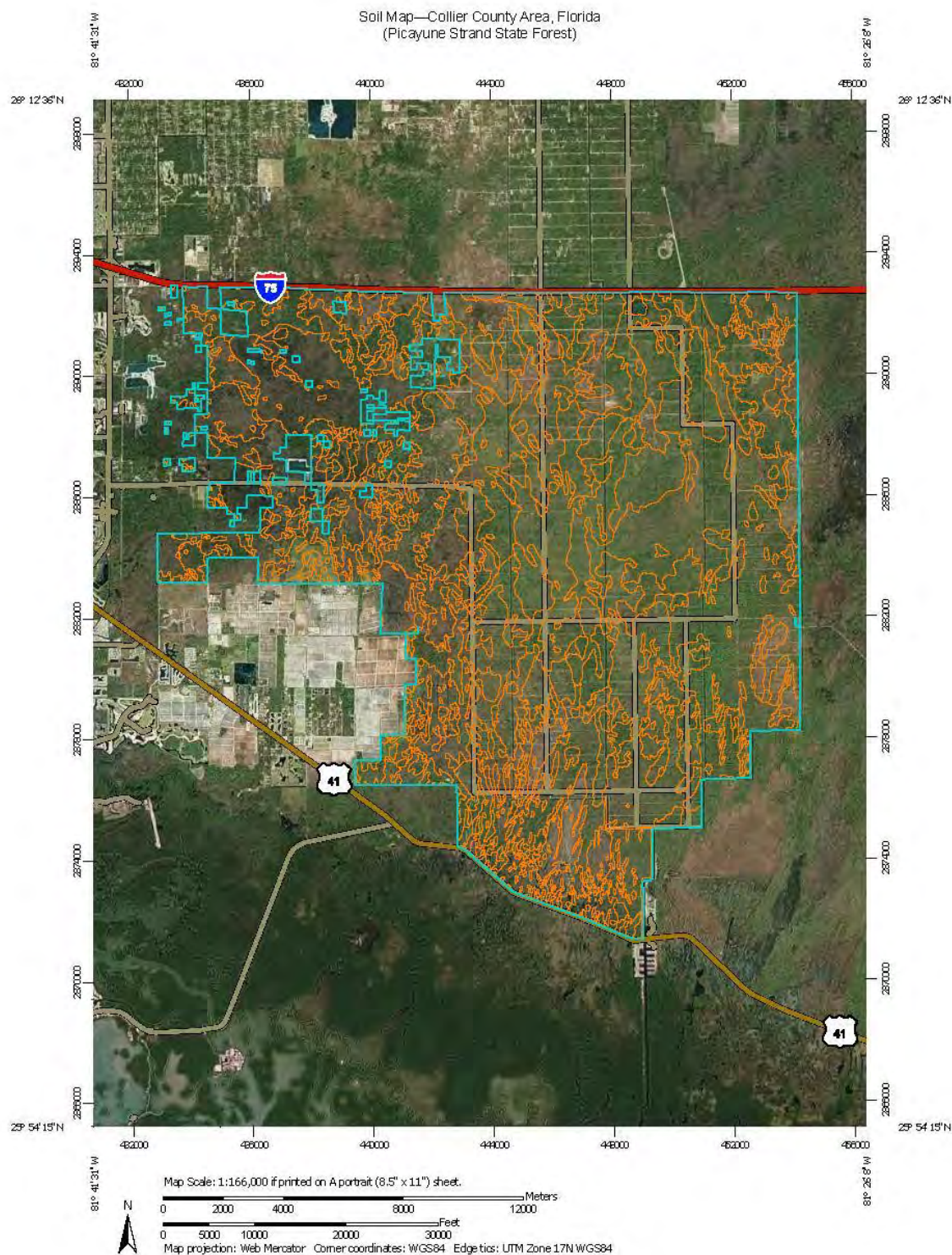
Questions relating to the treatment of archaeological and historic resources on state lands should be directed to:

Robin Jackson
Division of Historical Resources
Bureau of Historic Preservation
Compliance and Review Section
R. A. Gray Building
500 South Bronough Street
Tallahassee, FL 32399-0250

Email: Robin.Jackson@DOS.MyFlorida.com
Phone: (850) 245-6496
Toll Free: (800) 847-7278
Fax: (850) 245-6439

Exhibit J

Soil Map and Descriptions



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

7/15/2019
Page 1 of 4

Soil Map—Collier County Area, Florida
(Picayune Strand State Forest)

MAP LEGEND

Area of Interest (AOI)			
 Area of Interest (AOI)		 Spoil Area	
Soils		 Stony Spot	
 Soil Map Unit Polygons		 Very Stony Spot	
 Soil Map Unit Lines		 Wet Spot	
 Soil Map Unit Points		 Other	
Special Point Features		 Special Line Features	
 Blowout		Water Features	
 Borrow Pit		 Streams and Canals	
 Clay Spot		Transportation	
 Closed Depression		 Rails	
 Gravel Pit		 Interstate Highways	
 Gravelly Spot		 US Routes	
 Landfill		 Major Roads	
 Lava Flow		 Local Roads	
 Marsh or swamp		Background	
 Mine or Quarry		 Aerial Photography	
 Miscellaneous Water			
 Perennial Water			
 Rock Outcrop			
 Saline Spot			
 Sandy Spot			
 Severely Eroded Spot			
 Sinkhole			
 Slide or Slip			
 Sodic Spot			

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Collier County Area, Florida
Survey Area Data: Version 11, Sep 18, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 1, 1999—Dec 31, 2003

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
2	Holopaw fine sand, limestone substratum, 0 to 2 percent slopes	4,737.7	6.4%
3	Malabar fine sand, 0 to 2 percent slopes	9.0	0.0%
4	Chobee, limestone substratum-Dania, frequently ponded, association, 0 to 1 percent slopes	120.3	0.2%
6	Riviera, limestone substratum-Copeland fine sand association, 0 to 2 percent slopes	3,354.6	4.5%
7	Immokalee fine sand, 0 to 2 percent slopes	24.0	0.0%
10	Oldsmar fine sand, limestone substratum, 0 to 1 percent slopes	700.8	0.9%
11	Hallandale fine sand, 0 to 2 percent slopes	10,752.3	14.5%
14	Pineda fine sand, limestone substratum, 0 to 2 percent slopes	2,171.0	2.9%
16	Oldsmar fine sand, 0 to 2 percent slopes	4.0	0.0%
17	Basinger fine sand, 0 to 2 percent slopes	115.1	0.2%
18	Riviera fine sand, limestone substratum, 0 to 2 percent slopes	2,859.9	3.9%
20	Ft. Drum-Malabar, high association, 0 to 2 percent slopes	225.7	0.3%
21	Boca fine sand, 0 to 2 percent slopes	944.9	1.3%
22	Chobee, Winder, and Gator soils, depressional	95.6	0.1%
23	Holopaw-Okeelanta, frequently ponded, association, 0 to 1 percent slopes	180.4	0.2%
25	Boca, Riviera, limestone substratum, and Copeland fine sands, depressional	19,199.3	25.9%
27	Holopaw fine sand, 0 to 2 percent slopes	172.0	0.2%
31	Hilolo, Jupiter, and Margate fine sands	1,516.5	2.0%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
33	Urban land-Holopaw-Basinger complex	1.5	0.0%
48	Pennsuco silt loam	2,015.5	2.7%
49	Hallandale-Boca fine sands association, 0 to 2 percent slopes	20,820.9	28.1%
50	Ochopee fine sandy loam, low	2,144.4	2.9%
51	Ochopee fine sandy loam	684.4	0.9%
52	Kesson muck, frequently flooded	795.1	1.1%
53	Estero and Peckish soils, frequently flooded	99.2	0.1%
56	Basinger fine sand, occasionally flooded	181.3	0.2%
99	Water	82.0	0.1%
Totals for Area of Interest		74,007.5	100.0%

Component Legend

This report presents general information about the map units and map unit components in the selected area. It shows map unit symbols and names and the components in each map unit. It also shows the percent of the components in the map units, the kind of component, and the slope range of each component.

Report—Component Legend

Component Legend—Collier County Area, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
2—Holopaw fine sand, limestone substratum, 0 to 2 percent slopes	22,250						
		85	Holopaw, limestone substratum	Series	0.0	1.0	2.0
3—Malabar fine sand, 0 to 2 percent slopes	17,520						
		85	Malabar	Series	0.0	1.0	2.0
4—Chobee, limestone substratum-Dania, frequently ponded, association, 0 to 1 percent slopes	1,140						
		45	Chobee, limestone substratum	Series	0.0	0.5	1.0
		45	Dania	Series	0.0	0.5	1.0
6—Riviera, limestone substratum-Copeland fine sand association, 0 to 2 percent slopes	9,130						
		65	Riviera, limestone substratum	Series	0.0	1.0	2.0
		30	Copeland	Series	0.0	0.5	1.0
7—Immokalee fine sand, 0 to 2 percent slopes	51,360						
		90	Immokalee	Series	0.0	1.0	2.0
10—Oldsmar fine sand, limestone substratum, 0 to 1 percent slopes	10,620						
		85	Oldsmar, limestone substratum	Series	0.0	1.0	2.0
11—Hallandale fine sand, 0 to 2 percent slopes	22,770						
		85	Hallandale	Series	0.0	1.0	2.0
14—Pineda fine sand, limestone substratum, 0 to 2 percent slopes	34,830						
		83	Pineda, limestone substratum	Series	0.0	1.0	2.0

Component Legend--Collier County Area, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
16--Oldsmar fine sand, 0 to 2 percent slopes	31,470						
		85	Oldsmar	Series	0.0	1.0	2.0
17--Basinger fine sand, 0 to 2 percent slopes	22,040						
		85	Basinger	Series	0.0	1.0	2.0
18--Riviera fine sand, limestone substratum, 0 to 2 percent slopes	16,220						
		86	Riviera, limestone substratum	Series	0.0	1.0	2.0
20--Ft. Drum-Malabar, high association, 0 to 2 percent slopes	6,660						
		45	Ft. drum	Series	0.0	1.0	2.0
		40	Malabar	Series	0.0	1.0	2.0
21--Boca fine sand, 0 to 2 percent slopes	26,390						
		80	Boca	Series	0.0	1.0	2.0
22--Chobee, Winder, and Gator soils, depressional	13,040						
		30	Chobee	Series	0.0	0.5	1.0
		30	Winder	Series	0.0	0.5	1.0
		30	Gator	Series	0.0	0.5	1.0
23--Holopaw-Okeelanta, frequently ponded, association, 0 to 1 percent slopes	3,050						
		48	Holopaw, limestone substratum	Series	0.0	0.5	1.0
		42	Okeelanta	Series	0.0	0.5	1.0
25--Boca, Riviera, limestone substratum, and Copeland fine sands, depressional	121,000						
		30	Copeland	Series	0.0	0.5	1.0
		30	Boca	Series	0.0	0.5	1.0
		30	Riviera, limestone substratum	Series	0.0	0.5	1.0
27--Holopaw fine sand, 0 to 2 percent slopes	19,900						
		85	Holopaw	Series	0.0	1.0	2.0
31--Hilo, Jupiter, and Margate fine sands	7,890						
		30	Jupiter	Series	0.0	0.5	1.0
		30	Hilo	Series	0.0	1.0	2.0
		30	Margate	Series	0.0	1.0	2.0

Component Legend--Collier County Area, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
33--Urban land-Holopaw-Basinger complex	6,360						
		45	Urban land	Miscellaneous area	0.0	1.0	2.0
		35	Holopaw	Series	0.0	1.0	2.0
		20	Basinger	Series	0.0	1.0	2.0
48--Pennsuco silt loam	8,360						
		98	Pennsuco	Series	0.0	0.5	1.0
49--Hallandale-Boca fine sands association, 0 to 2 percent slopes	31,080						
		50	Hallandale	Series	0.0	1.0	2.0
		40	Boca	Series	0.0	1.0	2.0
50--Ochopee fine sandy loam, low	20,910						
		95	Ochopee, low	Series	0.0	0.5	1.0
51--Ochopee fine sandy loam	15,070						
		95	Ochopee	Series	0.0	1.0	2.0
52--Kesson muck, frequently flooded	6,690						
		85	Kesson	Series	0.0	0.5	1.0
53--Estero and Peckish soils, frequently flooded	5,250						
		50	Estero	Series	0.0	0.5	1.0
		45	Peckish	Series	0.0	0.5	1.0
56--Basinger fine sand, occasionally flooded	860						
		98	Basinger	Series	0.0	1.0	2.0
99--Water	12,540						
		100	Water	Miscellaneous area			

Data Source Information

Soil Survey Area: Collier County Area, Florida

Survey Area Data: Version 11, Sep 18, 2018



Map Unit Description (Brief, Generated)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, provide information on the composition of map units and properties of their components.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

Report—Map Unit Description (Brief, Generated)

Collier County Area, Florida

Map Unit: 2—Holopaw fine sand, limestone substratum, 0 to 2 percent slopes

Component: Holopaw, limestone substratum (85%)

The Holopaw, limestone substratum component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 50 to 79 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 6 inches during July, August, September, October. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Chobee (5%)

Generated brief soil descriptions are created for major soil components. The Chobee soil is a minor component.

Component: Basinger (5%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Boca (5%)

Generated brief soil descriptions are created for major soil components. The Boca soil is a minor component.

Map Unit: 3—Malabar fine sand, 0 to 2 percent slopes

Component: Malabar (85%)

The Malabar component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during July, August, September, October. Organic matter content in the surface horizon is about 3 percent. This component is in the R155XY011FL Slough ecological site. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Valkaria (5%)

Generated brief soil descriptions are created for major soil components. The Valkaria soil is a minor component.

Component: Oldsmar (4%)

Generated brief soil descriptions are created for major soil components. The Oldsmar soil is a minor component.

Component: Pineda (4%)

Generated brief soil descriptions are created for major soil components. The Pineda soil is a minor component.

Component: Basinger (2%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Map Unit: 4—Chobee, limestone substratum-Dania, frequently ponded, association, 0 to 1 percent slopes

Component: Chobee, limestone substratum (45%)

The Chobee, limestone substratum component makes up 45 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 33 to 80 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 3 inches during January, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 1 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Dania (45%)

The Dania component makes up 45 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of herbaceous organic material over limestone. Depth to a root restrictive layer, bedrock, lithic, is 10 to 29 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 3 inches during January, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 75 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Gator (5%)

Generated brief soil descriptions are created for major soil components. The Gator soil is a minor component.

Component: Hallandale (5%)

Generated brief soil descriptions are created for major soil components. The Hallandale soil is a minor component.

Map Unit: 6—Riviera, limestone substratum-Copeland fine sand association, 0 to 2 percent slopes**Component:** Riviera, limestone substratum (65%)

The Riviera, limestone substratum component makes up 65 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 31 to 80 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 6 inches during July, August, September, October. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Copeland (30%)

The Copeland component makes up 30 percent of the map unit. Slopes are 0 to 1 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 16 to 54 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 3 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Boca (5%)

Generated brief soil descriptions are created for major soil components. The Boca soil is a minor component.

Map Unit: 7—Immokalee fine sand, 0 to 2 percent slopes**Component: Immokalee (90%)**

The Immokalee component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Basinger (4%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Basinger (4%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Wabasso (2%)

Generated brief soil descriptions are created for major soil components. The Wabasso soil is a minor component.

Component: Pomello (2%)

Generated brief soil descriptions are created for major soil components. The Pomello soil is a minor component.

Component: Placid (1%)

Generated brief soil descriptions are created for major soil components. The Placid soil is a minor component.

Component: Margate (1%)

Generated brief soil descriptions are created for major soil components. The Margate soil is a minor component.

Map Unit: 10—Oldsmar fine sand, limestone substratum, 0 to 1 percent slopes**Component: Oldsmar, limestone substratum (85%)**

The Oldsmar, limestone substratum component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 40 to 79 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Riviera, limestone substratum (5%)

Generated brief soil descriptions are created for major soil components. The Riviera, limestone substratum soil is a minor component.

Component: Malabar (4%)

Generated brief soil descriptions are created for major soil components. The Malabar soil is a minor component.

Component: Wabasso (4%)

Generated brief soil descriptions are created for major soil components. The Wabasso soil is a minor component.

Component: Immokalee (2%)

Generated brief soil descriptions are created for major soil components. The Immokalee soil is a minor component.

Map Unit: 11--Hallandale fine sand, 0 to 2 percent slopes

Component: Hallandale (85%)

The Hallandale component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 7 to 20 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Boca (5%)

Generated brief soil descriptions are created for major soil components. The Boca soil is a minor component.

Component: Riviera (5%)

Generated brief soil descriptions are created for major soil components. The Riviera soil is a minor component.

Component: Jupiter (3%)

Generated brief soil descriptions are created for major soil components. The Jupiter soil is a minor component.

Component: Ft. Drum (2%)

Generated brief soil descriptions are created for major soil components. The Ft Drum soil is a minor component.

Map Unit: 14—Pineda fine sand, limestone substratum, 0 to 2 percent slopes**Component: Pineda, limestone substratum (83%)**

The Pineda, limestone substratum component makes up 83 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 40 to 80 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during July, August, September, October. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Pineda, limestone substratum ponded (5%)

Generated brief soil descriptions are created for major soil components. The Pineda, limestone substratum ponded soil is a minor component.

Component: Boca (4%)

Generated brief soil descriptions are created for major soil components. The Boca soil is a minor component.

Component: Hallandale (4%)

Generated brief soil descriptions are created for major soil components. The Hallandale soil is a minor component.

Component: Malabar (3%)

Generated brief soil descriptions are created for major soil components. The Malabar soil is a minor component.

Component: Wabasso (1%)

Generated brief soil descriptions are created for major soil components. The Wabasso soil is a minor component.

Map Unit: 16—Oldsmar fine sand, 0 to 2 percent slopes

Component: Oldsmar (85%)

The Oldsmar component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Malabar (5%)

Generated brief soil descriptions are created for major soil components. The Malabar soil is a minor component.

Component: Nettles (3%)

Generated brief soil descriptions are created for major soil components. The Nettles soil is a minor component.

Component: Basinger (3%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Pineda (2%)

Generated brief soil descriptions are created for major soil components. The Pineda soil is a minor component.

Component: Boca (2%)

Generated brief soil descriptions are created for major soil components. The Boca soil is a minor component.

Map Unit: 17—Basinger fine sand, 0 to 2 percent slopes

Component: Basinger (85%)

The Basinger component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during July, August, September, October. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Myakka (5%)

Generated brief soil descriptions are created for major soil components. The Myakka soil is a minor component.

Component: Placid (4%)

Generated brief soil descriptions are created for major soil components. The Placid soil is a minor component.

Component: Immokalee (4%)

Generated brief soil descriptions are created for major soil components. The Immokalee soil is a minor component.

Component: Margate (1%)

Generated brief soil descriptions are created for major soil components. The Margate soil is a minor component.

Component: Felda (1%)

Generated brief soil descriptions are created for major soil components. The Felda soil is a minor component.

Map Unit: 18—Riviera fine sand, limestone substratum, 0 to 2 percent slopes

Component: Riviera, limestone substratum (88%)

The Riviera, limestone substratum component makes up 88 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 31 to 80 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 6 inches during July, August, September, October. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Boca (4%)

Generated brief soil descriptions are created for major soil components. The Boca soil is a minor component.

Component: Holopaw (4%)

Generated brief soil descriptions are created for major soil components. The Holopaw soil is a minor component.

Component: Copeland (4%)

Generated brief soil descriptions are created for major soil components. The Copeland soil is a minor component.

Map Unit: 20—Ft. Drum-Malabar, high association, 0 to 2 percent slopes

Component: Ft. Drum (45%)

The Ft. Drum component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 2 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

Component: Malabar (40%)

The Malabar component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Holopaw (5%)

Generated brief soil descriptions are created for major soil components. The Holopaw soil is a minor component.

Component: Basinger (5%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Pineda (5%)

Generated brief soil descriptions are created for major soil components. The Pineda soil is a minor component.

Map Unit: 21—Boca fine sand, 0 to 2 percent slopes

Component: Boca (80%)

The Boca component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 8 to 40 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during July, August, September, October. Organic matter content in the surface horizon is about 2 percent. This component is in the R155XY003FL South Florida Flatwoods ecological site. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Hallandale (8%)

Generated brief soil descriptions are created for major soil components. The Hallandale soil is a minor component.

Component: Wabasso (6%)

Generated brief soil descriptions are created for major soil components. The Wabasso soil is a minor component.

Component: Pineda (4%)

Generated brief soil descriptions are created for major soil components. The Pineda soil is a minor component.

Component: Ft. Drum (2%)

Generated brief soil descriptions are created for major soil components. The Ft Drum soil is a minor component.

Map Unit: 22—Chobee, Winder, and Gator soils, depressional**Component: Chobee (30%)**

The Chobee component makes up 30 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during June, July, August, September, October. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Winder (30%)

The Winder component makes up 30 percent of the map unit. Slopes are 0 to 1 percent. This component is on marshes on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during June, July, August, September, October. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Gator (30%)

The Gator component makes up 30 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of herbaceous organic material over loamy and sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is very high. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during June, July, August, September, October. Organic matter content in the surface horizon is about 70 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Pineda (5%)

Generated brief soil descriptions are created for major soil components. The Pineda soil is a minor component.

Component: Riviera (5%)

Generated brief soil descriptions are created for major soil components. The Riviera soil is a minor component.

Map Unit: 23--Holopaw-Okeelanta, frequently ponded, association, 0 to 1 percent slopes

Component: Holopaw, limestone substratum (48%)

The Holopaw, limestone substratum component makes up 48 percent of the map unit. Slopes are 0 to 1 percent. This component is on marine terraces on coastal plains, depressions. The parent material consists of sandy and loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 50 to 79 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 3 inches during January, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Okeelanta (42%)

The Okeelanta component makes up 42 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of herbaceous organic material over sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 3 inches during January, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 75 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Gator (5%)

Generated brief soil descriptions are created for major soil components. The Gator soil is a minor component.

Component: Basinger (5%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Map Unit: 25—Boca, Riviera, limestone substratum, and Copeland fine sands, depressional

Component: Copeland (30%)

The Copeland component makes up 30 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 20 to 50 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during June, July, August, September, October. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 5 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Riviera, limestone substratum (30%)

The Riviera, limestone substratum component makes up 30 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer, bedrock, lithic, is 40 to 70 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during June, July, August, September, October. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Boca (30%)

The Boca component makes up 30 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 24 to 40 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during June, July, August, September, October. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Dania (3%)

Generated brief soil descriptions are created for major soil components. The Dania soil is a minor component.

Component: Basinger (3%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Hallandale (2%)

Generated brief soil descriptions are created for major soil components. The Hallandale soil is a minor component.

Component: Gator (2%)

Generated brief soil descriptions are created for major soil components. The Gator soil is a minor component.

Map Unit: 27—Holopaw fine sand, 0 to 2 percent slopes

Component: Holopaw (85%)

The Holopaw component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during July, August, September, October. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Basinger (6%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Basinger (6%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Oldsmar (4%)

Generated brief soil descriptions are created for major soil components. The Oldsmar soil is a minor component.

Component: Boca (3%)

Generated brief soil descriptions are created for major soil components. The Boca soil is a minor component.

Component: Riviera (2%)

Generated brief soil descriptions are created for major soil components. The Riviera soil is a minor component.

Map Unit: 31—Hilolo, Jupiter, and Margate fine sands**Component:** Hilolo (30%)

The Hilolo component makes up 30 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces, coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer, bedrock, lithic, is 40 to 80 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 15 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Jupiter (30%)

The Jupiter component makes up 30 percent of the map unit. Slopes are 0 to 1 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 10 to 20 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Margate (30%)

The Margate component makes up 30 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Pineda (5%)

Generated brief soil descriptions are created for major soil components. The Pineda soil is a minor component.

Component: Holopaw (5%)

Generated brief soil descriptions are created for major soil components. The Holopaw soil is a minor component.

Map Unit: 33—Urban land-Holopaw-Basinger complex

Component: Urban land (45%)

Generated brief soil descriptions are created for major soil components. The Urban land is a miscellaneous area.

Component: Holopaw (35%)

The Holopaw component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on drainageways on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Basinger (20%)

The Basinger component makes up 20 percent of the map unit. Slopes are 0 to 2 percent. This component is on drainageways on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Map Unit: 48—Pennsuco silt loam

Component: Pennsuco (98%)

The Pennsuco component makes up 98 percent of the map unit. Slopes are 0 to 1 percent. This component is on marshes on marine terraces on coastal plains. The parent material consists of loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 40 to 72 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 50 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Ochopee, low (2%)

Generated brief soil descriptions are created for major soil components. The Ochopee, low soil is a minor component.

Map Unit: 49--Hallandale-Boca fine sands association, 0 to 2 percent slopes

Component: Hallandale (50%)

The Hallandale component makes up 50 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 7 to 20 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Boca (40%)

The Boca component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 8 to 40 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 6 inches during July, August, September, October. Organic matter content in the surface horizon is about 2 percent. This component is in the R155XY003FL South Florida Flatwoods ecological site. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Pineda (5%)

Generated brief soil descriptions are created for major soil components. The Pineda soil is a minor component.

Component: Copeland (5%)

Generated brief soil descriptions are created for major soil components. The Copeland soil is a minor component.

Map Unit: 50—Ochopee fine sandy loam, low

Component: Ochopee, low (95%)

The Ochopee, low component makes up 95 percent of the map unit. Slopes are 0 to 1 percent. This component is on marshes on marine terraces on coastal plains. The parent material consists of loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 6 to 20 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during June, July, August, September, October. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 25 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Rock outcrop (5%)

Generated brief soil descriptions are created for major soil components. The Rock outcrop soil is a minor component.

Map Unit: 51—Ochopee fine sandy loam

Component: Ochopee (95%)

The Ochopee component makes up 95 percent of the map unit. Slopes are 0 to 2 percent. This component is on marshes on marine terraces on coastal plains. The parent material consists of loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 6 to 20 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during June, July, August, September, October. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 25 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Rock outcrop (5%)

Generated brief soil descriptions are created for major soil components. The Rock outcrop soil is a minor component.

Map Unit: 52—Kesson muck, frequently flooded**Component: Kesson (85%)**

The Kesson component makes up 85 percent of the map unit. Slopes are 0 to 1 percent. This component is on tidal marshes on marine terraces on coastal plains. The parent material consists of sandy marine deposits with shells. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 35 percent. Nonirrigated land capability classification is 8. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 10 percent. The soil has a strongly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 20 within 30 inches of the soil surface.

Component: Peckish (5%)

Generated brief soil descriptions are created for major soil components. The Peckish soil is a minor component.

Component: Basinger (5%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Dania (5%)

Generated brief soil descriptions are created for major soil components. The Dania soil is a minor component.

Map Unit: 53—Estero and Peckish soils, frequently flooded**Component: Estero (50%)**

The Estero component makes up 50 percent of the map unit. Slopes are 0 to 1 percent. This component is on tidal marshes on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 35 percent. Nonirrigated land capability classification is 8. This soil meets hydric criteria. The soil has a strongly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 60 within 30 inches of the soil surface.

Component: Peckish (45%)

The Peckish component makes up 45 percent of the map unit. Slopes are 0 to 1 percent. This component is on tidal marshes on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 15 percent. Nonirrigated land capability classification is 8. This soil meets hydric criteria. The soil has a strongly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 65 within 30 inches of the soil surface.

Component: Wulfert (5%)

Generated brief soil descriptions are created for major soil components. The Wulfert soil is a minor component.

Map Unit: 56—Basinger fine sand, occasionally flooded**Component: Basinger (98%)**

The Basinger component makes up 98 percent of the map unit. Slopes are 0 to 2 percent. This component is on low ridges on edges of tidal marshes on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Immokalee (2%)

Generated brief soil descriptions are created for major soil components. The Immokalee soil is a minor component.

Map Unit: 99—Water

Component: Water (100%)

Generated brief soil descriptions are created for major soil components. The Water is a miscellaneous area.

Data Source Information

Soil Survey Area: Collier County Area, Florida
Survey Area Data: Version 11, Sep 18, 2018

Exhibit K

Department of Environmental Protection
Outstanding Florida Waters



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Noah Valenstein
Secretary

July 20, 2017

Mr. Alan L. Davis
Land Planning Coordinator
Florida Forest Service
Florida Department of Agriculture and Consumer Services
The Conner Building
3125 Conner Boulevard, Suite J-237
Tallahassee, Florida 32399-1650

RE: Picayune Strand State Forest

Dear Mr. Davis:

Thank you for your inquiry regarding the surface water quality classifications on and near Picayune Strand State Forest in Collier County. Most of the site has been designated as Outstanding Florida Waters (OFW) under subparagraph 62-302.700(9)(f)50., Florida Administrative Code (FAC). All of the surface waters on or adjacent to the site are classified as Class III waters (subparagraph 62-302.400(17)(b)11., FAC), which is the statewide default classification.

If you have any questions or need additional information, please feel free to contact me at the letterhead address (mail station 6511), by phone at 850/245-8429, or via E-mail at Eric.Shaw@dep.state.fl.us.

Sincerely,

A handwritten signature in black ink that reads "Eric Shaw".

Eric Shaw
Environmental Manager
Water Quality Standards Program
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 6511
Tallahassee, FL 32399-2400
Phone: (850) 245-8429
Email: Eric.Shaw@dep.state.fl.us

Exhibit L

Water Resources Map



Florida Forest Service

Picayune Strand State Forest Water Resources Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum
81° 27' 00"

DISCLAIMER:
This map was created by the Florida Forest Service using data provided by the Florida Department of Transportation (FDOT) and the Florida Department of Environmental Protection (FDEP). The data was collected from various sources and is subject to change. The Florida Forest Service is not responsible for any errors or omissions in this map.

Managed Area boundaries courtesy of the Florida Natural Areas Inventory. Formerly Used Defense Sites (FUDS) from the US Army Corps of Engineers.

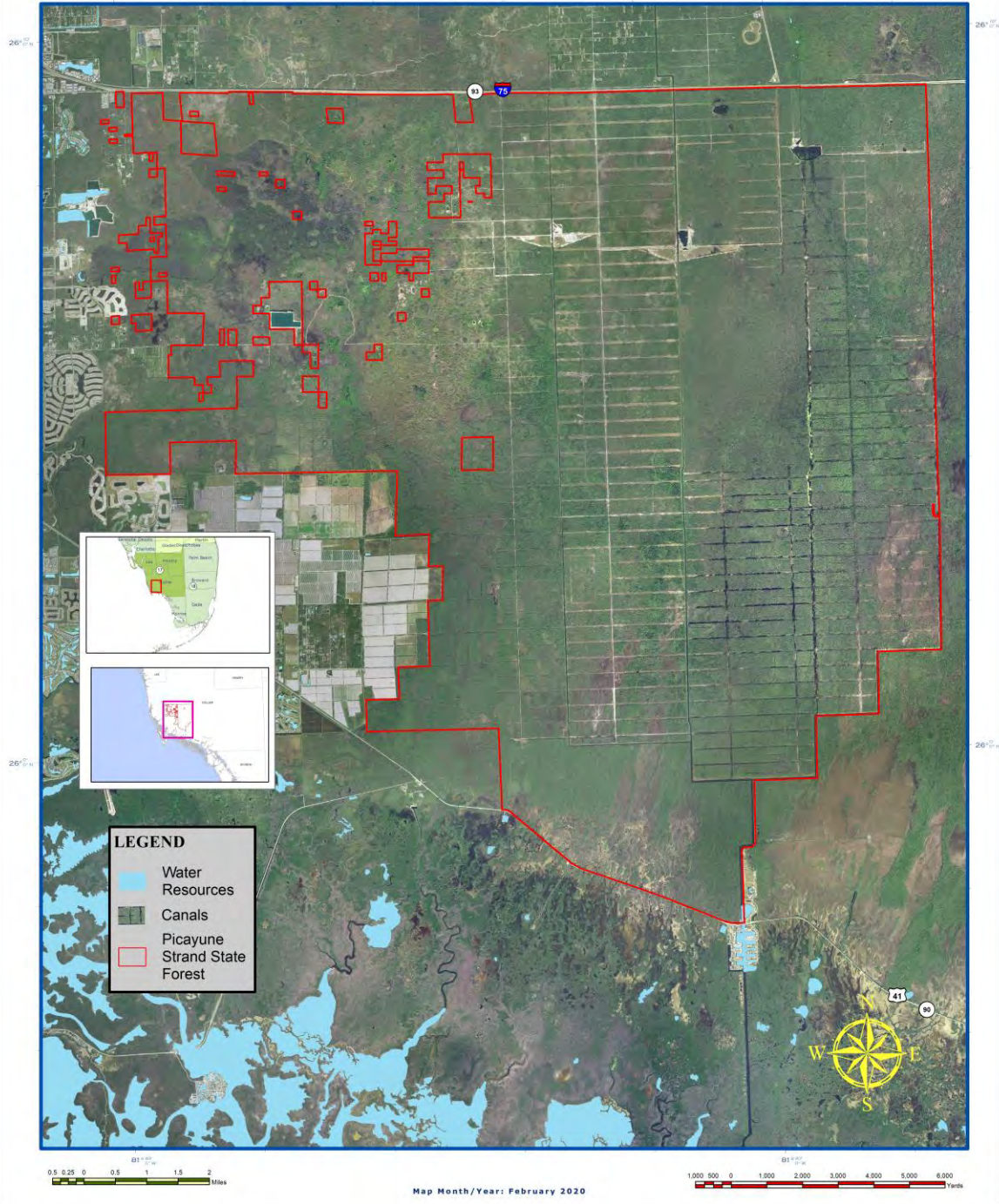


Exhibit M

Florida Natural Areas Inventory Managed Area Tracking Record



1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
850-224-8207
fax 850-681-9364
www.fnai.org

August 9, 2017

Alan Davis
FDACS, Florida Forest Service
3125 Conner Boulevard
Tallahassee, FL 32399

Dear Mr. Davis,

Thank you for requesting information from the Florida Natural Areas Inventory (FNAI). We have compiled the following information for your project area:

Project: Picayune Strand State Forest
Date Received: 8/7/2017
Location: Collier County

Based on the information available, this site appears to be located in a significant region of natural areas and habitat for several rare species. Special consideration should be taken to avoid and/or mitigate impacts to these natural resources, and to design land uses that are compatible with these resources.

Element Occurrences

A search of our maps and database indicates that we currently have several element occurrences mapped in the vicinity of the study area (see managed area summary report). Please be advised that a lack of element occurrences in the FNAI database is not a sufficient indication of the absence of rare or endangered species on a site.

Federally Listed Species

Our data indicate federally listed species are present on or very near this site (see table for details). This statement should not be interpreted as a legal determination of presence or absence of federally listed species on a property.

The element occurrences data layer includes occurrences of rare species and natural communities. The map legend indicates that some element occurrences occur in the general vicinity of the label point. This may be due to lack of precision of the source data, or an element that occurs over an extended area (such as a wide ranging species or large natural community). For animals and plants, element occurrences generally refer to more than a casual sighting; they usually indicate a viable population of the species. Note that some element occurrences represent historically documented observations which may no longer be extant.



Florida Resources
and Environmental
Analysis Center

Institute of Science
and Public Affairs

The Florida State University

Likely and Potential Rare Species

In addition to documented occurrences, other rare species and natural communities may be identified on or near the site based on habitat models and species range models (see enclosed Biodiversity Matrix Report). These species should be taken into consideration in field surveys, land management, and impact avoidance and mitigation.

Tracking Florida's Biodiversity

FNAI habitat models indicate areas, which based on land cover type, offer suitable habitat for one or more rare species that is known to occur in the vicinity. Habitat models have been developed for approximately 300 of the rarest species tracked by the Inventory, including all federally listed species.

FNAI species range models indicate areas that are within the known or predicted range of a species, based on climate variables, soils, vegetation, and/or slope. Species range models have been developed for approximately 340 species, including all federally listed species.

The FNAI Biodiversity Matrix Geodatabase compiles Documented, Likely, and Potential species and natural communities for each square mile Matrix Unit statewide.

Land Acquisition Projects

This site appears to be located within the Belle Meade and the Save Our Everglades Florida Forever BOT Projects, which are part of the State of Florida's Conservation and Recreation Lands land acquisition program. A description of these projects can be found at http://www.dep.state.fl.us/lands/FFplan_county.htm. For more information on these Florida Forever Projects, contact the Florida Department of Environmental Protection, Division of State Lands.

Florida Forever Board of Trustees (BOT) projects are proposed and acquired through the Florida Department of Environmental Protection, Division of State Lands. The state has no specific land management authority over these lands until they are purchased.

The Inventory always recommends that professionals familiar with Florida's flora and fauna conduct a site-specific survey to determine the current presence or absence of rare, threatened, or endangered species.

Please visit www.fnai.org/trackinglist.cfm for county or statewide element occurrence distributions and links to more element information.

The database maintained by the Florida Natural Areas Inventory is the single most comprehensive source of information available on the locations of rare species and other significant ecological resources. However, the data are not always based on comprehensive or site-specific field surveys. Therefore this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. Inventory data are designed for the purposes of conservation planning and scientific research, and are not intended for use as the primary criteria for regulatory decisions.

Information provided by this database may not be published without prior written notification to the Florida Natural Areas Inventory, and the Inventory must be credited as an information source in these publications. FNAI data may not be resold for profit.

This report is made available at no charge due to funding from the Florida Department of Environmental Protection, Division of State Lands.

Thank you for your use of FNAI services. If I can be of further assistance, please contact me at (850) 224-8207 or at esachs@fnai.fsu.edu.

Sincerely,

Elyse Sachs

Elyse Sachs
GIS / Data Services

Encl

Tracking Florida's Biodiversity



1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
(850) 224-8207
(850) 681-9354 Fax

FLORIDA
Natural Areas
INVENTORY

Florida Natural Areas Inventory

Managed Area Element Summary

Picayune Strand State Forest



SCIENTIFIC NAME	COMMON NAME	Global rank	State rank	Federal status	State status
PLANTS					
<i>Campyloneurum costatum</i>	Tailed Strap Fern	G5	S1	N	E
<i>Cyrtopodium punctatum</i>	Cowhorn Orchid	G5?	S1	N	E
<i>Elytraria caroliniensis</i> var. <i>angustifolia</i>	Narrow-leaved Carolina Scalystem	G4T2	S2	RT	N
<i>Encyclia cochleata</i> var. <i>triandra</i>	Clamshell Orchid	G4G5T2	S2	UR	E
<i>Habenaria distans</i>	Hammock Rein Orchid	G5	S1	N	E
<i>Ophioglossum palmatum</i>	Hand Fern	G4	S2	N	E
<i>Polypodium lindenii</i>	Ghost Orchid	G2G4	S2	N	E
<i>Roystonea elata</i>	Florida Royal Palm	G2G3	S2	N	E
<i>Tillandsia pruinosa</i>	Fuzzy-wuzzy Air-plant	G4	S1	N	E
REPTILES					
<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G4	S3	UR	N
BIRDS					
<i>Elanoides forficatus</i>	Swallow-tailed Kite	G5	S2	N	N
<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3	RT	N
MAMMALS					
<i>Puma concolor coryi</i>	Florida Panther	G5T1	S1	E	FE
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T2	S2	RT	N
INVERTEBRATES					
<i>Gomphaeschna antilope</i>	Taper-tailed Darner	G4	S4	N	N

Note: Summary includes all documented and likely species occurrence records currently in the FNAI database.

08/09/2017

Page 1 of 4



1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
(850) 224-8207
(850) 681-9364 Fax

Florida Natural Areas Inventory

Managed Area Element Summary

Picayune Strand State Forest



SCIENTIFIC NAME	COMMON NAME	Global rank	State rank	Federal status	State status
-----------------	-------------	-------------	------------	----------------	--------------

Using a ranking system developed by NatureServe and the Natural Heritage Program Network, the Florida Natural Areas Inventory assigns two ranks for each element. The global rank is based on an element's worldwide status; the state rank is based on the status of the element in Florida. Element ranks are based on many factors, the most important ones being estimated number of Element Occurrences (EOs), estimated abundance (number of individuals for species; area for natural communities), geographic range, estimated number of adequately protected EOs, relative threat of destruction, and ecological fragility.

FNAI GLOBAL ELEMENT RANK

- G1 = Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
- G2 = Imperiled globally 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.
- 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.
- GH = Of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker).
- GX = Believed to be extinct throughout range.
- GXC = Extirpated from the wild but still known from captivity or cultivation.
- G#? = Tentative rank (e.g., G2?).
- G#G# = Range of rank; insufficient data to assign specific global rank (e.g., G2G3).
- 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).
- G#Q = Rank of questionable species - ranked as species but questionable whether it is species or subspecies; numbers have same definition as above (e.g., G2Q).
- G#T#Q = Same as above, but validity as subspecies or variety is questioned.
- GU = Unrankable; due to a lack of information no rank or range can be assigned (e.g., GUT2).
- GNA = Ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
- GNR = Element not yet ranked (temporary).
- GNRTNR = Neither the element nor the taxonomic subgroup has yet been ranked.

FNAI STATE ELEMENT RANK

- S1 = Critically imperiled in Florida because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
- 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).
- S5 = Demonstrably secure in Florida.
- SH = Of historical occurrence in Florida, possibly extirpated, but may be rediscovered (e.g., ivory-billed woodpecker).
- SX = Believed to be extirpated throughout Florida.
- SU = Unrankable; due to a lack of information no rank or range can be assigned.
- SNA = State ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
- SNR = Element not yet ranked (temporary).

FEDERAL LEGAL STATUS

Note: Summary includes all documented and likely species occurrence records currently in the FNAI database.

Legal status information provided by FNAI for information only. For official definitions and lists of protected species, consult the relevant federal agency.

Definitions derived from U.S. Endangered Species Act of 1973, Sec. 3. Note that the federal status given by FNAI refers only to Florida populations and that federal status may differ elsewhere.

C = Candidate species for which federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened.
LE = Endangered: species in danger of extinction throughout all or a significant portion of its range.
LE, LT = Species currently listed endangered in a portion of its range but only listed as threatened in other areas
LE, PDL = Species currently listed endangered but has been proposed for delisting.
LE, PT = Species currently listed endangered but has been proposed for listing as threatened.
LE, XN = Species currently listed endangered but tracked population is a non-essential experimental population.
LT = Threatened: species likely to become Endangered within the foreseeable future throughout all or a significant portion of its range
SAT = Treated as threatened due to similarity of appearance to a species which is federally listed such that enforcement personnel have difficulty in attempting to differentiate between the listed and unlisted species
SC = Not currently listed, but considered a "species of concern" to USFWS.

STATE LEGAL STATUS

Provided by FNAI for information only. For official definitions and lists of protected species, consult the relevant state agency.

Animals: Definitions derived from "Florida's Endangered Species and Species of Special Concern, Official Lists" published by Florida Fish and Wildlife Conservation Commission, 1 August 1997, and subsequent updates.

FE = Listed as Endangered Species at the Federal level by the U. S. Fish and Wildlife Service
FT = Listed as Threatened Species at the Federal level by the U. S. Fish and Wildlife Service
F(XN) = Federal listed as an experimental population in Florida
FT(S/A) = Federal Threatened due to similarity of appearance
ST = State population listed as Threatened by the FFWCC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at a rapid rate and as a consequence is destined or very likely to become an endangered species within the foreseeable future. (ST* for *Ursus americanus floridanus* (Florida black bear) indicates that this status does not apply in Baker and Columbia counties and in the Apalachicola National Forest. ST* for *Neovison vison* pop. 1 (Southern mink, South Florida population) indicates that this status applies to the Everglades population only.)
SSC = Listed as Species of Special Concern by the FFWCC. Defined as a population which warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in its becoming a threatened species. (SSC* indicates that a species has SSC status only in selected portions of its range in Florida. SSC* for *Pandion haliaetus* (Osprey) indicates that this status applies in Monroe county only.)
N = Not currently listed, nor currently being considered for listing

Plants: Definitions derived from Sections 581.011 and 581.185(2), Florida Statutes, and the Preservation of Native Flora of Florida Act, 5B-40.001. FNAI does not track all state-regulated plant species; for a complete list of state-regulated plant species, call Florida Division of Plant Industry, 352-372-3505 or see: <http://www.doacs.state.fl.us/pi/>.

LE = Endangered: species of plants native to Florida that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue; includes all species determined to be endangered or threatened pursuant



Florida Natural Areas Inventory
Managed Area Element Summary
Picayune Strand State Forest



to the U.S. Endangered Species Act.

LT = Threatened: species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in number as to cause them to be Endangered.

N = Not currently listed, nor currently being considered for listing.

Florida Natural Areas Inventory
Aggregated Biodiversity Matrix Report



Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Documented					
<i>Campylocentrum pachyrrhizum</i>	Ribbon Orchid	G4?	S1	N	E
<i>Campyloneurum costatum</i>	Tailed Strap Fern	G5	S1	N	E
<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G4	S3	N	N
<i>Cyrtopodium punctatum</i>	Cowhorn Orchid	G5?	S1	N	E
<i>Elytraria carolinensis</i> var. <i>angustifolia</i>	Narrow-leaved Carolina Scalystem	G4T2	S2	N	N
<i>Encyclia cochleata</i> var. <i>triandra</i>	Clamshell Orchid	G4G5T2	S2	N	E
<i>Eumops floridanus</i>	Florida bonneted bat	G1	S1	LE	FE
<i>Gomphaeschna antilope</i>	Taper-tailed Darner	G4	S4	N	N
<i>Habenaria distans</i>	Hammock Rein Orchid	G5	S1	N	E
<i>Haliaeetus leucocephalus</i>	Bald Eagle		S3	N	N
<i>Ophioglossum palmatum</i>	Hand Fern	G4	S2	N	E
<i>Polymriza lindenii</i>	Ghost Orchid	G2G4	S2	N	E
Rockland hammock		G2	S2	N	N
<i>Roystonea elata</i>	Florida Royal Palm	G2G3	S2	N	E
<i>Tillandsia pruinosa</i>	Fuzzy-wuzzy Air-plant	G4	S1	N	E
Wet flatwoods			S4	N	N
Documented-Historic					
<i>Catopsis berteroniana</i>	Powdery Catopsis	G5?	S1	N	E
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
Likely					
Basin swamp		G4	S3	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3Q	S3	LT	FT
Mesic flatwoods		G4	S4	N	N
<i>Mycteria americana</i>	Wood Stork		S2	LT	FT
<i>Picoides borealis</i>	Red-cockaded Woodpecker	G3	S2	LE	FE
<i>Puma concolor coryi</i>	Florida Panther	G5T1	S1	LE	FE
Salt marsh		G5	S4	N	N
<i>Sciurus niger avicennia</i>	Mangrove Fox Squirrel	G5T2	S2	N	ST
Slough		G3	S3	N	N
Strand swamp		G2	S2	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T2	S2	N	N
Potential					
<i>Andropogon arctatus</i>	Pine-woods Bluestem	G3	S3	N	T
<i>Ardea herodias occidentalis</i>	Great White Heron	G5T2	S2	N	N
<i>Asplenium serratum</i>	American Bird's Nest Fern	G4	S1	N	E
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	ST
<i>Burmanna flava</i>	Fakahatchee Burmannia	G5	S1	N	E
<i>Corynorhinus rafinesquii</i>	Rafinesque's Big-eared Bat	G3G4	S2	N	N
<i>Crocodylus acutus</i>	American Crocodile	G2	S2	LT	FT
<i>Epidendrum acunae</i>	Acuna's Epidendrum	G3G5	SX	N	E
<i>Epidendrum nocturnum</i>	Night-scented Orchid	G4G5	S2	N	E
<i>Eretmochelys imbricata</i>	Hawksbill Sea Turtle	G3	S1	LE	FE
<i>Foresliera segregata</i> var. <i>pinetorum</i>	Florida Pinewood Privet	G4T2	S2	N	N
<i>Gymnopogon chapmanianus</i>	Chapman's Skeletongrass	G3	S3	N	N
<i>Ionopsis utricularioides</i>	Delicate Ionopsis	G4G5	S1	N	E
<i>Jacquemontia curtissii</i>	Pineland Jacquemontia	G2	S2	N	T
<i>Lechea cernua</i>	Nodding Pinweed	G3	S3	N	T

Definitions: Documented - Rare species and natural communities documented on or near this site.
 Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years.
 Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity.
 Potential - This site lies within the known or predicted range of the species listed



1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
(850) 224-8207
(850) 681-9364 Fax

Florida Natural Areas Inventory

Aggregated Biodiversity Matrix Report



Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
<i>Linum carteri</i> var. <i>smallii</i>	Small's Flax	G2T2	S2	N	E
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3	S3	N	N
<i>Nemastylis floridana</i>	Celestial Lily	G2	S2	N	E
<i>Neofiber alleni</i>	Round-tailed Muskrat	G3	S3	N	N
<i>Neovison vison</i> pop. 1	Southern Mink, Southern Florida Pop	G5T2Q	S2	N	ST
<i>Pandion haliaetus</i>	Osprey	G5	S3S4	N	SSC*
<i>Patagioenas leucocephala</i>	White-crowned Pigeon	G3	S3	N	ST
<i>Peperomia glabella</i>	Cypress Peperomia	G4G5	SH	N	E
<i>Picoides villosus</i>	Hairy Woodpecker	G5	S3	N	N
<i>Pleurothallis gelida</i>	Frost-flower Orchid		S1	N	E
<i>Pteroglossaspis ecrislata</i>	Giant Orchid	G2G3	S2	N	T
<i>Rallus longirostris scottii</i>	Florida Clapper Rail	G5T3?	S3?	N	N
<i>Rivulus marmoratus</i>	Mangrove Rivulus	G4G5	S3	SC	N
<i>Rostrhamus sociabilis</i>	Snail Kite		S2	LE	N
<i>Sceloporus woodi</i>	Florida Scrub Lizard	G2G3	S2S3	N	N
<i>Setophaga discolor paludicola</i>	Florida Prairie Warbler	G5T3	S3	N	N
<i>Sterna dougallii</i>	Roseate Tern	G4	S1	LT	FT
<i>Tillandsia flexuosa</i>	Banded Wild-pine	G5	S3	N	T
<i>Trichechus manatus</i>	West Indian Manatee	G2	S2	LE, PT	FE
<i>Vanilla phaeantha</i>	Leafy Vanilla	G4	S1	N	E

Definitions: Documented - Rare species and natural communities documented on or near this site.
 Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years.
 Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity.
 Potential - This site lies within the known or predicted range of the species listed.

Exhibit N

Florida Fish and Wildlife Conservation Commission Response



Florida Fish
and Wildlife
Conservation
Commission

Commissioner
Brian Robinson
Chairman
Tallahassee
Jesse P. Hines
Deputy
Tallahassee
Ronald M. Berger
Acting Chairman
Tallahassee
Richard Hines
Deputy
Tallahassee
Bill Hines
Deputy
Tallahassee
Charles W. Hines III
Tallahassee
Robert A. Hines
Tallahassee

Secretary
Tallahassee
Tallahassee
Tallahassee
Tallahassee
Tallahassee
Tallahassee

Florida Wildlife
Conservation
Commission
Tallahassee
Tallahassee
Tallahassee

Integrating fish and wildlife
conservation with land-use
planning and the benefits
of science

For more information
contact the Florida
Department of
Natural Resources
3000 Governor's Office
3000 Governor's Office
3000 Governor's Office
3000 Governor's Office
3000 Governor's Office
3000 Governor's Office
3000 Governor's Office
3000 Governor's Office
3000 Governor's Office
3000 Governor's Office

8/01/2017

Alan L. Davis
Land Planning Coordinator
Florida Forest Service
3125 Conner Boulevard
Tallahassee, FL
32399

Dear Alan Davis:

This letter is in response to your request for listed species occurrence records and critical habitats, Strategic Habitat Conservation Areas (SHCA's), on the following properties: Peace River, Newnans Lake SF, Ross Prairie SF, Matanzas SF, Jennings SF, Tate's Hell SF, and Picayune Strand SF. The Florida Fish and Wildlife Conservation Commission's database indicates that SHCA's for swallow-tailed kite and Cooper's hawk occur in Newnans Lake. SHCA's for Cooper's hawk, scrubjay, and swallow-tailed kite occur in Peace River. SHCA's for the Florida black bear and the striped newt occur in Jennings SF. Enclosed are 8.5 x 11 maps showing prioritized SHCA's, priority wetlands, and species locations for all projects.

** Please note: the SHCAs were developed for the purpose of identifying new areas that may eventually be managed for species conservation. Many public lands were expressly removed from the models and this is why some sites, or portions of sites, have no SHCA. Therefore, on maps where there is no visual representation of a SHCA there is a strong possibility that our models would have designated these locations as SHCA had they not already been designated as public or protected lands.

This letter and/or attachments should not be considered as a review or an assessment of the impact upon threatened or endangered species of the project site. It provides FWC's most current data regarding the location of listed species and their associated habitats.

Our SHCA recommendations are intended to be used as a guide. Land development and ownership in Florida is ever-changing and priority areas identified as SHCA might already have been significantly altered due to development or acquired into public ownership. Onsite surveys, literature reviews, and coordination with FWC biologists remain essential steps in documenting the presence or absence of rare and imperiled species and habitats within the project area.

Our fish and wildlife location data represent only those occurrences recorded by FWC staff and other affiliated researchers. Please note that our database does not necessarily contain records of all listed species that may occur in a given area. Also, data on certain species, such as gopher tortoises,

are not entered into our database on a site-specific basis. **Therefore, one should not assume that an absence of occurrences in our database indicates that species of significance do not occur in the area.**

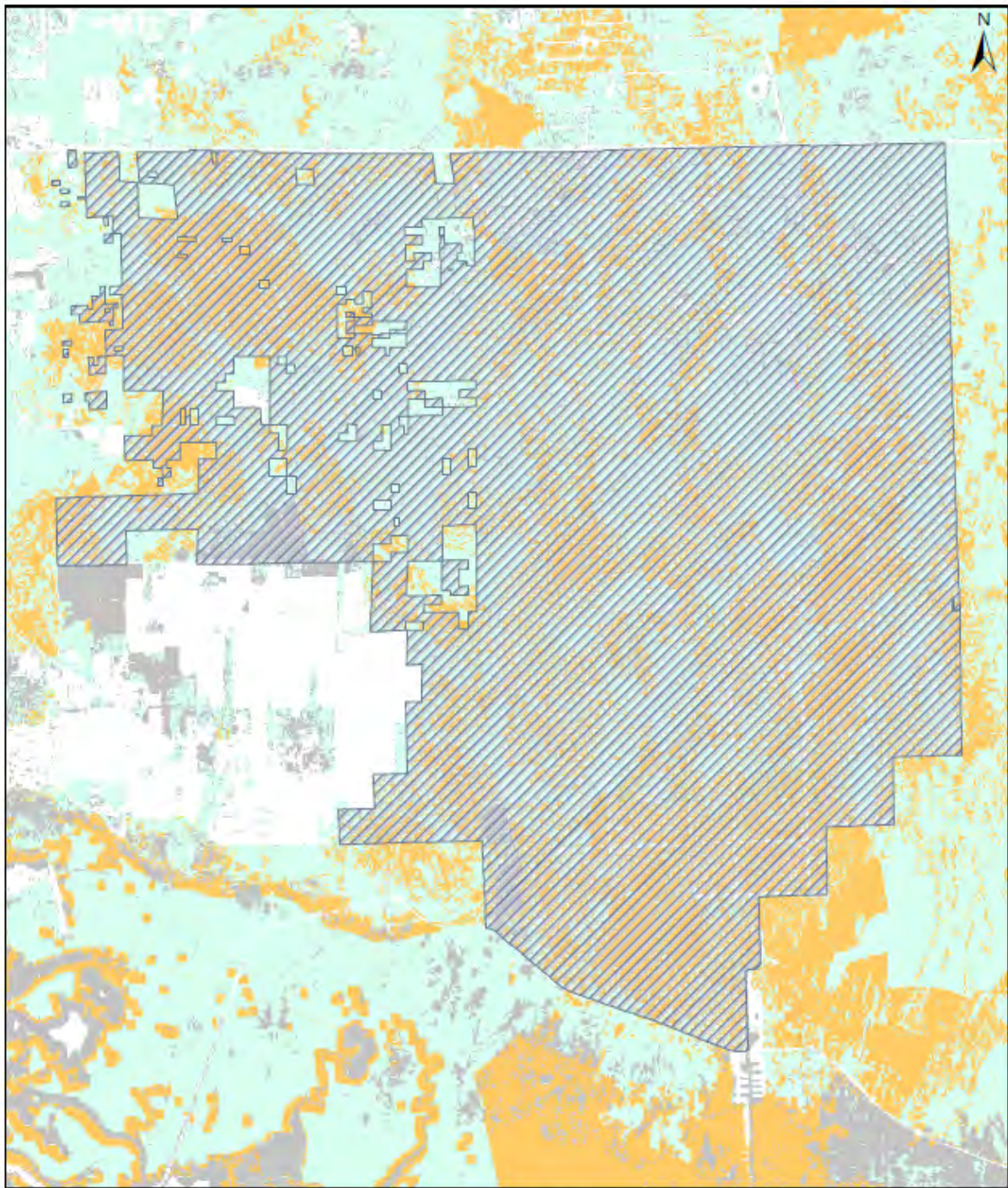
If you have any questions or further requests, please contact me at (850) 488-0588 or gisrequests@myfwc.com

Sincerely,

Eva Salinas

Eva Salinas
Research Assistant

2017_6219
Enclosures



Picayune Strand State Forest

Miles

0 1 2 3 4

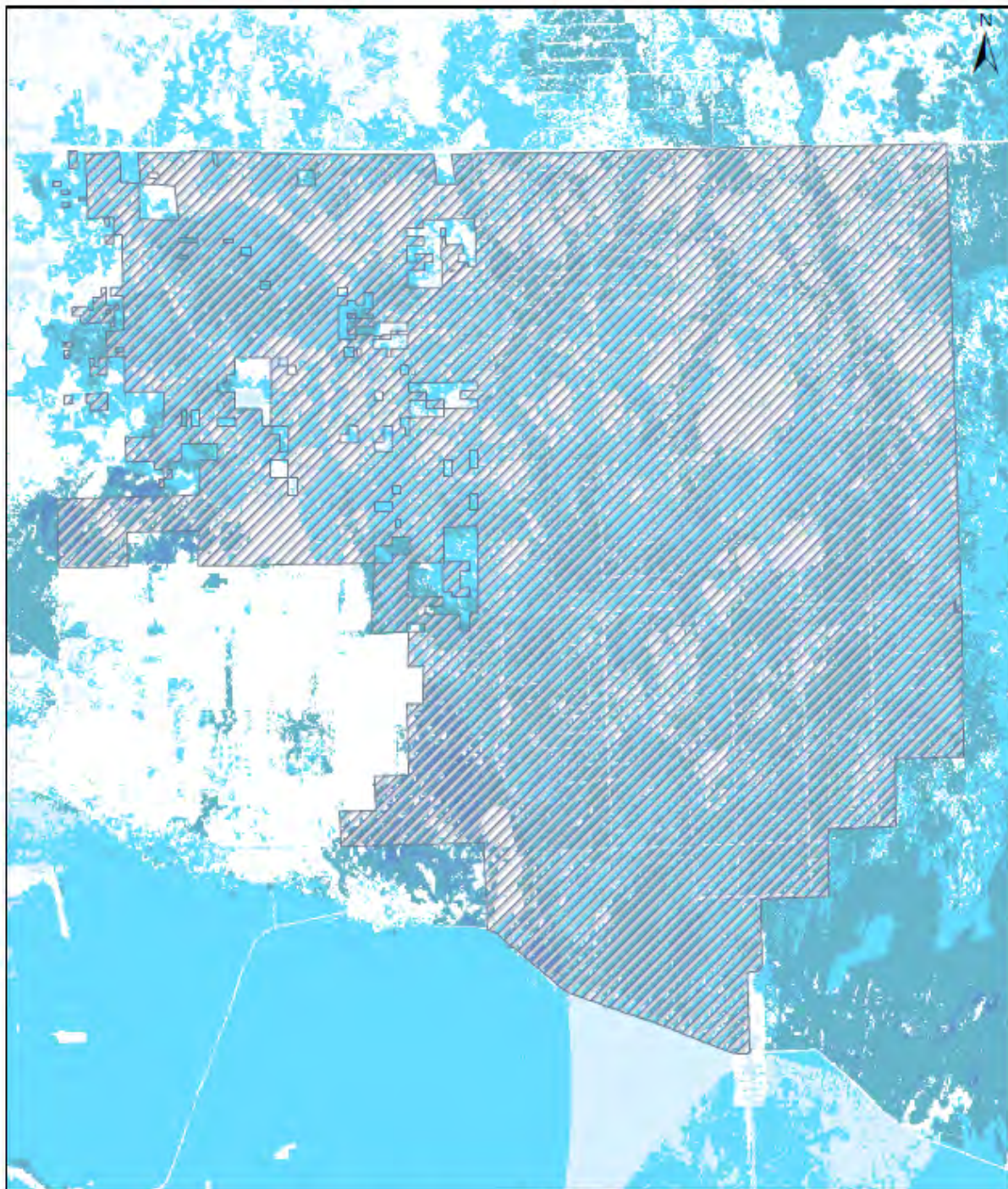
Species Richness

1-3	4-6	7-9	10-13
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Florida Fish and Wildlife
Conservation Commission
myfwc.com

FWC ID: 2017_6219 August 1, 2017



Picayune Strand State Forest

Miles
0 1 2 3 4

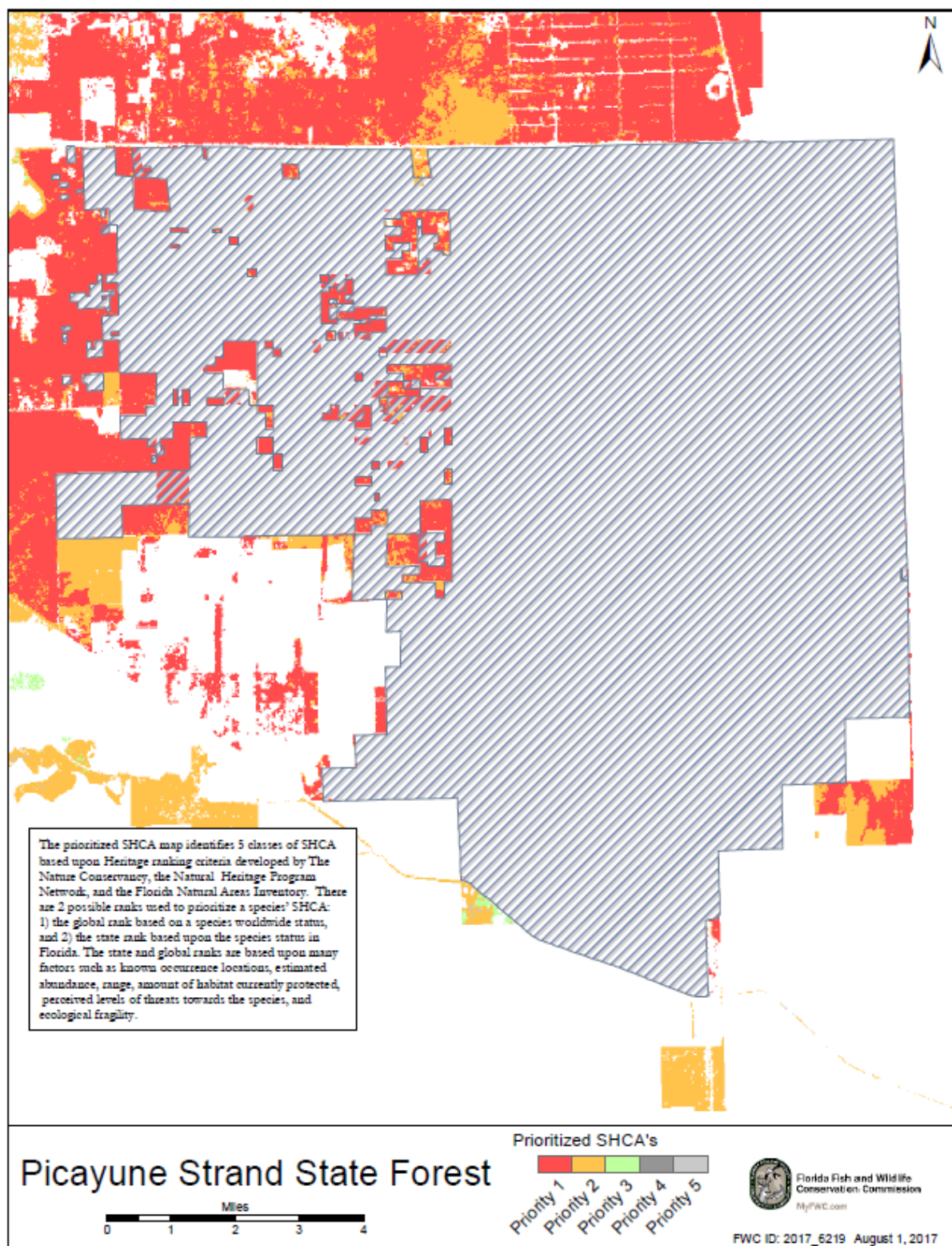
Priority Wetlands

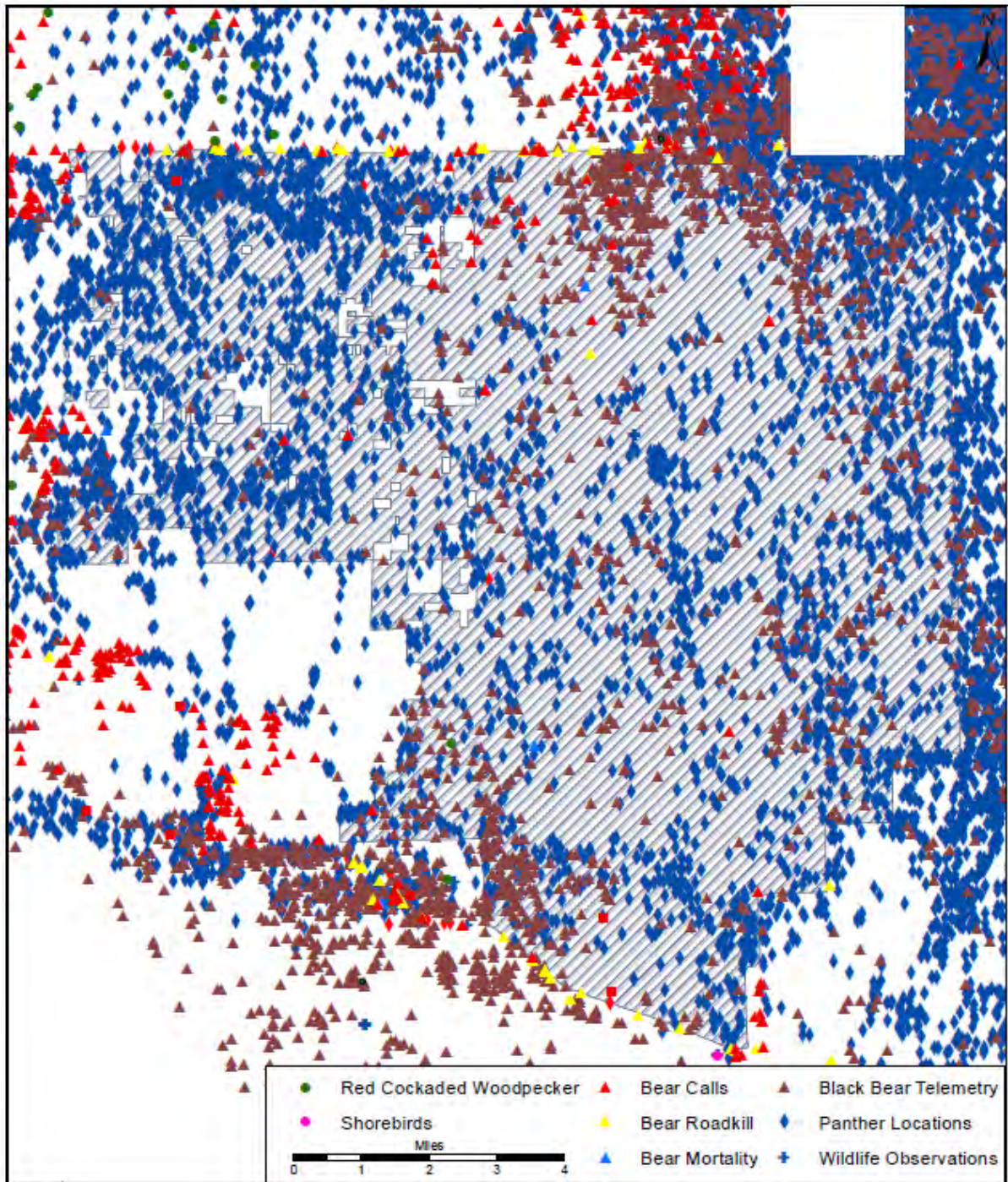
- 1-3 Species, Wetlands habitat
- 4-6 Species, Wetlands habitat
- 7-9 Species, Wetlands habitat
- 10-11 Species, Wetlands habitat



Florida Fish and Wildlife
Conservation Commission
MyFWC.com

FWC ID: 2017_6219 August 1, 2017





Picayune Strand State Forest Florida Fish and Wildlife Species Locations



Florida Fish and Wildlife
Conservation Commission
floridawild.com

FWC ID: 2017_6219 July 24, 2017

Exhibit O

Fire History

Picayune Strand SF Burn Acres by FY

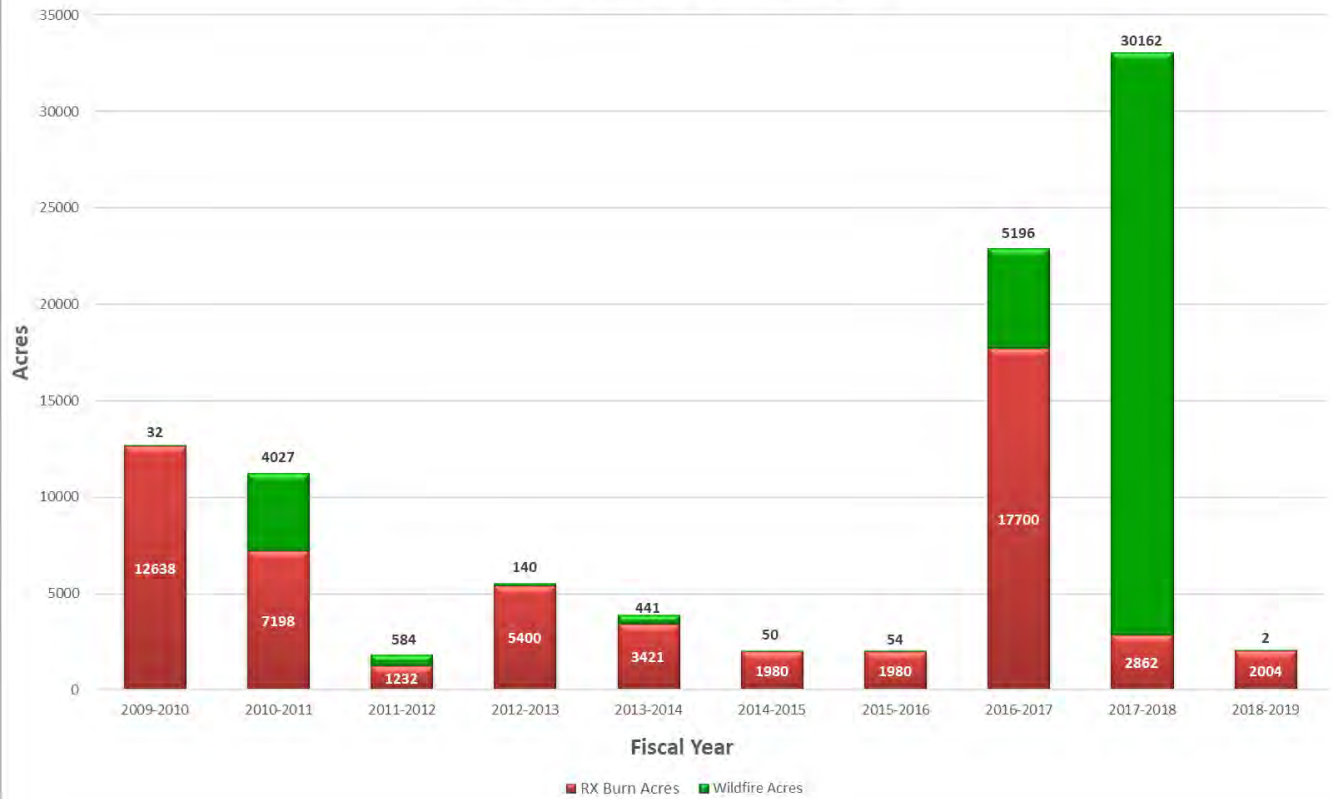


Exhibit P

Non-Native Invasive Species Map



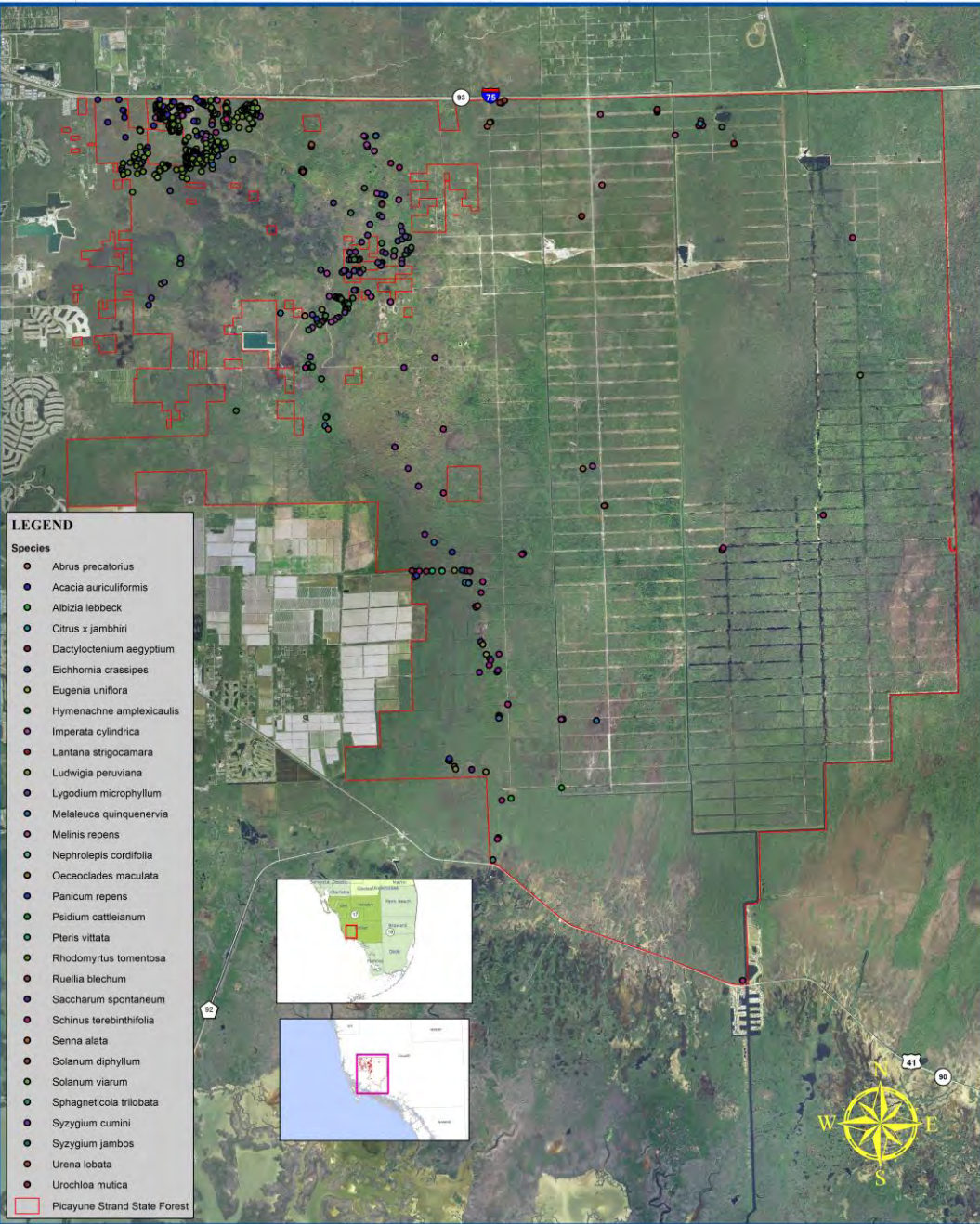
Florida Forest Service

Picayune Strand State Forest Non-Native Invasive Species Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum
81° 27' 00" W

DISCLAIMER
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and is intended to provide general information only.
It is not intended to be used for legal purposes.
The Florida Forest Service does not warrant the
accuracy, completeness, or timeliness of the
information contained herein.

Managed Area boundaries courtesy of
the Florida Natural Areas Inventory
Fennell (State Defense Sites (SDS)) from
the US Army Corps of Engineers



LEGEND

Species

- *Abrus precatorius*
- *Acacia auriculiformis*
- *Albizia lebbek*
- *Citrus x jambhiri*
- *Dactyloctenium aegyptium*
- *Eichhornia crassipes*
- *Eugenia uniflora*
- *Hymenachne amplexicaulis*
- *Imperata cylindrica*
- *Lantana strigocamara*
- *Ludwigia peruviana*
- *Lygodium microphyllum*
- *Melaleuca quinquevneria*
- *Melinis repens*
- *Nephrolepis cordifolia*
- *Oceoclades maculata*
- *Panicum repens*
- *Psidium cattleianum*
- *Pteris vittata*
- *Rhodomyrtus tomentosa*
- *Ruellia blechum*
- *Saccharum spontaneum*
- *Schinus terebinthifolia*
- *Senna alata*
- *Solanum diphyllum*
- *Solanum viarum*
- *Sphagneticola trilobata*
- *Syzygium cumini*
- *Syzygium jambos*
- *Urena lobata*
- *Urochloa mutica*

□ Picayune Strand State Forest



Map Month/Year: February 2020

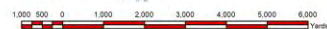


Exhibit Q

Current Natural Communities and Cover Type Map



Florida Forest Service

Picayune Strand State Forest Current FNAI Natural Communities And Cover Type Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum
81° 00' 00" W
26° 00' 00" N

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Mangrove Area boundaries courtesy of
the Florida Natural Areas Inventory
Palmetto Urban Defense Sites (PDS) from
the US Army Corps of Engineers

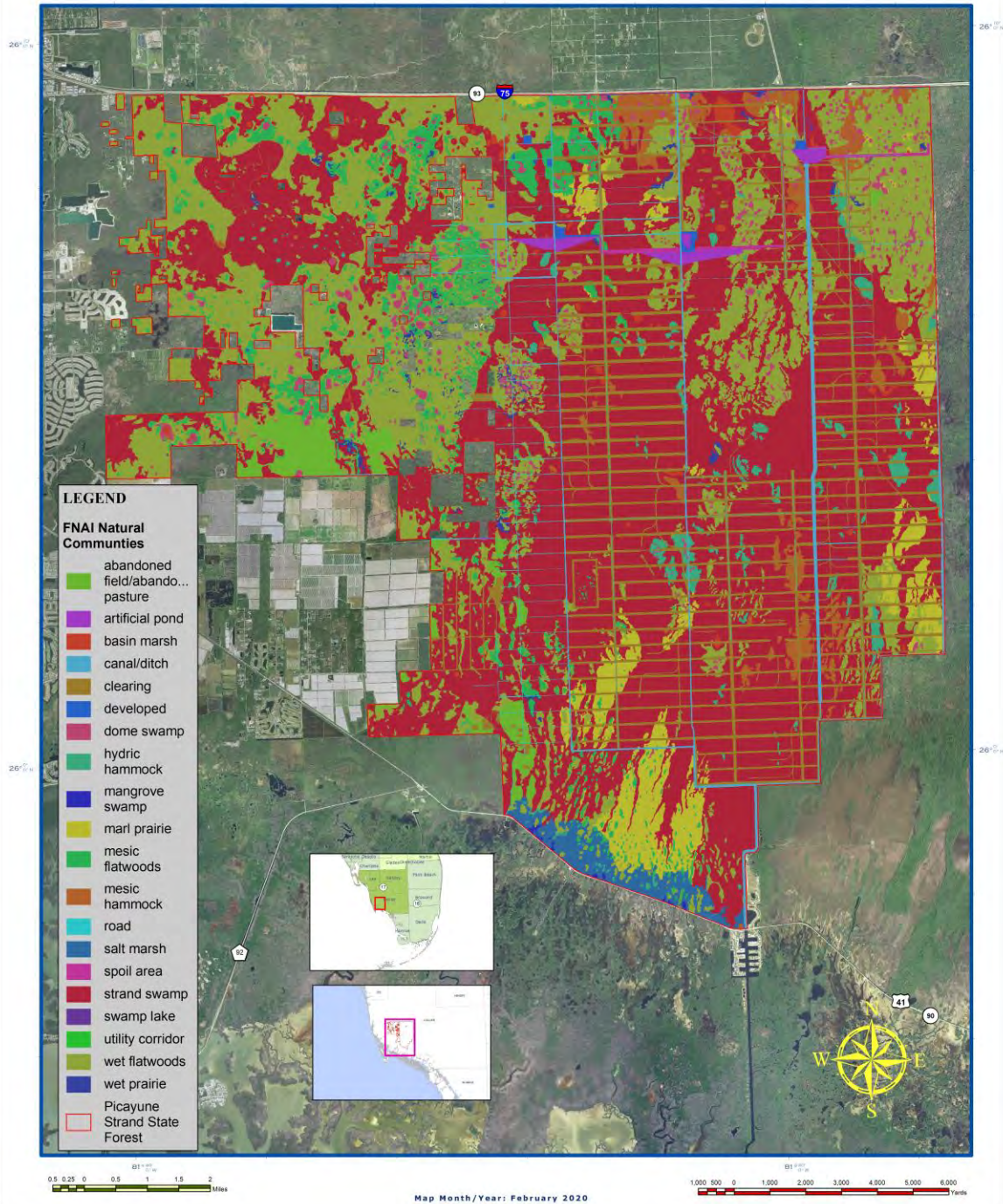


Exhibit R

Historic Natural Communities Map



Florida Forest Service

Picayune Strand State Forest

Historic FNAI Natural Communities Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum
81° 27' 00" W

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Managed Area boundaries courtesy of the Florida Natural Areas Inventory. Formerly used Defense Sites (FDS) from the US Army Corps of Engineers.

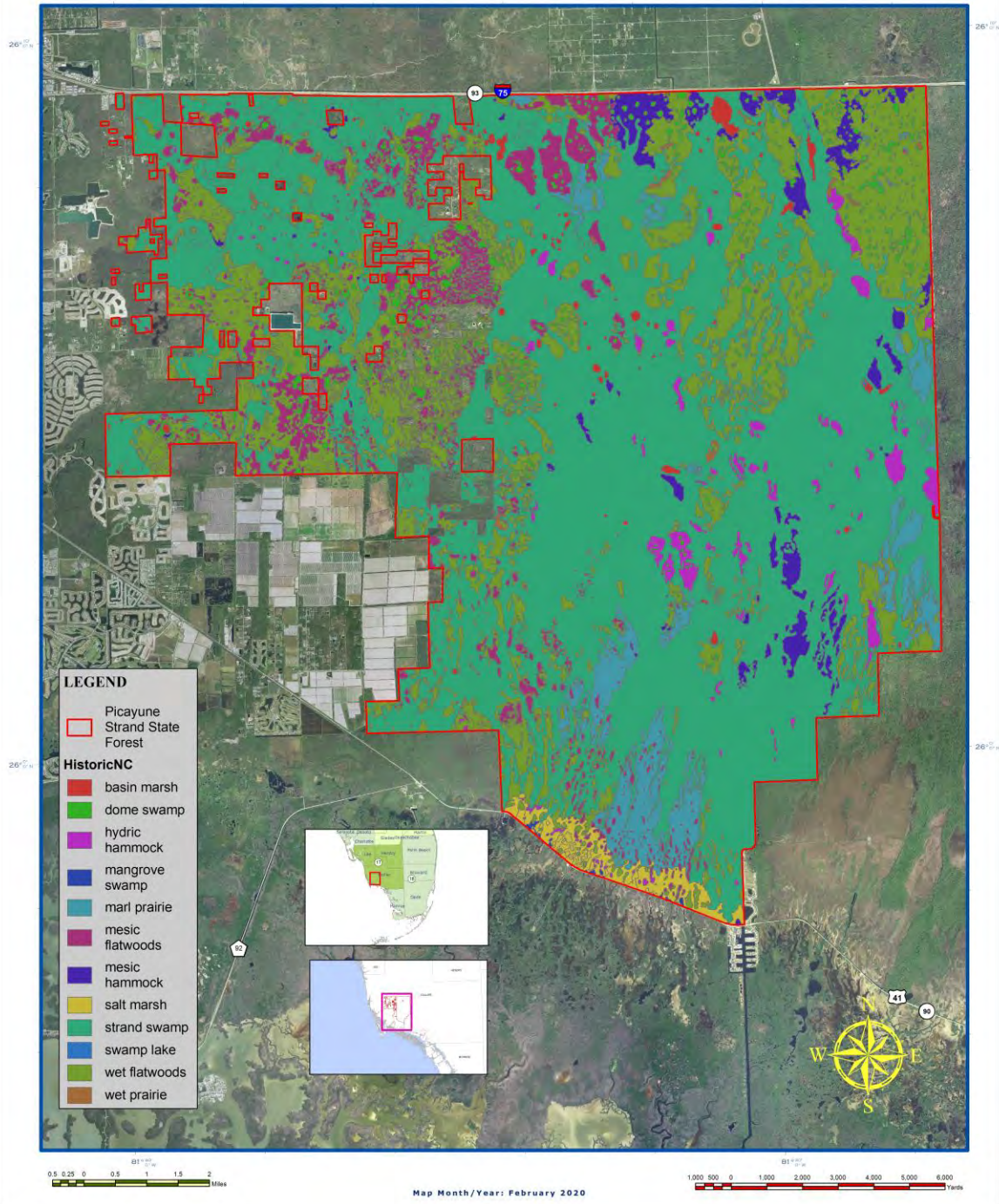


Exhibit S

Management Prospectus

Corkscrew Regional Ecosystem Watershed

Collier and Lee Counties

Partnerships

<u>Project-at-a-Glance</u>	
<i>Placed on List</i>	1991
<i>Project Area (GIS acres)</i>	70,665
<i>Acres Acquired (GIS)</i>	33,328*
<i>at a Cost of</i>	\$94,659,111*
<i>Acres Remaining (GIS)</i>	37,336

*Includes acreage acquired and funds spent by the State of Florida in conjunction with the SFWMD, Lee County, Collier County, and the United States government.

Purpose for State Acquisition

The large, interconnected swamps of southwest Florida must be preserved if such wildlife as the Florida panther and black bear are to survive. The Corkscrew Regional Ecosystem Watershed (CREW) project will conserve connections between three conservation areas and will provide critical protection for rare wildlife; protect the flow of water feeding the Florida Panther National Wildlife Refuge, Fakahatchee Strand, and other areas. Public opportunities will be provided to learn about and enjoy these natural resources as southwest Florida develops rapidly around them.

Manager(s)

South Florida Water Management District (SFWMD).

General Description

The project, which mostly consists of excellent examples of cypress swamps and marshes, will connect the Florida Panther National Wildlife Refuge and Fakahatchee Strand State Preserve with the National Audubon Society's Corkscrew Swamp Sanctuary, thereby securing important habitat for the Florida panther and Florida black bear. These large expanses of wetlands are believed to be critical to the survival of these critically imperiled species. The project supports at least two species of rare and endangered orchids and includes an unusual stand of dwarf bald cypress. No archaeological sites are recorded from the project. Upland areas are vulnerable to agricultural and residential development.

Public Use

This project is designated as a wildlife and environmental area, with such uses as hiking, camping and environmental education.

Acquisition Planning

On December 7, 1990, the Land Acquisition Advisory Council (LAAC) added the Corkscrew Regional Ecosystem Watershed (CREW) project to the Conservation and Recreation Lands (CARL) Priority list. This project, sponsored by the SFWMD, consists of some 18,205 acres, 73 landowners, and a taxable value of \$23,704,330. The entire project in both Lee and Collier counties contains approximately 49,810 acres, however, the initial focus of land acquisition is on the Camp Keis Strand Corridor (18,205 acres).



The Collier family is the largest landowner in the Strand. If fee-simple acquisition is not negotiable, then conservation easements or other less-than-fee acquisition techniques will be pursued.

On November 20, 1992, the LAAC amended the project design to allow matching funds anywhere within the project for “new” acquisitions (acquired after November 20, 1992) by its partners Lee County and the SFWMD. On September 20, 1993, the LAAC approved a 3,182-acre addition to the project boundary. It was sponsored by the SFWMD, consisted of 4 tracts and multiple landowners, and a taxable value of \$8,636,331. The original amendment was for 4,022 acres, however 840 acres of 1 tract were already in the current boundary.

On October 30, 1995, the LAAC approved a 612-acre addition to the project boundary. It was sponsored by the SFWMD and had a taxable value of \$891,403. The original amendment was for 1,132 acres; however, 520 acres were already in the current boundary.

On December 5, 1996, the LAAC approved a 3,040-acre addition to the project boundary. It was sponsored by the SFWMD, consisted of 2 sites, and a taxable value of \$9,029,712. The original amendment was for 4 sites and 4,040 acres, however only sites 3 (excluding the south half of section 35) and 4 were approved.

On December 9, 1999, the Land Acquisition Management Advisory Council (LAMAC) approved a 2,560-acre addition to the project boundary. It was sponsored by the SFWMD and the CREW Trust, consisted of 353 parcels, 260 landowners, and a taxable value of \$10,500,000. The parcels were designated as essential.

On June 6, 2002, the Acquisition and Restoration Council (ARC) approved a 424-acre addition to the project boundary. It was sponsored by the SFWMD, consisted of 147 parcels and multiple landowners, and a taxable value of \$2,570,240.

In February 2009, Collier County bought 2,499 acres known as Pepper Ranch for \$32,525,080; in October 2009, Lee County bought approximately 15 acres/\$136,500 from their 20/20 program; and SFWMD donated 10 acres to FWC in the same month. The following lands were bought by SFWMD: June 2009 and November 2009 (58 GIS acres/\$661,250); three easement tracts (15) were donated by Bonita Springs Utility Co.; 11/2010 (191 acres/\$3,828,890); December 2010 (5 acres/\$75,000).

On December 9, 2011, ARC added this project to the Florida Forever list in the Partnerships and Regional Incentives category.

On February 15, 2013 ARC agreed to remove 77 acres from the Corkscrew Regional Ecosystem Watershed in Lee and Collier counties because development has already disturbed the property. At the December 2016 ARC meeting, the members voted to add the CREW Headwaters proposal to the existing Corkscrew Regional Ecosystem Watershed project as an amendment. This adds 2,841 acres to CREW in the southeastern corner of Lee County in a plan to use willing sellers of groves to make hydrologic fixes to drainage areas that affected downstream areas. After the 2016 boundary change, the project had a combined, historic, estimated tax assessed value of \$27,209,033. The goals for the addition included conserving fresh water that has run off into other areas, restoring water levels of the Corkscrew Swamp, improving habitat for such species as the Florida panther and the wood stork, and creating public recreation and wildlife viewing opportunities. FDOT is coordinating with South Florida Water Management District staff to possibly use this area as mitigation for the widening of State Road 82.

Coordination

Acquisition partners are SFWMD, Lee and Collier Counties. Both the Nature Conservancy (TNC) and the Trust for Public Land (TPL) have been intermediaries in the acquisition of some tracts. Resolutions in support of this project include a pledge from Lee County for \$1.5 million.

Management Policy Statement

The primary goals of management of the CREW project are to conserve and protect significant habitat for native species or endangered and threatened species; and to conserve, protect, manage, or restore important ecosystems, landscapes, and forests, in order to enhance or protect significant surface water, coastal, recreational, timber, fish or wildlife resources which local or state regulatory programs cannot adequately protect.

Management Prospectus

Qualifications for state designation

The project's size, natural communities, and extremely sensitive wildlife resources qualify it as a wildlife and environmental area.

Manager

The South Florida Water Management District (SFWMD) is lead Manager.

Conditions affecting intensity of management

There are various intensities of management required for lands in CREW. There are low-need parcels such as virgin stands of cypress that require little or no management. Also, within CREW are moderate-need tracts that need basic resource management such as prescribed burning, and high- need tracts that have been completely altered. Severely altered tracts, such as agricultural fields, must be ecologically restored.

Timetable for implementing management and provisions for security and protection of infrastructure

The initial land management plan was implemented in February 1991. Planning and operational activities are ongoing. Public use guidelines, including public access, have been established and are constantly being revised.

Revenue-generating potential

No revenue is expected to be generated for at least the next two and one-half years. At that time recommendations by the FWC may lead to activities such as hunting that will generate revenue through permit and license fees. No other revenue-producing practices are envisioned at this stage of the management program.

Cooperators in management activities

A cooperative management agreement with the FWC was executed September 6, 1994. The project now receives regular inspections by SFWMD staff and law enforcement patrol by the FWC Reserve program. Under the agreement, the FWC will enforce all laws, rules and regulations applicable to the management of CREW. Additional lands acquired will be given the same protection.

Information Updated April 13, 2016

Corkscrew Regional Ecosystem Watershed Table 1

Project-at-a-Glance	Data
Placed on List	1991
Project Area (GIS acres)	70,665
Acres Acquired (GIS)	33,328*
at a Cost of	\$94,659,111*
Acres Remaining (GIS)	37,336

*Includes acreage acquired and funds spent by the State of Florida in conjunction with the SFWMD, Lee County, Collier County, and the United States government.

Corkscrew Regional Ecosystem Watershed Table 2

FNAI Elements	Score
Florida Panther	G5T1/S1
Florida Black Bear	G5T2/S2
Swallow-tailed Kite	G5/S2
Wood Stork	G4/S2
Eastern Diamondback Rattlesnake	G4/S3
Bald Eagle	G5/S3
Snowy Egret	G5/S3
Yellow-crowned Night-heron	G5/S3
Little Blue Heron	G5/S4
Tricolored Heron	G5/S4

There are 10 rare species associated with the project.

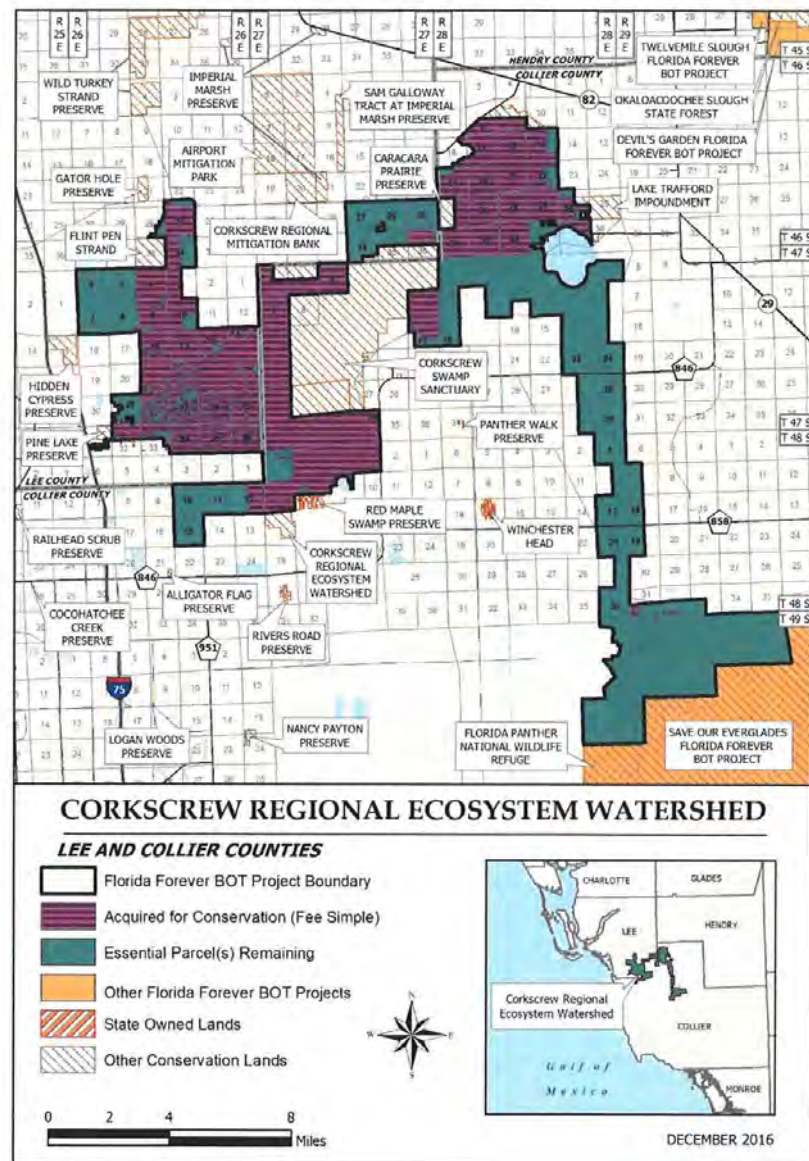
Corkscrew Regional Ecosystem Watershed Table 3

Management Cost Summary:	1996/97	1997/98
SFWMD		
Source of Funds	WMLTF	WMLTF
Salary	\$107,238	\$117,961
OPS	\$35,000	\$38,500

 Florida Department of Environmental Protection 2018 Florida Forever Five-Year Plan

Expense	\$197,250	\$216,915
OCO	\$0	\$28,000
FCO	\$0	N/A
Total	\$339,448	\$401,436

Corkscrew Regional Ecosystem Watershed Map 44



Map of project with key attributes as provided by the FNAI - Florida Natural Areas Inventory

Devil's Garden

Collier and Hendry Counties

Critical Natural Lands

<u>Project-at-a-Glance</u>	
<i>Placed on List</i>	2002
<i>Project Area (GIS acres)</i>	82,995
<i>Acres Acquired (GIS)</i>	11,687
<i>at a Cost of</i>	\$0
<i>Acres Remaining (GIS)</i>	71,308

Purpose for State Acquisition

Acquiring this project will contribute to Florida Forever goals of increasing protection of Florida's biodiversity at the species, natural community, and landscape levels and filling a gap in the corridor for a large landscape for the federally endangered Florida panther. Numerous records of panther use of the property as well as numerous other rare and threatened plants and animals have been noted.

It will also increase the forestland available for sustainable management of natural resources. The project borders the Okaloacoochee Slough State Forest on the west and Dinner Island to the south. This project may also help complete the Florida National Scenic Trail, a statewide non-motorized trail that crosses a number of Florida Forever project sites. The trail is a congressionally designated national scenic trail.

Manager(s)

The Fish and Wildlife Conservation Commission (FWC) is the recommended lead manager for most of the area (approximately 71,608 acres). Florida Forest Service/FFS will manage the two westernmost parcels (approximately 10,900 acres) adjoining the Okaloacoochee State Forest.

General Description

The Devil's Garden proposal includes 82,995 acres (per digitized boundaries) in Hendry and Collier counties. The proposal has a single owner and includes four parcels. The major parcel (71,608 acres) adjoins the eastern boundary of Okaloacoochee Slough State Forest and encompasses an area, roughly 18 miles long (east-west) and six miles wide (north-south); an additional parcel (6,445 acres) is adjacent to the northeastern boundary of the State Forest and Okaloacoochee Slough Wildlife Management Area, and lies across Keri Road from the northwest corner of the major parcel. Two smaller parcels (T-shaped parcel: 3,328 acres and 1,127 acres) abut the southwestern boundary of the State Forest.

Devil's Garden is a huge tract of ranch land that has been heavily impacted by cattle ranching activities (conversion to pasture) and to a lesser extent by agriculture. Non-forested wetlands, including basin/depression marsh, swale, and wet prairie make up the dominant natural communities still present on the property. Mesic/wet flatwoods have been, to a large extent, cleared and converted to pasturelands.

Prairie hammocks were scattered throughout the property and formed irregularly shaped forests, usually with basin/depression wetlands. In a helicopter survey, a few small (15 acres) patches of dome swamp fringing swale systems could be seen in the southwestern T-shaped parcel. Both southern parcels have few remaining upland natural communities except for narrow fringes adjacent to wetlands; some hammock remains in the southwest corner of the T-shaped parcel.

Public Use

The property can accommodate resource-based recreation, including camping, picnicking, hiking, natural resource appreciation (nature study), wildlife observation, bicycling, horseback riding and environmental education. Depending on management emphasis, the land could provide significant hunting opportunities. Careful planning would need to be done to coordinate hunting and wildlife observation. Because the project is so large, it may be possible to set areas aside where wildlife observation can be emphasized and encouraged.

Acquisition Planning

On December 5, 2002, the Acquisition & Restoration Council (ARC) added the Devil's Garden project to Group A of the Florida Forever 2003 Priority List. This fee-simple project, sponsored by the Nature Conservancy (TNC) and FFS, consisted of approximately 82,508 acres with a single owner, Alico Inc., and a 2001 taxable value of \$9,483,649.

On December 14, 2007 ARC voted to move Devil's Garden to Group B of the 2008 Florida Forever Priority List.

On December 9, 2011 Devil's Garden was classified as a Critical Natural Lands project.

Coordination

TNC is the intermediary and is working to find a purchaser for the eastern portion of the tract (farm land).

Management Policy Statement

The primary goals of management for the Devil's Garden project are to increase protection of Florida's biodiversity at the species, natural community, and landscape levels; protect, restore, and maintain the quality and natural functions of land, water, and wetland systems of the state; increase natural resource-based public recreational and educational opportunities including but not limited to wildlife viewing, hunting, hiking and camping; and increase the amount of forestland available for sustainable management of natural resources.



Management Prospectus

Qualifications for state designation

Due to the diversity, and connectivity to the Okaloacoochee Slough State Forest, the two westernmost parcels (approximately 10,900 acres) qualify as State Forests. The high wildlife resource values and the designation of primary or secondary panther habitat zones on the project qualify the eastern parcel (approximately 71,608 acres) as a wildlife management area.

Manager

FWC will manage the eastern parcel. FFS will manage the two westernmost parcels as part of the Okaloacoochee Slough State Forest.

Conditions affecting intensity of management

Much of the project's drier natural community types have been disturbed, with many converted to some improved form of agriculture. This conversion usually involves some type of hydrologic alteration for water management. This property contains vast areas of wetlands with sensitive natural resources. Land management and public use will specifically be structured to improve and protect these areas.

Surrounding land uses are not expected to affect prescribed burning on this parcel. The level of management intensity and related management costs is expected to be initially high to obtain the necessary information and resources to restore and manage the system. Given the importance of this property to panther recovery, this link between habitat management and panther use will be critical to insuring the property is managed consistent with the primary purposes for acquisition. The Devil's Garden proposal, when acquired by the state, will require 14 FTE positions to manage the project area. Certain activities may be privatized, which would reduce the number of FTEs required. Funding for natural-resource management and public use administration would come from the CARL (Conservation and Recreation Lands) Trust Fund (as of 2015 the LATF). It is anticipated that revenue sources would include public use fees and timber harvests.

Timetable for implementing management and provisions for security and protection of infrastructure

During the first year after acquisition, emphasis will be placed on site security, posting boundaries, public access, fire management, resource inventory, exotic species control and removal of refuse. Conceptual management plans will be developed describing the management goals and specific objectives necessary to implement future resource management. Once the area is acquired, steps will be taken to ensure that the public is provided appropriate access while simultaneously affording protection of sensitive resources. Public use will be limited to activities that will have little or no impact to these areas. Vehicular use by the public will be confined to designated roads. Unnecessary access points will be closed. Both agencies will cooperate with and seek the assistance of other state agencies, local government entities and interested parties as appropriate. Long-range plans for this property will

generally be directed toward the restoration of disturbed areas and maintenance of natural communities. To the greatest extent practical, disturbed sites will be restored to conditions that would be expected to occur in naturally functioning ecosystems. Management activities will also stress enhancing abundance and spatial distribution of threatened and endangered species. Multiple use principles will be practiced where compatible with resource management goals and acquisition purposes. An all-season prescribed burning management plan will be developed and implemented to improve the habitat quality of native fire-dependent plant communities and wildlife habitats.

Revenue-generating potential

Management will seek to improve revenue-generating potential by improving wildlife diversity and resource-based recreation. Anticipated revenues from wildlife conservation will come from sales of hunting licenses, wildlife management area permits and other special hunting permits. Additional revenues might be generated from ecotourism and wildlife viewing activities. Timber sales will be conducted as needed to improve or maintain desirable ecosystem conditions. These sales will primarily take place in pine stands and will provide a variable source of revenue dependent upon a variety of factors. Due to the existing condition of the timber resource on the property, revenue generating potential of this project is expected to be low. Some revenues might be generated from agricultural farming contracts in areas currently being farmed as row crops until such areas can be restored in the interest of wildlife conservation.

Cooperators in management activities

The FWC and FFS will cooperate with other federal, state and local government agencies, including the South Florida Water Management District, in managing the area.

Information Updated February 4, 2016

Devil's Garden Table 1

Project-at-a-Glance	Data
Placed on List	2002
Project Area (GIS acres)	82,995
Acres Acquired (GIS)	11,687
at a Cost of	\$0
Acres Remaining (GIS)	71,308

Devil's Garden Table 2

Devil's Garden FNAI Elements	Score
Florida Panther	G5T1/S1
Florida Black Bear	G5T2/S2
Gopher Tortoise	G3/S3
Eastern Indigo Snake	G3Q/S3
Swallow-tailed Kite	G5/S2
Wood Stork	G4/S2
Crested Caracara	G5/S2



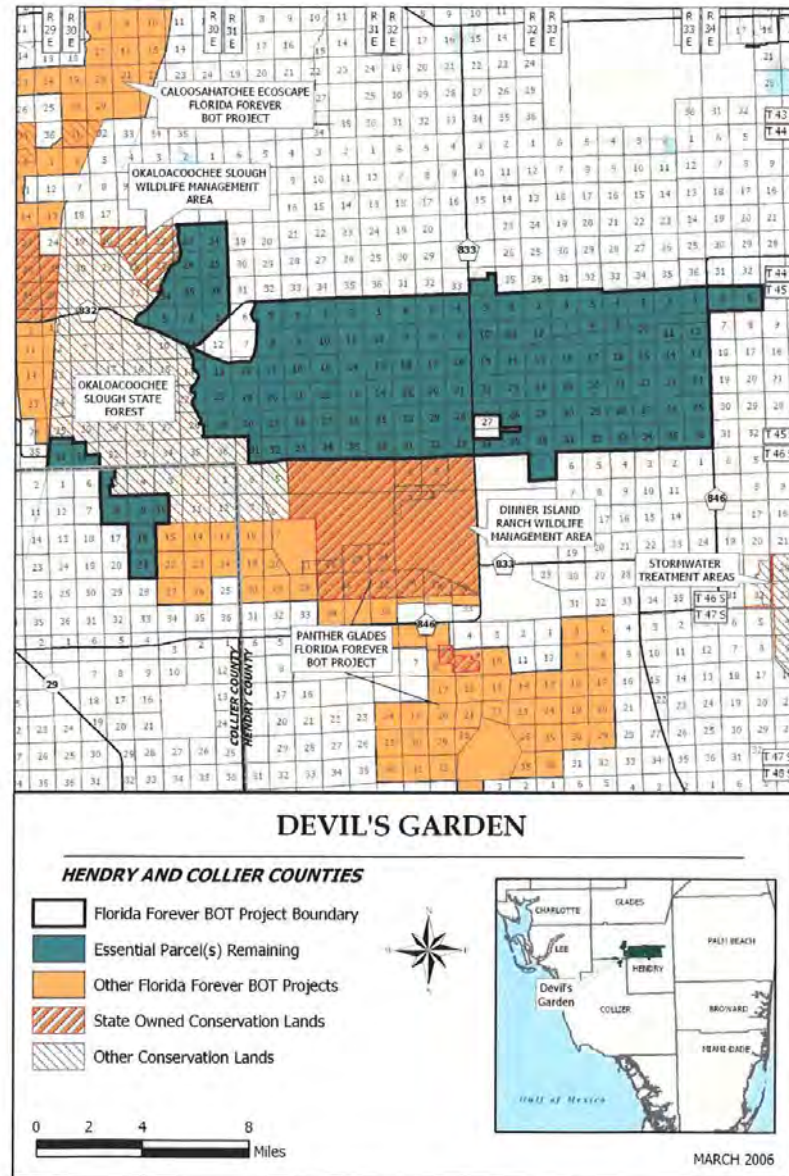
Little Blue Heron	G5/S4
White Ibis	G5/S4

There are 9 rare species associated with the project.

Devil's Garden Table 3

Management Cost Summary: FWC	Startup	Recurring
Source of Funds	CARL	not provided
Salary (6 FTE)	\$216,639	not provided
Expense	\$725,000	not provided
OCO	\$418,200	not provided
Total	\$1,354,839	not provided

Devil's Garden Map 59



Map of project with key attributes as provided by the FNAI - Florida Natural Areas Inventory

Half Circle L Ranch

Collier and Hendry Counties

Critical Natural Lands

<u>Project-at-a-Glance</u>	
<i>Placed on List</i>	2003
<i>Project Area (GIS acres)</i>	11,182
<i>Acres Acquired (GIS)</i>	0
<i>at a Cost of</i>	\$0
<i>Acres Remaining (GIS)</i>	11,182

Purpose for State Acquisition

Located within primary habitat zones for both the Florida panther and the Florida Black bear the project complements the ongoing conservation efforts in this region of the state for these and numerous other species. Protection of these and other endangered and threatened species is a primary concern. Habitat and hydrological restoration of disturbed areas is another goal of state acquisition of this project. Public recreation compatible with resource protection is also an acquisition goal. More information is cited below in the Public Uses description.

Manager(s)

The Florida Fish and Wildlife Conservation Commission (FWC) is the designated lead manager for the project. All management activities on Florida Forever land should include a monitoring component so that managers can judge the effectiveness of their actions. Management plans, which are required for all Florida Forever land, should indicate specifically how and when the results of management activities will be monitored and how that information will be used to improve subsequent management activities.

General Description

Adjoining the southern boundary of the Devil's Garden Florida Forever project, the southwestern boundary of the Dinner Island Wildlife Management Area, and the southeastern boundary of the Okaloacoochee Slough State Forest/ Wildlife Management Area in Collier and Hendry counties, this proposal contains approximately 11,182 acres.

The dominant communities on the property are basin and depression marshes, wet prairies, hydric/mesic hammocks, and wet/mesic flatwoods. Forty-five percent of the project has been converted to improved pasture, row crops, and citrus.

According to the Florida Natural Areas Inventory there are eight rare plants and animals recorded on the site. More than 60 percent of the lands within the Half Circle L Ranch project proposal are designated as Strategic Habitat Conservation Areas. Nearly all the land in this project is classified as a Primary Zone or Priority One for panther habitat (currently used by panthers), and the Florida black bear. The remainder of the site is identified as a Secondary Zone for panther habitat (buffer areas for dispersing



cats or areas that could be converted to Primary Zone status with restoration), by the Panther Subgroup of the Multispecies/Ecosystem Recovery Implementation Team. Radio telemetry studies have confirmed panther use of the site.

Public Use

Due to extensive wetlands, the project is limited in its ability to provide year-round diverse resource-based recreational opportunities. Hiking and horseback trails would be traversable in limited dry season conditions. In the more upland sites, the project can accommodate, to one degree or another, camping, picnicking, wildlife observation (nature study), and environmental education. Depending on management emphasis, hunting can also be supported. Due to the wet conditions of the project, bicycling is questionable and would require further review. Should it be considered suitable, bicycling would be limited in its range throughout the property.

Acquisition Planning

The project consists of some 11,182 (GIS) acres, multiple parcels and two owners. The 2002 tax assessed/taxable value is estimated at \$2,811,833.00. On June 6, 2003 the Acquisition and Restoration Council (ARC) added this project to the A List of Florida Forever projects. In 2004 ARC moved this project to the B List of the Florida Forever projects.

On December 9, 2011 ARC placed this project in the Critical Natural Lands category.

Coordination

This project is adjacent to Okaloacoochee Slough State Forest (approximately 32,039 acres) and Dinner Island Wildlife Management Area (approximately 19,639 acres). The Panther Glades and Devil's Garden Florida Forever projects are also adjacent.

Management Policy Statement

The primary land management goal for the project is to restore, maintain and protect in perpetuity all native ecosystems; to integrate compatible human use; and to ensure long-term viability of populations and species considered rare. An ecosystem approach will guide the management activities on this project.

Management Prospectus

Qualifications for state designation

The project's size and diversity make it desirable for use and management as part of Okaloacoochee Slough State Forest, or Dinner Island Wildlife Management Area. Management is contingent upon the state obtaining legal public access to the site and acquiring fee simple title to the parcel. Major communities represented on this project include swale, slough, basin marsh, depression marsh, wet prairie, strand swamp, dome swamp, hammock, mesic and wet flatwoods. These community types are consistent with the adjacent state forest and the wildlife management area.

Manager
FWC.

Conditions affecting intensity of management

Much of the project's drier natural community types have been disturbed; many converted to some improved form of agriculture. This conversion usually means some type of hydrologic alteration to facilitate water management has occurred. This property contains vast areas of wetlands with sensitive natural resources; accordingly, land management and public use will specifically be structured to improve and protect these areas. The level of management intensity and related management costs is expected to be initially high to obtain the necessary information and resources to restore and manage this system as a part of Okaloacoochee State Forest and/or the Dinner Island Wildlife Management Area. Once this information is obtained and the resources are available, long-term management costs are expected to be moderate to maintain this area. The FWC reports that wildlife habitat values and habitat restoration on the semi-improved pasture and native range areas could be improved and potentially restored by removing cattle grazing and utilizing prescribed fire.

Timetable for implementing management and provisions for security and protection of infrastructure

Restoration of the natural communities on this project will be a priority. Initial or intermediate management efforts will concentrate on resource inventory, restoration planning, fire management and planning, site security, public access, and removal of exotic species. The inventory of the site's natural resources and threatened and endangered flora and fauna will be conducted to provide the basis for formulation of management goals. Restoration efforts will focus on water flow alterations, ditching, agriculture improvements to the land, and perpetuating natural communities that have historically been changed. Steps will be taken to ensure that the public is provided appropriate access while simultaneously affording protection of sensitive resources. Public use will be limited to activities that will have little or no impact to these areas. Long-range goals will stress ecosystem management and the protection and management of threatened and endangered species. Essential roads will be stabilized to provide all weather public access and management operations. Programs providing multiple recreational uses will also be implemented. An all-season prescribed burning management plan will be developed and implemented using conventional and biologically acceptable guidelines. Management activities will strive to manage natural plant communities to benefit native wildlife resources. Archaeological and historic sites will be managed in coordination with the Division of Historical Resources.

Revenue-generating potential

Timber sales will be conducted as needed to improve or maintain desirable ecosystem conditions. These sales will primarily take place in pine stands and will provide a variable source of revenue dependent upon a variety of factors. Because of the existing condition of the timber resource on the property,

revenue generating potential of this project is expected to be low. Additional revenue would be generated from sales of hunting licenses, fishing licenses, wildlife management area stamps and other special hunting stamps. Some revenues might be realized in the future from ecotourism activities which can be economically developed.

Florida Forever capital project expenditures will be needed on this parcel for hydrological restoration, for public access and public use. This management prospectus is not intended to be an application for capital project expenditure; however, as more information is gathered, and an analysis of the site is completed an application may be submitted for capital project expenditure funds. It is anticipated that some the existing roads will be used as multi-use trails for hiking, horseback riding and off-road bicycling. It is anticipated that management funding will come from the CARL trust fund.

Information Updated February 8, 2016

Half Circle L Ranch Table 1

Project-at-a-Glance	Data
Placed on List	2003
Project Area (GIS acres)	11,182
Acres Acquired (GIS)	0
at a Cost of	\$0
Acres Remaining (GIS)	11,182

Half Circle L Ranch Table 2

Half Circle L Ranch FNAI Elements	Score
Florida Panther	G5T1/S1
Florida Black Bear	G5T2/S2
Narrow-leaved Strap Fern	G4G5/S1
Florida Sandhill Crane	G5T2T3/S2S3
Hand Fern	G4/S2
Wood Stork	G4/S2
Crested Caracara	G5/S2
Florida Burrowing Owl	G4T3/S3
White Ibis	G5/S4

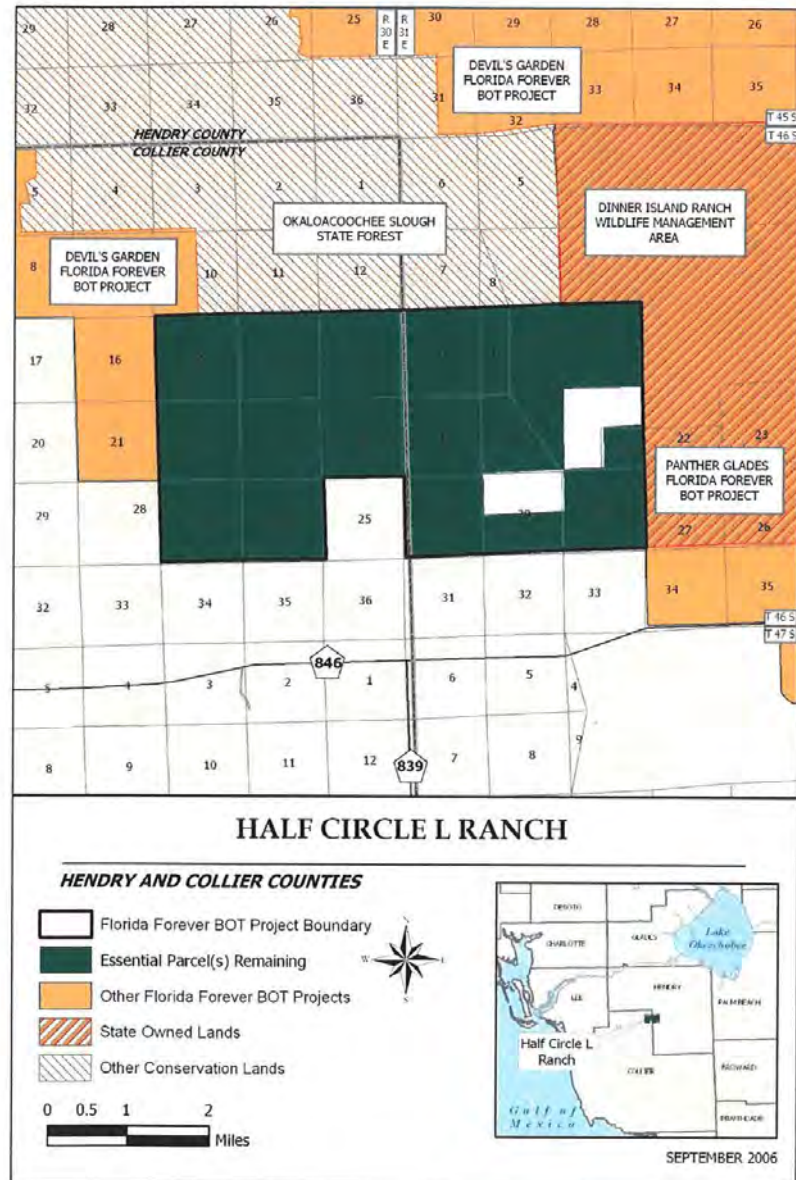
There are 9 rare species associated with the project.

Half Circle L Ranch Table 3

Management Cost Summary: FWC	Startup	Recurring
Source of Funds	CARL	not provided
Salary (2 FTE)	\$70,751	not provided
Expense	\$261,372	not provided
OCO	\$300,600	not provided
Total	\$632,723	not provided



Half Circle L Ranch Map 114



Save Our Everglades

Collier County

Substantially Complete

Project-at-a-Glance

<i>Placed on List</i>	<i>1984</i>
<i>Project Area (GIS acres)</i>	<i>217,680</i>
<i>Acres Acquired (GIS)</i>	<i>217,656</i>
<i>at a Cost of</i>	<i>\$132,018,455</i>
<i>Acres Remaining (GIS)</i>	<i>24</i>

Purpose for State Acquisition

The Save Our Everglades project will conserve three large pieces of a landscape of cypress swamps, marshes, slash-pine flatwoods, and tropical hammocks, through which water slowly flows to the mangrove swamps of the Ten Thousand Islands, thereby connecting and extending existing conservation lands, helping to save the last of the Florida panthers and a host of other rare animals and tropical plants, preserving the flow of water to the rich estuaries of the Gulf coast, and allowing the public to enjoy this unique landscape for years to come. The Florida National Scenic Trail, a cross-Florida hiking and non-motorized trail, is also planned to cross this project. The trail is a congressionally designated national scenic trail.

Manager(s)

National Park Service (NPS) will manage Big Cypress Addition; U.S. Fish and Wildlife Service (USFWS) will manage Florida Panther National Wildlife Refuge; Florida Department of Agriculture and Consumer Services - Florida Forest Service/FFS will manage all of the Golden Gate Estates South - less that portion east of the Fakaunion Canal to be managed by the Florida Department of Environmental Protection's Division of Recreation and Parks (DRP); and DRP will manage that portion of the Golden Gate Estates South lying east of the Fakaunion Canal - less the old resort hotel, its associated compound and the sewage treatment plant.

General Description

This project includes important hydrological connections among Big Cypress National Preserve, Fakahatchee Strand State Preserve, and Everglades National Park. It serves as the headwaters of the largest strand swamp in the nation—the Fakahatchee Strand. It is also an excellent natural area. Natural communities on the property include cypress forest, pine forest, hammock, mixed swamp forest, wet and dry prairies and freshwater marsh. The area is known to support many endangered, threatened or rare species including a large variety of rare orchids and other epiphytes, as well as the endangered Florida panther. There is believed to be good potential for archaeological sites here. The project is threatened by drainage and other changes in water flow through the area, by oil and gas exploration, and perhaps by limerock mining.

Public Use

The project will provide a preserve/reserve, wildlife and environmental area, and a forest, allowing such uses as fishing, hunting, hiking, camping and nature appreciation.

Acquisition Planning

Completing the Collier Exchange on December 18, 1996, resulted in public protection of an additional 83,070 acres in the Big Cypress Addition and an additional 4,110 acres in the Florida Panther National Wildlife Refuge.

On April 18, 2003 ARC transferred 1,615 acres in Hendry County to the Panther Glades Florida Forever project. In 2003, the project had a combined, historic, estimated tax assessed value of \$4,050,796. In 2006 ARC moved this project from the A, Small Parcels list for acquisition to the B, Small Parcels list.

The NPS continues to pursue consolidation efforts in the Big Cypress Preserve Addition. The Conservation and Recreation Lands (CARL) Program continues to focus on acquiring land in Golden Gate Estates South. The USFWS has acquired and manages 28,410 acres (including Collier Exchange lands). The CARL Program received \$25 million of Federal "Farm Bill" funds for the Golden Gate portion of this project. All the acreage in this project is considered essential. In June 2009, approximately 3 platted acres were purchased for \$8,276.

On December 9, 2011, ARC placed this project in the new Substantially Complete category of Florida Forever projects. This project will remain on the Florida Forever List until all court settlements are resolved.

Coordination

The NPS, USFWS, U.S. Department of Agriculture (USDA), and DOT are all acquisition partners in this project area. Resolutions in support of this project include EO 88-25: Governor's Executive Directive for Interagency Joint Participation Agreement.

Management Policy Statement

The primary goals of management of the Save Our Everglades project are: to conserve and protect environmentally unique and irreplaceable lands that contain native, relatively unaltered flora and fauna representing a natural area unique to, or scarce within, a region of this state or a larger geographic area; to conserve and protect lands within areas of critical state concern; to conserve and protect significant habitat for native species or endangered and threatened species; and to conserve, protect, manage, or restore important ecosystems, landscapes, and forests to enhance or protect significant surface water, coastal, recreational, timber, fish or wildlife resources which local or state regulatory programs cannot adequately protect.

Management Prospectus

Qualifications for state designation

The sensitive resources of the Big Cypress National Preserve qualify it as a state preserve. The extremely rare Florida panther and the undisturbed habitat needed to protect it qualify the Panther National Wildlife Refuge as a wildlife and environmental area. The size and diversity of Golden Gate Estates South, and its twelve miles of common border with the Belle Meade project (to be managed by the FFS), make it highly suitable for use and management as a state forest.

Manager

NPS, USFWS, FFS.

Conditions affecting intensity of management

The Florida Panther National Wildlife Refuge is a low-need management area, requiring basic resource management and protection. Portions of Golden Gate Estates may require hydrologic restoration, but the local water management district will probably conduct these activities. There is a major road network that might eventually require partial removal. If this restoration effort is attempted, it will probably require funding beyond what is typically expected for a state forest.

Timetable for implementing management and provisions for security and protection of infrastructure

The Panther National Wildlife Refuge was established in 1989. In 1991, the USFWS began management programs of protection, prescribed burning and food plot management. The area is not open for public use. For the first four years, the refuge was burned to reduce accumulated fuel loads. Burns were confined to the winter and spring. The refuge will experiment with early summer burns in the future. Approximately 6,000 acres of Golden Gate Estates South have already been acquired within the project boundaries; however, this acreage is composed of thousands of lots scattered throughout the area so management for public access and use is not feasible at this time. Once sufficient area has been acquired, the FFS will provide public access for low-intensity, non-facilities-related outdoor recreation. Initial activities will include securing the access to the public while protecting sensitive resources. The project's natural resources and threatened and endangered plants and animals will be inventoried to provide the basis for a management plan. Long-range plans for this project will generally be to restore disturbed areas to their original conditions as fast as possible, as well as protecting threatened and endangered species.

Revenue-generating potential

No revenue is expected from the Florida Panther National Wildlife Refuge. In Golden Gate Estates, the FFS will sell timber as needed to improve or maintain desirable ecosystem conditions. These sales will provide variable amounts of revenue, but the revenue-generating potential for this project is expected to be low.



Cooperators in management activities

The Florida Fish and Wildlife Conservation Commission (FWC), (DEP), South Florida Water Management District (SFWMD), FFS, Corkscrew Regional Ecosystem Florida Department of Environmental Protection Watershed (CREW), Collier County, and the NPS are cooperators in the Florida Panther National Wildlife Refuge.

Information Updated April 10, 2017

Save Our Everglades Table 1

Project-at-a-Glance	Data
Placed on List	1984
Project Area (GIS acres)	217,680
Acres Acquired (GIS)	217,656
at a Cost of	\$132,018,455
Acres Remaining (GIS)	24

Save Our Everglades Table 2

Save Our Everglades FNAI Elements	Score
Florida Panther	G5T1/S1
Florida Black Bear	G5T2/S2
Eastern Indigo Snake	G3Q/S3
Swallow-tailed Kite	G5/S2
Florida bonneted bat	G1/S1
Pineland Jacquemontia	G2/S2
Tampa Vervain	G2/S2
Clamshell Orchid	G4G5T2/S2
Narrow-leaved Carolina Scalystem	G4T2/S2
Florida Royal Palm	G2G3/S2
Fuzzy-wuzzy Air-plant	G4/S1
Many-flowered Catopsis	G3G5/S1

There are 33 rare species associated with the project.

Save Our Everglades Table 3a

Management Cost Summary: FFS	1995/96	1996/97
Source of Funds	CARL	CARL
Salary	\$35,376	\$50,658
OPS	\$0	\$0
Expense	\$24,975	\$34,125
OCO	\$4,190	\$40,000
FCO	\$0	\$0
Total	\$64,541	\$124,783

Save Our Everglades Table 3b

Management Cost Summary: NPS	Startup	Recurring
Source of Funds	NPS	NPS
Salary	\$110,000	\$110,000
OPS	\$0	\$0



Expense	\$115,000	\$70,000
OCO	\$0	\$0
FCO	\$0	\$0
Total	\$225,000	\$180,000

Save Our Everglades Table 3c

Management Cost Summary: SFWMD	Startup	Recurring
Source of Funds	WMLTF	WMLTF
Salary	\$3,265	\$3,265
OPS	\$0	\$0
Expense	\$0	\$0
OCO	\$0	\$0
FCO	\$0	\$0
Total	\$3,265	\$3,265

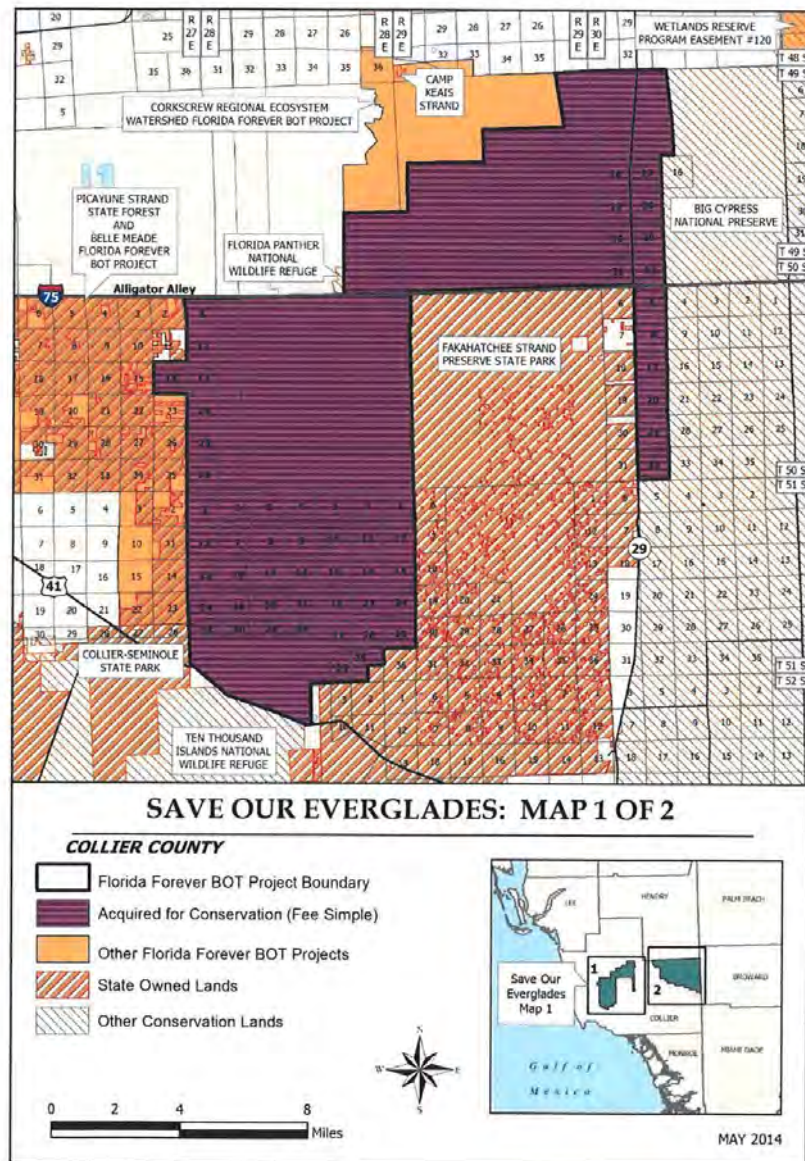
Save Our Everglades Table 3d

Management Cost Summary: USFWS	1996/97	1997/98
Source of Funds	FWS	FWS
Salary	N/A	N/A
OPS	N/A	N/A
Expense	N/A	N/A
OCO	N/A	N/A
FCO	N/A	N/A
Total	\$642,600	\$747,300

Save Our Everglades Map 203



Save Our Everglades Map 204



Save Our Everglades Map 205

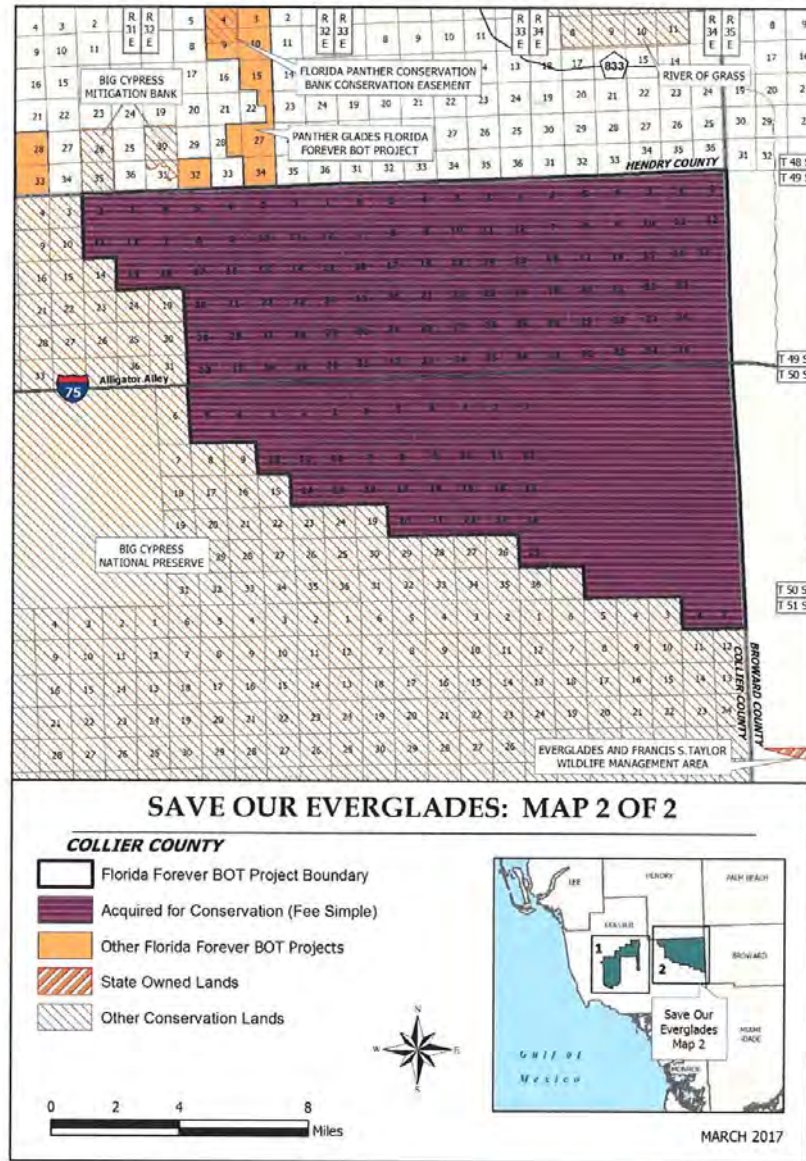


Exhibit T

Land Management Reviews (2013 and 2018)

2013 Land Management Review Team Report for Picayune Strand State Forest

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1. Introduction

Section 259.036, F.S. requires a periodic on-site review of conservation and recreation lands titled in the name of the Board of Trustees to determine (1) whether the lands are being managed for the purposes for which they were acquired and (2) whether they are being managed in accordance with their land management plan adopted pursuant to s. 259.032, F.S. In case where the managed areas exceed 1,000 acres in size, such a review must be scheduled at least every five years. In conducting this review, a statutorily constructed review team "shall evaluate the extent to which the existing management plan provides sufficient protection to threatened or endangered species, unique or important natural or physical features, geological or hydrological functions or archaeological features. The review shall also evaluate the extent to which the land is being managed for the purposes for which it was acquired and the degree to which actual management practices, including public access, are in compliance with the adopted management plan."

The land management review teams are coordinated by the Division of State Lands and consist of representatives from the Division of Recreation and Parks (DEP), the Florida Forest Service (DACS), the Fish and Wildlife Conservation Commission, the local government in which the property is located, the DEP District in which the parcel is located, the local soil and water conservation district, a conservation organization member, and a local private land manager.

Each Land Management Review Report is divided into three sections. Section 1 provides the details of the property being reviewed as well as the overall results of the report. Section 2 provides details of the Field Review, in which the Review Team inspects the results of management actions on the site. Section 3 provides details of the Land Management Plan Review, in which the team determines the extent to which the Management Plan provides for and documents adequate natural and recreational resource protection.

Finally, each report may also contain an Appendix that lists individual team member comments. This is a compilation of feedback, concerns or other thoughts raised by individual team members, but not necessarily indicative of the final consensus reached by the Land Management Review Team.

1.1. Property Reviewed in this Report

Name of Site: Picayune Strand State Forest

Managed by: Florida Forest Service

Acres: 91,980

County(ies): Collier County

Purpose(s) for Acquisition:

Acquisition Program(s): CARL/P2000/Florida Forever

Original Acquisition Date: __/__/__

Area Reviewed: Entire Property

Last Management Plan Approval Date: 8/15/08

Review Date: 7/10/13

Agency Manager and Key Staff Present:

- Kevin Podkowka, Manager
- Dexter Sowell, Forester

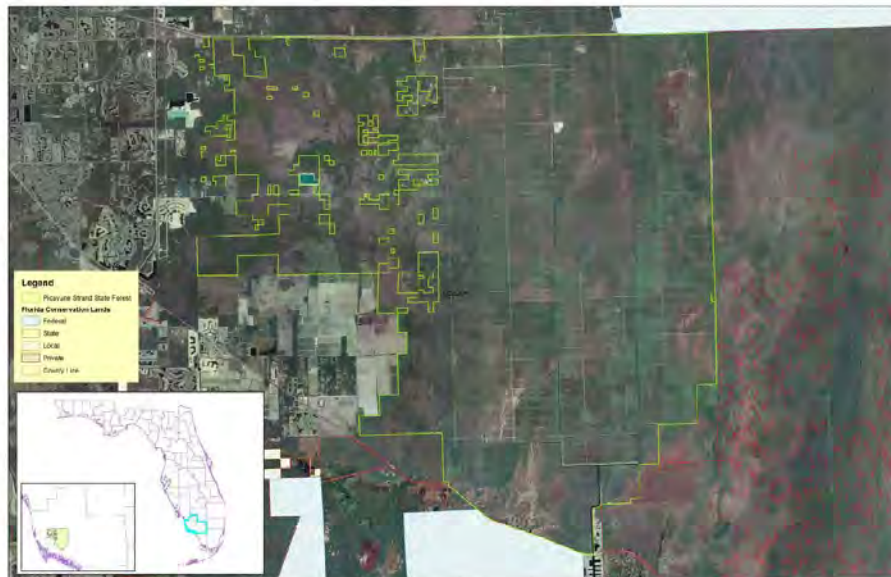
Review Team Members Present (voting)

- DRP: Maulik Patel
- FWC: Ross Scott
- FFS: Bill Korn
- DEP: Brandon Ivey
- SWCD:
- Local gov't:
- Conservation organization: Marlene Rodak
- Private land manager: Ian Bartoszek

Other Non-Team Members Present (attending)

- Keith Singleton, DEP/DSL
- Dennis Giardina, FWC/IPMS

1.2 Property Map



1.3. Overview of Land Management Review Results

Is the property managed in accordance with the purposes for which it was acquired?

Yes = 6, No = 0

Are the management practices, including public access, in compliance with the management plan?

Yes = 6, No = 0

Table 1 shows the average scores received for each applicable category of review. *Field Review* scores refer to the adequacy of management actions in the field, while *Management Plan Review* scores refer to adequacy of discussion of these topics in the management plan. Scores range from 1 to 5 with 5 signifying excellence. For a more detailed key to the scores, please see Appendix A.

Table 1: Results at a glance.

Major Land Management Categories	Field Review	Management Plan Review
Natural Communities / Forest Management	4.05	4.38
Prescribed Fire / Habitat Restoration	4.38	4.43
Hydrology	4.22	4.35
Imperiled Species	4.52	4.68
Exotic / Invasive Species	3.12	3.11
Cultural Resources	4.17	3.92
Public Access / Education / Law Enforcement	4.02	4.34
Infrastructure / Equipment / Staffing	3.13	N/A

Color Code (See Appendix A for detail)

Excellent	Above Average	Below Average	Poor
-----------	---------------	---------------	------

1.3.1 Consensus Commendations for the Managing Agency

The following commendations resulted from discussion and vote of the review team members:

1. The team commends the FFS and FWC staff for their efforts to improve Belle Meade flatwoods habitat efficiently to allow for reintroduction of red-cockaded woodpeckers, and an overall increase in numbers of active red-cockaded woodpecker clusters. (6+, 0-)
2. The team commends the FFS for the level of detail contained in the management plan related to endangered animals species monitoring and management. (6+, 0-)
3. The team commends the FFS for their effort to improve the quality of prescribed fire within the natural communities of the forest. (6+, 0-)

1.3.2. Consensus Recommendations to the Managing Agency

The following recommendations resulted from a discussion and vote of review team members. The next management plan update should include information about how these recommendations have been addressed:

1. The team recommends that FFS continue to explore and pursue options to reduce densities of expanding cabbage palms in otherwise intact flatwoods. (6+, 0-)

Managing Agency Response: *The FFS will continue to explore opportunities and projects aimed at reducing sabal palm densities on the forest. This includes, but is not limited to: sales, herbicide, mechanical removal, and emerging research.*

2. The team recommends that FFS pursue prescribed burning along the property boundary adjacent to other conservation lands. (6+, 0-)

Managing Agency Response: *The FFS is committed to a prescribed burning program that entails numerous goals and objectives, including fuel reduction. The FFS recognizes that burning along boundaries adjacent to lands that are managed by prescribed fire makes it easier on our neighbors and advances the program as a whole. In the future burnable areas with fuel build-up along boundaries will be given higher priority.*

3. The team recommends that FFS increase their effort to rehabilitate the plow lines associated with wildfire suppression. (6+, 0-)

Managing Agency Response: *The FFS recognizes that plow lines can alter water flows and provide pathways for exotic invasion. All firelines associated with fire suppression that are installed on the forest will be rehabilitated in a good-faith effort. All firelines associated with prescribed burning will be installed with the minimum disturbance necessary to create a safe and effective break as deemed by the prescribed burn boss.*

2. Field Review Details

2.1 Field Review Checklist Findings

The following items received high scores on the review team checklist, which indicates that management actions exceeded expectations.

1. Natural Communities, specifically hydric hammock and tropical hardwood hammock:
2. Listed Species Protection and Preservation , animals in general, specifically red cockaded woodpeckers, panthers, bears and wading birds:
3. Natural Resources Survey/Monitoring Resources, specifically listed species or their habitat monitoring, fire effects monitoring, other habitat management effects monitoring, and invasive species survey and monitoring:
4. Cultural Resources, specifically cultural resource survey, and protection and preservation:

5. Prescribed Fire, specifically area being burned, frequency and quality:
6. Restoration, specifically hydrology restoration, and agricultural fields:
7. Forest Management, specifically timber inventory:
8. Hydro-alteration, specifically roads and culverts, ditches, hydro-period alteration, and water level alteration:
9. Ground Water Monitoring, specifically quantity:
10. Surface Water Monitoring, specifically quantity:
11. Resource Protection, specifically boundary survey, gates and fencing, and signage:
12. Adjacent Property Concerns, specifically expanding development, and inholdings and additions:
13. Public Access and Education, specifically environmental education and outreach relating to habitat management activities:

2.2. Items Requiring Improvement Actions in the Field

The following items received low scores on the review team checklist, which indicates that management actions noted during the Field Review were not considered sufficient (less than 3.0 score on average). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The management plan update should include information on how these items have been addressed:

1. The maintenance condition of the Natural Communities, specifically mesic flatwoods, basin swamp, strand swamp, and depression marsh, received below average scores. The review team is asked to evaluate, based on their perspective, what percent of the natural community is in maintenance condition. The scores range from 1 to 5, with 1 being 0-20% in maintenance condition, 2 being 21-40%, 3 being 41-60%, 4 being 61-80% and 5 being 81-100%.

Managing Agency Response: The major obstacle in returning these communities to a higher level of maintenance are the reduced hydroperiods experienced at a landscape level. The Picayune Strand Restoration Project is designed to address that issue, and once construction on the project is completed the FFS anticipates that all communities on the forest will reflect higher percentages in maintenance condition.

2. Management Resources, specifically funding, received a below average score. The review team is asked to evaluate, based on information provided by the managing agency, whether management resources are sufficient.

Managing Agency Response: The FFS will continue to seek funding for management both within the Department and outside the agency.

2.3. Field Review Checklist and Scores

Field Review Item	Reference #	Anonymous Team Members								Average
		1	2	3	4	5	6	7	8	
Natural Communities (I.A)										
Wet Flatwoods	I.A.1	3	3	3	3	3	3			3.00
Mesic Flatwoods	I.A.2	3	2	3	3	3	3			2.83
Mesic Hammock	I.A.3	4	4	4	3	3	4			3.67
Hydric Hammock	I.A.4	4	4	5	4	4	4			4.17
Prairie Hammock	I.A.5	4	3	4	4	4	3			3.67
Tropical Hardwood Hammock	I.A.6	4	4	5	3	4	5			4.17
Basin Swamp	I.A.7	3	3	3	3	2	3			2.83
Strand Swamp	I.A.8	3	2	3	2	2	3			2.50
Depression Marsh	I.A.9	4	3	2	2	3	3			2.83
Wet Prairie	I.A.10	3	3	4	3	3	3			3.17
Shell Mound	I.A.11	X	X	X	X	X	3			3.00
Natural Communities Average Score										3.26
Listed species:Protection & Preservation (I.B)										
Animals	I.B.1	5	5	5	5	4	5			4.83
Red-cockaded Woodpeckers	I.B.1.a	5	5	5	5	5	5			5.00
Panthers	I.B.1.b	4	5	5	4	5	5			4.67
Bears	I.B.1.c	5	5	5	5	4	5			4.83
Wading Birds	I.B.1.d	4	5	5	3	3	4			4.00
Plants	I.B.2		4	5	4	3	3			3.80
Listed Species Average Score										4.52
Natural Resources Survey/Monitoring Resources (I.C)										
Listed species or their habitat monitoring	I.C.2	5	5	5	5	4	5			4.83
Other non-game species or their habitat monitoring	I.C.3	4	4	4	3	3	4			3.67
Fire effects monitoring	I.C.4	5	5	5	5	4	4			4.67
Other habitat management effects monitoring	I.C.5	5	5	5	5	5	5			5.00
Invasive species survey / monitoring	I.C.6	4	4	5	5	5	5			4.67
Cultural Resources (Archeological & Historic sites) (II.A, II.B)										
Cultural Res. Survey	II.A	2	5	5	5	3	5			4.17
Protection and preservation	II.B	2	5	5	5	4	4			4.17
Cultural Resources Average Score										4.17
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	4	4	5	4	4	4			4.17
Frequency	III.A.2	4	4	5	3	4	4			4.00
Quality	III.A.3	4	4	5	4	3	4			4.00
Resource Management, Prescribed Fire Average Score										4.06
Restoration (III.B)										
Hydrology Restoration	III.B.1		5	5	5	5	5			5.00

Agricultural Fields	III.B.2	3	5	5	X	5	4			4.40
Restoration Average Score										4.70
Forest Management (III.C)										
Timber Inventory	III.C.1	4	5	5	5	5	5			4.83
Forest Management Average Score										4.83
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.D.1.a	3	2	3	4	4	3			3.17
prevention - animals	III.D.1.b	3	3	3	X	3	3			3.00
prevention - pests/pathogens	III.D.1.c	3	3	3	X	4	3			3.20
Control										
control - plants	III.D.2.a	3	1	3	4	4	4			3.17
control - animals	III.D.2.b	2	3	3	X	3	4			3.00
control - pest/pathogens	III.D.2.c	3	3	3	X	3	4			3.20
Non-Native, Invasive & Problem Species Average Score										3.12
Hydrologic/Geologic function Hydro-Alteration (III.E.1)										
Roads/culverts	III.E.1.a	5	5	5	5	4	5			4.83
Ditches	III.E.1.b	5	4	5	5	5	4			4.67
Hydro-period Alteration	III.E.1.c	5	5	5	4	5	4			4.67
Water Level Alteration	III.E.1.d	5	5	5	5	5	4			4.83
Hydrologic/Geologic function, Hydro-Alteration Average Score										4.75
Ground Water Monitoring (III.E.2)										
Ground water quality	III.E.2.a	3	3	4	3	4	4			3.50
Ground water quantity	III.E.2.b	4	5	4	5	4	4			4.33
Ground Water Monitoring Average Score										3.92
Surface Water Monitoring (III.E.3)										
Surface water quality	III.E.3.a	4	3	4	3	4	4			3.67
Surface water quantity	III.E.3.b	4	5	4	5	4	4			4.33
Surface Water Monitoring Average Score										4.00
Resource Protection (III.F)										
Boundary survey	III.F.1	4	5	5	5	5	5			4.83
Gates & fencing	III.F.2	4	5	5	5	4	4			4.50
Signage	III.F.3	4	4	5	5	4	4			4.33
Law enforcement presence	III.F.4	3	4	5	5	3	3			3.83
Resource Protection Average Score										4.38
Adjacent Property Concerns (III.G)										
Land Use										
Expanding development	III.G.1.a	4	5	5	5	3	4			4.33
Inholdings/additions	III.G.2	5	5	3	5	5	5			4.67
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Roads	IV.1.a	4	3	3	5	3	3			3.50
Parking	IV.1.b	4	3	3	5	3	3			3.50

Environmental Education & Outreach										
Wildlife	IV.2.a	3	3	4	5	3	3			3.50
Invasive Species	IV.2.b	4	3	4	5	3	3			3.67
Habitat Management Activities	IV.2.c	4	4	4	5	4	3			4.00
Interpretive facilities and signs	IV.3	4	4	3	5	4	3			3.83
Recreational Opportunities	IV.4	3	3	3	5	4	4			3.67
Management of Visitor Impacts	IV.5	4	4	3	4	3	4			3.67
Public Access & Education Average Score										3.67
Management Resources (V.1, V.2, V.3, V.4)										
Maintenance										
Waste disposal	V.1.a		2	4	5	3	3			3.40
Sanitary facilities	V.1.b		2	4	5	3	3			3.40
Infrastructure										
Buildings	V.2.a	4	3	3	3	3	3			3.17
Equipment	V.2.b	4	3	3	3	4	4			3.50
Staff	V.3	3	3	3	3	3	3			3.00
Funding	V.4	3	3	3	2	1	2			2.33
Management Resources Average Score										3.13

Color Code:

Excellent	Above Average	Below Average	Poor	See Appendix A for detail
	Missing Vote	Insufficient Information		

3. Land Management Plan Review Details

3.1 Items Requiring Improvements in the Management Plan

The following items received low scores on the review team checklist, which indicates that the text noted in the Management Plan Review does not sufficiently address this issue (less than 3.0 score on average.). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The next management plan update should address the checklist items identified below:

1. **Natural Communities, specifically shell mound, received a below average score. This is an indication that the management plan does not sufficiently address current or desired condition and/or future management actions to protect or restore.**

Managing Agency Response: *The FFS will provide expanded detail on the protection and management of this community type in the next 10-year management plan.*

2. **Natural Resources Survey and Monitoring Resources, specifically other non-game species or their habitat monitoring, received a below average score. This is an indication that the management plan does not sufficiently address survey or monitoring.**

Managing Agency Response: *The FFS works very closely with FFWCC, University of Georgia, the Florida Audubon Society, the National Audubon Society, and other agencies and institutions in monitoring non-game animal species. This is evident by the extensive faunal inventory, as well as research projects that are conducted on the forest. Future plan updates and Land Management Reviews will include all current and previous projects. Monitoring for non-game species or their habitat will be sufficiently addressed in the next plan. Additional objects and or guidelines for monitoring will be developed as appropriate. FFS will continue to coordinate with FFWCC to assist with any wildlife monitoring work.*

In the next plan Non-game species or their habitat monitoring will be sufficiently addressed. Objects and or guidelines for monitoring can be developed. The FFWCC should also assist with this work.

3.2 Management Plan Review Checklist and Scores

Plan Review Item	Reference #	Anonymous Team Members								Average
		1	2	3	4	5	6	7	8	
Natural Communities (I.A)										
Wet Flatwoods	I.A.1	3	4	4	5	4	4			4.00
Mesic Flatwoods	I.A.2	3	4	4	5	4	4			4.00
Mesic Hammock	I.A.3	4	4	5	4	4	4			4.17
Hydric Hammock	I.A.4	4	4	5	4	4	4			4.17
Prairie Hammock	I.A.5	4	4	5	4	4	4			4.17
Tropical Hardwood Hammock	I.A.6	4	4	5	4	4	4			4.17
Basin Swamp	I.A.7	3	4	4	5	4	4			4.00
Strand Swamp	I.A.8	3	4	4	5	4	4			4.00
Depression Marsh	I.A.9	4	4	4	5	3	4			4.00
Wet Prairie	I.A.10	3	4	5	5	3	3			3.83
Shell Mound	I.A.11	2	3	3	2	3	3			2.67
Natural Communities Average Score										3.92
Listed species: Protection & Preservation (I.B)										
Animals	I.B.1	5	5	5	5	4	5			4.83
Red-cockaded Woodpeckers	I.B.1.a	5	5	5	5	5	5			5.00
Panthers	I.B.1.b	5	5	5	5	4	5			4.83
Bears	I.B.1.c	5	5	5	5	4	5			4.83
Wading Birds	I.B.1.d	5	5	5	5	4				4.80
Plants	I.B.2		4	5	4	3	3			3.80
Listed Species Average Score										4.68
Natural Resources Survey/Monitoring Resources (I.C)										
Listed species or their habitat monitoring	I.C.2	5	5	5	5	4	5			4.83

Other non-game species or their habitat monitoring	I.C.3	3	4	3	1	2	3			2.67
Fire effects monitoring	I.C.4	5	5	5	5	4	4			4.67
Other habitat management effects monitoring	I.C.5	5	5	5	5	4	4			4.67
Invasive species survey / monitoring	I.C.6	4	4	5	5	4	3			4.17
Cultural Resources (Archeological & Historic sites) (II.A,II.B)										
Cultural Res. Survey	II.A	3	5	5	4	3	3			3.83
Protection and preservation	II.B	3	5	5	4	4	3			4.00
Cultural Resources Average Score										3.92
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	4	4	5	5	4	4			4.33
Frequency	III.A.2	4	4	5	5	4	4			4.33
Quality	III.A.3	4	4	5	5	3	4			4.17
Resource Management, Prescribed Fire Average Score										4.28
Restoration (III.B)										
Hydrology Restoration	III.B.1	4	5	5	5	5	5			4.83
Agricultural Fields	III.B.2	4	5	5	4	4	4			4.33
Restoration Average Score										4.58
Forest Management (III.C)										
Timber Inventory	III.C.1	4	5	5	5	5	5			4.83
Forest Management Average Score										4.83
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.E.1.a	3	3	3	3	3	3			3.00
prevention - animals	III.E.1.b	3	3	3	3	3	3			3.00
prevention - pests/pathogens	III.E.1.c	3	3	3	3	3	3			3.00
Control										
control - plants	III.E.2.a	3	3	3	3	4	4			3.33
control - animals	III.E.2.b	2	3	3	3	3	4			3.00
control - pest/pathogens	III.E.2.c	3	3	3	3	4	4			3.33
Non-Native, Invasive & Problem Species Average Score										3.11
Hydrologic/Geologic function, Hydro-Alteration (III.E.1)										
Roads/culverts	III.F.1.a	4	5	5	5	5	5			4.83
Ditches	III.F.1.b	4	5	5	5	5	5			4.83
Hydro-period Alteration	III.F.1.c	4	5	5	4	5	5			4.67
Water Level Alteration	III.F.1.d	4	5	5	5	5	5			4.83
Hydrologic/Geologic function, Hydro-Alteration Average Score										4.79
Ground Water Monitoring (III.E.2)										
Ground water quality	III.F.2.a	3	5	3	3	4	5			3.83
Ground water quantity	III.F.2.b	4	5	3	5	4	5			4.33
Ground Water Monitoring Average Score										4.08
Surface Water Monitoring (III.E.3)										
Surface water quality	III.F.3.a	4	5	3	3	4	5			4.00

Surface water quantity	III.F.3.b	4	5	3	5	4	5			4.33
Surface Water Monitoring Average Score										4.17
Resource Protection (III.F)										
Boundary survey	III.G.1	4	5	5	5		4			4.60
Gates & fencing	III.G.2	4	5	5	5		4			4.60
Signage	III.G.3	4	5	5	5		4			4.60
Law enforcement presence	III.G.4	3	5	5	5		4			4.40
Resource Protection Average Score										4.55
Adjacent Property Concerns (III.G)										
Land Use										
Expanding development	III.H.1.a	4	5	5	5	4	3			4.33
Inholdings/additions	III.H.2	5	5	4	5	4	4			4.50
Discussion of Potential Surplus Land Determination	III.H.3	4	4	5	5	5	4			4.50
Surplus Lands Identified?	III.H.4	4	4	5	5	4	4			4.33
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Roads	IV.1.a	4	5	5	5	4	4			4.50
Parking	IV.1.b	4	5	5	5	4	4			4.50
Environmental Education & Outreach										
Wildlife	IV.2.a	3	4	5	5	3	3			3.83
Invasive Species	IV.2.b	4	4	5	5	4	3			4.17
Habitat Management Activities	IV.2.c	4	4	5	5	4	3			4.17
Interpretive facilities and signs	IV.3	4	3	4	5	3	3			3.67
Recreational Opportunities	IV.4	3	4	5	5	3	4			4.00
Management of Visitor Impacts	IV.5	4	4	5	4	4	4			4.17
Public Access & Education Average Score										4.13
Managed Area Uses (VI.A, VI.B)										
Existing Uses										
Recreational Trails	VI.A.1	4	4	5	5	4	5			4.50
Camping	VI.A.2	3	4	5	4	3	4			3.83
Hunting	VI.A.3	2	4	5	4	4	5			4.00
Fishing	VI.A.4	3	3	3	5	3	5			3.67
Hiking	VI.A.5	4	4	5	5	4	5			4.50
Horseback Riding	VI.A.6	5	5	5	5	4	4			4.67
Traditional Indigenous People Use Area	VI.A.7	4	5		5	4	4			4.40
Proposed Uses										
Off-road Bicycling	VI.B.1	3	4	5	5	3	4			4.00
Primitive Camping	VI.B.2	3	4	5	5	3	5			4.17
Shooting Range	VI.B.3	1	4	5	5	2	3			3.33

Color Code:

Excellent

Above Average

Below Average

Poor

See Appendix A for detail

Missing Vote

Insufficient Information

Appendix A: Scoring System Detail

Explanation of Consensus Commendations:

Often, the exceptional condition of some of the property's attributes impress review team members. In those instances, team members are encouraged to offer positive feedback to the managing agency in the form of a commendation. The teams develop commendations generally by standard consensus processes or by majority vote if they cannot obtain a true consensus.

Explanation of Consensus Recommendations:

Subsection 259.036(2), F.S., specifically states that the managing entity shall consider the findings and recommendations of the land management review. We ask team members to provide general recommendations for improving the management or public access and use of the property. The teams discuss these recommendations and develop consensus recommendations as described above. We provide these recommendations to the managing agency to consider when finalizing the required ten-year management plan update. We encourage the manager to respond directly to these recommendations and include their responses in the final report when received in a timely manner.

Explanation of Field Review Checklist and Scores, and Management Plan Review Checklist and Scores:

We provide team members with a checklist to fill out during the evaluation workshop phase of the Land Management Review. The checklist is the uniform tool used to evaluate both the management actions and condition of the managed area, and the sufficiency of the management plan elements. During the evaluation workshop, team members individually provide scores on each issue on the checklist, from their individual perspective. Team members also base their evaluations on information provided by the managing agency staff as well as other team member discussions. Staff averages these scores to evaluate the overall conditions on the ground, and how the management plan addresses the issues. Team members must score each management issue 1 to 5: 1 being the management practices are clearly insufficient, and 5 being that the management practices are excellent. Members may choose to abstain if they have inadequate expertise or information to make a cardinal numeric choice, as indicated by an "X" on the checklist scores, or they may not provide a vote for other unknown reasons, as indicated by a blank. If a majority of members failed to vote on any issue, that issue is determined to be irrelevant to management of that property or it was inadequately reviewed by the team to make an intelligent choice. In either case staff eliminated the issue from the report to the manager.

Average scores are interpreted as follows:

Scores 4.0 to 5.0 are *Excellent*

Scores 3.0 to 3.99 are *Above Average*

Scores 2.0 to 2.99 are *Below Average*

Scores 1.0 to 1.99 are considered *Poor*

2018 Land Management Review Team Report for Picayune Strand State Forest

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1. Introduction

Section 259.036, F.S. requires a periodic on-site review of conservation and recreation lands titled in the name of the Board of Trustees to determine (1) whether the lands are being managed for the purposes for which they were acquired and (2) whether they are being managed in accordance with their land management plan adopted pursuant to s. 259.032, F.S. In case where the managed areas exceed 1,000 acres in size, such a review must be scheduled at least every five years. In conducting this review, a statutorily constructed review team "shall evaluate the extent to which the existing management plan provides sufficient protection to threatened or endangered species, unique or important natural or physical features, geological or hydrological functions or archaeological features. The review shall also evaluate the extent to which the land is being managed for the purposes for which it was acquired and the degree to which actual management practices, including public access, are in compliance with the adopted management plan."

The land management review teams are coordinated by the Division of State Lands and consist of representatives from the Division of Recreation and Parks (DEP), the Florida Forest Service (DACS), the Fish and Wildlife Conservation Commission, the local government in which the property is located, the DEP District in which the parcel is located, the local soil and water conservation district or jurisdictional water management district, a conservation organization member, and a local private land manager.

Each Land Management Review Report is divided into three sections. Section 1 provides the details of the property being reviewed as well as the overall results of the report. Section 2 provides details of the Field Review, in which the Review Team inspects the results of management actions on the site. Section 3 provides details of the Land Management Plan Review, in which the team determines the extent to which the Management Plan provides for and documents adequate natural and recreational resource protection.

Finally, each report may also contain an Appendix that lists individual team member comments. This is a compilation of feedback, concerns or other thoughts raised by individual team members, but not necessarily indicative of the final consensus reached by the Land Management Review Team.

1.1. Property Reviewed in this Report

Name of Site: Picayune Strand State Forest

Managed by: Florida Forest Service

Acres: 91,980

County: Collier

Purpose(s) for Acquisition: to protect and restore the natural and cultural values of the property and provide the greatest benefit to the citizens of the state.

Acquisition Program(s): P2000/CARL, Florida Forever, Farm Bill

Original Acquisition Date: 1983

Area Reviewed: Entire Property

Last Management Plan Approval Date: 8/14/08

Review Date: 5/9/18

Agency Manager and Key Staff Present:

- Heather Schmiede, Manager
- Alan Davis, FFS
- John McCormick, FFS
- Mike Knight, FFS
- Melinda Avni, FFS

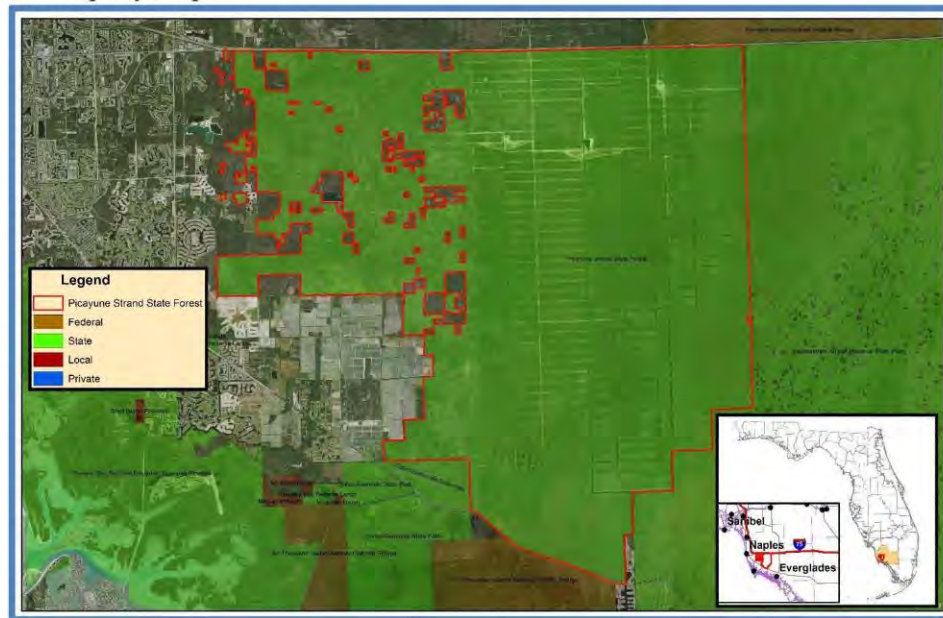
Review Team Members Present (voting)

- Patsy McDonald, Conservation Org.
- Marlene Rodak, Local Representative
- Dan Mitchell, FWC
- Greg O'Connell, DEP District
- Bill Korn, FFS
- Joe Bozzo, SFWMD
- Vanessa Boohes, Private Land Manager
- Matthew Hodge, DRP District

Other Non-Team Members Present (attending)

- James Parker, DEP/DSL
- Rachel Settle, FWC

1.2 Property Map



1.3. Overview of Land Management Review Results

Is the property managed for purposes that are compatible with conservation, preservation, or recreation?

Yes = 8, No = 0

Are the management practices, including public access, in compliance with the management plan?

Yes = 8, No = 0

Table 1 shows the average scores received for each applicable category of review. *Field Review* scores refer to the adequacy of management actions in the field, while *Management Plan Review* scores refer to adequacy of discussion of these topics in the management plan. Scores range from 1 to 5 with 5 signifying excellence. For a more detailed key to the scores, please see *Appendix A*.

Table 1: Results at a glance.

Major Land Management Categories	Field Review	Management Plan Review
Natural Communities / Forest Management	4.16	4.03
Prescribed Fire / Habitat Restoration	3.77	4.13
Hydrology	4.23	4.26
Imperiled Species	4.11	4.42
Exotic / Invasive Species	3.66	3.58
Cultural Resources	3.81	3.75
Public Access / Education / Law Enforcement	3.80	3.91
Infrastructure / Equipment / Staffing	3.08	N/A
Color Code (See Appendix A for detail)		
Excellent	Above Average	Below Average
		Poor

1.3.1 Consensus Commendations for the Managing Agency

The following commendations resulted from discussion and vote of the review team members:

1. The team commends the Florida Forest Service (FFS) for recent efforts to improve the mapping and database documentation of invasive plant treatment locations. (8+, 0-)
2. The team commends the FFS for recent efforts to initiate a comprehensive approach to pre-burn line preparation to ensure positive results when burning in the Belle Meade tract. (8+, 0-)
3. The team commends the FFS for vast improvement in signage of primary and secondary roads. (8+, 0-)
4. The team commends the FFS for efforts to coordinate with FWC and SFWMD to achieve considerable success in treating invasive plant populations through much of the forest. (8+, 0-)
5. The team commends the FFS for coordination with engineering efforts to restore to grade and extensive system of South Golden Gate Estate roads which has already shown a positive impact on increasing surface water and overall hydroperiod in the eastern blocks. (8+, 0-)
6. The team commends the FFS for noticeable improvements in general land management in the past five years. (8+, 0-)

1.3.2. Consensus Recommendations to the Managing Agency

The following recommendations resulted from a discussion and vote of review team members. The next management plan update should include information about how these recommendations have been addressed:

1. The team recommends the FFS add pre-restoration baseline surveys conducted by the Conservancy of Southwest Florida and mention future post restoration surveys in the 10-year update to the PSSF management plan. (8+, 0-)

Managing Agency Response:

2. The team recommends the FFS take advantage of recent wildfires, largely in Belle Meade, to expand prescribed fire activities/planning to bring historic backlogged areas into maintenance/desired condition. (8+, 0-)

Managing Agency Response:

3. The team recommends the FFS develop a comprehensive listed/nonlisted plant list that is maintained and updated to manage rare, threatened, and endangered species. (8+, 0-)

Managing Agency Response:

4. The team recommends the FFS pursue options to reduce cabbage palm densities. (8+, 0-)

Managing Agency Response:

2. Field Review Details

2.1 Field Review Checklist Findings

The following items received high scores on the review team checklist, which indicates that management actions exceeded expectations.

1. Natural communities, specifically mesic hammock, tropical hardwood hammock (rockland hammock), and wet prairie.
2. Listed Species: Protection & Preservation, specifically animals and red-cocked woodpeckers.
3. Natural Resources Survey/Management Resources, specifically listed species or their habitat monitoring, fire effects monitoring, other habitat management effects monitoring, and invasive species survey/ monitoring.
4. Resource management (prescribed fire), specifically area being burned and quality.
5. Forest Management, specifically timber inventory/assessment, reforestation/afforestation, and site preparation.
6. Hydrologic/Geologic function Hydro - Alteration, specifically roads/culverts, ditches, hydro-period alteration, water level alteration, and dams,reservoirs, other impoundments.
7. Ground water monitoring, specifically ground water quality and quantity.
8. Surface water monitoring, specifically surface water quality and quantity.
9. Resource protection, specifically boundary survey.
10. Environmental Education & Outreach, specifically habitat management activities and recreation opportunities.

2.2. Items Requiring Improvement Actions in the Field

The following items received low scores on the review team checklist, which indicates that management actions noted during the Field Review were not considered sufficient (less than 3.0 score on average). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The management plan update should include information on how these items have been addressed:

1. *The maintenance condition of the Natural Communities, specifically strand swamp received a below average score. The review team is asked to evaluate, based on their perspective, what percent of the natural community is in maintenance condition. The scores range from 1 to 5, with 1 being 0-20% in maintenance condition, 2 being 21-40%, 3 being 41-60%, 4 being 61-80% and 5 being 81-100%.*

Managing Agency Response:

2. *Public Access & Education, specifically Interpretive facilities and signs, received a below average score. The review team is asked to evaluate, based on information provided by the managing agency, whether interpretive facilities and signs are sufficient.*

Managing Agency Response:

3. *Management Resources, specifically staff, and funding, received a below average score. The review team is asked to evaluate, based on information provided by the managing agency, whether management resources are sufficient.*

Managing Agency Response:

3. Land Management Plan Review Details

3.1 Items Requiring Improvements in the Management Plan

The following items received low scores on the review team checklist, which indicates that the text noted in the Management Plan Review does not sufficiently address this issue (less than 3.0 score on average.). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The next management plan update should address the checklist items identified below:

1. *Managed Area Uses, Proposed Uses, specifically shooting range, received a below average score. This is an indication that the review team concluded the shooting range was not compatible with conservation, preservation, or recreation.*

Managing Agency Response:

Appendix A: Scoring System Detail

Explanation of Consensus Commendations:

Often, the exceptional condition of some of the property's attributes impress review team members. In those instances, team members are encouraged to offer positive feedback to the managing agency in the form of a commendation. The teams develop commendations generally by standard consensus processes or by majority vote if they cannot obtain a true consensus.

Explanation of Consensus Recommendations:

Subsection 259.036(2), F.S., specifically states that the managing entity shall consider the findings and recommendations of the land management review. We ask team members to provide general recommendations for improving the management or public access and use of the property. The teams discuss these recommendations and develop consensus recommendations as described above. We provide these recommendations to the managing agency to consider when finalizing the required ten-year management plan update. We encourage the manager to respond directly to these recommendations and include their responses in the final report when received in a timely manner.

Explanation of Field Review Checklist and Scores, and Management Plan Review Checklist and Scores:

We provide team members with a checklist to fill out during the evaluation workshop phase of the Land Management Review. The checklist is the uniform tool used to evaluate both the management actions and condition of the managed area, and the sufficiency of the management plan elements. During the evaluation workshop, team members individually provide scores on each issue on the checklist, from their individual perspective. Team members also base their evaluations on information provided by the managing agency staff as well as other team member discussions. Staff averages these scores to evaluate the overall conditions on the ground, and how the management plan addresses the issues. Team members must score each management issue 1 to 5: 1 being the management practices are clearly insufficient, and 5 being that the management practices are excellent. Members may choose to abstain if they have inadequate expertise or information to make a cardinal numeric choice, as indicated by an "X" on the checklist scores, or they may not provide a vote for other unknown reasons, as indicated by a blank. If a majority of members failed to vote on any issue, that issue is determined to be irrelevant to management of that property or it was inadequately reviewed by the team to make an intelligent choice. In either case staff eliminated the issue from the report to the manager.

Average scores are interpreted as follows:

Scores 4.0 to 5.0 are *Excellent*

Scores 3.0 to 3.99 are *Above Average*

Scores 2.0 to 2.99 are *Below Average*

Scores 1.0 to 1.99 are considered *Poor*

Exhibit U

Compliance with Local Comprehensive Plan



Growth Management Department / Zoning Division/Comprehensive Planning Section

October 16, 2019

Ms. Patricia Anderson
State Lands Plan Coordinator
Florida Department of Agriculture and Consumer Services
The Conner Building
3125 Conner Blvd.
Tallahassee, FL 32399-1650

SENT VIA EMAIL: patricia.anderson@freshfromflorida.com

RE: Picayune Strand State Forest (PSSF) *Draft* 10-Year Land Management Plan ("LMP")

Dear Ms. Anderson,

In response to your August 6, 2019 letter with accompanying LMP in which you request Collier County review the LMP for consistency with the Collier County Comprehensive Plan a/k/a Growth Management Plan (GMP), I provide the following analysis and conclusion.

ANALYSIS:

The PSSF is located east of Collier Blvd., south of I-75, and north of Tamiami Trail East (US 41), and lies within multiple future land use designations as identified on the Future Land Use Map (FLUM) of the Future Land Use Element (FLUE) in the GMP, as follows: (1) Conservation Designation within NRPA-Natural Resource Protection Area Overlay, and portion within ACSC-Big Cypress Area of Critical State Concern Overlay, and portion within CHHA-Coastal High Hazard Area Overlay; (2) Estates Designation within NRPA and portion within ACSC and portion within CHHA; (3) Agricultural/Rural Designation, Agricultural/Rural Mixed Use District within NRPA; and, (4) Agricultural/Rural Designation, Rural Fringe Mixed Use District (RFMUD) Sending Lands and within NRPA and portion within CHHA.

The Conservation Designation, RFMUD Sending Lands, and NRPA Overlay explicitly allow conservation and preservation uses; inherent within these uses are recreation activities (such as camping, hiking, birdwatching, picnicking, fishing, hunting, etc.) and necessary land management practices and activities (such as prescribed burns, invasive plant and animal species control and removal by various means, hydrologic restoration, etc.). The NRPA Overlay has a requirement to retain 90% of the existing native vegetation. The ACSC Overlay (which is also a State designation monitored by the ACSC Review Team within the Florida Department of Economic Opportunity) does not regulate land uses, rather contains restrictions on infrastructure type (e.g. prohibits finger lakes), impacts upon certain saltwater plant species, amount of site alteration and impervious area, etc.; it does not appear that any of the uses and activities in the

LMP would be contrary to any of the ACSC regulatory provisions. The CHHA Overlay mostly pertains to residential density allowed in the Urban Designation, expenditure of County funds for public infrastructure within the CHHA, and protection of County structures and infrastructure within the CHHA.

Other GMP Elements and Sub-Elements policies and provisions have minimal or no impact upon the LMP.

CONCLUSION:

Based upon the above analysis, the Picayune Strand State Forest *draft* 10-Year Land Management Plan may be deemed consistent with the Collier County Growth Management Plan.

Should you need more information or wish to discuss this matter, please contact me. Thank you.

Sincerely,

David Weeks, AICP
Growth Management Manager,
Comprehensive Planning Section
Growth Management Manager,

cc: James French, Deputy Department Head

Exhibit V

State Forest Management Plan Advisory Group Summary

Management Plan Advisory Group Organizational Meeting
Picayune Strand State Forest
10-Year Land Management Plan

November 14, 2019
10:30 a.m.

Meeting Minutes

MPAG Members Present:

- | | |
|-----------------|--|
| • Sean Allen | Caloosahatchee Forestry Center Manager, Florida Forest Service (FFS) |
| • Dan Mitchell | Biologist Administrator, (FWC) |
| • Joyce Holland | Local Private Property Owner |

MPAG Members Not Present:

- | | |
|-------------------|--|
| • Joanna Weaver | Senior Project Manager (SFWMD) |
| • Christine Raber | Local Private Property Owner |
| • Bill McDaniel | Collier County Commissioner |
| • Mitchell Aman | District Conservationist (USDA) |
| • Kathy Worley | Conservancy of SW Florida |
| • David Nicholson | Local conservation organization (District Biologist) |

Staff:

- Alan Davis, Environmental Manager, FFS
- Ronda Sutphen, Government Operations Consultant, FFS
- Mike Weston, Resource Administrator, Caloosahatchee Forestry Center, FFS
- Thomas Gonzalez, FAS, Caloosahatchee Forestry Center, FFS
- Reid Greiner, Forester, Caloosahatchee Forestry Center, FFS

Public

- Lynn Switzon, Everglades Ranch
- Barb Garner, Citizen
- Michael Confusin, Everglades Ranch
- Bob Kennedy, Citizen, Recreation and Biking

Meeting Start Time: 10:31 a.m.

- Mr. Davis opened the meeting, introduced himself, and explained the purpose, statutory framework and management plan development process within which MPAG members are called upon to provide input into the draft land management plan.
- Mr. Davis explained the Sunshine Law's role in the MPAG public hearings and MPAG member appointment.
- Mr. Davis stated the MPAG meeting was advertised to the public through local newspaper *The Naples Daily News*, Florida Administrative Register, state forest kiosks and the FFS webpage. The meeting was also announced at the Board of County Commissioners meeting on October 22, 2019.
- Mr. Davis provided an overview of the various approvals the draft land management plan must go through both before and after the MPAG public hearings occur.
- Next, everyone in the room introduced themselves and stated what entity or organization they were with.

- Mr. Davis stated that after a PowerPoint presentation at the public hearing, there would be a question and answer session, and all were welcome to ask questions. Mr. Davis encouraged MPAG members to listen to the public's ideas/concerns during the hearing. He advised that at the MPAG Workshop meeting following the hearing there would be an opportunity to share their thoughts on what they heard from the public and their ideas on the draft management plan.
- Mr. Davis explained the concept of consensus and how it relates to the group's determinations. He also explained that the FFS Director is the final authority on any changes made to the draft plan.
- Mr. Davis then asked the advisory group to designate a chairperson. All agreed to designate Sean Allen as MPAG chairperson.
- Mr. Davis thanked everyone and adjourned the organizational meeting.

Meeting End Time: 10:37 a.m.

Management Plan Advisory Group Public Hearing
Picayune Strand State Forest
10-Year Land Management Plan

November 14, 2019
11:00 a.m.

Meeting Minutes

MPAG Members Present:

- | | |
|-----------------|--|
| • Sean Allen | Caloosahatchee Forestry Center Manager, Florida Forest Service (FFS) |
| • Dan Mitchell | Biologist Administrator, (FWC) |
| • Joyce Holland | Local Private Property Owner |
| • Joanna Weaver | Senior Project Manager (SFWMD) |
| • Mitchell Aman | District Conservationist (USDA) |

MPAG Members Not Present:

- | | |
|-------------------|--|
| • Christine Raber | Local Private Property Owner |
| • Bill McDaniel | Collier County Commissioner |
| • Kathy Worley | Conservancy of SW Florida |
| • David Nicholson | Local conservation organization (District Biologist) |

Staff:

- Alan Davis, Environmental Manager, FFS
- Ronda Sutphen, Government Operations Consultant, FFS
- Mike Weston, Resource Administrator, Caloosahatchee Forestry Center, FFS
- Thomas Gonzalez, FAS Caloosahatchee Forestry Center, FFS
- Reid Greiner, Forester, Caloosahatchee Forestry Center, FFS

Public

- Lynn Switzon, Everglades Ranch
- Barb Garner, Citizen
- Michael Confusin, Everglades Ranch
- Bob Kennedy, Citizen, Recreation and Biking
- James French, Collier County
- Mike Duever, South Florida Water Mgt. District contractor
- Jon Lord, Citizen
- Wes Wilkins, Citizen
- Jeanne Tucker, Citizen, Birding and Hiking

Meeting Start Time: 11:00 a.m.

- Mr. Davis introduced MPAG chairperson Sean Allen.
- Mr. Allen, the MPAG Chairperson, welcomed everyone to the public hearing and thanked all in attendance for coming, then introduced the MPAG members.
- Mr. Davis explained the purpose of the public hearing.
- Mr. Davis stated that members of the public were present and there five speaker forms were filled out. Mr. Davis then introduced Mike Weston, Resource Administrator, Florida Forest Service

- Mr. Weston gave a PowerPoint presentation of the Picayune Strand State Forest draft plan. The plan included the location of Picayune Strand State Forest with its naming, boundaries, forest management philosophy, Florida statutes concerning State Forest management, historical data and nine (9) goals and objectives to be accomplished on the forest during the next ten (10) years. The presentation included the current status of the forest.
- Mr. Davis thanked Mr. Weston and then asked FFS staff to proceed to the front of the room for a question and answer session.
- Mr. Davis announced that anyone wanting to speak would need to fill out a speaker form if they had not already done so.
- Mr. Davis collected the speaker forms.
- Mr. Davis read a letter from Commissioner McDaniel. The letter stated that Commissioner Daniel was in favor of developing an off-road vehicle park on Picayune Strand State Forest.
- Mr. Davis then called for speakers to proceed to the front.

Speaker 1

Ms. Lynn Switson suggested moving the jeep trail to other areas of the forest and keep the Belle Meade tract for horses, bicycles and hikers.

Speaker 2

Ms. Jeanne Tucker commended the FFS staff and said she appreciated the work that went into the plan. She mentioned she would like to see more directional signage on the trails along with official bird signage. She would also like to have trails mowed and extended to areas where different species of birds might be found. She also mentioned having official trail maps would be beneficial. Ms. Jeanne Tucker also recommended growing Friends of Florida State Forest for Picayune State Forest.

Speaker 3

Mr. Wes Wilkins commended FFS staff and appreciated the overall concept of the land management plan.

Speaker 4

Mr. Bob Kennedy commended the FFS for enhancing recreation and trail opportunities and suggested developing more access points into the forest. He also suggested adding Geocaching to the land management plan as it is a very popular activity in the forest. Mr. Bob Kennedy also recommended moving the trail head off the private road.

Speaker 5

Mr. Mike Duever commented that he found the plan to be well written and easy to understand but there was not much information on implementation.

- Mr. Davis thanked the speakers for their comments.
- With no other speakers, Mr. Davis thanked everyone for their time and input, and adjourned the public hearing.

Meeting End Time: 12:25 p.m.

Management Plan Advisory Group Workshop Meeting
Picayune Strand State Forest
10-Year Land Management Plan

November 14, 2019

1:30 p.m.

Meeting Minutes

MPAG Members Present:

- | | |
|-----------------|--|
| • Sean Allen | Caloosahatchee Forestry Center Manager, Florida Forest Service (FFS) |
| • Dan Mitchell | Biologist Administrator, (FWC) |
| • Joyce Holland | Local Private Property Owner |
| • Joanna Weaver | Senior Project Manager (SFWMD) |
| • Mitchell Aman | District Conservationist (USDA) |

MPAG Members Not Present:

- | | |
|-------------------|--|
| • Christine Raber | Local Private Property Owner |
| • Bill McDaniel | Collier County Commissioner |
| • Kathy Worley | Conservancy of SW Florida |
| • David Nicholson | Local conservation organization (District Biologist) |

Staff:

- Alan Davis, Environmental Manager, FFS
- Ronda Sutphen, Government Operations Consultant, FFS
- Mike Weston, Resource Administrator, Caloosahatchee Forestry Center, FFS
- Thomas Gonzalez, FAS Caloosahatchee Forestry Center, FFS
- Reid Greiner, Forester, Caloosahatchee Forestry Center, FFS

Meeting Start Time: 1:30 p.m.

- Mr. Davis started the meeting by going over the meeting structure that would take place and specifics regarding FFS staff and MPAG member responsibilities for the meeting minutes in the coming days/week.
- Mr. Davis declared a "page-by-page" process would be used for reviewing and commenting on the draft plan. The notion of "consensus" was again addressed.
- Commissioner McDaniel was not present but provided a letter to consider an off-road vehicle park to be managed by the FFS (Section 2 Paragraph D Page 22). This use is incompatible with the current plan if unmanaged, the FFS may consider identifying and developing a designated off-road vehicle area.
- Start page by page plan review.

Page 3. Add hunting to recreational activities

Page 5. Add bat project to Biological Research and Management

Page 7. Change Short term goal to Ongoing goal for Goal 3: Objective 3

Page 29. Remove bird. Now reads "and focal species"

Page 29. Add bald eagles. Determine if there are any additional endangered species that need to be added besides gopher tortoise

Page 32. Add public access (planned) investigate alternative designated entrance off Beck/Benfield Road

Page 33. Change state road to county road

Page 37. FFS work with FWC on using roads and off-road vehicles for hunting. Reinstate check stations

Page 56. Pine regeneration (site specific) not necessarily longleaf

- Mr. Davis asked the group if everyone, as a consensus, was generally accepting of the plan. All agreed.
- Mr. Davis explained the next steps of the process, and the FFS Director makes the final decision on any edits to the plan. The next public hearing will be at the Acquisition and Restoration Council (ARC) meeting on April 10, 2020.
- Mr. Davis thanked everyone for their time and participation, then adjourned the workshop meeting.

Meeting End Time: 3:03 p.m.

Exhibit W

State Forest Summary Budget

	PICAYUNE STRAND STATE FOREST MGT. ONLY 18-19 EXPENDITURES	Percentages Based on Total Dollar Amount of Expenditures	Assessed Needed Funding Based Upon LMUAC Resource Management
Resource Management	\$ 146,362	25.50%	\$ 292,354.25
Exotic Species Control	\$ 19,979	4.10%	\$ 52,343.50
Prescribed Burning	\$ 35,747	2.80%	\$ 2,550.00
Cultural Resources Management	\$ 487	0.10%	\$ 1,276.87
Timber Management	\$ 41,420	8.50%	\$ 108,517.01
Hydrological Management	\$ 2,436	0.50%	\$ 6,383.35
	\$ -		\$ -
OTHER RESOURCE MANAGEMENT	\$ 46,293	9.50%	\$ 121,283.72
Listed Species Management	\$ -		\$ -
Forest Pest and Disease	\$ -		\$ -
Plant Conservation Program	\$ -		\$ -
State Forest Research Projects	\$ -		\$ -
Boundary Surveys for State Forests	\$ -		\$ -
Other Activities Also Include:	\$ -		\$ -
Liaison Community Meetings / Boundary Line Maintenance / Forest Inventories and Various Other Activities / Wildfire Suppression on State Forests			\$ -
Administration	\$ 35,085	7.20%	\$ 91,920.29
Central Office Headquarters	\$ 35,085	7.20%	\$ 91,920.29
District/Regions	\$ -		\$ -
Units/Projects	\$ -		\$ -
	\$ -		\$ -
Support	\$ 165,191	33.90%	\$ 432,791.37
Land Management Planning	\$ 6,822	1.40%	\$ 17,873.39
Land Management Reviews	\$ 1,949	0.40%	\$ 5,106.68
Training/Staff Development	\$ 46,780	9.60%	\$ 122,560.39
Vehicle Purchase	\$ 4,386	0.90%	\$ 11,490.04
Vehicle Operations and Maintenance	\$ 69,682	14.30%	\$ 182,563.91
	\$ -		\$ -
OTHER SUPPORT	\$ 35,572	7.30%	\$ 93,196.96
State Forest Land Acquisition Support			\$ -
Other Support Activities Also Include: Computer Maintenance / Radio Maintenance / Technical Support / Management of Apiary and Cattle Leases / State Forest Leases, Lease Amendments, Easements and Other Various Activities	\$ -		\$ -
	\$ -		\$ -
Capital Improvements	\$ 99,894	20.50%	\$ 281,717.50
New Facility Construction	\$ 24,852	5.10%	\$ 65,110.21
Facility Maintenance	\$ 75,043	15.40%	\$ 196,607.29
			\$ -
Visitor Services/Recreation	\$ 62,860	12.90%	\$ 164,690.52
Information/Education	\$ 14,619	3.00%	\$ 38,300.12
Operations	\$ 48,242	9.90%	\$ 126,390.40
			\$ -
Law Enforcement	\$ -	0.00%	\$ -
Total	\$ 487,290	100.00%	\$ 1,276,671

Exhibit X

Arthropod Control Plan on PSSF
Response from Collier County, Florida



ADAM H. PUTNAM
COMMISSIONER

Florida Department of Agriculture and Consumer Services
Division of Agricultural Environmental Services

ARTHROPOD MANAGEMENT PLAN - PUBLIC LANDS

Section 388.4111, F.S.
Telephone: (850) 617-7997

Return to:
Bureau of Entomology and Pest
Control
3125 Conner Blvd, Suite N,
MS C-41
Tallahassee, Florida 32399-1650

For use in documenting an Arthropod Control Plan for lands designated by the State of Florida or any political subdivision thereof as being environmentally sensitive and biologically highly productive therein. Fill this form out if control work is necessary or planned.

Name of Designated Land: *Picayune Strand State Forest.*

Is Control Work Necessary:

☐ Yes

☒ No

Not at present.

Location: *Naples, FL*

Land Management Agency: *Florida Forest Service*

Are Arthropod Surveillance Activities Necessary?

☒ Yes

☐ No

If "Yes", please explain:

Due to proximity & changes in water levels due to restoration (PSRP), CMCO would like to trap, speciate & test mosquitoes for disease.

Which Surveillance Techniques Are Proposed?

Please Check All That Apply:

☒ Landing Rate Counts

☐ Light Traps

☐ Sentinel Chickens

☐ Citizen Complaints

☒ Larval Dips

☒ Other *CDC/BB Traps.
Automated Counters.*

If "Other", please explain:

CMCO has automated traps which will "count" the mosquitoes w/ a time stamp, which we can see and evaluate online.

Arthropod Species for Which Control is Proposed:

If necessary - with presence of pathogens - species of concern include
Aedes aegypti, *albopictus*, *taeniorhynchus*, *Culex nigripalpus*,
Anopheles.

Proposed Larval Control:

Proposed larval monitoring procedure:

Dipping as needed.

Are post treatment counts being obtained:

☒ Yes

☐ No

Biological Control of Larvae:

Might predacious fish be stocked:

☐ Yes

☒ No

Other biological controls that might be used:

None at present.

Material to be Used for Larvaciding Applications:

(Please Check All That Apply:)

☒ Bti

☒ Bs

☐ Methoprene

☐ Non-Petroleum Surface Film

☐ Other, please specify:

Please specify the following for each larvacide:

Chemical or Common name:

☐ Ground

☒ Aerial

Rate of application: 5-10 lb./acre

Method of application: Granule/Aerial/Helicopter.

Proposed Adult Mosquito Control:

Aerial adulticiding

☐ Yes

☒ No

Not at present.

Ground adulticiding

☐ Yes

☒ No

Not at present.

Please specify the following for each adulticide: [what we use.]

Chemical or common name: [Dibrom, Zuvex, Anvil]

Rate of application:

Method of application:

Use only in cases of need (disease outbreak),
overwhelming #'s.

Proposed Modifications for Public Health Emergency Control: Arthropod control agency may request special exception to this plan during a threat to public or animal health declared by State Health Officer or Commissioner of Agriculture.

PPZ

Proposed Notification Procedure for Control Activities:

- Website
- Social media
- mobile App
- Telephone

Records:

Are records being kept in accordance with Chapter 388, F.S.:

☒ Yes

☐ No

Records Location: CMCD HQ.

How long are records maintained:

3 yrs / Surveillance & Treatment.

Vegetation Modification:

What trimming or altering of vegetation to conduct surveillance or treatment is proposed?

None.

Proposed Land Modifications:

Is any land modification, i.e., rotary ditching, proposed:

No

Include proposed operational schedules for water fluctuations:

N/A

List any periodic restrictions, as applicable, for example peak fish spawning times.

N/A

Proposed Modification of Aquatic Vegetation:

Water Lettuce/Hyacinth - if necessary.
CMCD does not currently have an aquatic weed control program

Land Manager Comments:

Arthropod Control Agency Comments:

Jonathan Schuniger 5/24/17
Signature of Lands Manager or Representative Date

[Signature] 5/24/17
Signature of Mosquito Control Director / Manager Date

Exhibit Y

Proposed Bike Trails and Campground Maps

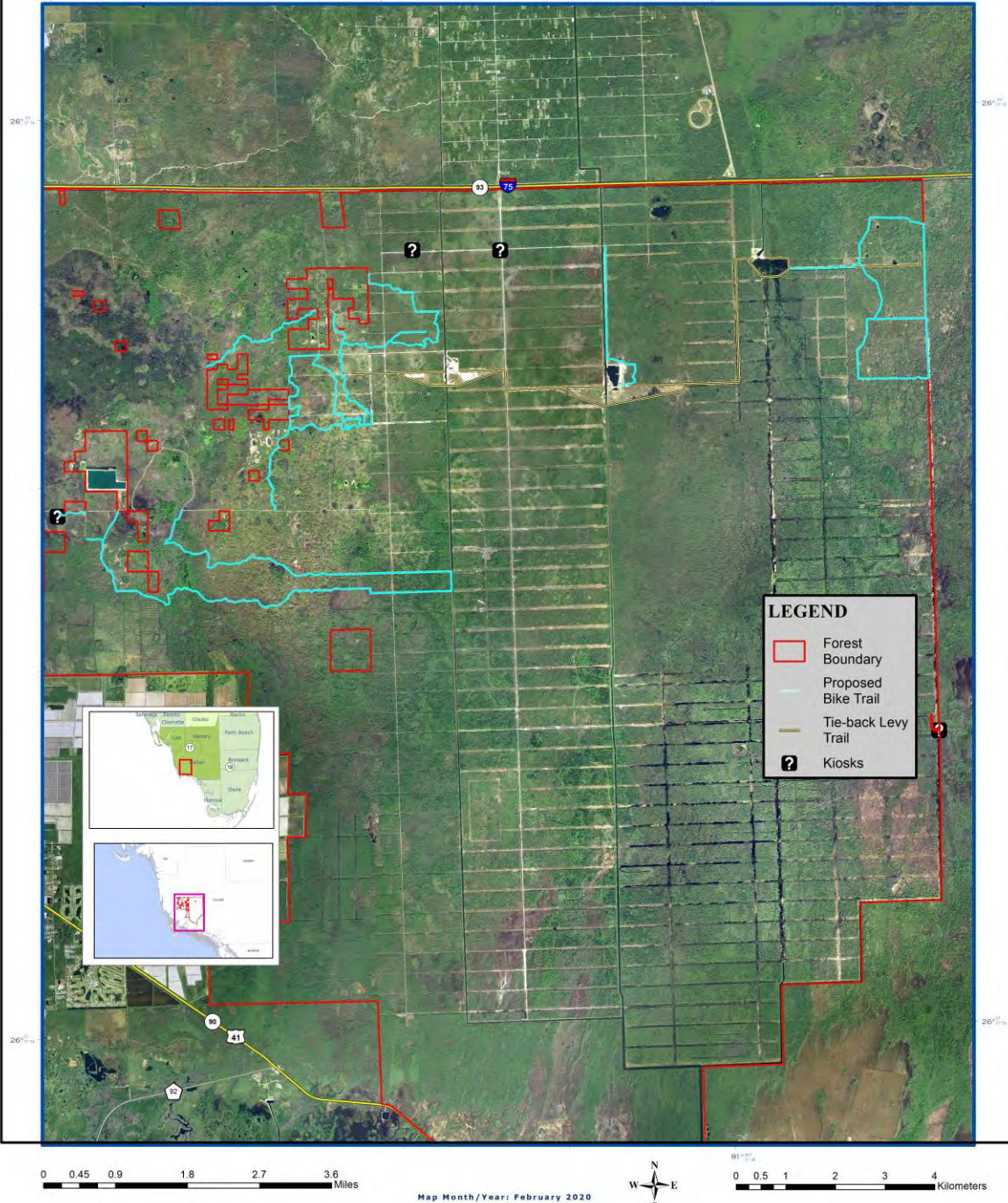


Picayune Strand State Forest Proposed Bike Trails Map

DISCLAIMER:
This map was prepared by the Florida Forest Service for informational purposes only. It is not intended to be used for legal or regulatory purposes. The Florida Forest Service does not warrant the accuracy or completeness of the information presented on this map. The Florida Forest Service is not responsible for any errors or omissions on this map. The Florida Forest Service is not responsible for any damages or injuries resulting from the use of this map.

Managed Area boundaries courtesy of the Florida Natural Areas Inventory. Property used before 1900. From the US Army Corps of Engineers.

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum



0 0.45 0.9 1.8 2.7 3.6 Miles

Map Month/Year: February 2020



0 0.5 1 2 3 4 Kilometers

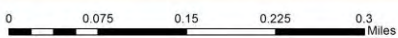
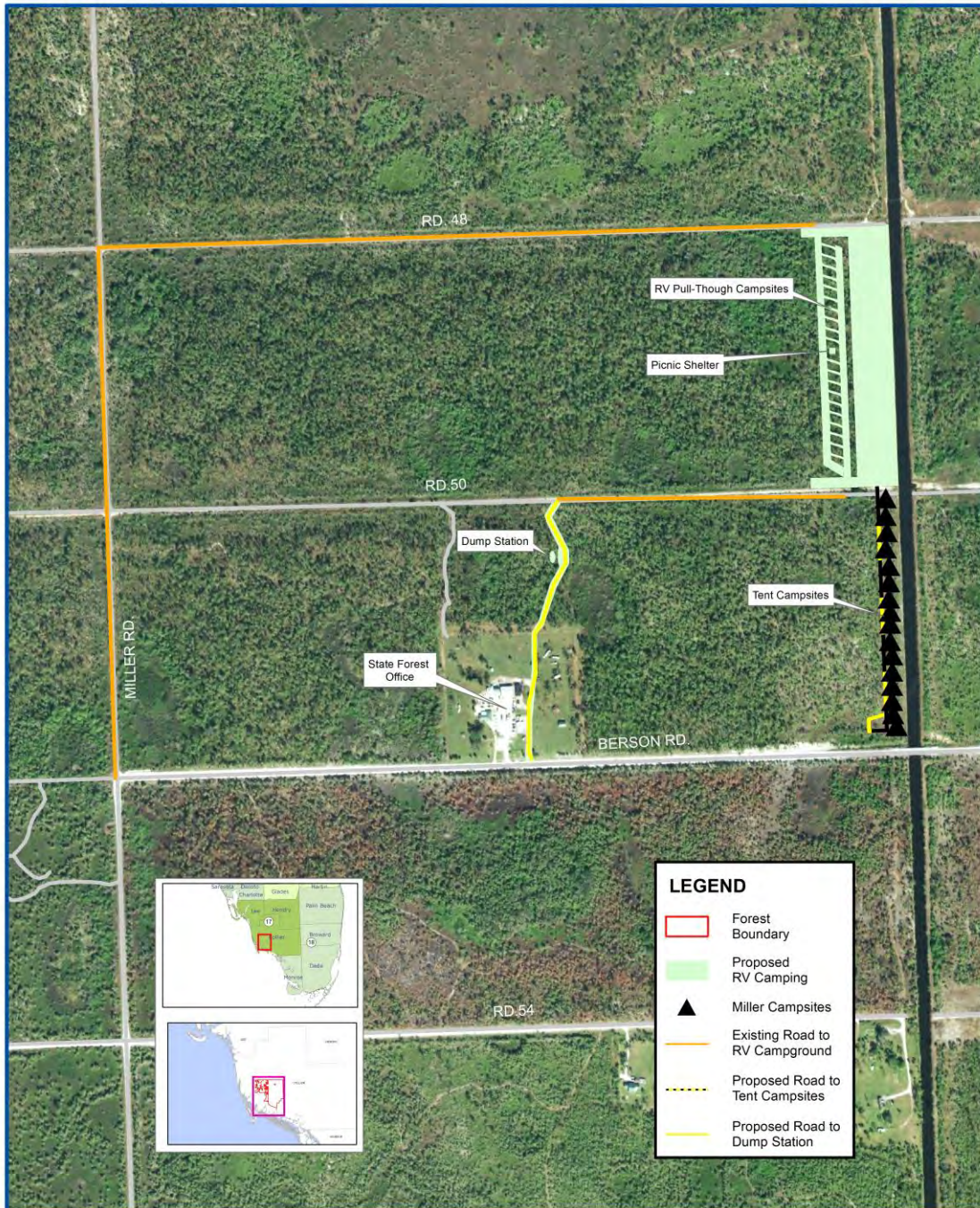


Picayune Strand State Forest Proposed Campground Map

Coordinate System: Florida Albers
High Accuracy Reference Network (NAD83) Datum

DISCLAIMER: This map is for informational purposes only. It is not intended to be used for legal or regulatory purposes. The Florida Department of Natural Resources (FDOA) is not responsible for any errors or omissions on this map. The user assumes all liability for any use of this map.

Managed Area boundaries courtesy of the Florida Natural Areas Inventory (FNAI) and the Florida Department of Transportation (FDOT).



Map Month/Year: June 2019

