

JENNINGS STATE FOREST  
2018 LAND MANAGEMENT PLAN

EXHIBITS

## Exhibit A

### Ten-Year Management Accomplishment Summary

## Jennings State Forest 10-Year Accomplishments

<b>Site Preparation</b>			
Chop Single Pass		Acres	318
Disk / Raking		Acres	40
Burning		Acres	192
<b>Planting</b>			
Bareroot	Longleaf Pine	No	45,012
		Acres	62
Containerized	Longleaf Pine	No	242,484
		Acres	334
<b>Seedling Survival Checks</b>			
Planting Checks		Acres	419
<b>Timber Stand Improvement</b>			
Chainsaw Work	Sand pine / Turkey Oak	Acres	669
Herbicide	Turkey Oak	Acres	112
<b>Timber Sales</b>			
Marking	FFS Marking	Acres	369
Cruising	FFS Cruising	Acres	1,310
Harvest		Acres	792
		Tons	29,412
<b>Timber Inventory</b>			
Inventory	Annual Inventory Update	Acres	31,226
<b>Invasive Control</b>			
Air Potato		Acres	2
Chinese Tallow		Acres	115
Cogan Grass		Acres	6
Climbing Fern		Acres	70
Torpedo Grass		Acres	22
Mimosa Tree		Acres	4
<b>Fire</b>			
Wildfire		No	20
		Acres	572
Prescribed Fire		Acres	22,829

<b>Recreation</b>			
Day Use	Estimated Forest Visitors	No.	314,329
Overnight Camping	Primitive	No.	1,245
Annual Pass		No.	70
<b>Roadwork</b>			
Roads Graded		Miles	470
Roads Rebuilt		Miles	27
Culverts		No.	11
Low Water Crossing		No.	1
<b>Boundary Maint.</b>			
Maintenance / Marking		Miles	86
<b>I&amp;E Activities</b>			
Programs / Tours		No.	172
Radio – TV – Articles		No.	30
Education / Research		No.	15
<b>Other Activities</b>			
Apiary Permits		No.	6
Fuelwood Permits		No.	204

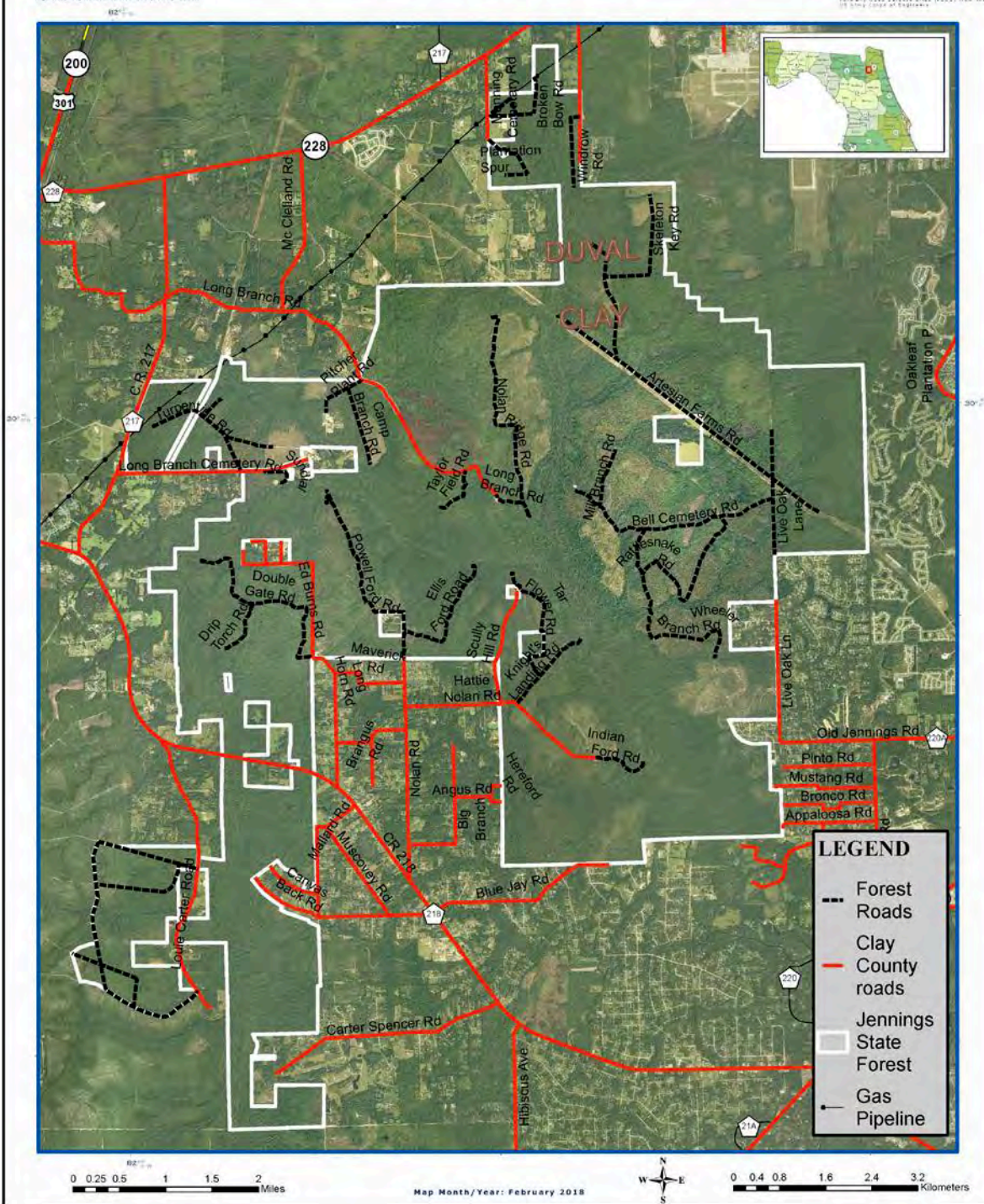
## Exhibit B

### Location/Boundary/Roads Map

[illegible]

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

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## Exhibit C

### Optimal Management Boundary Map



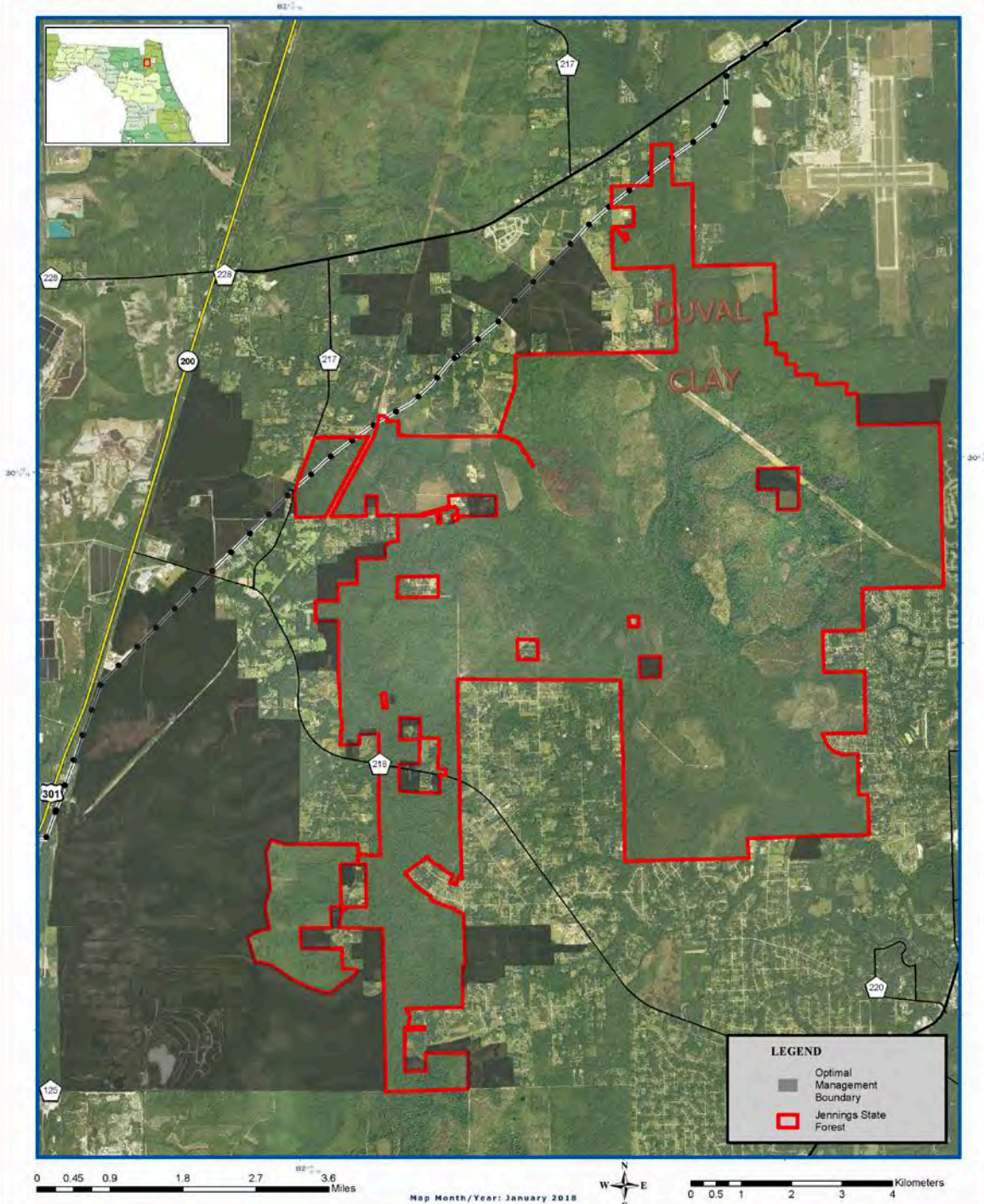
Florida Forest Service

# Jennings State Forest Optimal Management Boundary Map

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

**DISCLAIMER:**  
This map was prepared by the Florida Forest Service  
and is not intended to be used for any purpose other than  
general information. It is not a legal document and should  
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contained herein. The Florida Forest Service is not responsible for  
any errors or omissions in this map.

Map of the Jennings State Forest showing the optimal management boundary. The map is based on the Florida Albers Coordinate System and the High Accuracy Reference Network (HARN) Datum. The map is dated January 2018.



## Exhibit D

### Facilities, Recreation, and Improvements Maps



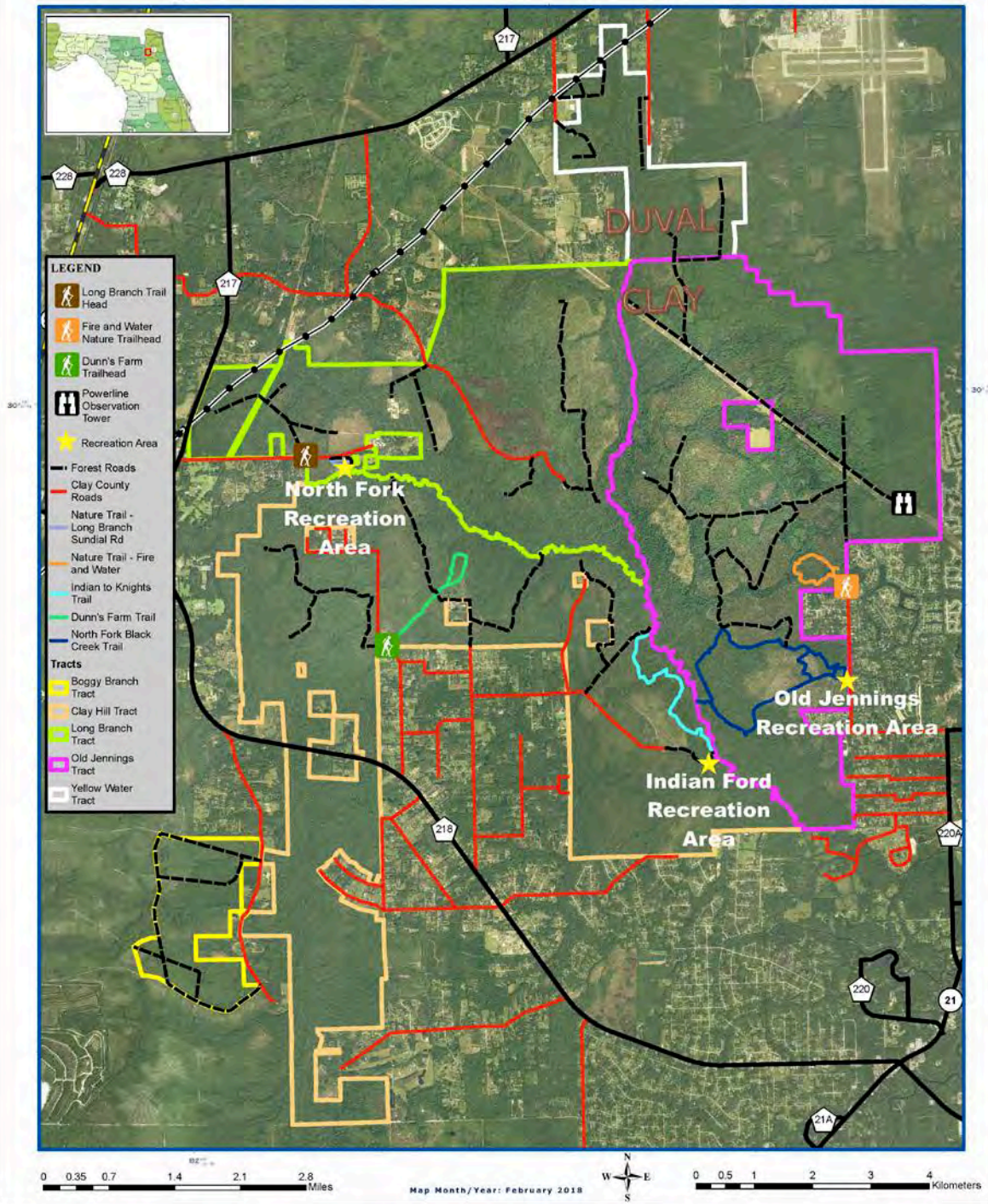
Florida Forest Service

Coordinate System: Florida Albers  
NAD 83/2011 StatePlane FWS (FWS) Datum

# Jennings State Forest Recreation Areas and Hiking Trails Map

**DISCLAIMER**  
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Map of the Recreation Areas of  
the Florida Forest Service  
Copyright © 2002, 2004, 2006, 2008, 2010, 2012, 2014  
US Army Corps of Engineers

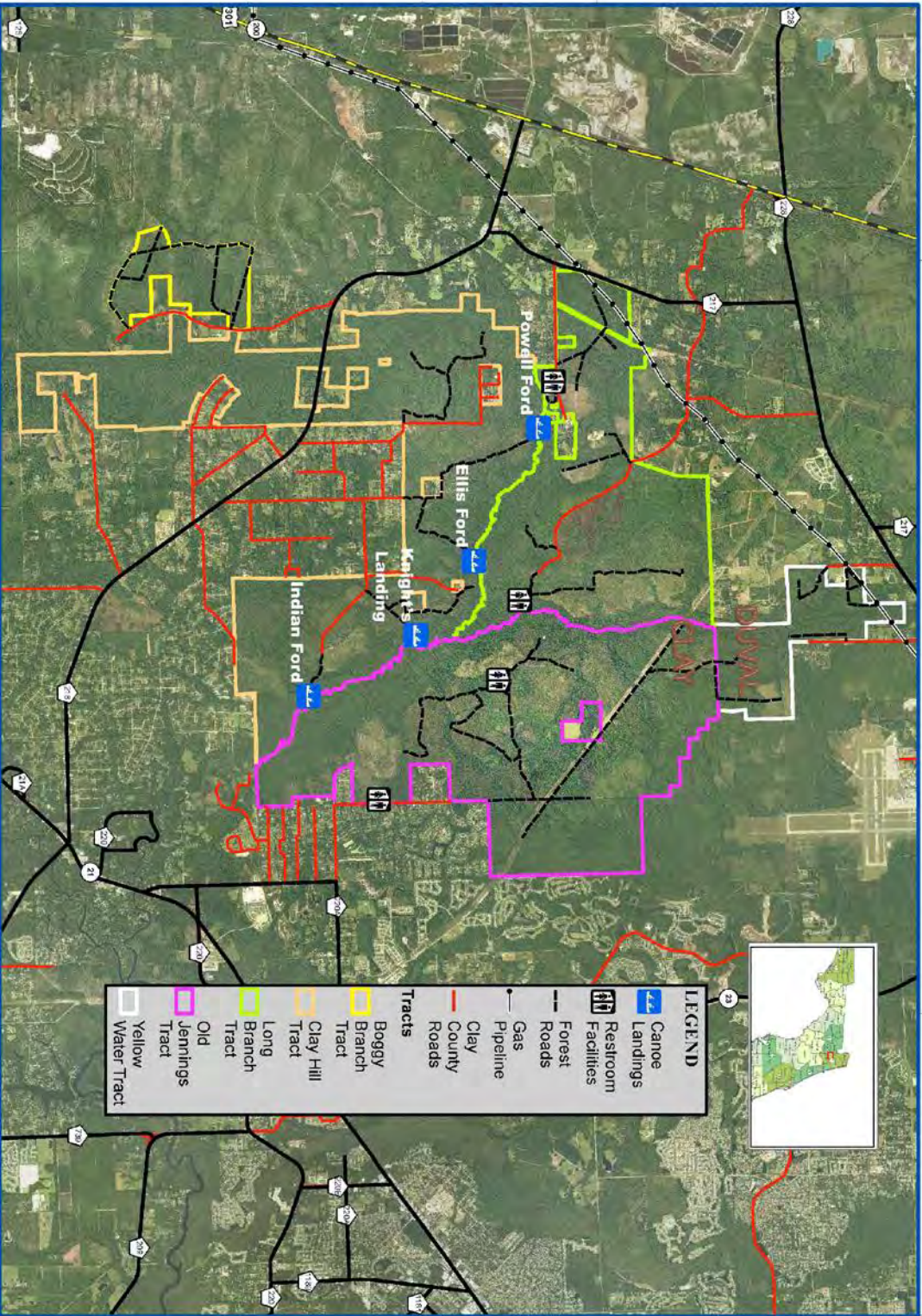




Florida Forest Service  
Forest Management Division  
Forest Planning and Design Section  
Forest Management Unit

# Jennings State Forest Facilities and Canoe Landing Map

This map is a general representation of the Jennings State Forest facilities and canoe landings. It is not intended to be used for legal purposes. 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.



0 0.5 1 2 3 4  
MILES

MAP MONITOR/PAINT: JANUARY 2018

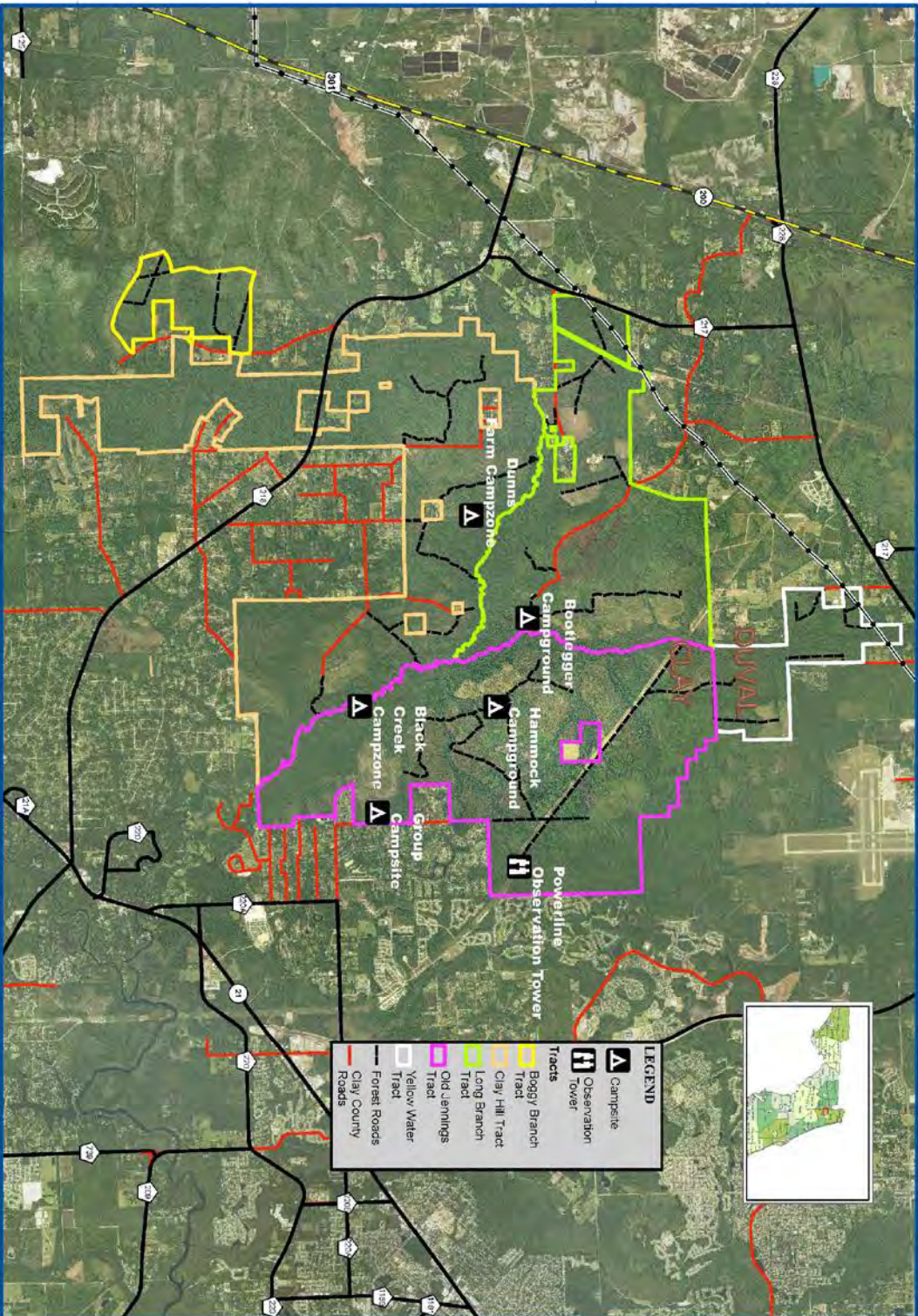
0 0.5 1 2 3 4  
MILES



Division of Forest Management  
Forest Management Planning Section  
100 North Salisbury Street, Suite 200  
Raleigh, NC 27601  
919.733.7700  
www.ncdnr.gov

# Jennings State Forest Campsites Map

80° 15' W



0 0.5 1 2 3 4 Miles

Map M2001/7/2011 February 2011



0 0.5 1 2 3 4 Kilometers



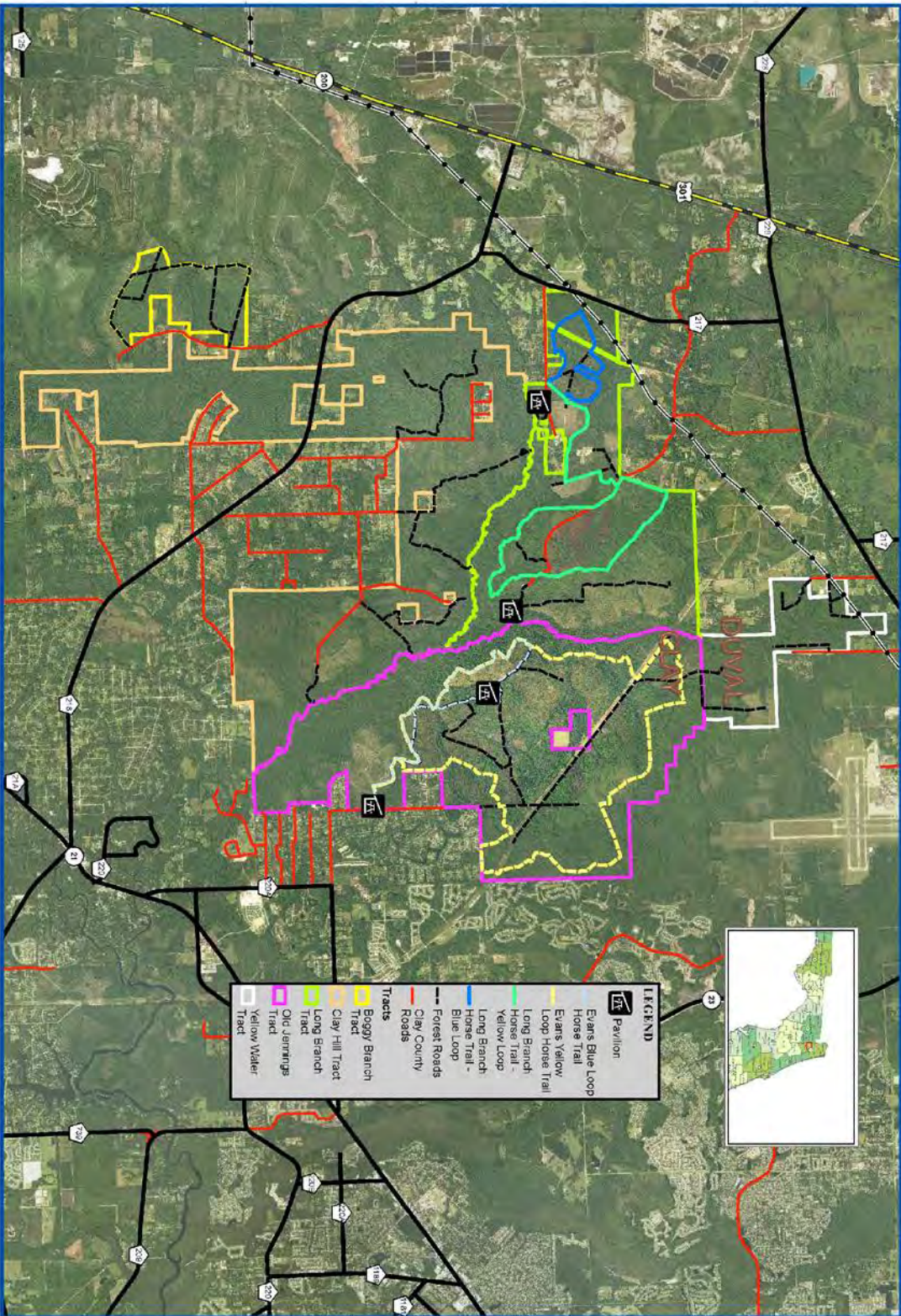
Georgia Department of Transportation

Division of Planning and Policy Development

# Jennings State Forest Pavilions and Equestrian Trails Map

Map Scale

This map was prepared by the Georgia Department of Transportation, Division of Planning and Policy Development, in cooperation with the Georgia Department of Natural Resources, Division of Forestry. The map shows the location of pavilions and equestrian trails within the Jennings State Forest. The map is not to scale and is for informational purposes only. The Georgia Department of Transportation does not warrant the accuracy or completeness of the information shown on this map. The Georgia Department of Transportation is not responsible for any errors or omissions on this map. The Georgia Department of Transportation is not responsible for any damages or injuries resulting from the use of this map. The Georgia Department of Transportation is not responsible for any loss of property or data resulting from the use of this map. The Georgia Department of Transportation is not responsible for any other consequences resulting from the use of this map.



0 0.38 0.7 1.4 2.1 2.8 Miles

Map Month/Year: February 2018



0 0.75 1 2 3 4 Kilometers

Exhibit E

Tract Maps



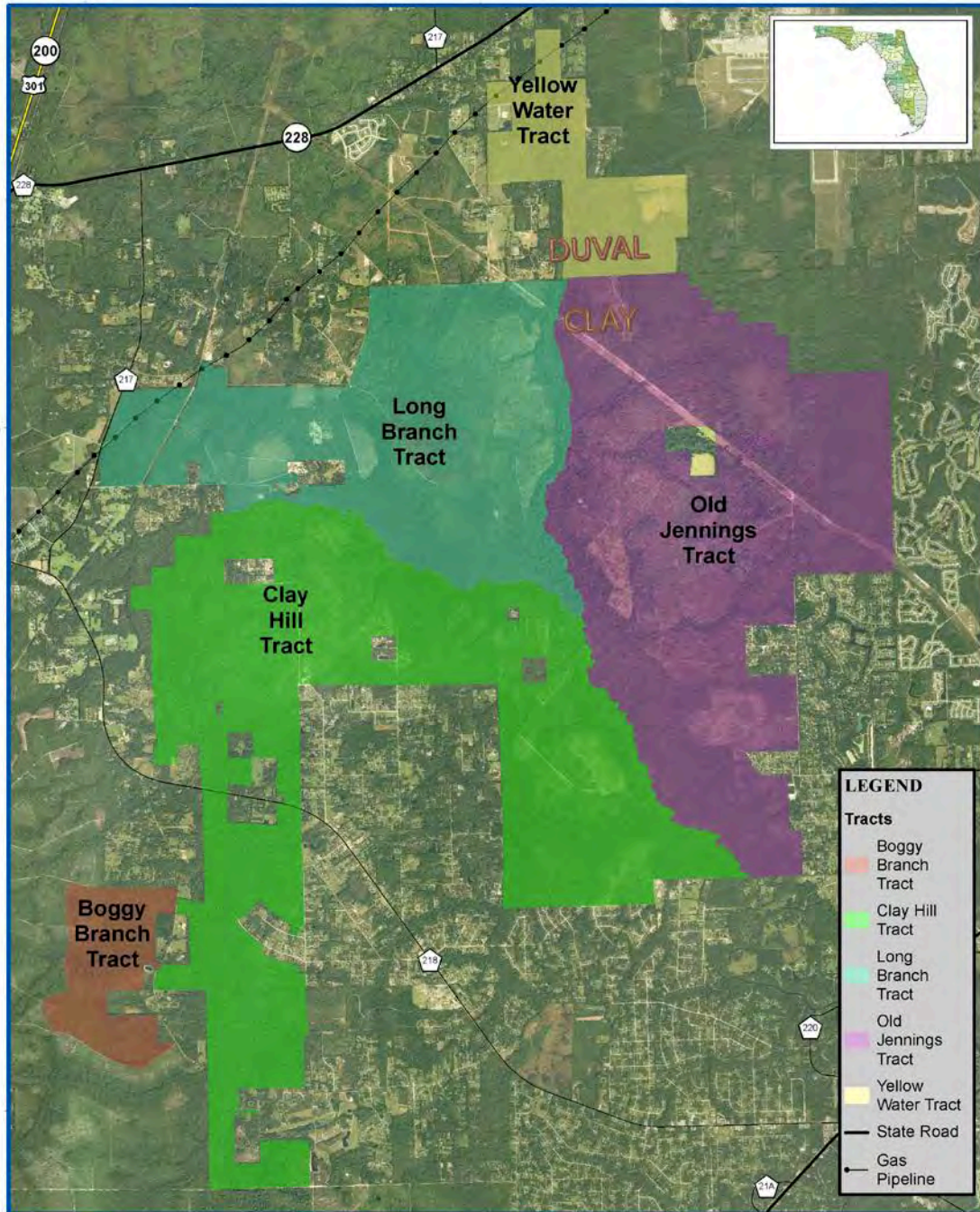
Florida Forest Service

# Jennings State Forest Tracts Map

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

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## LEGEND

### Tracts

- Boggy Branch Tract
- Clay Hill Tract
- Long Branch Tract
- Old Jennings Tract
- Yellow Water Tract

- State Road
- Gas Pipeline

0 0.25 0.5 1 1.5 2 Miles

Map Month/Year: January 2018

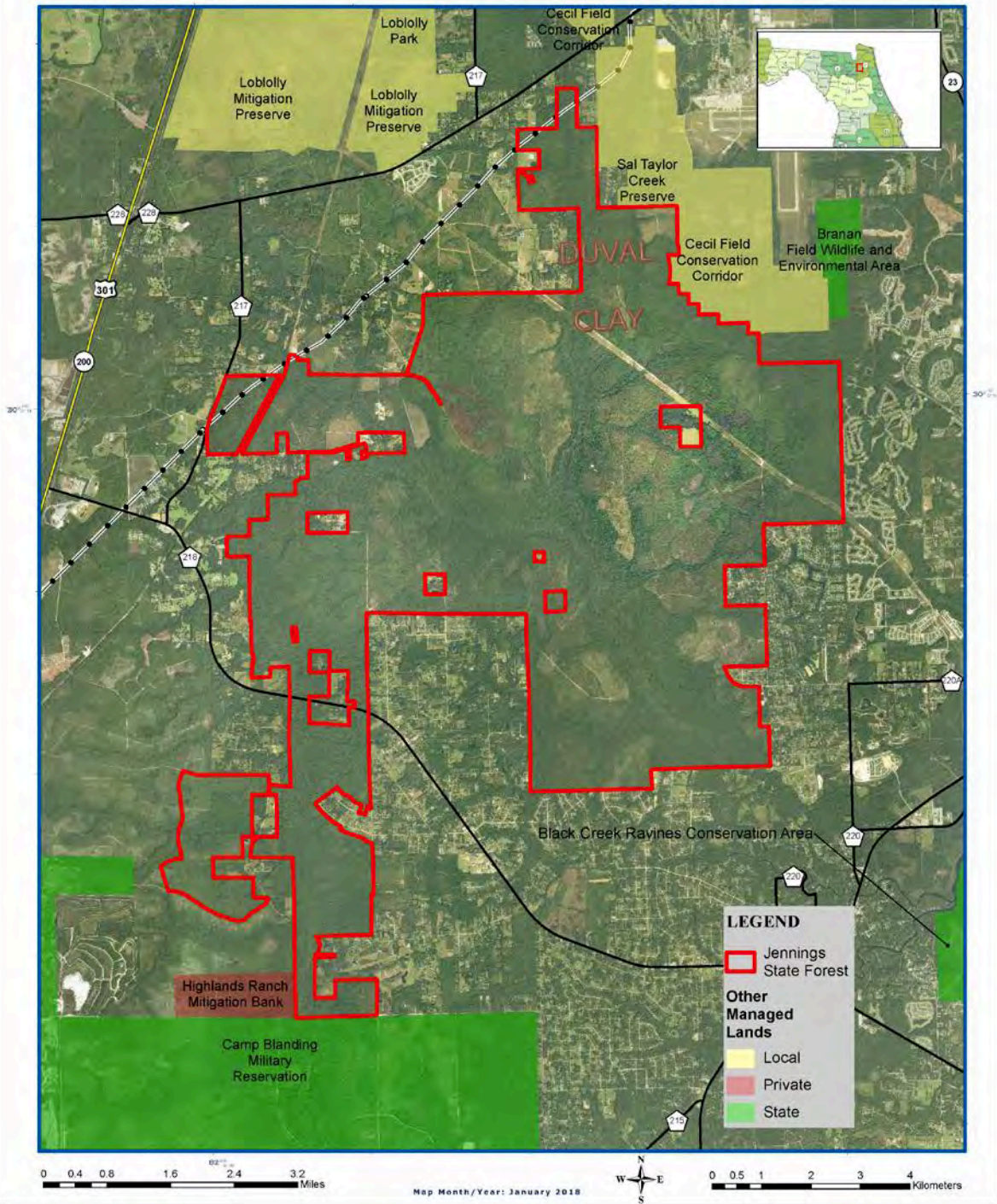


0 0.4 0.8 1.6 2.4 3.2 Kilometers

## Exhibit F

### Proximity to Significant Managed Lands

**Jennings State Forest**  
**Proximity to Significant Managed Lands**

Coordinate System: Florida Albers  
High Accuracy Reference datum: (NAD83) Datum[illegible]

## Exhibit G

### Florida Forever Projects

# Camp Blanding-Raiford Greenway

Baker, Bradford and Clay Counties

Critical Natural Lands

## Purpose for State Acquisition

The Camp Blanding-Raiford Greenway Florida Forever Project was created at the request of the Office of Greenways and Trails (OGT) of the Department of Environmental Protection (DEP) from a 33,973-acre portion of the 2003 Camp Blanding to Osceola Greenway Florida Forever project. Public acquisition of the Camp Blanding-Raiford Greenway (CB-RG) project will contribute to the following Florida Forever goals:

(1) Increase the protection of Florida's biodiversity at the species, natural community, and landscape levels - provide a landscape connector between Camp Blanding on the southeast, the Northeast Florida Timberlands (when acquired) on the east, and Raiford WMA on the south; (2) Protect, restore, and maintain the quality and natural functions of land, water, and wetland systems of the state - four major blackwater streams from three major river basins originating within the project area, as well as several headwaters and tributaries; and (3) Increase the amount of forestland available for sustainable management of natural resources. 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

The Fish and Wildlife Conservation Commission (FWC) and the Florida Forest Service (FFS) of the Florida Department of Agriculture and Consumer Services will be co-managers.

## General Description

The original Camp Blanding-Osceola Greenway was subdivided to create two projects that maintain ecological connectivity among existing and proposed conservation lands, particularly as it relates to habitat

for the Florida black bear (*Ursus americanus floridanus*). One of the key concepts is to permanently link disconnected habitat for species like the Florida black bear as well as other important focal species. As a result of the redesign, the two projects created are Camp Blanding-Raiford Greenway and Raiford-Osceola Greenway (R-OG). The Camp Blanding-Raiford Greenway project consists of approximately 33,973 acres of land from the northwest corner of Camp Blanding Military Reservation to the southwest tip of Nassau County. It connects several managed areas in Bradford, Clay, and Union Counties, resulting in a contiguous area of more than a half a million acres of publicly owned or managed lands in north-central Florida. It abuts portions of the Northeast Florida Timberlands Florida Forever project. Physiographic features of interest include: the Trail Ridge, the eastern boundary of the Cody Scarp, and several large wetlands that have been ecologically devalued by silvicultural activities or mining. Camp Blanding-Raiford Greenway Florida Forever project will be acquired in fee simple with multiple landowners.

## Public Use

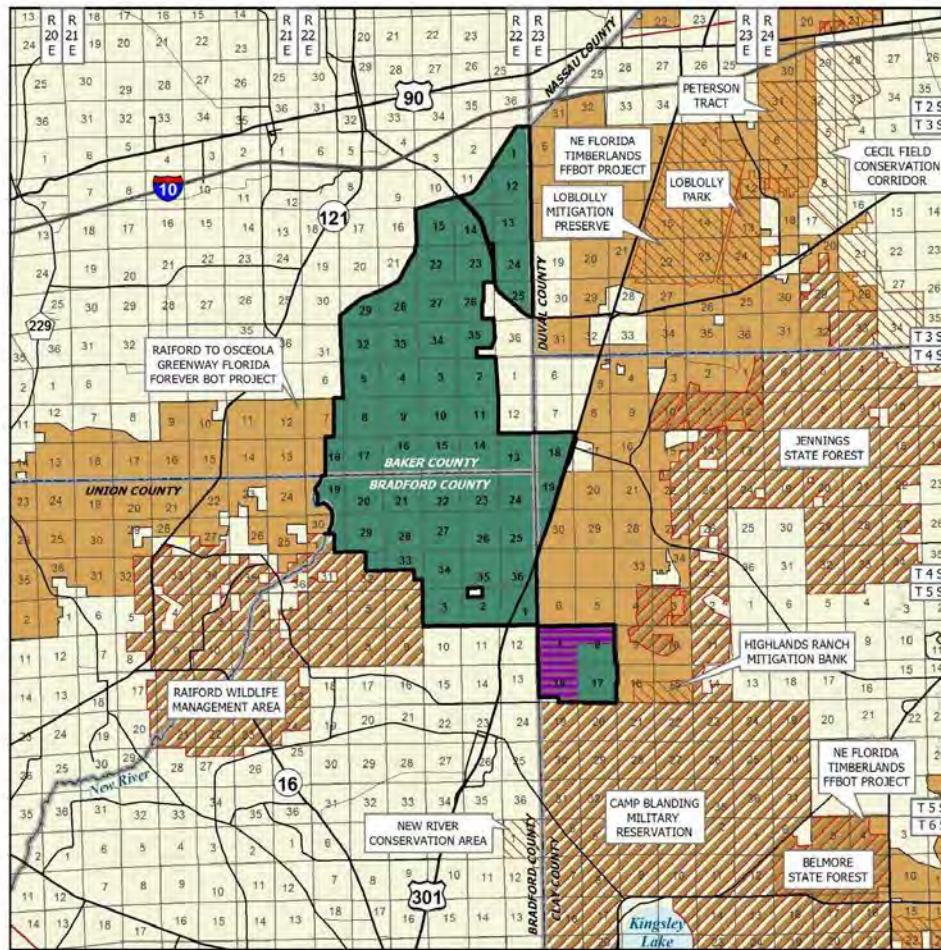
This project could have significant natural resource-based public recreational and educational potential if portions of the project were available to the public.

All trails throughout the project have potential for being multiple-use trails with hiking, horseback riding, and bicycling. Other recreational opportunities would include camping, picnicking, and hunting.

Of the activities mentioned, the 2000 Statewide Comprehensive Outdoor Recreation Plan identifies hunting within the Bradford County portion of the

Camp Blanding-Raiford Greenway FNAI Elements	
Florida Black Bear	G5T2/S2
Giant Orchid	G2G3/S2
Southeastern Weasel	G5T4/S3?
3 rare species are associated with the project	

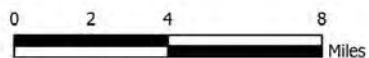
Redesigned for List	2010
Projects Area (GIS Acres)	33,978
Acres Acquired (GIS)	1,538
At a Cost Of	\$0
Acres Remaining (GIS)	32,440
with Estimated (tax assessed) Value of \$92,890,463	



## CAMP BLANDING - RAIFORD GREENWAY

### BRADFORD, BAKER, AND CLAY COUNTIES

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



MARCH 2016

project as having a high need for the year 2005 for the region in which these counties are located.

#### **Acquisition Planning**

On December 5, 2003, the Acquisition & Restoration Council (ARC) added the Camp Blanding-Osceola Greenway project to Group A of the Florida Forever 2004 Priority list. This fee-simple and less-than-fee project, sponsored by the Office of Greenways & Trails (OGT) and the Conservation Trust of Florida (CTF), consisted of approximately 153,000 acres, multiple ownerships, and a 2002 taxable value of \$28,508,089. The essential parcels were identified as the Plum Creek and Wachovia ownerships.

On October 13, 2006, the ARC approved a redesign to the essential parcels within the project. The number and acreage of essential parcels was revised by removing 106 parcels (64,250 acres) and adding 52 parcels (10,180 acres) which resulted in a declassification of 54,070 acres currently designated essential. The new essential parcel configuration retained a narrower greenway connection between Camp Blanding, Raiford Wildlife Management Area, and the Osceola National Forest.

On June 11, 2010 the ARC approved a redesign of the Camp Blanding-Osceola Greenway Florida Forever project that subdivided and reduced the expansive project into Camp Blanding-Raiford Greenway (33,973 acres) and Raiford - Osceola Greenway (67,673 acres).

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

#### **Coordination**

Conservation Trust of Florida and OGT are acquisition partners on this project.

#### **Management Policy Statement**

Areas of the project purchased in fee-simple will be managed to further the long-term protection of the site's plant and wildlife resources, promote sound stewardship of land, timber and water resources, and provide the public with access and quality recreational opportunities where possible

#### **Unified Management Prospectus**

**Qualifications for state designation** The Camp Blanding to Raiford Greenway (CB-RG) Florida Forever project has approximately 33,973 GIS acres in Baker, Bradford, and Clay counties, southwest of

Jacksonville, 10 miles east of Lake City, and 16 miles north of Gainesville. The project area ranges from 2 to 6.5 miles wide, and connects and adjoins the Camp Blanding Military Reservation, Osceola National Forest, Northeast Florida Timberlands Florida Forever Project, and the Raiford Wildlife Management Area. The project would provide a landscape linkage of conservation lands of substantial ecological value, a critical component of a conservation corridor extending from central Florida to southeast Georgia. The most widespread community type within the project boundary is mesic flatwoods, of which the majority of acres are in silviculture operations, and a smaller number of acres are in a relatively natural condition. Sandhill communities total only about 230 acres, but may have substantial ecological value. The forested wetlands are the least disturbed natural areas. There are several large basin swamps, including (with approximate acreages) Turkey Creek Swamp (7,000 acres) and New River Swamp (4,000 acres). Dome swamps, wet flatwoods, and baygalls represent the remaining 15-20,000 acres. Floodplain swamps extend over approximately 4,000 acres of the joint CB-RG and the Raiford-Osceola Greenway project areas. Several flatwoods lakes are also present and also an important blackwater stream, the New River. The Florida Natural Areas Inventory (FNAI) Florida Forever Measures Evaluation indicates that 2 percent of the project area is under-represented natural communities. Imperiled or rare animal species documented to occur on the project include the eastern indigo snake (*Drymarchon couperi*), many-lined salamander (*Stereochilus marginatus*). Additional imperiled or rare species reported to occur on the combined projects are the swallow-tailed kite (*Elanoides forficatus*), the white ibis (*Eudocimus albus*), and the wood stork (*Mycteria americana*). Among other rare or imperiled species, the project is potential habitat for the Florida black bear (*Ursus americanus floridanus*) and the red-cockaded (*Picoides borealis*) woodpecker. Natural shorelines and shallow waters of the flatwoods lakes on the project provide habitat for wading birds, waterfowl, and many other aquatic and semi-aquatic animal species. Forested riparian corridors provide a habitat connection to the Santa Fe River floodplain and bottomland forests for species such as the bobcat (*Lynx rufus*), Florida black bear (*Ursus americanus floridanus*), gray fox (*Urocyon cinereoargenteus*), river otter (*Lutra canadensis*) and numerous other species of wildlife. A wildlife corridor such as the combined projects (CB-RG and R-OG) provides linkage to larger areas of high ecological value. Such corridors require habitat of sufficient size (optimally a mile or more in width), and quality (natural

forested communities), in order to adequately provide for animal migration. This project provides habitat for Florida black bears and which occur on other public lands in the vicinity (Camp Blanding, Raiford WMA, Ocala National Forest, and the Osceola National Forest/Oklawaha Complex). Substantial populations of white-tailed deer (*Odocoileus virginianus*) and other game species occur. FNAI classifies 99 percent of the project area as priority 1 critical parcels and potential importance as an ecological greenway. The hooded pitcher plant (*Sarracenia minor*) has been documented to occur within the project.

According to the Florida Fish and Wildlife Conservation Commission (FWC), approximately 53.5 percent of the lands (18,259.2 acres) within the project are within a designated Strategic Habitat Conservation Area (SHCA) for black bear, Florida mouse, and striped newt. The project provides additional habitat for many focal species, which are indicators of natural communities, and suitable habitat conditions for other wildlife species. Focal species overlap: 1-3 species for 29,916 acres (43.5 percent); 4-6 species 33,264.8 acres (48.4 percent); 7-9 species 2,383.6 acres (3.4 percent); 10-12 species 8.9 acres (0.01 percent) for a total of 31,298 acres or 91.7 percent of the project.

**Managers** The FFS and the FWC.

**Conditions affecting intensity of management** The two Greenways (CB-RG and R-OG) are medium-need tracts that will require up-front resource management, including frequent use of prescribed fire where appropriate. Approximately 69 percent of the project area has disturbed ground cover due to past silviculture. Consequently, additional effort will be required to restore it to a desired future condition. FWC and FFS propose to work cooperatively to assess site management needs and develop the conceptual management plan (CMP) for the site. Examples of situations that may require cooperative effort include: restoring mesic and wet flatwoods previously managed for timber production, removing or thinning off-site timber species to promote regeneration of native ground covers and appropriate tree species, and reforesting recently harvested areas. As part of the unified management approach, the managing agencies will conduct an historic vegetation analysis to assist in determining appropriate desired future conditions, and identify appropriate restoration methods and tools. This effort will help conserve habitats and populations of imperiled or rare species. Other unified management priorities will include protecting and restoring sensitive wetlands, and the identification, control, and follow-up monitoring of exotic species. Restoration methods will

also include thinning dense pine stands to decrease canopy cover and facilitate restoring native groundcovers. Protecting and restoring sensitive wetlands on the project would be a priority. It is also possible that recreational trails on the parcels could function as firelines, provide access for prescribed burning equipment, and provide an opportunity for wildlife viewing. Exotic plant species (tung oil tree, air potato, mimosa and others), have been observed in the project area. Air potato and mimosa are listed as Category I (most adversely affecting Florida's ecology) by the Florida Exotic Pest Plant Council; the tung oil tree is listed as Category II (increased abundance in Florida). Although observed infestations appear to pose no imminent threat to the ecological integrity of the project, there would be surveillance for, and removal of, such infestations of exotic invasive species.

Due to the presence of imperiled or rare species expected to occur within the proposed project, it is anticipated that resource inventories would be an initial priority under the unified management approach. Environmentally sensitive areas such as erosion-prone sites, listed species habitats, outstanding natural areas, and wetlands, are to be identified during the initial resource inventory to implement appropriate protective measures for each specific area. Such inventories are considered vital to unified management planning efforts directed at facility and infrastructure development, and design and implementation of recreational use programs.

**Timetable for implementing management** During the first year after acquisition, both agencies operating under the unified management approach anticipate emphasis on site security, posting boundaries, public access for low-intensity outdoor recreation, fire management, resource inventory, and removing trash. Both managing agencies will meet frequently to coordinate task assignments, and cooperate with, and seek the assistance of other state agencies, local governments, and other appropriate participants as it affects management of the project site. Both agencies will participate in the joint development of a CMP specifying area management goals and objectives. Long-term goals would emphasize ecosystem multiple use management and conserving the site's natural resources including timber, fish and wildlife, and water. These goals would include restoring habitat and hydrology, and conserving and protecting listed species of flora and fauna. Following completion of plant community inventory and historic vegetation analysis, quantified vegetation management objectives would be developed pursuant to an objective-based vegetation management process. Where practical, disturbed sites

would be restored to conditions expected to occur in naturally functioning ecosystems, including re-establishment of species expected to occur naturally on specific sites. Management would emphasize enhancement of abundance, and spatial distribution of imperiled or rare species. Essential roads would be stabilized to provide all-weather public access and management operations. Programs providing multiple recreational uses would also be implemented. Both agencies will work towards the development of a fire management plan that will apply prescribed burning in a manner that maximizes natural resource protection and enhancement. Whenever possible, existing roads, black lines, foam lines, and natural breaks will be used to contain and control prescribed and natural fires. Where appropriate, practical, and in pursuit of natural resource management objectives, timber resources will be managed with acceptable silvicultural practices. Thinning timber, introducing prescribed fire and sustainable forestry management practices could provide silvicultural products, ecological benefits and recreational benefits. Archaeological and historic sites would be managed in coordination with the Department of State's Division of Historical Resources (DHR). The DHR lists 12 such sites in the project area. Both agencies will work towards development of a road plan identifying roads to be used for vehicular access by the public, and roads for administrative use. Unnecessary roads, fire lanes, and hydrological disturbances would be abandoned or restored as practical. The road plan would ensure that the public has appropriate access and sensitive resources are protected. Infrastructure development would be the minimum required to serve needs of the public, including provisions for facilities necessary for the security and management of the project area.

**Estimate of Revenue-Generating Potential** Timber sales would be conducted as needed to improve or maintain desirable ecosystem conditions, under a multiple-use management concept. The FNAI indicates that 63 percent of the project area is available as priorities 1, 2, 3, and 5 for sustainable forestry. However, management would seek to improve the other revenue-generating potential of areas currently serving for forest products production by improving wildlife diversity and resource-based recreation in such areas. Additional revenue would be generated from sales of hunting licenses, fishing licenses, wildlife management area permits, and other special hunting permits. Some revenues might be realized in the future from recreational user fees and ecotourism activities, if such projects could be economically developed. Fifteen percent of all gross revenues will be returned to the county from which those funds were generated.

**Cooperators in management activities** The unified managers (FFS and FWC) should cooperate with other state and local governmental agencies, including the Florida Department of Corrections, St. Johns River Water Management District, State Armory Board, Suwannee River Water Management District, and the U. S. Forest Service, in managing the area.

**Revenue sources, management costs and employees needed\*** Both agencies have agreed to a unified management framework whereby all CARL management funds, site generated revenues, and management expenditures are to be evenly divided between the FFS and FWC.

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Info based on management of CB-RG:

Category:	Start-up	Recurring
Source of Funds:	CARL	CARL
Resource Management:	\$1,747,592	\$969,434
Administration:	\$77,713	\$10,388
Support:	\$153,462	\$13,047
Capital Improvements:	\$3,411,310	\$323,273
Visitor Services and		
Recreation:	\$3,363	\$58
Law Enforcement:	\$42,880	\$42,880
<b>TOTAL:</b>	<b>\$5,436,320</b>	<b>\$1,359,080</b>

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\*includes employee salaries

*Updated March 23, 2015*

## 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](mailto:Alan.Davis@freshfromflorida.com)



Re: Jennings State Forest

In response to your inquiry of July 17, 2017, the Florida Master Site File lists 20 archeological sites, six cemeteries and one standing structure found at the designated area for Jennings State Forest, Clay 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](mailto:Eman.Vovsi@DOS.MyFlorida.com)



AR=20  
SS=1  
CH=6  
RG=0  
BR=0  
Total=27

## Cultural Resource Roster

SiteID	Type	Site Name	Address	Additional Info	SHPO Eval	NR Status
CL00053	AR	FP&L D-PK1	MIDDLEBURG			
CL00054	AR	FP&L D-PK2	MIDDLEBURG			
CL00055	AR	FP&L D-PK3	MIDDLEBURG			
CL00102	SS	DUCK POND SCHOOL	5224 HATTIE NOLAN RD, MIDDLEBURG	c1910 Frame Vernacular		
CL00642	CH	PADGETT CEMETERY	MIDDLEBURG	Established c1924, Graves #105		
CL00643	CH	BELL CEMETERY	MIDDLEBURG	Established c1898, Graves #65		
CL00644	CH	JOHNS YOUNGBLOOD CEMETERY	MIDDLEBURG	Established c1885, Graves #48		
CL00645	CH	NOLAN RIDGE CEMETERY	MIDDLEBURG	Established c1910, Graves #115		
CL00646	CH	DUNN CEMETERY	MIDDLEBURG	Established c1880, Graves #15		
CL00647	AR	WILBANKS	MIDDLEBURG			
CL00658	AR	SPENSER HOMESTEAD	MIDDLEBURG			
CL00659	AR	GRIFFIN HOMESTEAD	MIDDLEBURG			
CL00660	AR	SECTION 21 SIDE CAMP	MIDDLEBURG			
CL00661	AR	DOUBLE DIPS	MIDDLEBURG			
CL00662	AR	SECTION 33 HOMESTEAD	MIDDLEBURG			
CL00663	AR	SECTION 29 CAMP	MIDDLEBURG			
CL00664	AR	HUGH-BRINSON TURPENTINE CAMP	MIDDLEBURG			
CL00665	AR	WADE NOLAN HOMESTEAD	MIDDLEBURG			
CL00666	AR	WILLARDS UNCLE PADGETT HOMESTEAD	MIDDLEBURG			
CL00667	AR	NUGRAPE HOMESTEAD	MIDDLEBURG			
CL00668	AR	HARRIS HOMESTEAD	MIDDLEBURG			
CL00669	AR	PADGETT HOMESTEAD	MIDDLEBURG			
CL00670	AR	BARREL STAVE DUMP	MIDDLEBURG			
CL00671	AR	GIANT LARRY	MIDDLEBURG			
CL01310	AR	ECT-2	None		Not Eligible	
DUD0651	AR	YELLOW WATER CREEK			Not Eligible	
DUI14283	CH	MANNING CEMETERY	JACKSONVILLE	Established c1889, Graves #175		

# 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 March 2013)

**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:  
<http://www.flheritage.com/preservation/compliance/guidelines.cfm>

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:

[http://www.flheritage.com/preservation/compliance/docs/minimum\\_review\\_documentation\\_requirements.pdf](http://www.flheritage.com/preservation/compliance/docs/minimum_review_documentation_requirements.pdf).

\* \* \*

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

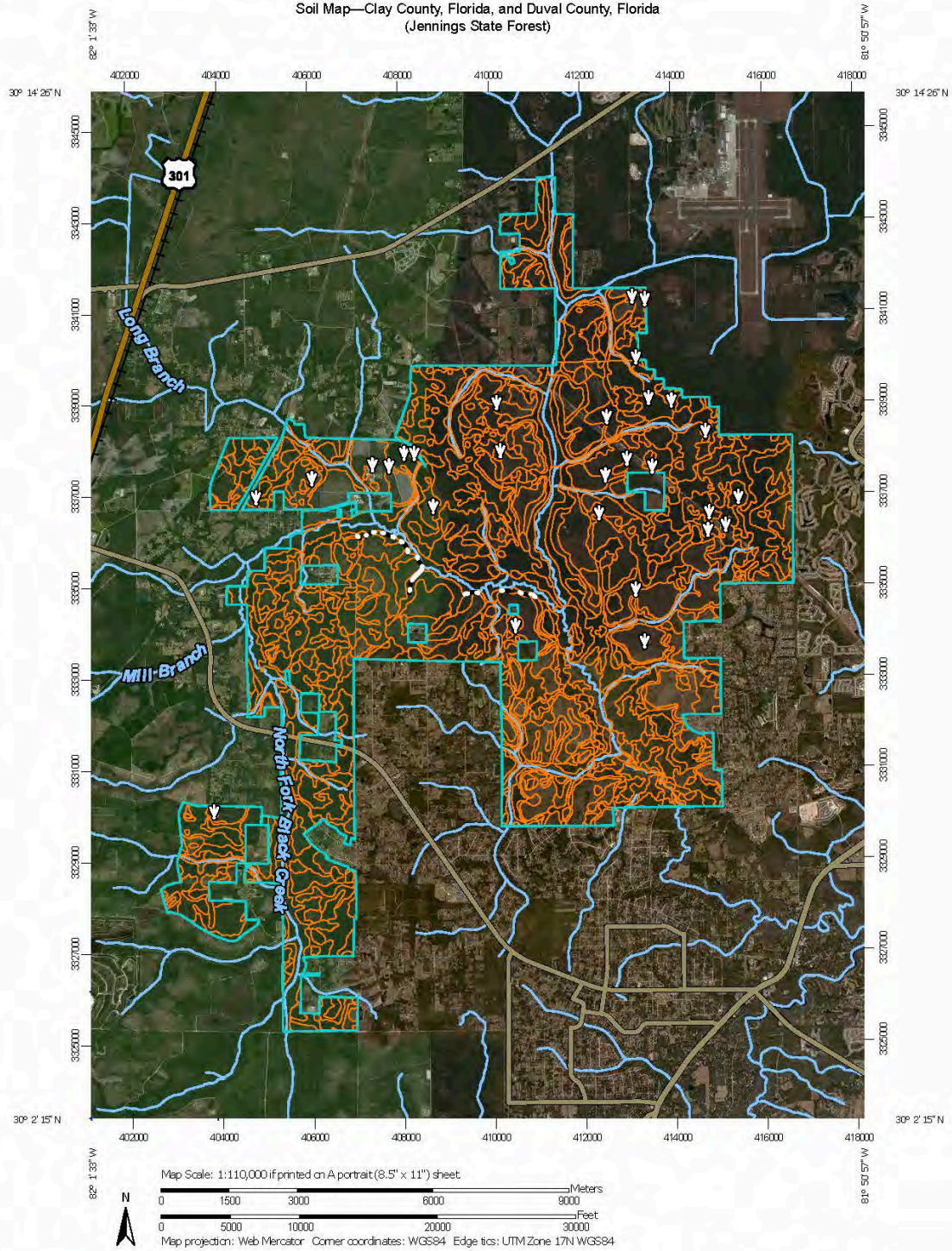
Deena S. Woodward  
Division of Historical Resources  
Bureau of Historic Preservation  
Compliance and Review Section  
R. A. Gray Building  
500 South Bronough Street  
Tallahassee, FL 32399-0250

Phone: (850) 245-6425  
Toll Free: (800) 847-7278  
Fax: (850) 245-6435

## Exhibit J

### Soil Maps and Descriptions

Soil Map—Clay County, Florida, and Duval County, Florida  
(Jennings State Forest)



Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

2/12/2018  
Page 1 of 5

Soil Map—Clay County, Florida, and Duval County, Florida  
(Jennings State Forest)

### MAP LEGEND

<b>Area of Interest (AOI)</b>		Spoil Area
		Stony Spot
<b>Soils</b>		Very Stony Spot
		Wet Spot
		Other
		Special Line Features
<b>Special Point Features</b>	<b>Water Features</b>	
		Streams and Canals
	<b>Transportation</b>	
		Rails
		Interstate Highways
		US Routes
		Major Roads
		Local Roads
	<b>Background</b>	
		Aerial Photography

### 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: Clay County, Florida

Survey Area Data: Version 14, Sep 21, 2017

Soil Survey Area: Duval County, Florida

Survey Area Data: Version 12, Sep 15, 2017

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

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

Date(s) aerial images were photographed: Mar 13, 2011—Apr 5, 2017

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
1	Albany fine sand, 0 to 5 percent slopes	1,119.1	4.4%
2	Blanton fine sand, 0 to 5 percent slopes	1,094.8	4.3%
3	Hurricane fine sand, 0 to 5 percent slopes	810.0	3.2%
4	Ocilla loamy fine sand, 0 to 5 percent slopes	244.8	1.0%
5	Penney fine sand, 0 to 5 percent slopes	2,688.1	10.7%
6	Mandarin fine sand, 0 to 2 percent slopes	585.9	2.3%
7	Centenary fine sand, 0 to 5 percent slopes	288.1	1.1%
8	Sapelo fine sand	1,712.7	6.6%
9	Leon fine sand, 0 to 2 percent slopes	1,143.8	4.5%
10	Ortega fine sand, 0 to 5 percent slopes	1,473.6	5.8%
11	Allanton and Rutledge mucky fine sands, depressional	684.5	2.7%
12	Surrency fine sand, depressional	111.6	0.4%
13	Meggett fine sandy loam	187.9	0.7%
15	Quartzipaments, excavated	4.3	0.0%
17	Plummer fine sand	34.6	0.1%
18	Ridgewood fine sand, 0 to 5 percent slopes	1,060.7	4.2%
19	Osier fine sand	326.5	1.3%
20	Scranton fine sand	27.1	0.1%
22	Pelham fine sand, 0 to 2 percent slopes	512.5	2.0%
27	Pamlico muck	309.1	1.2%
29	Rutledge-Osier complex, frequently flooded	2,552.9	10.1%
31	Potsburg fine sand	825.7	3.3%
32	Blanton fine sand, 5 to 8 percent slopes	142.6	0.6%
34	Penney fine sand, 5 to 8 percent slopes	114.9	0.5%
36	Ortega fine sand, 5 to 8 percent slopes	445.7	1.8%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
37	Ridgewood fine sand, 5 to 8 percent slopes	290.7	1.2%
38	Surrency fine sand, frequently flooded	94.9	0.4%
39	Meadowbrook sand, frequently flooded	774.2	3.1%
40	Ousley fine sand, occasionally flooded	712.5	2.8%
41	Albany fine sand, 0 to 5 percent slopes, occasionally flooded	36.4	0.1%
42	Osier fine sand, occasionally flooded	14.9	0.1%
46	Plummer fine sand, depressional	396.7	1.6%
47	Newnan fine sand	1,171.8	4.6%
49	Sapelo-Meadowbrook frequently flooded, complex	39.8	0.2%
50	Leon fine sand, frequently flooded	207.7	0.8%
51	Potsburg fine sand, occasionally flooded	448.0	1.8%
52	Meggett fine sandy loam, frequently flooded	93.0	0.4%
54	Troup sand, 0 to 5 percent slopes	31.2	0.1%
58	Allanton fine sand, frequently flooded	533.3	2.1%
60	Ridgeland fine sand	3.7	0.0%
61	Wesconnett fine sand, frequently flooded	29.0	0.1%
65	Meadowbrook sand	402.3	1.6%
99	Water	6.9	0.0%
<b>Subtotals for Soil Survey Area</b>		<b>23,788.4</b>	<b>94.3%</b>
<b>Totals for Area of Interest</b>		<b>25,236.4</b>	<b>100.0%</b>

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
2	Albany fine sand, 0 to 5 percent slopes	228.5	0.9%
12	Blanton fine sand, 0 to 6 percent slopes	252.4	1.0%
14	Boulogne fine sand, 0 to 2 percent slopes	78.8	0.3%
22	Evergreen-Wesconnett complex, depressional, 0 to 2 percent slopes	17.5	0.1%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
32	Leon fine sand, 0 to 2 percent slopes	6.1	0.0%
35	Lynn Haven fine sand, 0 to 2 percent slopes	10.2	0.0%
40	Maurepas muck, 0 to 1 percent slopes, frequently flooded	29.9	0.1%
44	Mascotte-Pelham complex, 0 to 2 percent slopes	37.8	0.1%
51	Pelham fine sand, 0 to 2 percent slopes	51.5	0.2%
58	Pottsburg fine sand, high, 0 to 3 percent slopes	4.8	0.0%
62	Rutledge mucky fine sand, 0 to 2 percent slopes, frequently flooded	48.6	0.2%
63	Sapelo fine sand, 0 to 2 percent slopes	105.5	0.4%
66	Surrency loamy fine sand, depression, 0 to 2 percent slopes	1.1	0.0%
67	Surrency loamy fine sand, 0 to 2 percent slopes, frequently flooded	332.9	0.9%
80	Goldhead, Wet, and Lynn Haven soils, 2 to 5 percent slopes	342.5	1.4%
<b>Subtotals for Soil Survey Area</b>		<b>1,448.0</b>	<b>5.7%</b>
<b>Totals for Area of Interest</b>		<b>25,236.4</b>	<b>100.0%</b>

## 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—Clay County, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
1—Albany fine sand, 0 to 5 percent slopes	9,250						
		85	Albany	Series	0.0	3.0	5.0
2—Blanton fine sand, 0 to 5 percent slopes	6,455						
		80	Blanton	Series	0.0	3.0	5.0
3—Hurricane fine sand, 0 to 5 percent slopes	30,900						
		85	Hurricane	Series	0.0	3.0	5.0
4—Ocilla loamy fine sand, 0 to 5 percent slopes	3,555						
		85	Ocilla	Series	0.0	3.0	5.0
5—Penney fine sand, 0 to 5 percent slopes	26,500						
		85	Penney	Series	0.0	3.0	5.0
6—Mandarin fine sand, 0 to 2 percent slopes	14,265						
		92	Mandarin	Series	0.0	0.5	2.0
7—Centenary fine sand, 0 to 5 percent slopes	8,300						
		85	Centenary	Series	0.0	3.0	5.0
8—Sapelo fine sand	16,180						
		60	Sapelo, non-hydric	Series	0.0	1.0	2.0
		20	Sapelo, hydric	Series	0.0	1.0	2.0
9—Leon fine sand, 0 to 2 percent slopes	43,100						
		89	Leon, non-hydric	Series	0.0	1.0	2.0
10—Ortega fine sand, 0 to 5 percent slopes	23,000						
		85	Ortega	Series	0.0	3.0	5.0

Component Legend—Clay County, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
11—Allanton and Rutledge mucky fine sands, depressional	7,500						
		45	Allanton	Series	0.0	0.8	2.0
		35	Rutledge	Series	0.0	0.8	2.0
12—Surrency fine sand, depressional	2,210						
		80	Surrency	Series	0.0	0.5	1.0
13—Meggett fine sandy loam	6,450						
		85	Meggett	Series	0.0	1.0	2.0
15—Quartzsaments, excavated	965						
		100	Quartzsaments, excavated	Taxon above family	0.0	3.0	5.0
17—Plummer fine sand	2,485						
		65	Plummer, non-hydric	Series	0.0	1.0	2.0
		20	Plummer, hydric	Series	0.0	1.0	2.0
18—Ridgewood fine sand, 0 to 5 percent slopes	9,860						
		85	Ridgewood	Series	0.0	3.0	5.0
19—Osier fine sand	5,850						
		70	Osier, non-hydric	Series	0.0	1.0	2.0
		15	Osier, hydric	Series	0.0	1.0	2.0
20—Scranton fine sand	1,600						
		70	Scranton, non-hydric	Series	0.0	1.0	2.0
		15	Scranton, hydric	Series	0.0	1.0	2.0
22—Pelham fine sand, 0 to 2 percent slopes	8,250						
		75	Pelham	Series	0.0	0.5	2.0
27—Pamlico muck	3,365						
		80	Pamlico	Series	0.0	0.5	1.0
29—Rutledge-Osier complex, frequently flooded	23,800						
		50	Rutledge	Series	0.0	1.0	2.0
		40	Osier	Series	0.0	1.0	2.0
31—Potsburg fine sand	16,520						
		70	Potsburg, non-hydric	Series	0.0	1.0	2.0
		10	Potsburg, hydric	Series	0.0	1.0	2.0
32—Blanton fine sand, 5 to 8 percent slopes	1,400						
		80	Blanton	Series	5.0	7.0	8.0

Component Legend—Clay County, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
34—Penney fine sand, 5 to 8 percent slopes	3,420						
		85	Penney	Series	5.0	7.0	8.0
36—Ortega fine sand, 5 to 8 percent slopes	2,220						
		85	Ortega	Series	5.0	7.0	8.0
37—Ridgewood fine sand, 5 to 8 percent slopes	1,065						
		85	Ridgewood	Series	5.0	7.0	8.0
38—Surrency fine sand, frequently flooded	1,575						
		85	Surrency	Series	0.0	1.0	2.0
39—Meadowbrook sand, frequently flooded	5,320						
		80	Meadowbrook, hydric	Series	0.0	1.0	2.0
		5	Meadowbrook, non-hydric	Series	0.0	1.0	2.0
40—Ousley fine sand, occasionally flooded	1,840						
		85	Ousley	Series	0.0	1.0	2.0
41—Albany fine sand, 0 to 5 percent slopes, occasionally flooded	475						
		85	Albany	Series	0.0	3.0	5.0
42—Osier fine sand, occasionally flooded	2,860						
		55	Osier, non-hydric	Series	0.0	1.0	2.0
		30	Osier, hydric	Series	0.0	1.0	2.0
46—Plummer fine sand, depressional	1,180						
		85	Plummer	Series	0.0	0.8	2.0
47—Newnan fine sand	4,460						
		80	Newnan	Series	0.0	1.0	2.0
49—Sapelo-Meadowbrook frequently flooded, complex	1,410						
		45	Sapelo	Series	0.0	1.0	2.0
		35	Meadowbrook	Series	0.0	1.0	2.0
50—Leon fine sand, frequently flooded	2,050						
		50	Leon, hydric	Series	0.0	1.0	2.0
		30	Leon, non-hydric	Series	0.0	1.0	2.0

Component Legend—Clay County, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
51—Potsburg fine sand, occasionally flooded	1,595						
		80	Potsburg	Series	0.0	1.0	2.0
52—Meggett fine sandy loam, frequently flooded	1,740						
		80	Meggett	Series	0.0	1.0	2.0
54—Troup sand, 0 to 5 percent slopes	1,525						
		80	Troup	Series	0.0	3.0	5.0
58—Allanton fine sand, frequently flooded	7,995						
		80	Allanton	Series	0.0	1.0	2.0
60—Ridgeland fine sand	2,250						
		80	Ridgeland	Series	0.0	1.0	2.0
61—Wesconnett fine sand, frequently flooded	1,805						
		80	Wesconnett	Series	0.0	1.0	2.0
65—Meadowbrook sand	3,635						
		70	Meadowbrook, non-hydric	Series	0.0	1.0	2.0
		15	Meadowbrook, hydric	Series	0.0	1.0	2.0
99—Water	32,700						
		100	Water	Miscellaneous area			

Component Legend—Duval County, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
2—Albany fine sand, 0 to 5 percent slopes	4,360						
		86	Albany	Series	0.0	3.0	5.0
12—Blanton fine sand, 0 to 6 percent slopes	840						
		90	Blanton	Series	0.0	3.0	6.0
14—Boulogne fine sand, 0 to 2 percent slopes	33,500						
		95	Boulogne	Series	0.0	1.0	2.0
22—Evergreen-Wesconnett complex, depressional, 0 to 2 percent slopes	30,150						
		63	Evergreen	Series	0.0	1.0	2.0
		33	Wesconnett	Series	0.0	1.0	2.0

Component Legend—Duval County, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
32—Leon fine sand, 0 to 2 percent slopes	71,200						
		89	Leon, non-hydric	Series	0.0	1.0	2.0
35—Lynn Haven fine sand, 0 to 2 percent slopes	16,730						
		92	Lynn haven	Series	0.0	1.0	2.0
40—Maurepas muck, 0 to 1 percent slopes, frequently flooded	4,400						
		90	Maurepas	Series	0.0	0.5	1.0
44—Mascotte-Pelham complex, 0 to 2 percent slopes	9,120						
		65	Mascotte	Series	0.0	1.0	2.0
		31	Pelham, non-hydric	Series	0.0	1.0	2.0
51—Pelham fine sand, 0 to 2 percent slopes	41,360						
		75	Pelham	Series	0.0	0.5	2.0
58—Potsburg fine sand, high, 0 to 3 percent slopes	7,810						
		93	Potsburg, high	Series	0.0	2.0	3.0
62—Rutlege mucky fine sand, 0 to 2 percent slopes, frequently flooded	4,920						
		90	Rutlege, flooded	Series	0.0	1.0	2.0
63—Sapelo fine sand, 0 to 2 percent slopes	20,970						
		90	Sapelo	Series	0.0	1.0	2.0
66—Surrency loamy fine sand, depressional, 0 to 2 percent slopes	25,420						
		92	Surrency	Series	0.0	1.0	2.0
67—Surrency loamy fine sand, 0 to 2 percent slopes, frequently flooded	4,870						
		93	Surrency, flooded	Series	0.0	1.0	2.0
80—Goldhead, Wet, and Lynn Haven soils, 2 to 5 percent slopes	820						
		50	Goldhead, wet	Series	2.0	4.0	5.0
		40	Lynn haven	Series	2.0	4.0	5.0

### Data Source Information

Soil Survey Area: Clay County, Florida  
Survey Area Data: Version 14, Sep 21, 2017  
Soil Survey Area: Duval County, Florida  
Survey Area Data: Version 12, Sep 19, 2017

## 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)

### Clay County, Florida

**Map Unit:** 1—Albany fine sand, 0 to 5 percent slopes

**Component:** Albany (85%)

The Albany component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges 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 somewhat 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 21 inches during June, July, August, September. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. 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:** Blanton (3%)

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

**Component:** Meadowbrook, non-hydric (3%)

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

**Component:** Ridgewood (3%)

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

**Component:** Hurricane (3%)

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

**Component:** Ocilla (3%)

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

**Map Unit:** 2—Blanton fine sand, 0 to 5 percent slopes**Component:** Blanton (80%)

The Blanton component makes up 80 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges 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 well 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 65 inches during June, July, August, September. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. 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:** Albany (5%)

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

**Component:** Ortega (5%)

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

**Component: Ocala (5%)**

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

**Component: Penney (5%)**

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

**Map Unit: 3—Hurricane fine sand, 0 to 5 percent slopes****Component: Hurricane (85%)**

The Hurricane component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on flats on marine terraces on coastal plains, rises 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 somewhat 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 27 inches during July, August. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3w. 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: Blanton (3%)**

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

**Component: Albany (3%)**

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

**Component: Centenary (3%)**

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

**Component: Mandarin (2%)**

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

**Component: Leon, non-hydric (2%)**

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

**Component: Ortega (2%)**

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

**Map Unit: 4—Ocilla loamy fine sand, 0 to 5 percent slopes****Component: Ocilla (85%)**

The Ocilla component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on rises 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 somewhat 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 21 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. 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: Blanton (4%)**

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

**Component: Pelham, non-hydric (4%)**

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

**Component: Albany (4%)**

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

**Component: Plummer, non-hydric (3%)**

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

**Map Unit: 5—Penney fine sand, 0 to 5 percent slopes****Component: Penney (85%)**

The Penney component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of eolian or sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively 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. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4s. 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:** Blanton (4%)

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

**Component:** Centenary (4%)

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

**Component:** Albany (4%)

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

**Component:** Ortega (3%)

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

**Map Unit:** 6—Mandarin fine sand, 0 to 2 percent slopes

**Component:** Mandarin (92%)

The Mandarin component makes up 92 percent of the map unit. Slopes are 0 to 2 percent. This component is on Lower coastal plains, rises. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat 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 24 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

**Component:** Leon (5%)

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

**Component: Centenary (1%)**

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

**Component: Rutlege (1%)**

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

**Component: Ortega (1%)**

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

**Map Unit: 7—Centenary fine sand, 0 to 5 percent slopes**

**Component: Centenary (85%)**

The Centenary component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on rises 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 moderately well 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 51 inches during June, July, August, September. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3s. 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: Blanton (4%)**

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

**Component: Ortega (4%)**

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

**Component: Albany (4%)**

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

**Component: Ridgewood (3%)**

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

**Map Unit: 8—Sapelo fine sand**

**Component: Sapelo, non-hydric (60%)**

The Sapelo, non-hydric component makes up 60 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 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. 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: Sapelo, hydric (20%)**

The Sapelo, hydric component makes up 20 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 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 3 inches during June, July, August, September. 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: Albany (4%)**

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

**Component: Leon, non-hydric (4%)**

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

**Component: Newnan (3%)**

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

**Component: Meadowbrook, non-hydric (3%)**

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

**Component:** Plummer, non-hydric (3%)

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

**Component:** Rutlege (3%)

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

**Map Unit:** 9—Leon fine sand, 0 to 2 percent slopes

**Component:** Leon, non-hydric (89%)

The Leon, non-hydric component makes up 89 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on lower 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 low. 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 January, February, March, April, May, June, July, August, September, October. 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 0 within 30 inches of the soil surface.

**Component:** Leon, hydric (5%)

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

**Component:** Mandarin (3%)

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

**Component:** Mascotte (3%)

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

**Map Unit:** 10—Ortega fine sand, 0 to 5 percent slopes

**Component:** Ortega (85%)

The Ortega component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of eolian or sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well 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 51 inches during January, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3s. 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:** Albany (3%)

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

**Component:** Blanton (3%)

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

**Component:** Centenary (3%)

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

**Component:** Penney (2%)

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

**Component:** Hurricane (2%)

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

**Component:** Ridgewood (2%)

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

**Map Unit:** 11—Allanton and Rutlege mucky fine sands, depressional

**Component:** Allanton (45%)

The Allanton component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions 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 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 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 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: Rutlege (35%)**

The Rutlege component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy marine deposits and/or fluvio-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 not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 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 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: Leon, non-hydric (5%)**

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

**Component: Plummer, non-hydric (5%)**

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

**Component: Surrency (5%)**

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

**Component: Sapelo, non-hydric (5%)**

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

**Map Unit: 12—Surrency fine sand, depressional**

**Component: Surrency (80%)**

The Surrency component makes up 80 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 is greater than 60 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 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 January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 6w. 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: Rutlege (3%)**

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

**Component: Plummer, non-hydric (3%)**

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

**Component: Pelham, non-hydric (3%)**

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

**Component: Sapelo, non-hydric (3%)**

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

**Component: Leon, hydric (3%)**

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

**Component: Meggett (3%)**

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

**Component: Santee (2%)**

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

**Map Unit: 13—Meggett fine sandy loam****Component: Meggett (85%)**

The Meggett 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 clayey fluviomarine 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 high. Shrink-swell potential is high. 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. 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: Goldhead, non-hydric (8%)**

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

**Component: Pelham, non-hydric (7%)**

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

**Map Unit: 15—Quartzipsamments, excavated****Component: Quartzipsamments, excavated (100%)**

The Quartzipsamments, excavated component makes up 100 percent of the map unit. Slopes are 0 to 5 percent. This component is on fills on rises 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 well 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 66 inches during June, July, August, September. Organic matter content in the surface horizon is about 0 percent. Nonirrigated land capability classification is 7s. 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.

**Map Unit: 17—Plummer fine sand****Component: Plummer, non-hydric (65%)**

The Plummer, non-hydric component makes up 65 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 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. 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:** Plummer, hydric (20%)

The Plummer, hydric component makes up 20 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 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 4 inches during June, July, August, September. 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:** Albany (4%)

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

**Component:** Osier, non-hydric (4%)

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

**Component:** Pelham, non-hydric (4%)

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

**Component:** Sapelo, non-hydric (3%)

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

**Map Unit:** 18—Ridgewood fine sand, 0 to 5 percent slopes

**Component:** Ridgewood (85%)

The Ridgewood component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges 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 somewhat 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 27 inches during July, August. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4s. 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:** Hurricane (3%)

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

**Component:** Osier, non-hydric (3%)

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

**Component:** Ortega (3%)

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

**Component:** Albany (3%)

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

**Component:** Plummer, non-hydric (3%)

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

**Map Unit:** 19—Osier fine sand

**Component:** Osier, non-hydric (70%)

The Osier, non-hydric component makes up 70 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 alluvium. 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 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 4 percent. Nonirrigated land capability classification is 5w. 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: Osier, hydric (15%)**

The Osier, hydric component makes up 15 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 alluvium. 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 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 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: Hurricane (3%)**

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

**Component: Albany (3%)**

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

**Component: Leon, non-hydric (3%)**

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

**Component: Ridgewood (2%)**

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

**Component: Rutlege (2%)**

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

**Component:** Plummer, non-hydric (2%)

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

**Map Unit:** 20—Scranton fine sand**Component:** Scranton, non-hydric (70%)

The Scranton, non-hydric component makes up 70 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 somewhat 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 3w. 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:** Scranton, hydric (15%)

The Scranton, hydric component makes up 15 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 somewhat 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 3 inches during July, August. Organic matter content in the surface horizon is about 3 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:** Leon, hydric (3%)

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

**Component:** Ona, non-hydric (2%)

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

**Component:** Rutlege (2%)

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

**Component:** Sapelo, non-hydric (2%)

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

**Component:** Ridgewood (2%)

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

**Component:** Plummer, non-hydric (2%)

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

**Component:** Osier, non-hydric (2%)

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

**Map Unit:** 22—Pelham fine sand, 0 to 2 percent slopes**Component:** Pelham (75%)

The Pelham component makes up 75 percent of the map unit. Slopes are 0 to 2 percent. This component is on lower coastal plains, flatwoods. 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 is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 9 inches during January, February, March, April, May, June, July, August, September, October. Organic matter content in the surface horizon is about 1 percent. This component is in the R153AY004FL North Florida Flatwoods ecological site. Nonirrigated land capability classification is 3w. 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:** Unnamed (13%)

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

**Component:** Albany (6%)

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

**Component:** Surrency (3%)

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

**Component:** Meggett (3%)

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

**Map Unit:** 27—Pamlico muck

**Component:** Pamlico (80%)

The Pamlico component makes up 80 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 moderately high. 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 February, March, April, May, June, July, August, September, October. Organic matter content in the surface horizon is about 50 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:** Osier, hydric (5%)

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

**Component:** Rutlege (5%)

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

**Component:** Surrency (5%)

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

**Component:** Leon, non-hydric (5%)

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

**Map Unit:** 29—Rutlege-Osier complex, frequently flooded

**Component:** Rutlege (50%)

The Rutlege component makes up 50 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of sandy marine deposits and/or fluviomarine 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 low. 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 9 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: Osier (40%)**

The Osier component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of sandy alluvium. 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 very low. 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 June, July, August, September, October, November. Organic matter content in the surface horizon is about 4 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: Pamlico (5%)**

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

**Component: Maurepas (5%)**

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

**Map Unit: 31—Potsburg fine sand**

**Component: Potsburg, non-hydric (70%)**

The Pottsburg, non-hydric component makes up 70 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. Organic matter content in the surface horizon is about 1 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:** Pottsburg, hydric (10%)

The Pottsburg, hydric component makes up 10 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 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 4 inches during June, July, August, September. 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.

**Component:** Hurricane (4%)

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

**Component:** Leon, non-hydric (4%)

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

**Component:** Ridgewood (3%)

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

**Component:** Plummer, non-hydric (3%)

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

**Component:** Osier, hydric (3%)

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

**Component:** Rutlege (3%)

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

**Map Unit:** 32—Blanton fine sand, 5 to 8 percent slopes**Component:** Blanton (80%)

The Blanton component makes up 80 percent of the map unit. Slopes are 5 to 8 percent. This component is on ridges 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 moderately well 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 39 inches during June, July, August, September. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4s. 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:** Ridgewood (5%)

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

**Component:** Ocilla (5%)

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

**Component:** Albany (5%)

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

**Component:** Meadowbrook, non-hydric (5%)

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

**Map Unit:** 34—Penney fine sand, 5 to 8 percent slopes**Component:** Penney (85%)

The Penney component makes up 85 percent of the map unit. Slopes are 5 to 8 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of eolian or sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively 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. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 6s. 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:** Centenary (4%)

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

**Component:** Blanton (4%)

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

**Component:** Albany (4%)

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

**Component:** Ortega (3%)

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

**Map Unit:** 36—Ortega fine sand, 5 to 8 percent slopes

**Component:** Ortega (85%)

The Ortega component makes up 85 percent of the map unit. Slopes are 5 to 8 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of eolian or sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well 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 51 inches during January, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4s. 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: Albany (3%)**

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

**Component: Centenary (3%)**

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

**Component: Blanton (3%)**

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

**Component: Ridgewood (2%)**

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

**Component: Hurricane (2%)**

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

**Component: Penney (2%)**

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

**Map Unit: 37—Ridgewood fine sand, 5 to 8 percent slopes****Component: Ridgewood (85%)**

The Ridgewood component makes up 85 percent of the map unit. Slopes are 5 to 8 percent. This component is on ridges 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 somewhat 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 27 inches during July, August. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4s. 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: Albany (3%)**

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

**Component:** Plummer, non-hydric (3%)

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

**Component:** Osier, non-hydric (3%)

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

**Component:** Ortega (3%)

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

**Component:** Hurricane (3%)

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

**Map Unit:** 38—Surrency fine sand, frequently flooded**Component:** Surrency (85%)

The Surrency component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains 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 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 0 inches during June, July, August, September, October. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 6w. 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:** Osier, non-hydric (3%)

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

**Component:** Pamlico (3%)

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

**Component:** Pelham, non-hydric (3%)

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

**Component: Santee (2%)**

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

**Component: Plummer, hydric (2%)**

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

**Component: Rutlege (2%)**

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

**Map Unit: 39—Meadowbrook sand, frequently flooded****Component: Meadowbrook, hydric (80%)**

The Meadowbrook, hydric component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains 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 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 2 percent. Nonirrigated land capability classification is 6w. 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: Rutlege (5%)**

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

**Component: Meadowbrook, non-hydric (5%)**

The Meadowbrook, non-hydric component makes up 5 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains 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 frequently flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6w. 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:** Surrency (5%)

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

**Component:** Pamlico (5%)

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

**Map Unit:** 40—Ousley fine sand, occasionally flooded

**Component:** Ousley (85%)

The Ousley component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on stream terraces on flood plains on marine terraces on coastal plains. The parent material consists of sandy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat 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 occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 27 inches during June, July, August, September. Organic matter content in the surface horizon is about 0 percent. Nonirrigated land capability classification is 3w. 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:** Albany (3%)

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

**Component:** Osier, hydric (3%)

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

**Component:** Leon, non-hydric (3%)

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

**Component:** Ortega (3%)

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

**Component:** Hurricane (3%)

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

**Map Unit:** 41—Albany fine sand, 0 to 5 percent slopes, occasionally flooded**Component:** Albany (85%)

The Albany component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on stream terraces 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 somewhat 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 occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 21 inches during July, August, September. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. 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:** Ocilla (3%)

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

**Component:** Ridgewood (3%)

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

**Component:** Blanton (3%)

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

**Component:** Meadowbrook, non-hydric (3%)

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

**Component: Hurricane (3%)**

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

**Map Unit: 42—Osier fine sand, occasionally flooded****Component: Osier, non-hydric (55%)**

The Osier, non-hydric component makes up 55 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of sandy alluvium. 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 very low. Shrink-swell potential is low. This soil is occasionally 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 4 percent. Nonirrigated land capability classification is 5w. 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: Osier, hydric (30%)**

The Osier, hydric component makes up 30 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of sandy alluvium. 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 very low. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 4 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 4 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: Pelham, non-hydric (3%)**

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

**Component: Pamlico (3%)**

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

**Component: Maurepas (3%)**

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

**Component:** Surrency (2%)

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

**Component:** Plummer, non-hydric (2%)

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

**Component:** Rutlege (2%)

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

**Map Unit:** 46—Plummer fine sand, depressional**Component:** Plummer (85%)

The Plummer component makes up 85 percent of the map unit. Slopes are 0 to 2 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 is greater than 60 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 February, March, April, May, June, July, August, September, October. Organic matter content in the surface horizon is about 6 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:** Pamlico (4%)

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

**Component:** Rutlege (4%)

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

**Component:** Pelham, non-hydric (4%)

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

**Component:** Surrency (3%)

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

**Map Unit: 47—Newnan fine sand**

**Component: Newnan (80%)**

The Newnan component makes up 80 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 somewhat poorly drained. Water movement in the most restrictive layer is moderately low. 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 24 inches during July, August. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3s. 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: Sapelo, non-hydric (4%)**

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

**Component: Hurricane (4%)**

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

**Component: Leon, non-hydric (4%)**

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

**Component: Mandarin (4%)**

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

**Component: Albany (4%)**

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

**Map Unit: 49—Sapelo-Meadowbrook frequently flooded, complex**

**Component: Sapelo (45%)**

The Sapelo 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 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 12 inches during June, July, August, September. 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: Meadowbrook (35%)**

The Meadowbrook component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains 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 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 2 percent. Nonirrigated land capability classification is 6w. 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: Pamlico (7%)**

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

**Component: Rutlege (7%)**

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

**Component: Surrency (6%)**

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

**Map Unit: 50—Leon fine sand, frequently flooded**

**Component: Leon, hydric (50%)**

The Leon, hydric component makes up 50 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains 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 very low. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 4 inches during June, July, August, September. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6w. 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: Leon, non-hydric (30%)**

The Leon, non-hydric component makes up 30 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains 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 very low. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6w. 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: Sapelo (4%)**

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

**Component: Ona, non-hydric (4%)**

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

**Component: Lynn Haven (4%)**

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

**Component: Mandarin (4%)**

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

**Component: Pottsburg (4%)**

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

**Map Unit: 51—Pottsburg fine sand, occasionally flooded****Component: Pottsburg (80%)**

The Pottsburg 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 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 12 inches during June, July, August, September. 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: Lynn Haven (3%)**

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

**Component: Osier, non-hydric (3%)**

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

**Component: Hurricane (3%)**

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

**Component: Plummer, non-hydric (3%)**

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

**Component: Leon, non-hydric (3%)**

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

**Component: Leon, hydric (3%)**

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

**Component: Rutlege (2%)**

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

**Map Unit: 52—Meggett fine sandy loam, frequently flooded****Component: Meggett (80%)**

The Meggett component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of clayey fluviomarine 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 high. Shrink-swell potential is high. 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 5 percent. Nonirrigated land capability classification is 6w. 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: Goldhead, hydric (5%)**

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

**Component: Plummer, non-hydric (5%)**

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

**Component: Meadowbrook, non-hydric (5%)**

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

**Component: Pelham, hydric (5%)**

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

**Map Unit: 54—Troup sand, 0 to 5 percent slopes****Component: Troup (80%)**

The Troup component makes up 80 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges 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 well 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. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. 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:** Albany (5%)

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

**Component:** Penney (5%)

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

**Component:** Blanton (5%)

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

**Component:** Kershaw (5%)

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

**Map Unit:** 58—Allanton fine sand, frequently flooded

**Component:** Allanton (80%)

The Allanton component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains 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 low. Shrink-swell potential is low. This soil is frequently 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 2 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:** Rutledge (4%)

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

**Component:** Pottsburg, non-hydric (4%)

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

**Component:** Surrency (4%)

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

**Component:** Lynn Haven (4%)

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

**Component:** Osier, non-hydric (4%)

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

**Map Unit:** 60—Ridgeland fine sand

**Component:** Ridgeland (80%)

The Ridgeland component makes up 80 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 somewhat 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 24 inches during July, August. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. 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:** Hurricane (4%)

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

**Component:** Centenary (4%)

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

**Component:** Leon, non-hydric (3%)

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

**Component:** Ona, hydric (3%)

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

**Component:** Ridgewood (3%)

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

**Component:** Mandarin (3%)

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

**Map Unit:** 61—Wesconnett fine sand, frequently flooded

**Component:** Wesconnett (80%)

The Wesconnett component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains 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 moderately 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 6 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 6w. 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:** Leon, non-hydric (4%)

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

**Component:** Lynn Haven (4%)

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

**Component:** Osier, non-hydric (4%)

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

**Component: Allanton (4%)**

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

**Component: Rutlege (4%)**

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

**Map Unit: 65—Meadowbrook sand****Component: Meadowbrook, non-hydric (70%)**

The Meadowbrook, non-hydric component makes up 70 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 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 10 inches during July, August, September. 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: Meadowbrook, hydric (15%)**

The Meadowbrook, hydric component makes up 15 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 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 4 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: Albany (4%)**

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

**Component: Pelham, non-hydric (4%)**

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

**Component:** Osier, hydric (4%)

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

**Component:** Sapelo, non-hydric (3%)

Generated brief soil descriptions are created for major components. The Sapelo 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.

**Duval County, Florida****Map Unit:** 2—Albany fine sand, 0 to 5 percent slopes**Component:** Albany (86%)

The Albany component makes up 86 percent of the map unit. Slopes are 0 to 5 percent. This component is on knolls 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 somewhat 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 21 inches during January, February, March, April, May, June, July, August, September, October. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. 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:** Mascotte (4%)

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

**Component:** Blanton (4%)

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

**Component:** Sapelo (3%)

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

**Component:** Pelham, hydric (3%)

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

**Map Unit:** 12—Blanton fine sand, 0 to 6 percent slopes

**Component:** Blanton (90%)

The Blanton component makes up 90 percent of the map unit. Slopes are 0 to 6 percent. This component is on knolls 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 moderately well 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 57 inches during January, February, March, April, May, June, July, August, September, October. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3s. 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:** Albany (2%)

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

**Component:** Boulogne (1%)

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

**Component:** Goldhead, wet (1%)

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

**Component:** Surrency, flooded (1%)

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

**Component:** Sapelo (1%)

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

**Component: Penney (1%)**

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

**Component: Pelham, non-hydric (1%)**

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

**Component: Mascotte (1%)**

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

**Component: Ortega (1%)**

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

**Map Unit: 14—Boulogne fine sand, 0 to 2 percent slopes****Component: Boulogne (95%)**

The Boulogne component makes up 95 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 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 January, February, March, April, May, June, July, August, September, October. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. 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: Lynn Haven (2%)**

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

**Component: Pottsburg, high (2%)**

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

**Component: Wesconnett (1%)**

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

**Map Unit:** 22—Evergreen-Wesconnett complex, depressional, 0 to 2 percent slopes

**Component:** Evergreen (63%)

The Evergreen component makes up 63 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of 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 moderately high. 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 January, February, March, April, May, 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:** Wesconnett (33%)

The Wesconnett component makes up 33 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions 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 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 0 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 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:** Pamlico (1%)

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

**Component:** Pottsburg (1%)

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

**Component:** Leon (1%)

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

**Component:** Lynn Haven (1%)

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

**Map Unit:** 32—Leon fine sand, 0 to 2 percent slopes

**Component:** Leon, non-hydric (89%)

The Leon, non-hydric component makes up 89 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on lower 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 low. 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 January, February, March, April, May, June, July, August, September, October. 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 0 within 30 inches of the soil surface.

**Component:** Leon, hydric (5%)

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

**Component:** Mandarin (3%)

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

**Component:** Mascotte (3%)

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

**Map Unit:** 35—Lynn Haven fine sand, 0 to 2 percent slopes

**Component:** Lynn Haven (92%)

The Lynn Haven component makes up 92 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 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 3 inches during January, February, March, April, May, June, 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: Leon (2%)**

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

**Component: Boulogne (2%)**

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

**Component: Wesconnett (2%)**

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

**Component: Evergreen (2%)**

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

**Map Unit: 40—Maurepas muck, 0 to 1 percent slopes, frequently flooded**

**Component: Maurepas (90%)**

The Maurepas component makes up 90 percent of the map unit. Slopes are 0 to 1 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of woody organic material. 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 very high. 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 75 percent. Nonirrigated land capability classification is 8. 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:** Lynn Haven (4%)

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

**Component:** Tisonia (3%)

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

**Component:** Rutlege, flooded (3%)

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

**Map Unit:** 44—Mascotte-Pelham complex, 0 to 2 percent slopes**Component:** Mascotte (65%)

The Mascotte 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. 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 January, February, March, April, May, June, July, August, September, October. Organic matter content in the surface horizon is about 5 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:** Pelham, non-hydric (31%)

The Pelham, non-hydric component makes up 31 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 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 9 inches during January, February, March, April, May, June, July, August, September, October. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. 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:** Pelham, hydric (2%)

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

**Component:** Surrency (2%)

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

**Map Unit:** 51—Pelham fine sand, 0 to 2 percent slopes

**Component:** Pelham (75%)

The Pelham component makes up 75 percent of the map unit. Slopes are 0 to 2 percent. This component is on lower coastal plains, flatwoods. 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 is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 9 inches during January, February, March, April, May, June, July, August, September, October. Organic matter content in the surface horizon is about 1 percent. This component is in the R153AY004FL North Florida Flatwoods ecological site. Nonirrigated land capability classification is 3w. 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:** Unnamed (13%)

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

**Component:** Albany (6%)

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

**Component:** Surrency (3%)

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

**Component:** Meggett (3%)

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

**Map Unit:** 58—Pottsburg fine sand, high, 0 to 3 percent slopes

**Component:** Pottsburg, high (93%)

The Pottsburg, high component makes up 93 percent of the map unit. Slopes are 0 to 3 percent. This component is on rises 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 somewhat 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 18 inches during January, February, March, April, May, June, July, August, September, October. 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:** Hurricane (2%)

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

**Component:** Boulogne (2%)

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

**Component:** Ridgewood (1%)

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

**Component:** Leon (1%)

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

**Component:** Pottsburg (1%)

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

**Map Unit:** 62—Rutlege mucky fine sand, 0 to 2 percent slopes, frequently flooded

**Component:** Rutlege, flooded (90%)

The Rutlege, flooded component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of sandy marine deposits and/or fluviomarine 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 low. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 15 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:** Evergreen (3%)

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

**Component:** Boulogne (3%)

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

**Component:** Surrency, flooded (2%)

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

**Component:** Lynn Haven (2%)

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

**Map Unit:** 63—Sapelo fine sand, 0 to 2 percent slopes

**Component:** Sapelo (90%)

The Sapelo component makes up 90 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 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 January, February, March, April, May, June, July, August, September, October. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. 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:** Pelham, hydric (2%)

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

**Component:** Albany (2%)

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

**Component:** Pelham, non-hydric (2%)

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

**Component:** Surrency (2%)

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

**Component:** Yonges (2%)

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

**Map Unit:** 66—Surrency loamy fine sand, depressional, 0 to 2 percent slopes**Component:** Surrency (92%)

The Surrency component makes up 92 percent of the map unit. Slopes are 0 to 2 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 is greater than 60 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 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 January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 12 percent. Nonirrigated land capability classification is 6w. 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:** Lynn Haven (2%)

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

**Component:** Pelham, hydric (2%)

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

**Component:** Pamlico (2%)

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

**Component:** Yonges (1%)

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

**Component:** Stockade (1%)

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

**Map Unit:** 67—Surrency loamy fine sand, 0 to 2 percent slopes, frequently flooded

**Component:** Surrency, flooded (93%)

The Surrency, flooded component makes up 93 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains 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 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 0 inches during January, February, March, December. Organic matter content in the surface horizon is about 12 percent. Nonirrigated land capability classification is 6w. 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:** Pelham, hydric (2%)

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

**Component:** Lynn Haven (2%)

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

**Component:** Pamlico (2%)

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

**Component: Yonges (1%)**

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

**Map Unit: 80—Goldhead, Wet, and Lynn Haven soils, 2 to 5 percent slopes****Component: Goldhead, wet (50%)**

The Goldhead, wet component makes up 50 percent of the map unit. Slopes are 2 to 5 percent. This component is on seeps 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 moderate. 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 January, February, March, April, May, 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. 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: Lynn Haven (40%)**

The Lynn Haven component makes up 40 percent of the map unit. Slopes are 2 to 5 percent. This component is on seeps 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 high. 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 January, February, March, April, May, June, 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: Mascotte (2%)**

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

**Component: Sapelo (2%)**

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

**Component: Albany (2%)**

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

**Component:** Boulogne (2%)

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

**Component:** Surrency, flooded (2%)

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

**Data Source Information**

Soil Survey Area: Clay County, Florida  
Survey Area Data: Version 14, Sep 21, 2017

Soil Survey Area: Duval County, Florida  
Survey Area Data: Version 12, Sep 19, 2017

## 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: Jennings State Forest

Dear Mr. Davis:

Thank you for your inquiry regarding the surface water quality classifications on and near Jennings State Forest in Duval and Clay Counties. Much of the site has been designated as Outstanding Florida Waters (OFW) under subparagraph 62-302.700(9)(f)62., Florida Administrative Code (FAC). All of the surface waters on or adjacent to the site are classified as Class III waters (subparagraphs 62-302.400(17)(b)10. and 16., 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](mailto: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](mailto:Eric.Shaw@dep.state.fl.us)

## Exhibit L

### Water Resources and Basin Management Action Plan Map



Florida Forest Service

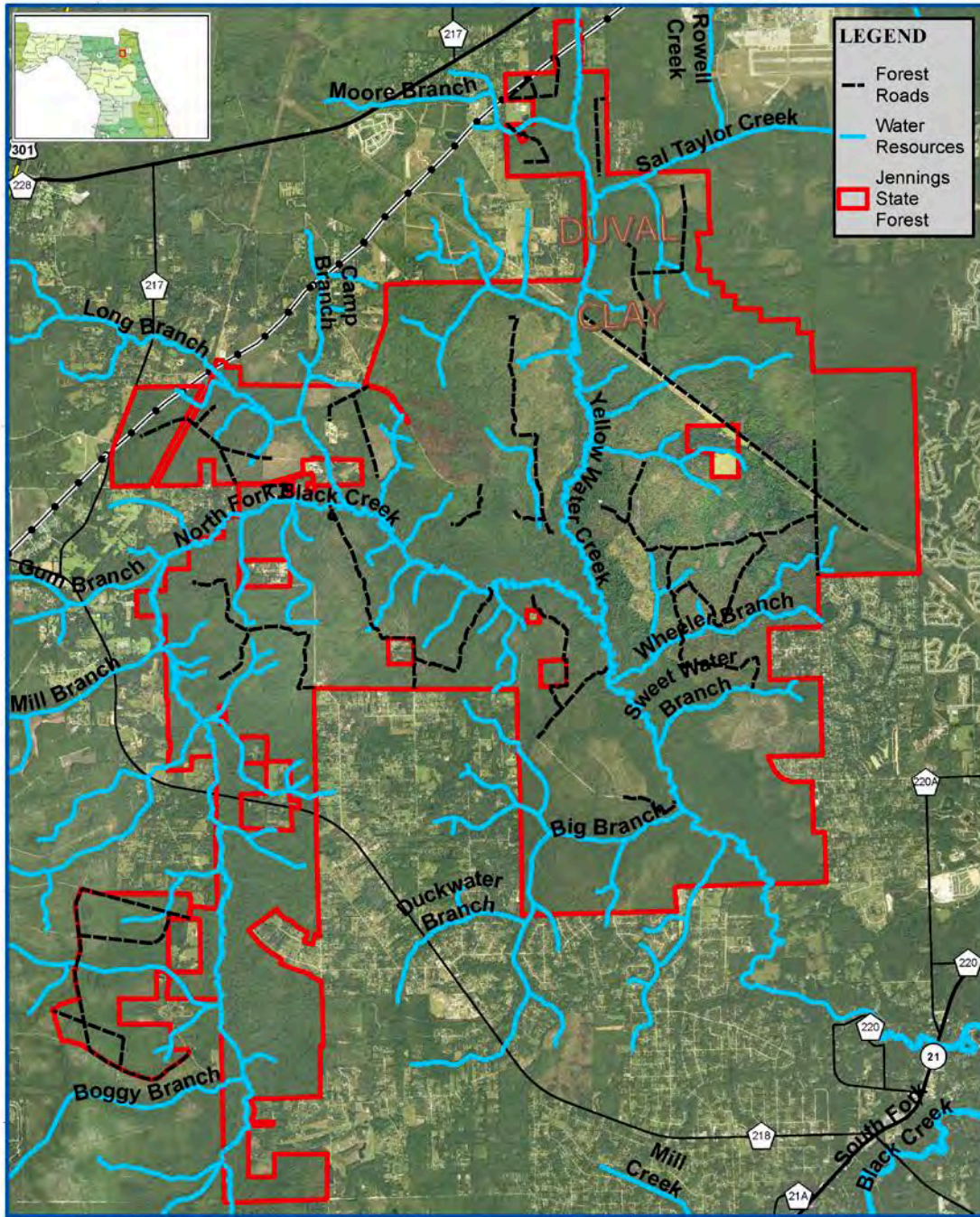
# Jennings State Forest Water Resources Map

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

02-1-10

**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 contained herein. The Florida Forest Service is not responsible for any errors or omissions in this map.

Revised with additional content of the Florida Forest Service. Partially based on data from the Florida Department of Transportation. Map 100-00-0000



0 0.35 0.7 1.4 2.1 2.8 Miles

Map Month/Year: January 2018



0 0.5 1 2 3 4 Kilometers



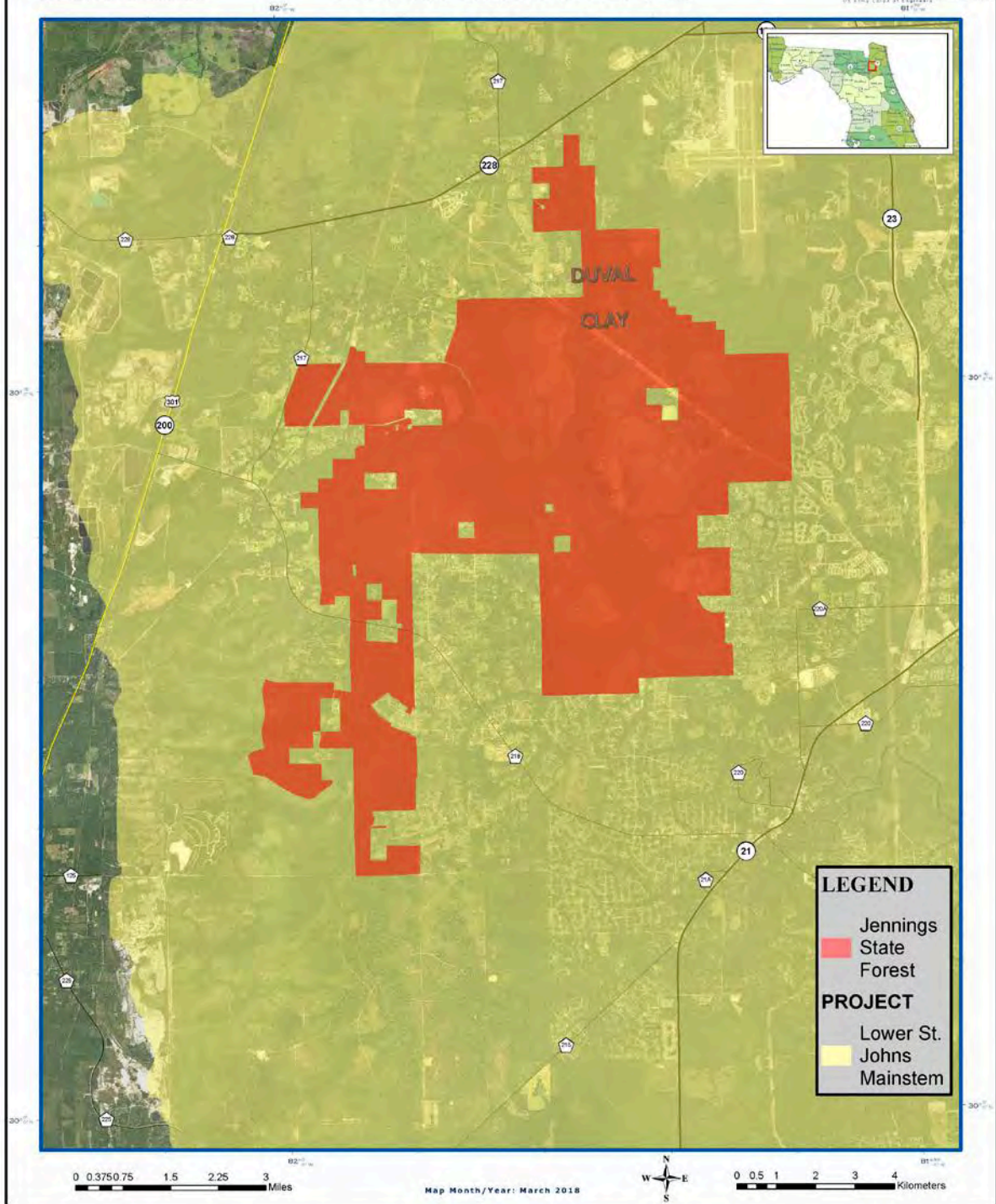
Florida Forest Service

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

# Jennings State Forest Lower St. Johns River Basin Mainstem Basin Management Action Plan

**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 contained herein. The Florida Forest Service is not responsible for any errors or omissions in this map. The Florida Forest Service is not responsible for any damages, including consequential damages, arising from the use of this map.

Map was prepared using data provided by the Florida Department of Transportation, Florida Department of Agriculture and Forestry, and the U.S. 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 850-681-9164  
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:** Jennings State Forest  
**Date Received:** 8/7/2017  
**Location:** Duval and Clay Counties

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 Northeast Florida Timberlands and Watershed Reserve Florida Forever BOT Project, which is 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](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](http://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](mailto: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  
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FLORIDA  
**Natural Areas**  
INVENTORY

*Florida Natural Areas Inventory*  
Managed Area Element Summary  
Jennings State Forest



SCIENTIFIC NAME	COMMON NAME	Global rank	State rank	Federal status	State status
<b>PLANTS</b>					
<i>Balduina atropurpurea</i>	Purple Honeycomb-head	G2	S1	UR	E
<i>Calopogon multiflorus</i>	Many-flowered Grass-pink	G2G3	S2S3	N	T
<i>Calydorea coelestina</i>	Bartram's Ixia	G2G3	S2S3	N	E
<i>Carex chapmanii</i>	Chapman's Sedge	G3	S3	N	T
<i>Cleistes divaricata</i>	Large Rosebud Orchid	G4	S1	N	E
<i>Clenium floridanum</i>	Florida Toothache Grass	G2	S2	N	E
<i>Hartwrightia floridana</i>	Hartwrightia	G2	S2	UR	T
<i>Linum westii</i>	West's Flax	G1	S1	UR	E
<i>Orbexilum virgatum</i>	Pineland Scurfpea	G1	S1	N	E
<i>Rudbeckia nitida</i>	St. John's Blackeyed Susan	G3	S2	N	E
<i>Schoenolirion croceum</i>	Yellow Sunnybell	G4	S2	N	E
<i>Verbesina heterophylla</i>	Variable-leaf Crownbeard	G2	S2	N	E
<b>AMPHIBIANS</b>					
<i>Lithobates capito</i>	Gopher Frog	G3	S3	UR	N
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	C	N
<b>REPTILES</b>					
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
<i>Pituophis melanoleucus</i>	Pine Snake	G4	S3	UR	ST
<b>BIRDS</b>					
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<b>MAMMALS</b>					
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T2	S2	RT	N
<b>INVERTEBRATES</b>					
<i>Baetisca gibbera</i>	A Mayfly	G5	S1S2	N	N
<i>Callophrys irus</i>	Frosted Elfin	G3	S1	N	N
<i>Chimarra florida</i>	Floridian Finger-net Caddisfly	G4	S3S4	N	N
<i>Cordulegaster sayi</i>	Say's Spiketail	G3	S3	RT	N
<i>Dromogomphus armatus</i>	Southeastern Spinyleg	G4	S3	N	N
<i>Elliptio monroensis</i>	St. Johns Elephantear	G2G3	S2S3	UR	N
<i>Erynnis baptisiae</i>	Wild Indigo Duskywing	G5	S2S3	N	N
<i>Euphyes berryi</i>	Berry's Skipper	G2	S2	N	N
<i>Hydroptila bernerii</i>	Berner's Microcaddisfly	G4G5	S3	N	N
<i>Megathymus cofaqui cofaqui</i>	Cofaqui Giant-Skipper	G3G4T3	S2S4	N	N
<i>Oxyethira elerobi</i>	Elerob's Microcaddisfly	G3G4	S2S3	N	N
<i>Oxyethira pescadori</i>	Pescador's Bottle-Cased Caddisfly	G3G4	S3	N	N
<i>Tachopteryx thoreyi</i>	Gray Petaltail	G4	S3	N	N

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

08/09/2017

Page 1 of 4



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Tallahassee, FL 32303  
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## Florida Natural Areas Inventory

### Managed Area Element Summary

#### Jennings State Forest



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



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## Florida Natural Areas Inventory

### Managed Area Element Summary

#### Jennings State Forest



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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

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*Florida Natural Areas Inventory*  
Managed Area Element Summary  
Jennings State Forest



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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
<b>Documented</b>					
<i>Attenella attenuata</i>	Hirsute Mayfly	G5	S1S2	N	N
<i>Balduina atropurpurea</i>	Purple Honeycomb-head	G2	S1	N	E
Bottomland forest		G4	S3	N	N
<i>Callophrys irus</i>	Frosted Elfin	G3	S1	N	N
<i>Calopogon multiflorus</i>	Many-flowered Grass-pink	G2G3	S2S3	N	T
<i>Calydorea coelestina</i>	Bartram's Ixia		S2S3	N	E
<i>Carex chapmanii</i>	Chapman's Sedge	G3	S3	N	T
<i>Cleistes divaricata</i>	Large Rosebud Orchid	G4	S1	N	E
<i>Ctenium floridanum</i>	Florida Toothache Grass	G2	S2	N	E
Depression marsh		G4	S4	N	N
<i>Elliptio monroensis</i>	St. Johns Elephantear	G2G3	S2S3	N	N
<i>Erynnis baptisiae</i>	Wild Indigo Duskywing	G5	S2S3	N	N
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
<i>Hartwrightia floridana</i>	Hartwrightia	G2	S2	N	T
<i>Hydroptila bernerii</i>	Berner's Microcaddisfly	G4G5	S3	N	N
<i>Linum westii</i>	West's Flax	G1	S1	N	E
Mesic flatwoods		G4	S4	N	N
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	C	N
<i>Orbexillum virgatum</i>	Pineland Scurfpea	G1	S1	N	E
<i>Oxyethira elerobi</i>	Elerob's Microcaddisfly	G3G4	S2S3	N	N
<i>Oxyethira pescadori</i>	Pescador's Bottle-Cased Caddisfly		S3	N	N
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Pituophis melanoleucus</i>	Pine Snake	G4	S3	N	ST
<i>Rudbeckia nitida</i>	St. John's Blackeyed Susan	G3	S2	N	E
Sandhill			S2	N	N
<i>Verbesina heterophylla</i>	Variable-leaf Crownbeard	G2	S2	N	E
<b>Documented-Historic</b>					
<i>Dromogomphus armatus</i>	Southeastern Spinyleg	G4	S3	N	N
<b>Likely</b>					
<i>Baelisca gibbera</i>	A Mayfly	G5	S1S2	N	N
Baygall		G4	S4	N	N
<i>Chimarra florida</i>	Floridian Finger-nel Caddisfly		S3S4	N	N
<i>Cordulegaster sayi</i>	Say's Spiketail	G3	S3	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3Q	S3	LT	FT
<i>Lithobates capito</i>	Gopher Frog	G3	S3	N	N
<i>Picoides borealis</i>	Red-cockaded Woodpecker		S2	LE	FE
<i>Procambarus pictus</i>	Black Creek Crayfish	G2	S2	N	ST
<i>Schoenolirion croceum</i>	Yellow Sunnybell	G4	S2	N	E
Scrub		G2	S2	N	N
<i>Tachopteryx thoreyi</i>	Gray Petaltail	G4	S3	N	N
<i>Trichechus manatus</i>	West Indian Manatee	G2	S2	LE, PT	FE
Upland hardwood forest		G5	S3	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T2	S2	N	N
Wet flatwoods		G4	S4	N	N
Wet prairie		G2	S2	N	N
<b>Potential</b>					
<i>Acipenser brevirostrum</i>	Shortnose Sturgeon	G3	S1	LE	FE

**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.



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Tallahassee, FL 32303  
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## Florida Natural Areas Inventory Aggregated Biodiversity Matrix Report



Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
<i>Acipenser oxyrinchus oxyrinchus</i>	Atlantic Sturgeon	G3T3	S1	LE	FE
<i>Agrimonia incisa</i>	Incised Groove-bur	G3	S2	N	T
<i>Arnoglossum diversifolium</i>	Variable-leaved Indian-plantain	G2	S2	N	T
<i>Asclepias viridula</i>	Southern Milkweed		S2	N	T
<i>Asplenium heteroresiliens</i>	Wagner's Spleenwort		S1	N	N
<i>Corynorhinus rafinesquii</i>	Rafinesque's Big-eared Bat	G3G4	S2	N	N
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2	N	N
<i>Litsea aestivalis</i>	Pondspice	G3?	S2	N	E
<i>Matelea floridana</i>	Florida Spiny-pod	G2	S2	N	E
<i>Neofiber alleni</i>	Round-tailed Muskrat	G3	S3	N	N
<i>Peromyscus floridanus</i>	Florida Mouse		S3	N	N
<i>Pteroglossaspis ecristata</i>	Giant Orchid	G2G3	S2	N	T
<i>Pycnanthemum floridanum</i>	Florida Mountain-mint	G3	S3	N	T
<i>Rhododendron chapmanii</i>	Chapman's Rhododendron	G1	S1	LE	E
<i>Rhynchospora thornei</i>	Thorne's Beaksedge	G3	S1S2	N	N
<i>Salix floridana</i>	Florida Willow	G2	S2	N	E
<i>Sciurus niger shermani</i>	Sherman's Fox Squirrel	G5T3	S3	N	SSC
<i>Sideroxylon alachuense</i>	Silver Buckthorn	G1	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**

**Commissioners**

**Brian Yablonski**  
Chairman  
Tallahassee

**Allese P. "Liesa" Priddy**  
Vice Chairman  
Immokalee

**Ronald M. Bergeron**  
Fort Lauderdale

**Richard Hanas**  
Oviedo

**Bo Rivard**  
Panama City

**Charles W. Roberts III**  
Tallahassee

**Robert A. Spottswood**  
Key West

**Executive Staff**

**Nick Wiley**  
Executive Director

**Eric Sutton**  
Assistant Executive Director

**Jennifer Fitzwater**  
Chief of Staff

**Fish and Wildlife  
Research Institute**  
**Gil McRae**  
Director

(727) 896-8626  
(727) 823-0166 FAX

*Managing fish and wildlife  
resources for their long-term  
well being and the benefit  
of people.*

**Fish and Wildlife  
Research Institute**  
100 Eighth Avenue SE  
St. Petersburg, Florida  
33701-5020  
Voice: (727) 896-8626  
Fax: (727) 823-0166  
Hearing/speech impaired:  
(800) 955-8771 (T)  
(800) 955-8770 (V)  
MyFWC.com/Research

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 represents 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.**

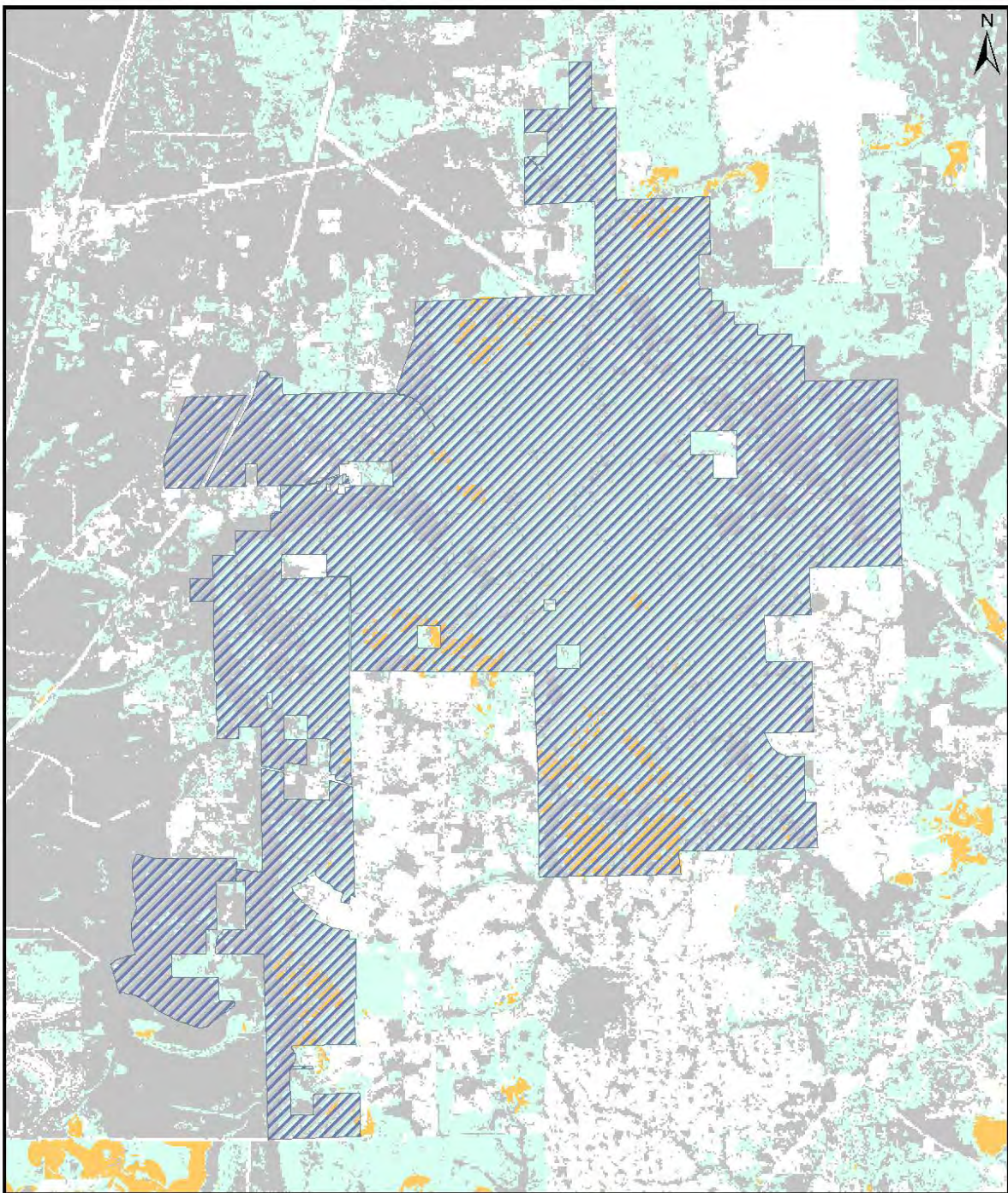
If you have any questions or further requests, please contact me at (850) 488-0588 or [gisrequests@myfwc.com](mailto:gisrequests@myfwc.com)

Sincerely,

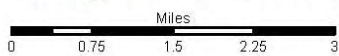
*Eva Salinas*

Eva Salinas  
Research Assistant

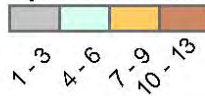
2017\_6219  
Enclosures



## Jennings State Forest

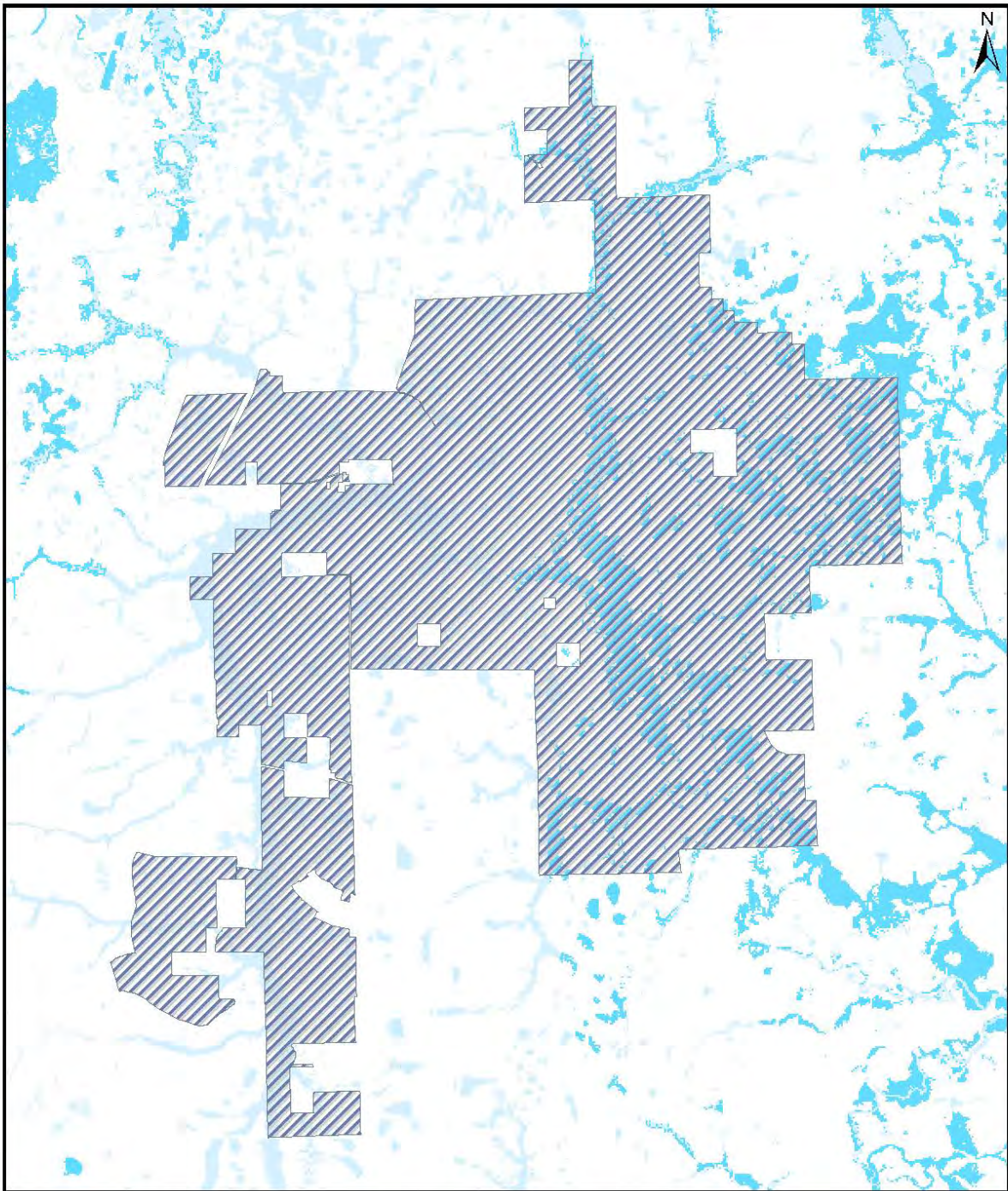


### Species Richness

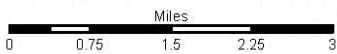


Florida Fish and Wildlife  
Conservation Commission  
MyFWC.com

FWC ID: 2017\_6219 July 24, 2017



## Jennings State Forest



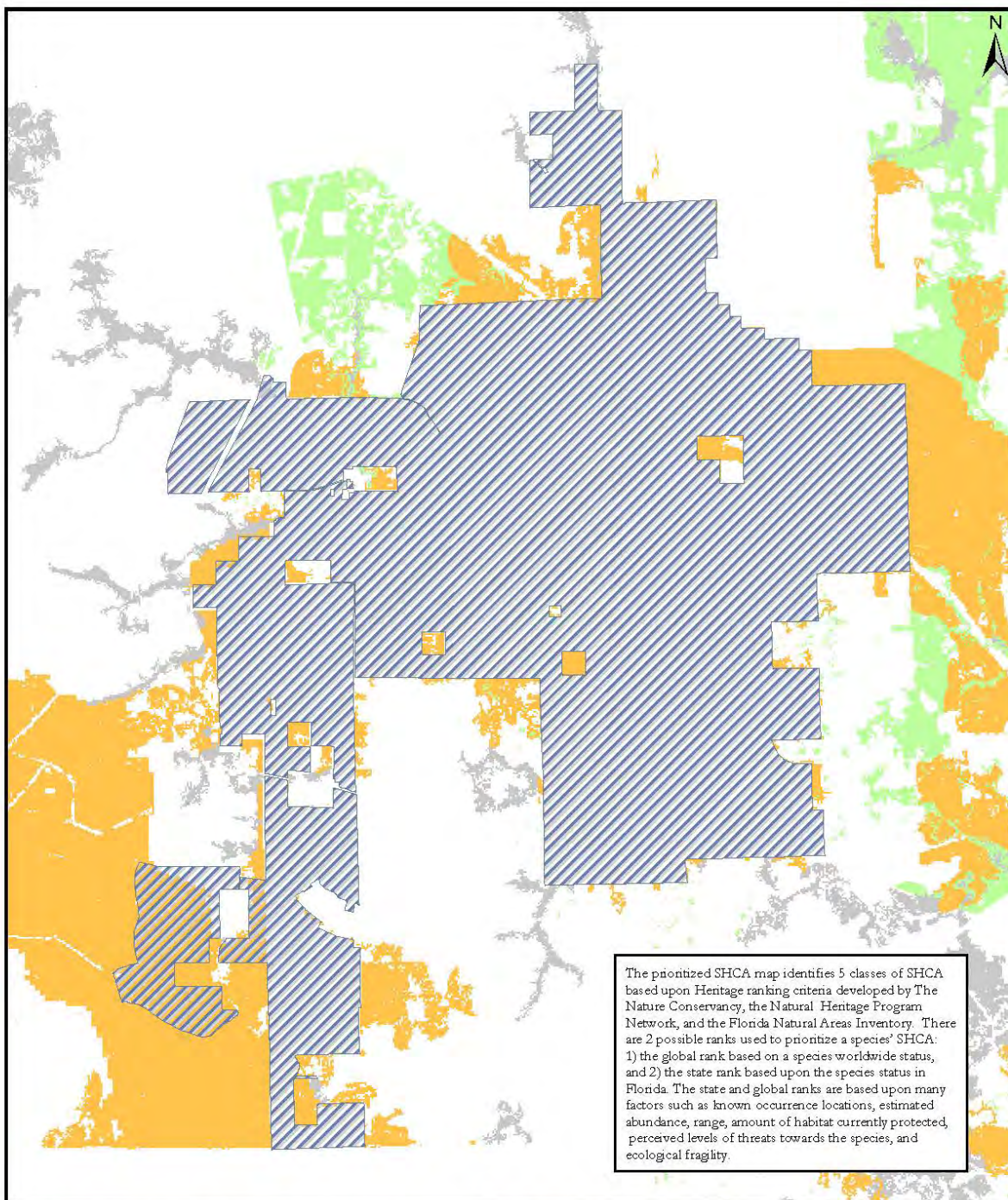
### Priority Wetlands

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

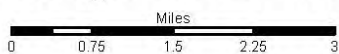


Florida Fish and Wildlife  
Conservation Commission  
MyFWC.com

FWC ID: 2017\_6219 July 24, 2017



## Jennings State Forest

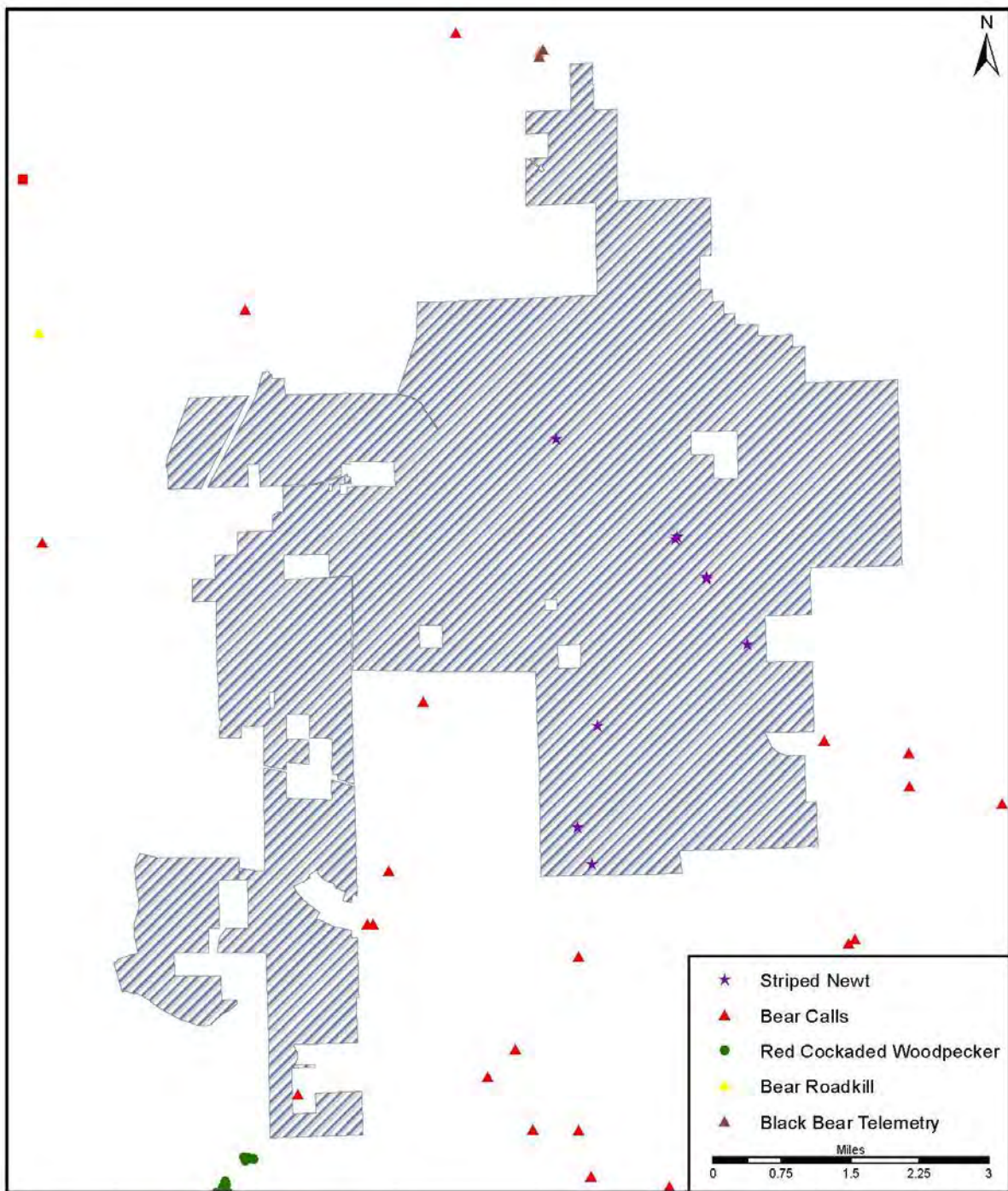


### Prioritized SHCA's



Florida Fish and Wildlife  
Conservation Commission  
MyFWC.com

FWC ID: 2017\_6219 July 24, 2017



## Jennings State Forest

Florida Fish and Wildlife Species Locations



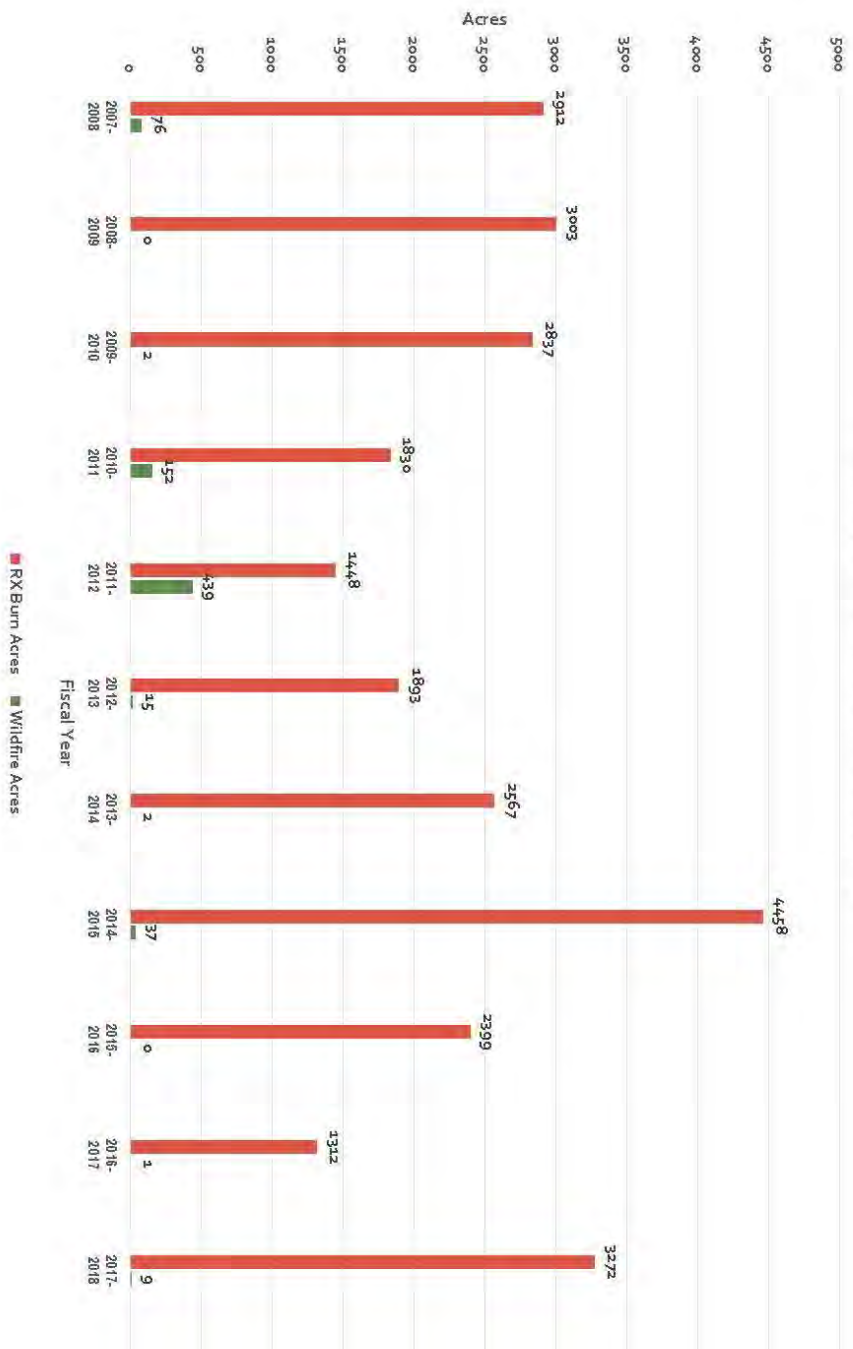
Florida Fish and Wildlife  
Conservation Commission  
MyFWC.com

FWC ID: 2017\_6219 August 3, 2017

## Exhibit O

### Fire History

# Jennings State Forest Burn Acres by FY



## Exhibit P

### Non-Native Invasive Species



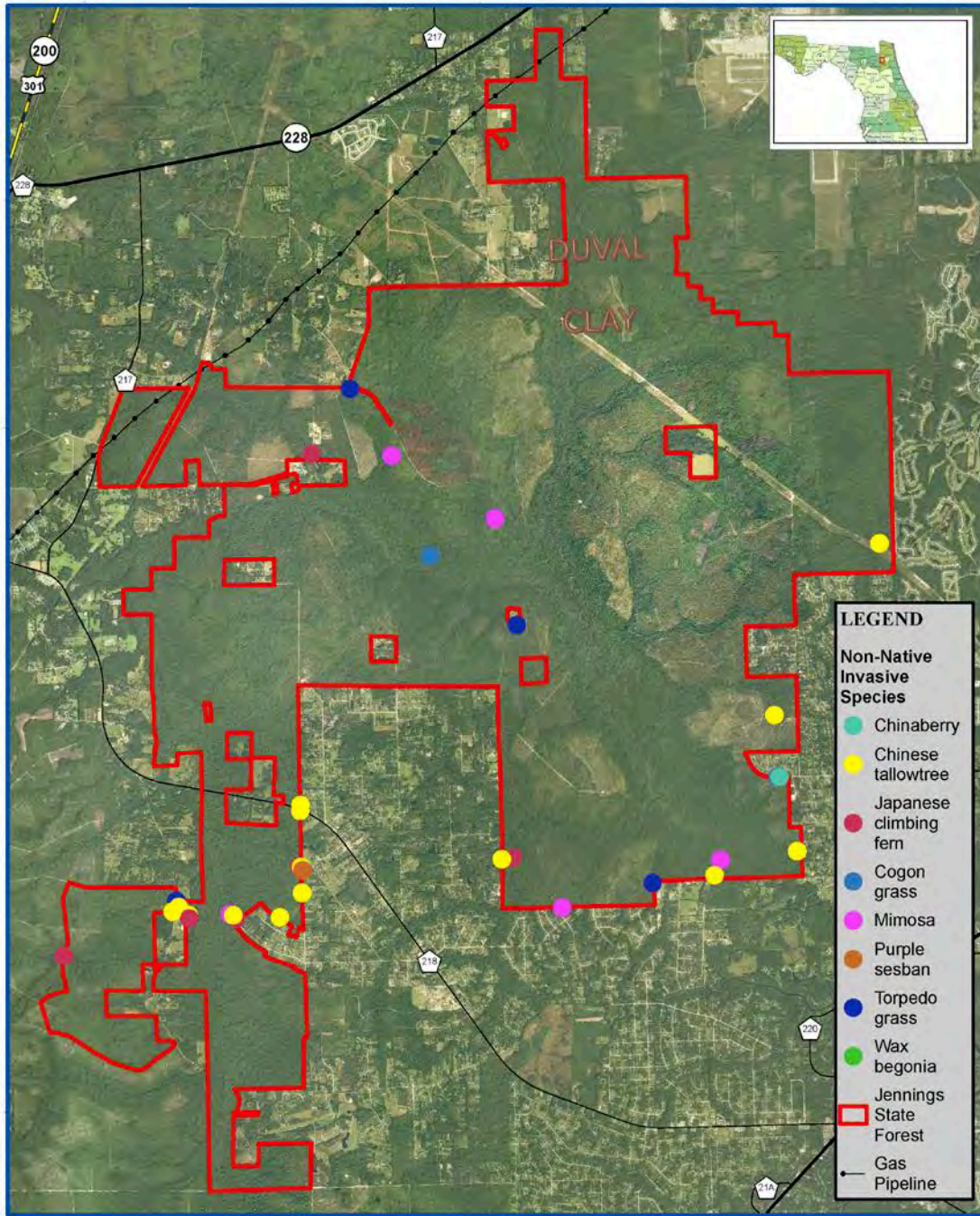
Florida Forest Service

# Jennings State Forest Non-Native Invasive Species Map

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

**DISCLAIMER:**  
This map was prepared by the Florida Forest Service  
and is not intended to be used for any purpose other than  
informational. The Florida Forest Service does not warrant  
the accuracy or completeness of the information shown 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 losses resulting from  
the use of this map.

Revised area boundaries resulting from  
the Florida Natural Areas Inventory  
and the Florida Forest Service (FFS) Data  
as of 11/15/2017.



0 0.25 0.5 1 1.5 2 Miles

Map Month/Year: February 2018



0 0.4 0.8 1.6 2.4 3.2 Kilometers

## Exhibit Q

### Current Natural Communities

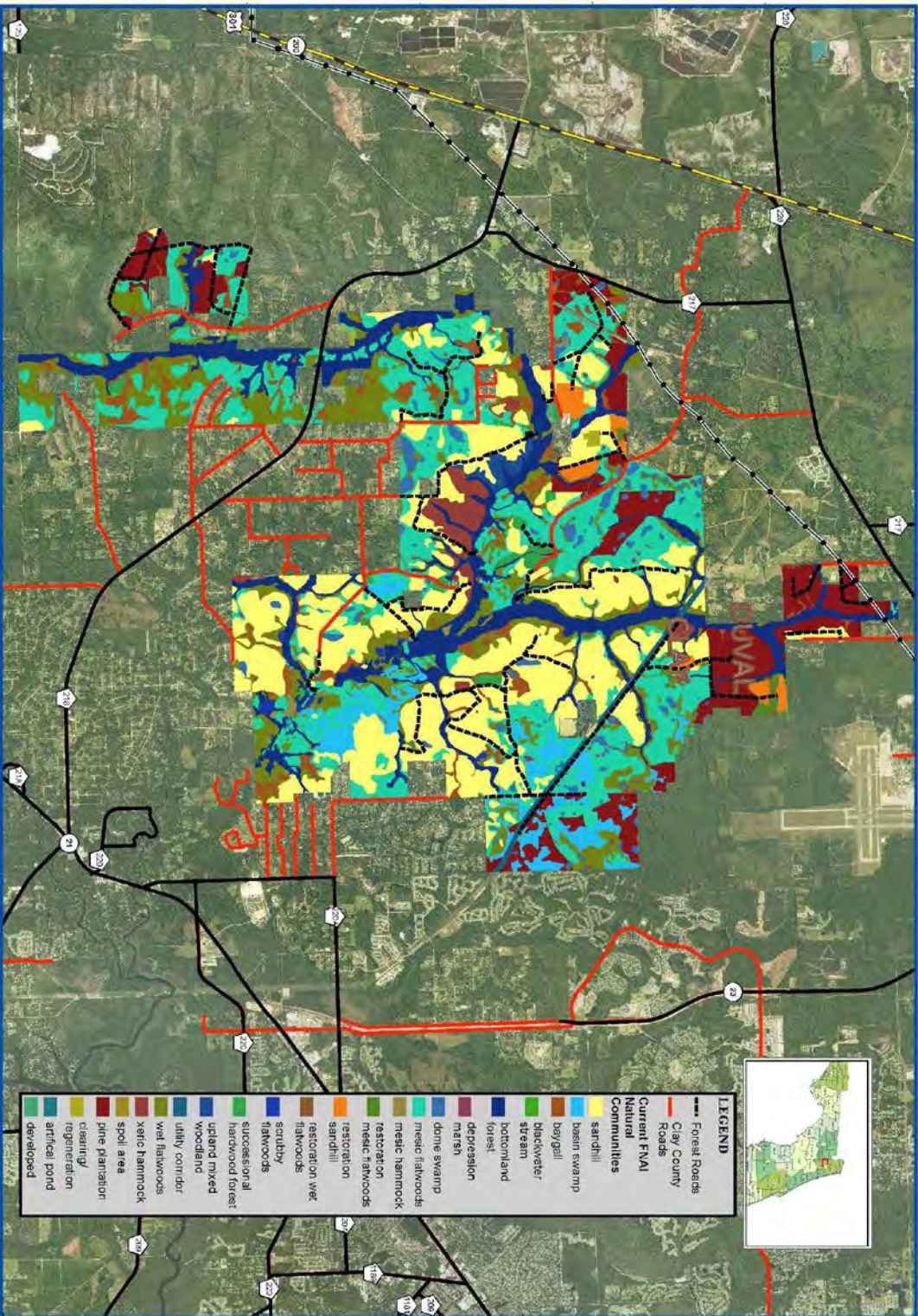


Florida Department of Natural Resources  
Division of Forestry  
Jennings State Forest

# Jennings State Forest Current FNAI Natural Communities

62° 1' W  
30° 1' N

Map Scale: 1 inch = 1 mile  
Map Date: February 2018



- LEGEND**
- Forest Roads
  - Clay County Roads
  - Current FNAI Natural Communities
  - sandhill
  - basin swamp
  - baygall
  - blackwater stream
  - bottomland forest
  - depression marsh
  - dome swamp
  - mesic flatwoods
  - mesic hammock
  - restoration
  - restoration wet sandhill
  - flatwoods
  - scrubby flatwoods
  - successional hardwood forest
  - upland mixed woodland
  - utility corridor
  - wet flatwoods
  - xeric hammock
  - spoil area
  - pine plantation
  - clearing/regeneration
  - artificial pond
  - developed

0 0.5 1 1.5 2 3 Miles

0 0.5 1 1.5 2 3 Miles





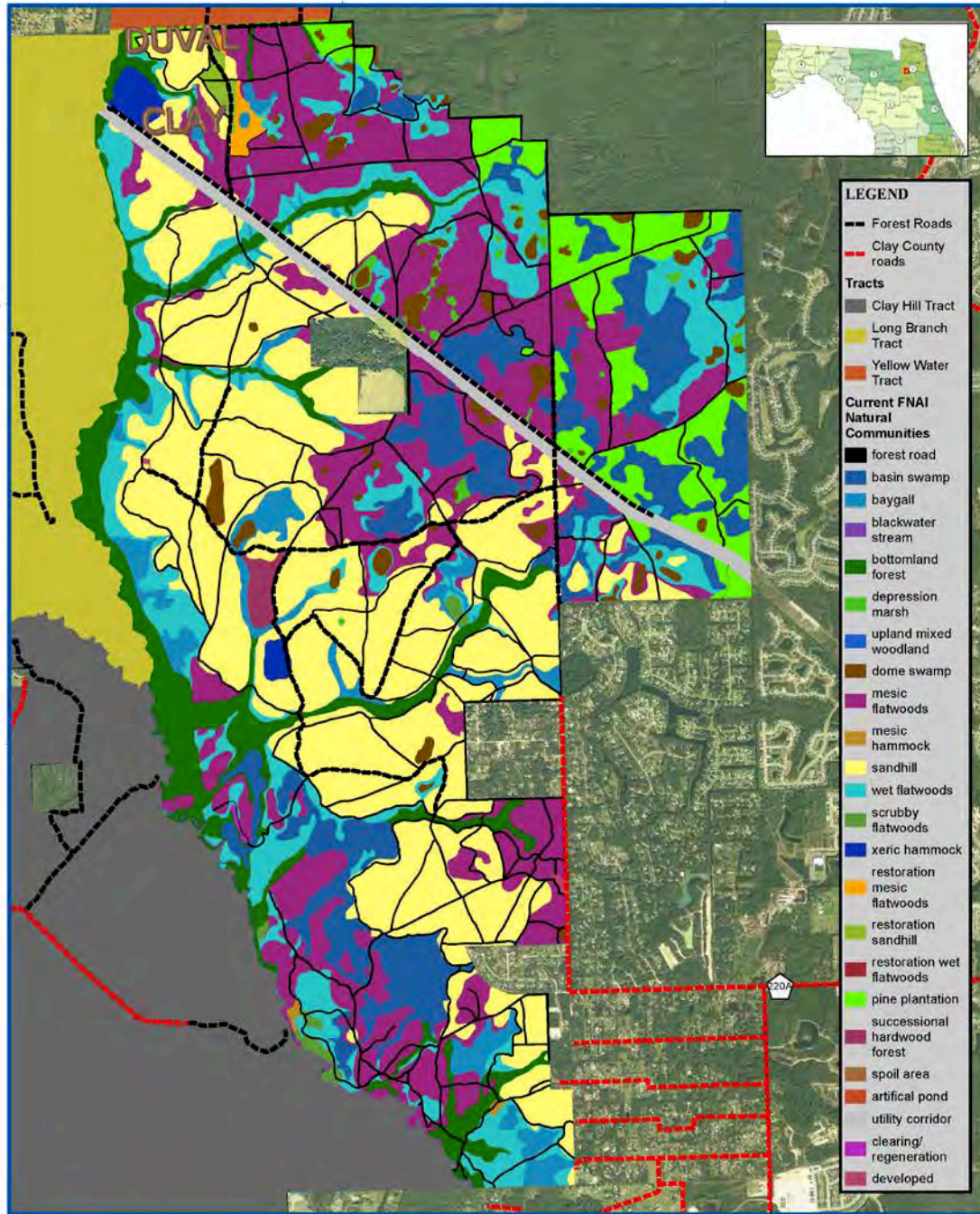
Florida Forest Service

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

# Jennings State Forest Old Jennings Tract Current FNAI Natural Communities Map

**NOTES:**  
This map was prepared by the Florida Forest Service  
and is not intended to be used for any other purpose.  
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.

Map of area showing location of  
Jennings State Forest, Old Jennings Tract, and  
the Florida Forest Service, Tallahassee, Florida



0 0.125 0.25 0.5 0.75 1 Miles

Map Month/Year: February 2018



0 0.2 0.4 0.8 1.2 1.6 Kilometers





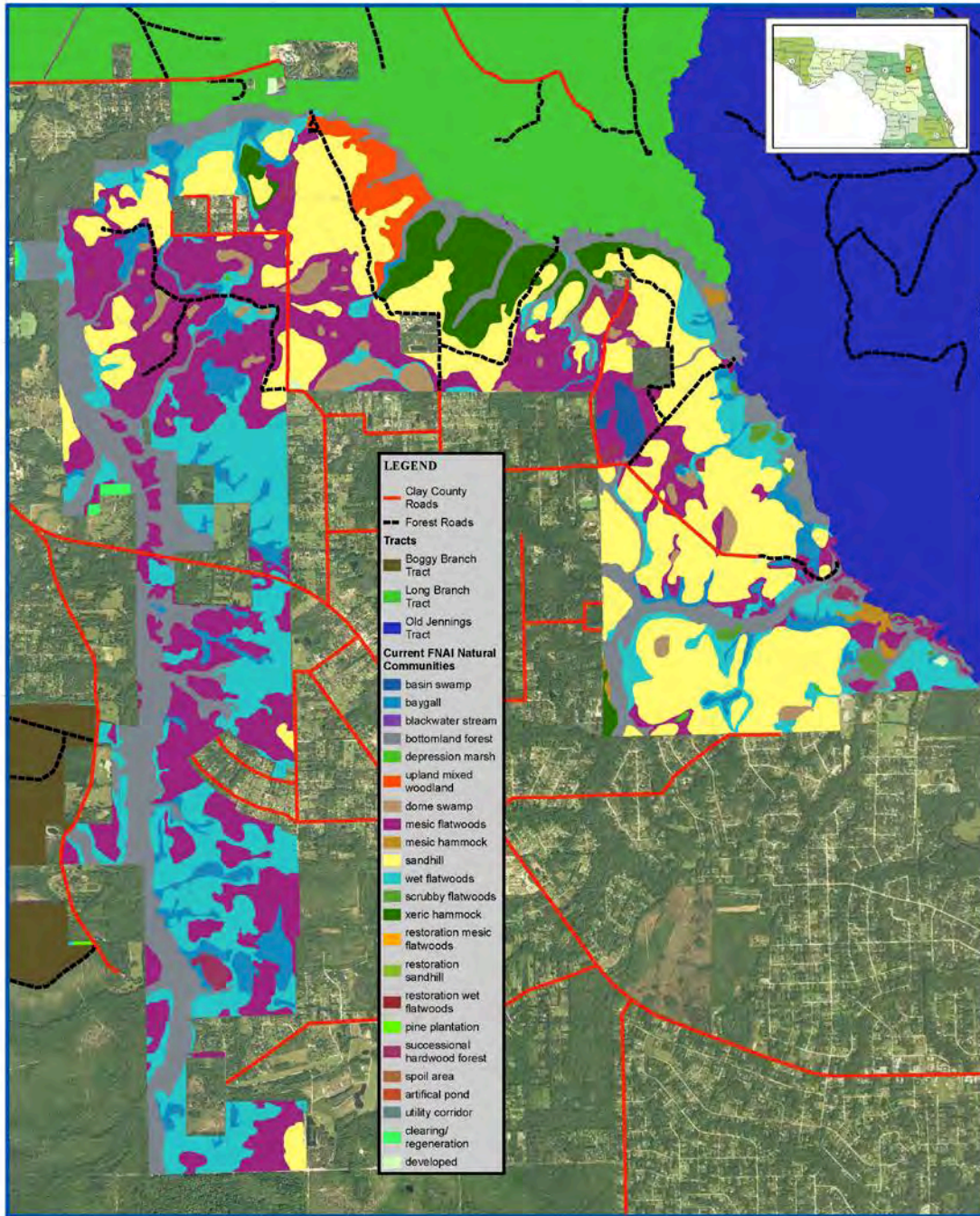
Florida Forest Service

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

# Jennings State Forest Clay Hill Tract Current FNAI Natural Communities Map

**NOTES:**  
This map was prepared by the Florida Forest Service, Tallahassee, Florida. It is based on data provided by the Florida Department of Transportation, Tallahassee, Florida. The map is not to be used for any purpose other than that for which it was prepared. The Florida Forest Service is not responsible for any errors or omissions on this map.

Revised Area: 10,000 Acres  
Map Date: 10/1/2018  
Map Scale: 1:50,000



0 0.175 0.35 0.7 1.05 1.4  
Miles

Map Month/Year: February 2018



0 0.25 0.5 1 1.5 2  
Kilometers



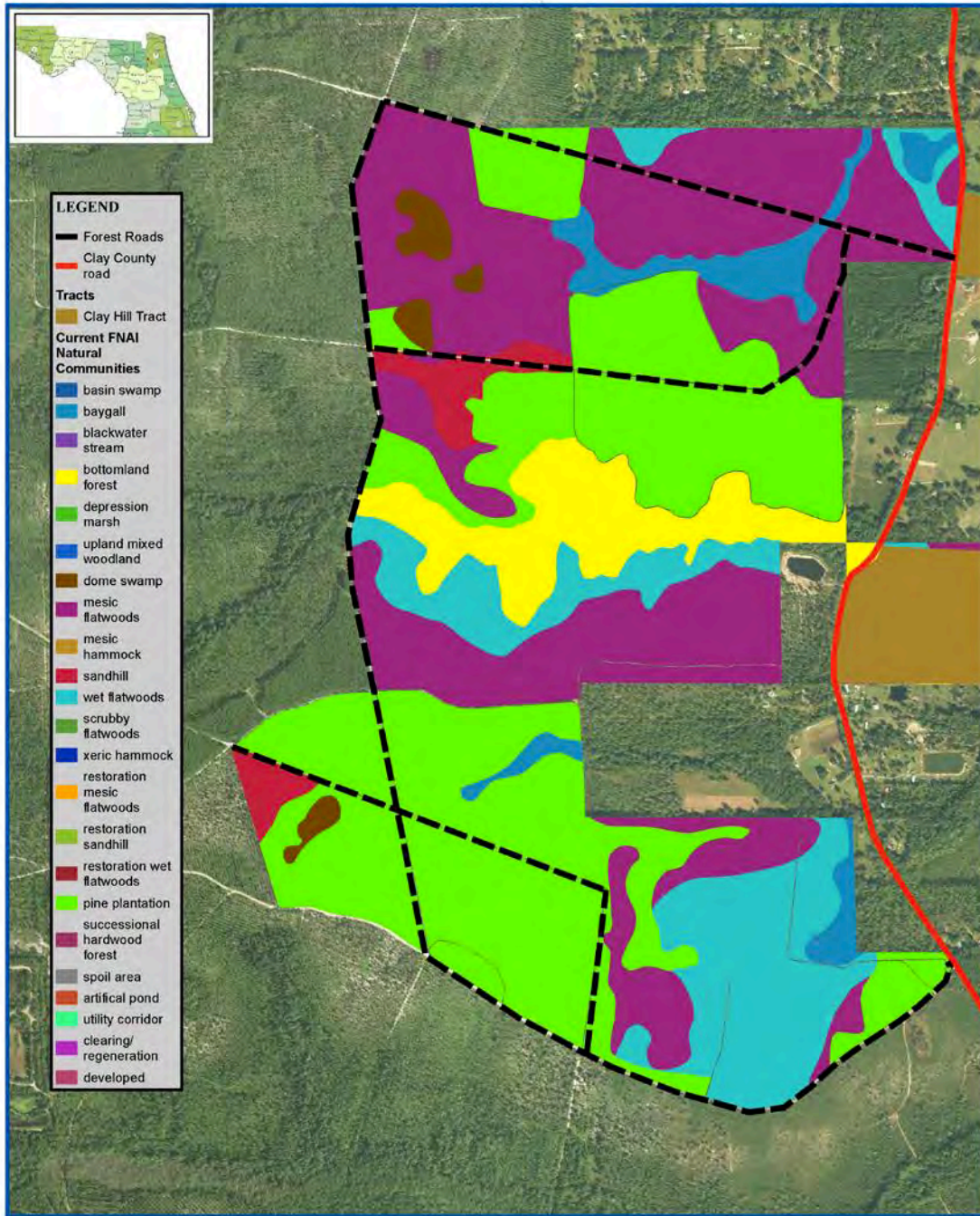
Florida Forest Service

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

# Jennings State Forest Boggy Branch Tract Current FNAI Natural Communities

**Notes:**  
This map was prepared by the Florida Forest Service, Bureau of Forest Management, and is intended to provide information for planning and management purposes only. It is not intended to be used for legal 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.

Revised area corresponds to the 2018 FNAI Natural Communities Inventory. Data was collected between 2014 and 2017. Data was collected by the Florida Forest Service, Bureau of Forest Management.



0 0.05 0.1 0.2 0.3 0.4  
Miles

Map Month/Year: February 2018



0 0.075 0.15 0.3 0.45 0.6  
Kilometers



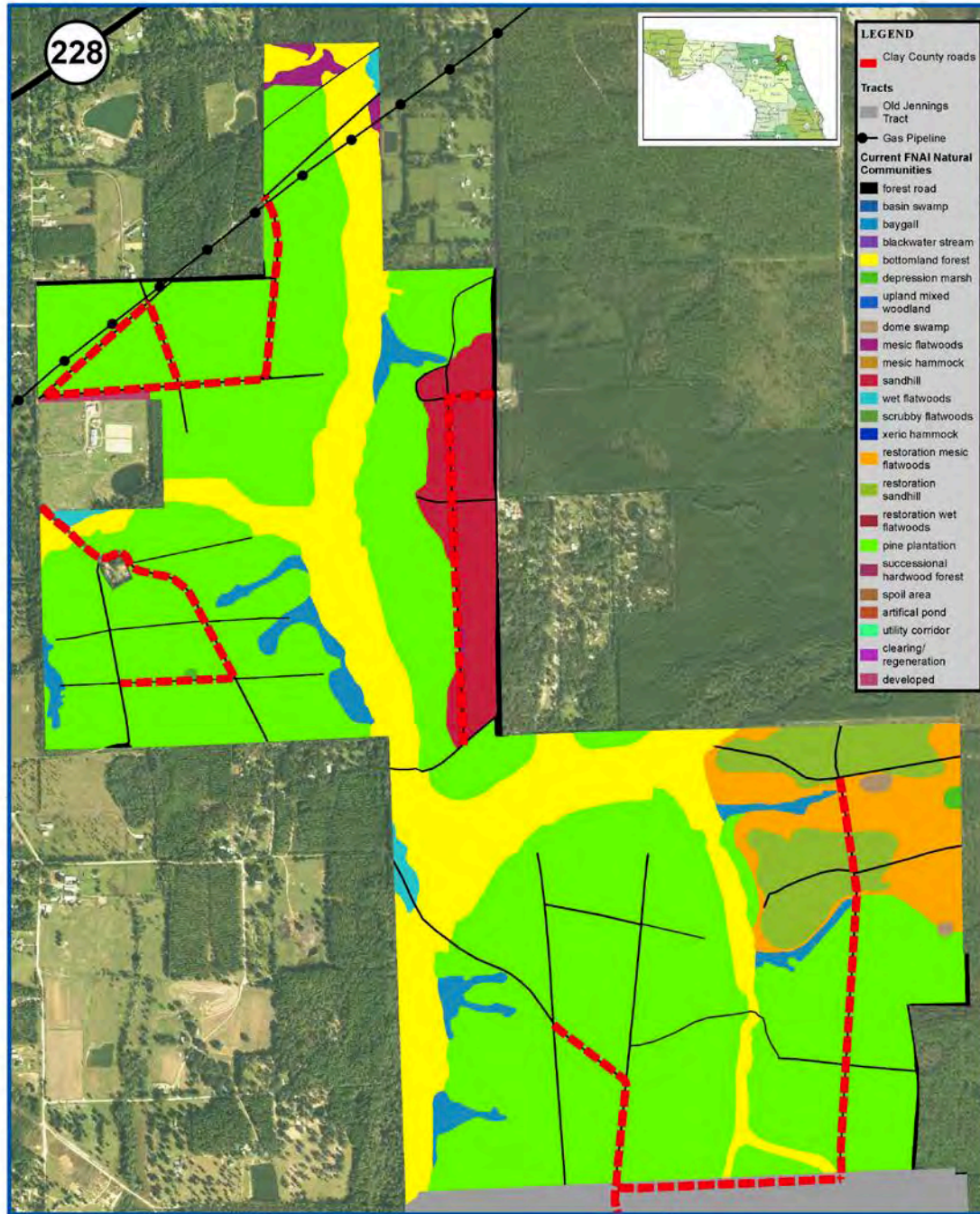
Florida Forest Service

Coastal Plain System - Florida Atlantic  
High Accuracy Reference Network (HARN) Station

# Jennings State Forest Yellow Water Tract Current FNAI Natural Communities Map

**NOTES:**  
This map was prepared by the Florida Forest Service  
and is intended for informational purposes only. It  
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kind. The Florida Forest Service is not responsible  
for any errors or omissions on this map. The  
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map.

Map prepared by the Florida Forest Service  
on February 1, 2018. The map was prepared  
by the Florida Forest Service and is intended  
for informational purposes only. It does not  
constitute a warranty or guarantee of any  
kind.



- LEGEND**
- Clay County roads
  - Tracts
    - Old Jennings Tract
  - Gas Pipeline
  - Current FNAI Natural Communities**
    - forest road
    - basin swamp
    - baygall
    - blackwater stream
    - bottomland forest
    - depression marsh
    - upland mixed woodland
    - dome swamp
    - mesic flatwoods
    - mesic hammock
    - sandhill
    - wet flatwoods
    - scrubby flatwoods
    - xeric hammock
    - restoration mesic flatwoods
    - restoration sandhill
    - restoration wet flatwoods
    - pine plantation
    - successional hardwood forest
    - spill area
    - artificial pond
    - utility corridor
    - clearing/regeneration
    - developed

0 0.05 0.1 0.2 0.3 0.4 Miles

Map Month/Year: February 2018



0 0.075 0.15 0.3 0.45 0.6 Kilometers

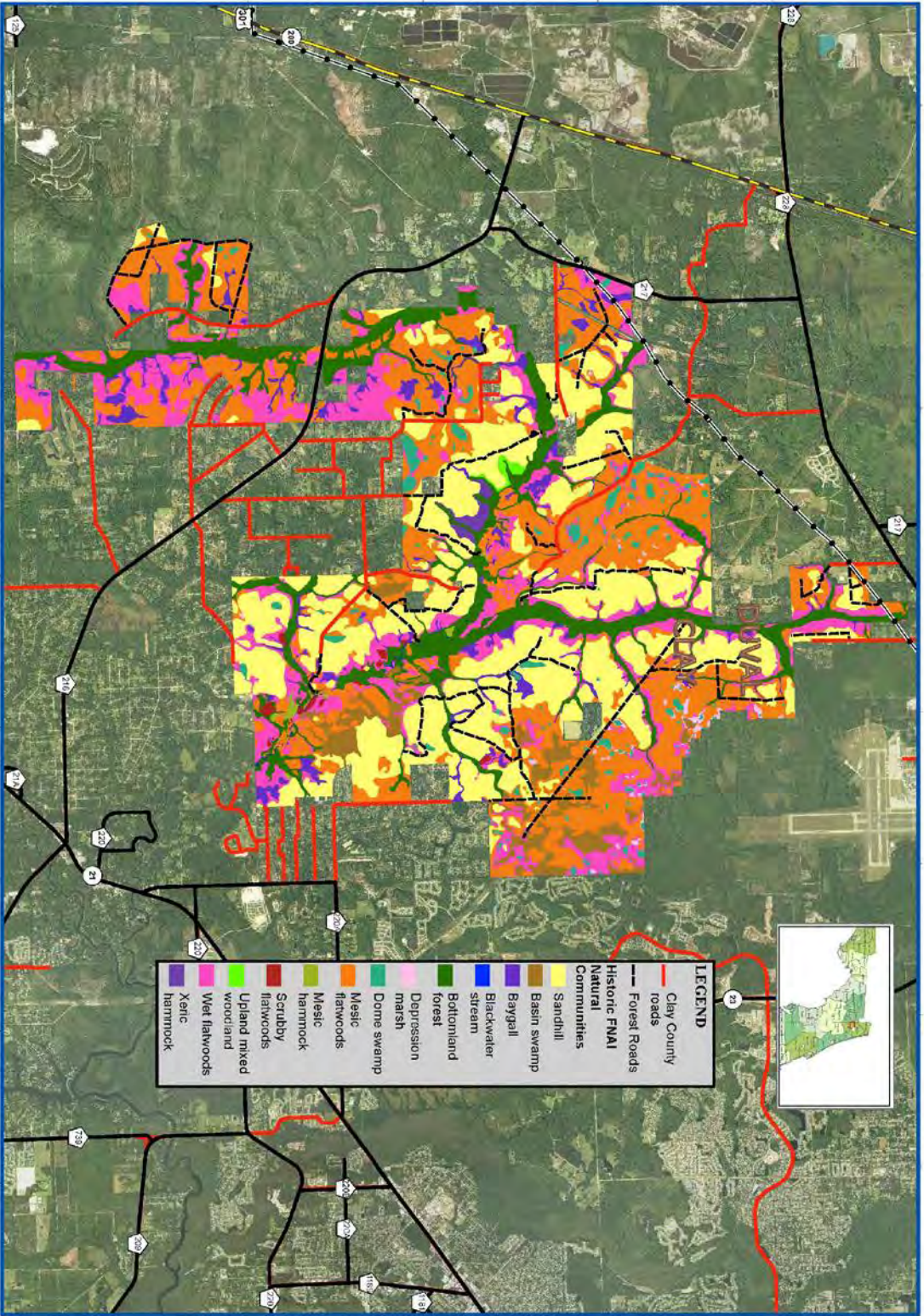
## Exhibit R

### Historic Natural Communities



# Jennings State Forest Historic FNAI Natural Communities

Map prepared by the Mississippi Department of Transportation, Office of Planning and Research, in cooperation with the Mississippi Department of Natural Resources, Office of Forest Management. The map was prepared using data provided by the Mississippi Department of Natural Resources, Office of Forest Management, and the Mississippi Department of Transportation, Office of Planning and Research. The map was prepared in 2018.



0 0.25 0.5 1 2 3 Miles

Map Month/Year February 2018

0 0.2 0.5 1 2 3 4 Kilometers

## Exhibit S

### Management Prospectus

# Northeast Florida Timberlands and Watershed Reserve

Clay, Duval and Nassau Counties

Partnerships

## Purpose for State Acquisition

Public acquisition of this project will contribute to the following Florida Forever goals: (1) Increase the protection of Florida's biodiversity at the species, natural community, and landscape levels – known to harbor four FNAI-listed species of vascular flora and four rare animals; (2) Increase the amount of open space available in urban areas – conserve spaces suitable for greenways or outdoor recreation that are compatible with conservation purposes; (3) Increase natural resource-based public recreation and educational opportunities – camping, picnicking, nature appreciation, hiking, and horseback riding are possible; and (4) Protect, restore, and maintain the quality and natural functions of land, water, and wetland systems of the state – 75-80 percent of land is disturbed with restoration a primary objective.

## Manager

Florida Forest Service/FFS of the Florida Department of Agriculture and Consumer Services. The City of Jacksonville is manager for the 172-acre Jacksonville-Baldwin Rail Trail.

## General Description

This project describes a northeast-southwest diagonal along the west side of Duval County, stretching from

the Nassau River north of Jacksonville to Trail Ridge in Clay County, near the town of Lawtey. Another section of the project makes a north-south connection about 12 miles long, between the Camp Blanding Military Reservation and the Etoniah Creek State Forest. About 75 percent of this land is used, or has been used, for silviculture. It also includes mesic flatwoods, cypress and hardwood swamp, sandhills and associated plant communities.

## Public Use

The FFS will promote recreation and environmental education in the natural environment. There is a possibility of an intermediate and long-term need for some type of developed recreation facilities. If such facilities are developed, the use of low-impact, rustic facilities will be stressed. If an organized recreation area is desired, it will be assessed and evaluated to minimize any possible adverse effects on the natural environment. Unnecessary roads, firelines and hydrological disturbances will be abandoned and/or restored to the greatest extent practical.

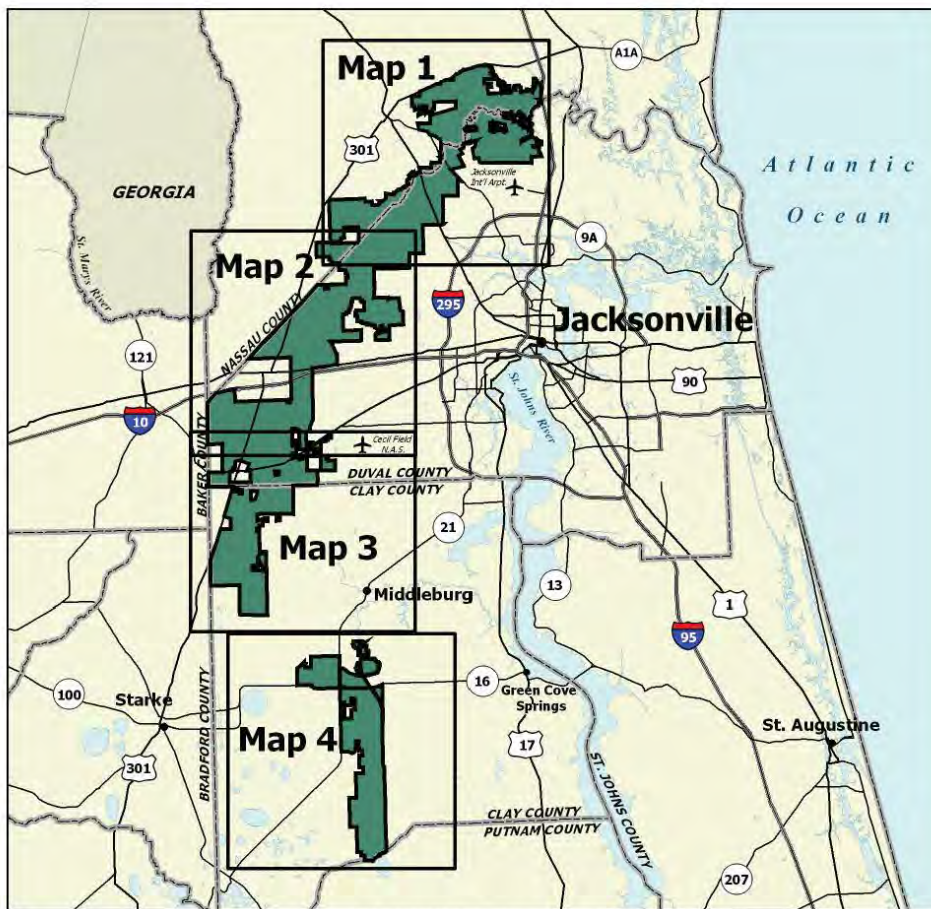
## Acquisition Planning

On December 6, 2001, the Acquisition & Restoration Council (ARC) recommended the Northeast Florida Timberlands and Watershed Reserve project for Group A of the Florida Forever (FF) 2002 Priority list. This fee-simple and less-than-fee acquisition, located in Clay, Duval and Nassau Counties, and sponsored by

Northeast Florida Timberlands and Watershed Reserve FNAI Elements	
Frosted Flatwoods Salamander	G2/S2
Florida Black Bear	G5T2/S2
Gopher Tortoise	G3/S3
Eastern Indigo Snake	G3/S3
Florida Toothache Grass	G2/S2
Hartwrightia	G2/S2
Nightflowering Wild Petunia	G2/S2
Thorne's Beaksedge	G3/S1S2
Giant Orchid	G2G3/S2
Bartram's Ixia	G2G3/S2S3
Pondspice	G3'/S2
St. John's Blackeyed Susan	G3/S2
21 rare species are associated with the project	

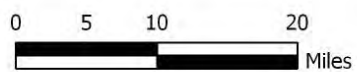
Placed on List	2002
Project Area (GIS Acres)	146,492
Acres Acquired (GIS)	63,527*
At a Cost of	\$141,087,558*
Acres Remaining (GIS)	82,966
Estimated (tax assessed) Value of	\$30,699,048

\*Includes acreage and expenditures by the City of Jacksonville, JEA and SJRWMD.

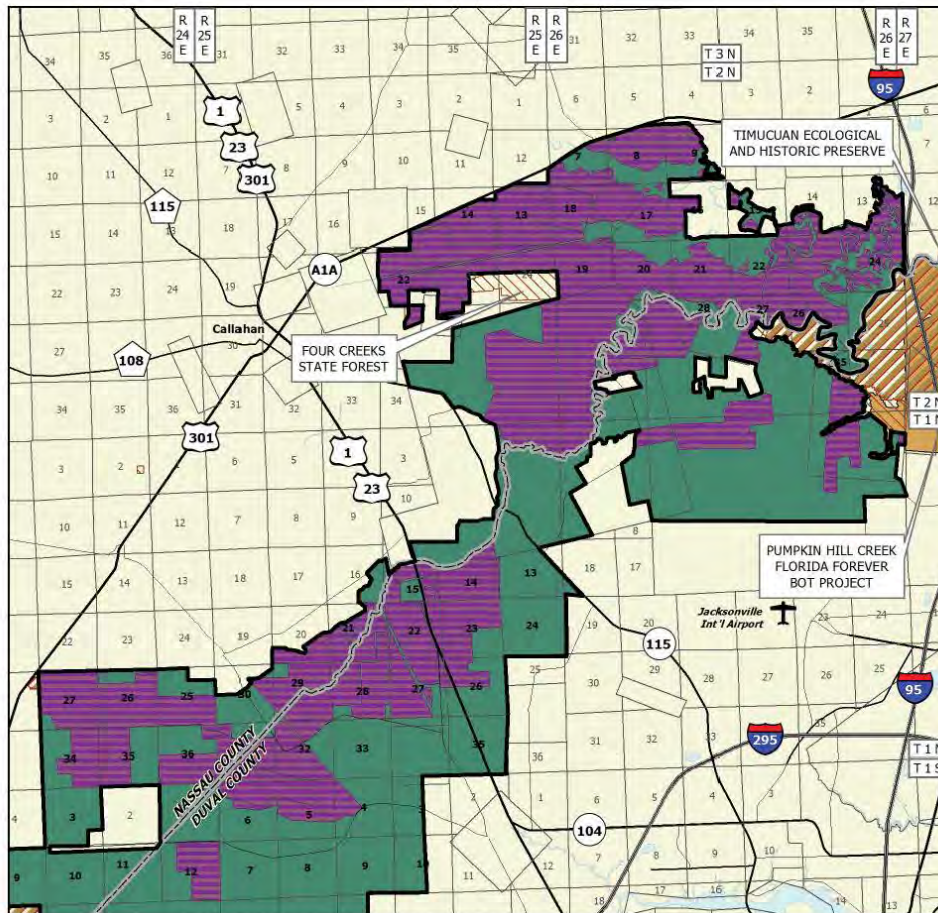


## NORTHEAST FLORIDA TIMBERLANDS AND WATERSHED RESERVE: OVERVIEW

***DUVAL, NASSAU, AND CLAY COUNTIES***



JULY 2007



## NORTHEAST FLORIDA TIMBERLANDS AND WATERSHED RESERVE: MAP 1 OF 4

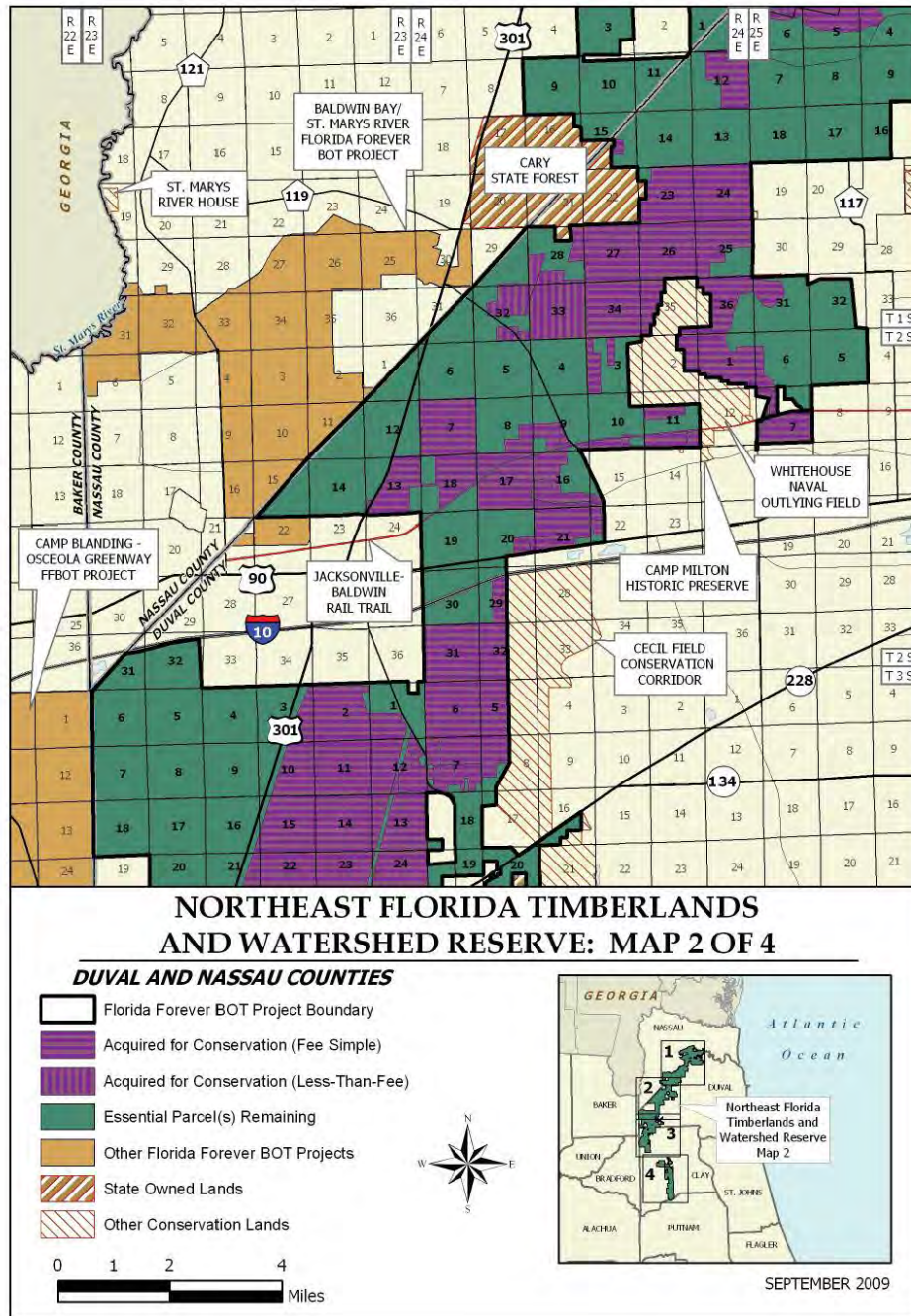
### DUVAL AND NASSAU COUNTIES

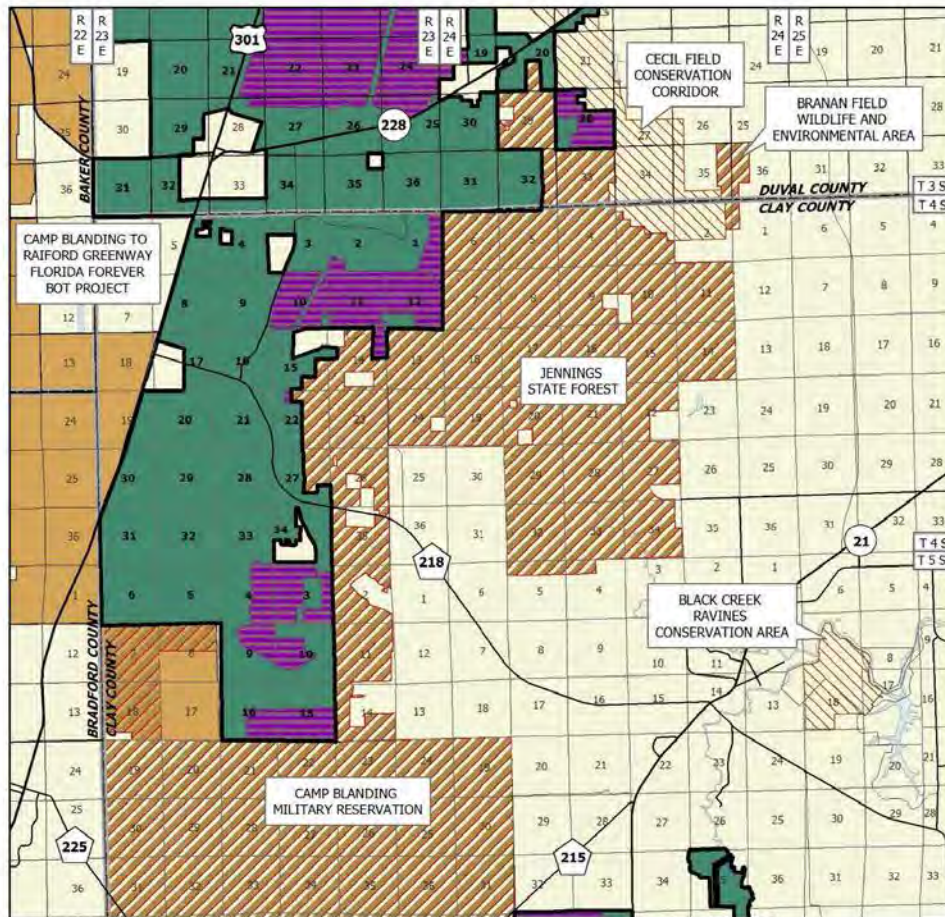
- Florida Forever BOT Project Boundary
- Acquired for Conservation (Fee Simple)
- Essential Parcel(s) Remaining
- State Owned Lands
- Other Conservation Lands
- Other Florida Forever BOT Projects

0 1 2 4  
Miles



SEPTEMBER 2013





## NORTHEAST FLORIDA TIMBERLANDS AND WATERSHED RESERVE: MAP 3 OF 4

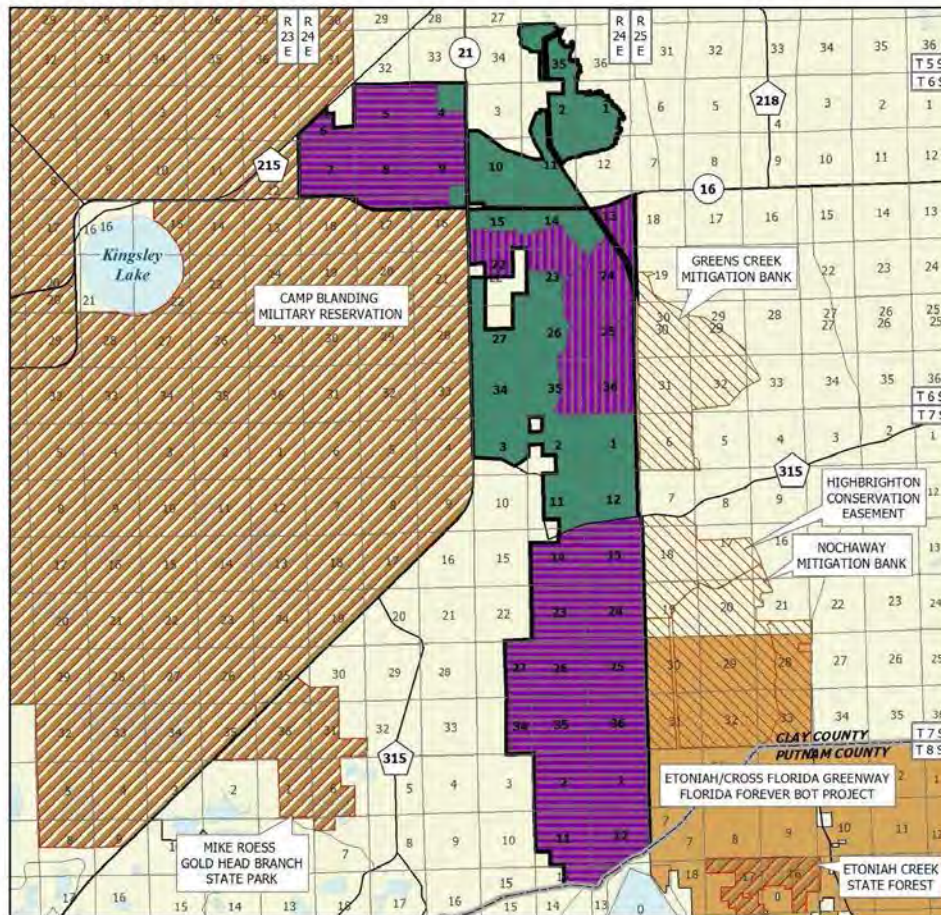
### ***DUVAL AND CLAY COUNTIES***

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

0 1 2 4  
Miles



MARCH 2016



## NORTHEAST FLORIDA TIMBERLANDS AND WATERSHED RESERVE: MAP 4 OF 4

### CLAY 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

0 1 2 4  
Miles



MARCH 2016

The Nature Conservancy (TNC), the City of Jacksonville, and the St. Johns River Water Management District (SJRWMD), consisted of approximately 132,450 acres, more than 150 landowners, and a 2001 taxable value of \$50,158,195. The following 37 ownerships were identified as essential: Gilman, Jackson, Carter, Owen, Nemours, Miller, Bostwick, Klieg, Bullock, 1st Bank & Trust, Rayonier, International Paper, Motes, Boyd, South Regional Industrial Realty, East Fiftone Partners, Monticello Drugs, St. Joe, Barnett Bank Trustee, Anheuser-Busch, Inc., Travelers Ins., Foster, Tison, Castleton, Wright, Buck, Logan, Higgenbotham, Betz, Ogilvie, Milne, Kaleel & Roberts, Grey, Sythe, Pharr, Wilkinson, and Helmer.

On June 6, 2003, the ARC approved a 506-acre addition, known as the Norfolk Southern property, to the project boundary in Duval County. The fee-simple acquisition, sponsored by TNC, consisted of a single owner, Southern Region Industrial Realty Inc., and had a 2002 taxable value of \$408,700. On December 5, 2003, the ARC approved a 7,043-acre addition, known as the Four Creeks Forest tract, to the project boundary in Nassau County. The fee-simple acquisition, sponsored by the SJRWMD, consisted of one landowner, Rayonier Timberlands Operating Co. LP, and a 2002 taxable value of \$1,478,838.

On December 3, 2004, the ARC approved a 3,500-acre addition, known as the Bull Creek tract, to the project boundary in Clay County. The fee-simple acquisition, sponsored by the SJRWMD, consisted of one landowner, Ventura LLC, and a taxable value of \$760,646.

On June 30, 2006, the Board of Trustees purchased 1,651 acres within the Florida Forever project boundary.

On February 16, 2007, the ARC approved a fee-simple, 2,665-acre addition to the Bull Creek portion of the project boundary. It was sponsored by the SJRWMD, consisted of one landowner, 1621 Venture II LLC, nine parcels, and a taxable value of \$445,189. The FFS will manage these essential parcels.

On November 5, 2010 DSL purchased 15 acres (Rayonier Forest Resources, L.P. - \$18,108 with FF funds) for FFS to manage. On April 25, 2011, 3.95 acres in Four Creeks State Forest (Pacett) were donated (valued \$2,925). FFS to manage.

On December 9, 2011, ARC placed this project in the Partnerships list of projects.

#### **Coordination**

In 1992 the 172-acre Jacksonville-Baldwin Rail Trail was acquired with Florida Greenways & Trails funds. This trail which meanders through the project is managed by the City of Jacksonville. The SJRWMD is an acquisition partner in areas of the project to help protect the multiple creeks and rivers. The National Guard Bureau through a Memorandum of Agreement (MOA) is an acquisition partner in areas of the project to help buffer and prevent encroachment of Camp Blanding. TNC, City of Jacksonville, Duval County, FCT, and the U.S. Navy are considered partners in this project.

#### **Management Policy Statement**

The FFS proposes to manage the project under a multiple-use management regime consistent with the FFS management of the Cary State Forest, the Jennings State Forest and the Cecil Field Conservation Corridor, all of which are adjacent to this project. The acquisition goals and objectives as approved by ARC would include timber management and restoration, low-impact diverse recreation uses, and management of archaeological and historic sites, habitat and other biological resources.

#### **Management Prospectus**

**Qualifications for state designation** The project's size and diversity makes it desirable for use and management as a state forest. Management by the FFS as a state forest is contingent on acquiring fee-simple title to the core parcels adjacent to the existing state forests and to approximately 60 percent of the project. **Manager** FFS is recommended to be the lead managing agency.

**Conditions affecting intensity of management** Much of the parcel has been disturbed by past pine plantings and will require restoration work. This area of Florida is experiencing rapid urban growth, so that any prescribed burning to restore the forest will have to be carefully planned. The level of management and the related management costs are expected to initially be high to obtain necessary information to restore and manage portions as a state forest. It is recognized that a portion of the project will be less-than-fee simple. This technique is valuable on the fringes of urban growth because it allows the landowners to manage the property as they have been managing it, and continuing to produce forest products for Florida's economy, while protecting the property from conversion to urban growth.

***Timetable for implementing management, and provisions for security and protection of infrastructure*** Once the core areas of the project are acquired and assigned to the FFS, initial public access will be provided for diverse, low-intensity outdoor recreation activities. Initial and intermediate management efforts will concentrate on site security, public and resource management access, prescribed burns, reforestation, and restoration activity.

***Revenue-generating potential*** Timber sales will be conducted as needed to improve or to maintain the desirable ecosystem conditions. These sales will primarily take place in the marketable pine stands and will provide a variable source of revenue, depending on a variety of factors. The existing condition of the timber stands on the property is such that the revenue-generating potential is expected to be moderate. Other compatible state forest sources of income will be considered.

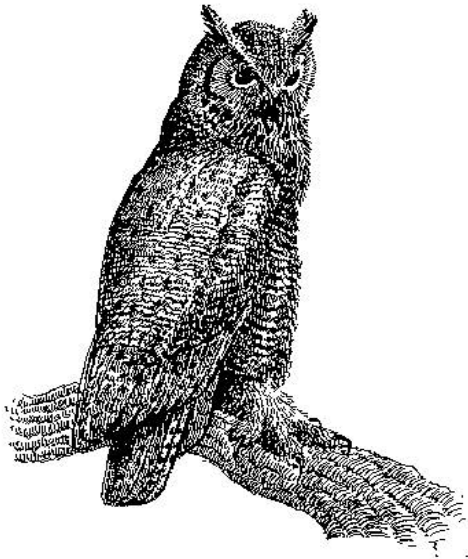
***Cooperators in management activities*** The FFS will cooperate with, and seek the assistance of, other state agencies, local government agencies, other interested parties as appropriate, and with the Florida Natural Areas Inventory (FNAI). The Division intends to coordinate with the Florida Fish and Wildlife Conservation Commission (FWC) regarding game and non-game management activity and related public use of the property.

***Management costs and sources of revenue*** It is anticipated that management funding will come from the Conservation and Recreation Lands Trust Fund. Budget needs for interim management are estimated as follows:

**Management Cost Summary/FWC (including salaries for 4 full-time employees)**

Salary (4 FTEs)	\$154,357
Expense	\$620,000
Operating Capital Outlay	\$148,075
TOTAL	\$887,007

***Updated April 13, 2016***



## Exhibit T

### Land Management Reviews

**Name of Site:** Jennings State Forest

**County:** Clay County

**Managed by:** Department of Agriculture and Consumer Services  
Division of Forestry

**Acres:** 24,758 Acres

**Review Date:** 3/24/09



#### Review Team Determination

Managed in accordance with  
acquisition purpose? Yes = 7, No = 0



Management practices, including public access,  
in compliance with the management plan? Yes = 7, No = 0



Categories	Management Plan Review	Field Review
Natural Communities	0.93	3.94
Listed Species	0.55	3.56
Natural Resource Survey	0.77	3.94
Cultural Resources	0.93	4.00
Prescribed Fire	0.95	3.33
Restoration	0.71	4.21
Exotic Species	0.84	3.79
Hydrology	0.86	3.57
Surface Water Monitoring	0.50	3.13
Resource Protection	0.96	4.11
Adjacent Property Concerns	0.92	3.25
Public Access & Education	1.00	3.99
Management Resources	N/A	3.93
Managed Area Uses	1.00	N/A
Buildings, Equipment, Staff & Funding	N/A	3.14

### Consensus Commendations to the Managing Agency

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

1. The team commends the DOF manager and staff for their outstanding prescribed burning program at this forest. (VOTE: 7+, 0-)



2. The team commends the DOF for proactive partnership efforts with Tall Timbers Research Station for Upland Ecosystem Restoration Project and seeking private funding for other restoration projects. (VOTE: 7+, 0-)



3. The team commends the DOF for their monitoring efforts for plants at this forest. Staff is very sensitive to their location and application of fire to manage these associated communities. (VOTE: 7+, 0-)



4. The team commends the staff for the proactive outreach to the public about the management activities, particularly as it relates to prescribed fire on this forest. (VOTE: 7+, 0-)



5. The team commends the staff for the emphasis on developing compatible recreational opportunities at this property. (VOTE: 6+, 0-)



6. The team commends the staff for the preparation of the tour packet and plan review materials. (VOTE: 6+, 0-)



### Consensus Recommendations to the Managing Agency

The following recommendations resulted from a discussion and vote of review team members. The management plan must include responses to the recommendations identified below.

1. The team recommends that DOF consider the translocation of gopher tortoise as part of restoration activities in appropriate habitats. (VOTE: 6+, 0-)



*Managing Agency Response: The Division of Forestry is currently working with the Florida Department of Transportation (DOT) in developing gopher tortoise relocation sites on various state forests. Jennings State Forest has been identified as a possible relocation site. The staff is working closely with Forest Management and the DOT in identifying possible relocation sites on the forest and MOU has been signed between agencies.*

2. The team recommends that DOF establish liaison and information sharing protocols with regulatory agencies responsible for surface water and ground water monitoring on the Black Creek watershed. (VOTE: 6+, 0-)



*Managing Agency Response: The Division of Forestry and its staff assigned to Jennings State Forest agree that liaison and an information sharing protocols should be established for the purpose of surface and ground water monitoring of the Black Creek watershed. Contacts within the St Johns River Management District will be made and an appropriate coordination between the agencies will be developed.*

### Checklist Findings

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

- Natural Communities
- Protection and Preservation of Listed Plant Inventory
- Fire Effects Monitoring and Invasive Species Monitoring
- Prescribed Fire Quality
- Restoration of Ruderal Areas
- Non-Native, Invasive & Problem Species (prevention and control of plants and animals)
- Hydrologic/Geologic Function
- Resource Protection
- Public Access & Education
- Management of Waste Disposal and Sanitary Facilities

The following items received low scores on the review team checklist, which indicates that management actions noted during the Field Review (FR) were not considered sufficient (less than 2.5 score on average), or that the text noted in the Management Plan Review (PR) does not sufficiently address this issue (less than .5 score on average.). The management plan must include responses to the checklist items identified below:

**1. Discussion in the management plan regarding protection and preservation of listed animal species. (PR)**

*Managing Agency Response: The Management Plan for Jennings State Forest had been previously and thoroughly reviewed by representatives from each agency participating in this Land Management Review during its 2007 revision. The Plan also went through a public comment period and has been approved by the Acquisition and Restoration Council where it received high marks for quality and completeness. Based on the above, it is the District's position that discussion in the Plan regarding this issue is sufficient for meeting management objectives and protection of forest resources at Jennings State Forest and changes to referenced language are unwarranted.*

**2. Discussion in the management plan regarding listed species and habitat monitoring. (PR)**

*Managing Agency Response: The Management Plan for Jennings State Forest had been previously and thoroughly reviewed by representatives from each agency participating in this Land Management Review during its 2007 revision. The Plan also went through a public comment period and has been approved by the Acquisition and Restoration Council where it received high marks for quality and completeness. Based on the above, it is the District's position that discussion in the Plan regarding this issue is sufficient for meeting management objectives and protection of forest resources at Jennings State Forest and changes to referenced language are unwarranted.*

**3. Discussion in the management plan regarding other non-game species and habitat monitoring. (PR)**

*Managing Agency Response: The Management Plan for Jennings State Forest had been previously and thoroughly reviewed by representatives from each agency participating in this Land Management Review during its 2007 revision. The Plan also went through a public comment period and has been approved by the Acquisition and Restoration Council where it received high marks for quality and completeness. Based on the above, it is the District's position that discussion in the Plan regarding this issue is sufficient for meeting management objectives and protection of forest resources at Jennings State Forest and changes to referenced language are unwarranted.*

**4. Discussion in the management plan regarding the management issues related to monitoring surface water for quality. (PR)**

*Managing Agency Response: The Management Plan for Jennings State Forest had been previously and thoroughly reviewed by representatives from each agency participating in this Land Management Review during its 2007 revision. The Plan also went through a public comment period and has been approved by*

*the Acquisition and Restoration Council where it received high marks for quality and completeness. Based on the above, it is the District's position that discussion in the Plan regarding this issue is sufficient for meeting management objectives and protection of forest resources at Jennings State Forest and changes to referenced language are unwarranted.*

# 2013 Land Management Review Team Report for Jennings 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:** Jennings State Forest

**Managed by:** Florida Forest Service

**Acres:** 15,356.48

**County(ies):** Clay and Duval Counties

**Purpose(s) for Acquisition:**

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

**Original Acquisition Date:** \_\_/\_\_/\_\_

**Area Reviewed:** Entire Property

**Last Management Plan Approval Date:** 10/12/07

**Review Date:** 12/6/13

#### Agency Manager and Key Staff Present:

- Frank Burley, Manager
- Jennifer Hart
- Kevin MacEwan
- Sam Negaran

#### Review Team Members Present (voting)

- DRP: Rick Owen
- FWC: Scotland Talley
- FFS: Bill Korn
- DEP: Eesa Ali
- SWCD:
- Local gov't: Karrie Starling
- Conservation organization:
- Private land manager:

#### Other Non-Team Members Present (attending)

- Keith Singleton, DEP/DSL
- Heather Venter, SJRWMD

### 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 = 5, No = 0**

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

**Yes = 5, 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	4.31	4.26
Prescribed Fire / Habitat Restoration	4.27	3.93
Hydrology	3.78	3.16
Imperiled Species	4.20	3.90
Exotic / Invasive Species	4.25	4.05
Cultural Resources	4.00	4.00
Public Access / Education / Law Enforcement	4.54	4.45
Infrastructure / Equipment / Staffing	3.33	N/A

Color Code (See Appendix A for detail)

Excellent	Above Average	Below Average	Poor
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#### 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 staff for establishing liaisons and information sharing protocols with the SJRWMD for surface and ground water monitoring on the Black Creek watershed. (5+, 0-)
2. The team commends the FFS staff for progress in restoration of sandhill community, including removing of off-site sand pine plantation and increased frequency of growing season prescribed fire. (5+, 0-)
3. The team commends the FFS staff for initiating new non-game and listed species monitoring efforts. (5+, 0-)
4. The team commends the FFS staff for efforts to monitor and treat invasive plant species. (5+, 0-)

5. The team commends the Jennings SF staff for preparation of an outstanding land management review tour packet of maps and background materials. (5+, 0-)
6. The team commends the Jennings SF staff for their work to develop and maintain a number of aesthetically pleasing and functional public use recreation sites/facilities throughout the forest. (5+, 0-)
7. The team commends the FFS staff for their cooperation with Tall Timbers staff and their outstanding efforts in implementing the management activities identified in the Upland Ecosystem Restoration Project. (5+, 0-)
8. The team commends the FFS efforts to harvest and/or thin historical pine plantations and reinstitute regular burning, as well as in clearcut area, to successfully reestablish longleaf pine seedlings. (5+, 0-)
9. The team commends the FFS for active public outreach within and outside the forest. (5+, 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 staff continue to reach out to appropriate agencies concerning potential surface and ground water external threats to the Black Creek watershed, specifically related to the health of this system and any changes in water quality, or minimum flows and levels. (5+, 0-)

**Managing Agency Response:** *The FFS agrees that it will continue to reach out to appropriate agencies concerning potential surface and ground water external threats to the Black Creek watershed, specifically related to the health of this system and any changes in water quality, or minimum flows and levels. Efforts will be made to stay aware of local / regional events and occurrences that could have an impact on Jennings State Forest while relaying these potential threats to district and state office staff.*

2. The team recommends that FFS staff reach out to appropriate groups/experts or agencies to further understand status of FNAI tracked imperiled species, specifically invertebrates or those currently not being monitored. (5+, 0-)

**Managing Agency Response:** *The FFS agrees that it will continue to reach out to appropriate groups / experts to further understand the status of FNAI tracked imperiled species. Where local / district staff's expertise may be limited we will ask for the assistance of the State Ecologist and Forest Management staff.*

3. The team recommends that FFS staff prioritize increasing sites to bring flatwoods into prescribed fire rotation and thinning where plantations have closed canopy. (5+, 0-)

**Managing Agency Response:** *The FFS agrees that it will continue to put effort into bringing new flatwoods sites into prescribed fire rotation as well as continuing its thinning operations in flatwoods plantations that have a closed canopy.*

4. The team recommends that FFS staff prioritize follow-up treatments to hardwood removal projects funded by grants from nongovernmental organizations and other agencies. (5+, 0-)

**Managing Agency Response:** *The FFS agrees that it will prioritize follow-up treatments to hardwood removal projects funded by grants from nongovernmental organizations and other agencies. Since the land management review several stands that were in question have had an application of prescribed fire and have been designated priority one burning status.*

5. The team recommends that Jennings SF staff continue efforts to refine the natural communities boundaries and necessary management activities, in particular as it relates to the seepage slope and baygall habitat. (5+, 0-)

**Managing Agency Response:** *The FFS agrees that it will continue efforts to refine the natural community boundaries and necessary management activities, in particular as it relates to the seepage slope and baygall habitat. Forest staff will continue to work prescribed fire into these communities while being aware of their boundaries.*

## 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 sandhill, baygall, bottomland forest, seepage, slope, slope forest, dome swamp, sandhill upland lake, seepage stream, blackwater stream:**

2. **Listed Species Protection and Preservation, specifically animals and plants:**
3. **Natural Resources Survey/Monitoring Resources, specifically listed species or their habitat monitoring, other non-game species or their habitat, fire 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 and quality:**
6. **Restoration, specifically upland ecosystem restoration project, sandhill restoration:**
7. **Forest Management, specifically timber inventory, timber harvesting, reforestation/afforestation and site preparation:**
8. **Non-Native, Invasive & Problem Species, specifically prevention and control of plants and animals:**
9. **Hydro-alteration, specifically roads and culverts:**
10. **Resource Protection, specifically boundary survey, gates and fencing, signage and law enforcement presence:**
11. **Adjacent Property Concerns, specifically expanding development:**
12. **Public Access and Education, specifically roads and parking:**
13. **Environmental Education & Outreach, specifically wildlife, invasive species, habitat management activities, interpretive facilities and signs, recreational opportunities and management of visitor impacts:**

## 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. **Management Resources, specifically staff and funding, received below average scores. 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 agrees that the overall number of forest staff assigned to Jennings State Forest should be increased. Since the inception of this plan we have lost two full time positions (Biologist and Law Enforcement Investigator) and well as two OPS Park Ranger positions. Considering the recreation program the forest currently has in place it would be of benefit to re-establish the OPS Park Ranger positions or the hiring of a new Park Ranger.*

*The FFS agrees that the yearly budget allocated for the management of Jennings State Forest should be increased. With additional funding the forest road system could be upgraded and maintained at a greater level than what it currently is.*

### 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 )										
Sandhill	I.A.1	4	4	4	4	5				4.20
Mesic Flatwoods	I.A.2	4	3	4	4	4				3.80
Baygall	I.A.3	3	4	4	5	4				4.00
Bottomland Forest	I.A.4	3	5	4	5	5				4.40
Wet Flatwoods	I.A.5	3	4	4	4	4				3.80
Basin Swamp	I.A.6	3	4	3	5	4				3.80
Seepage Slope	I.A.7	X	4	4	5	4				4.25
Scrubby Flatwoods	I.A.8	4	3	3	3	3				3.20
Slope Forest	I.A.9	X	4	4	4	5				4.25
Dome Swamp	I.A.10	X	4	4	5	4				4.25
Xeric Hammock	I.A.11	X	4	4	3	4				3.75
Depression Marsh	I.A.12	X	4	3	5	3				3.75
Sandhill Upland Lake	I.A.13	4	4	5	5	5				4.60
Seepage Stream	I.A.14	X	4	4	5	5				4.50
Blackwater Stream	I.A.15	4	4	5	5	5				4.60
Natural Communities Average Score										4.08
Listed species:Protection & Preservation ( I.B )										
Animals	I.B.1	3	5	4	5	5				4.40
Plants	I.B.2	3	5	4	4	4				4.00
Listed Species Average Score										4.20
Natural Resources Survey/Management Resources (I.C)										
Listed species or their habitat monitoring	I.C.2	4	4	4	4	5				4.20
Other non-game species or their habitat monitoring	I.C.3	4	5	4	4	5				4.40
Fire effects monitoring	I.C.4	2	5	4	5	5				4.20
Other habitat management effects monitoring	I.C.5	2	4	4	5	4				3.80
Invasive species survey / monitoring	I.C.6	4	5	4	5	5				4.60
Cultural Resources (Archeological & Historic sites) (II.A, II.B )										
Cultural Res. Survey	II.A	2	4	4	5	5				4.00
Protection and preservation	II.B	3	4	3	5	5				4.00
Cultural Resources Average Score										4.00
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A1	4	3	5	5	5				4.40
Frequency	III.A.2	3	3	4	4	4				3.60
Quality	III.A.3	4	4	4	5	5				4.40
Resource Management, Prescribed Fire Average Score										4.13

<b>Restoration (III.B)</b>										
Upland Ecosystem Restoration Project	III.B.1	4	5	4	5	5				4.60
Sandhill Restoration	III.B.2	4	4	4	4	5				4.20
<b>Restoration Average Score</b>										4.40
<b>Forest Management (III.C)</b>										
Timber Inventory	III.C.1	4	5	4	5	5				4.60
Timber Harvesting	III.C.2	4	5	4	5	5				4.60
Reforestation/Afforestation	III.C.3	4	4	4	5	5				4.40
Site Preparation	III.C.4	4	5	4	5	5				4.60
<b>Forest Management Average Score</b>										4.55
<b>Non-Native, Invasive &amp; Problem Species (III.D)</b>										
<b>Prevention</b>										
prevention - plants	III.D.1.a	3	5	4	5	4				4.20
prevention - animals	III.D.1.b	3	5	4	5	4				4.20
<b>Control</b>										
control - plants	III.D.2.a	3	5	4	5	5				4.40
control - animals	III.D.2.b	3	5	4	5	4				4.20
<b>Non-Native, Invasive &amp; Problem Species Average Score</b>										4.25
<b>Hydrologic/Geologic function Hydro-Alteration (III.E.1)</b>										
Roads/culverts	III.E.1.a	5	3	4		5				4.25
Soil Erosion	III.E.1.f	4	4	4	3	4				3.80
<b>Hydrologic/Geologic function, Hydro-Alteration Average Score</b>										4.03
<b>Ground Water Monitoring (III.E.2)</b>										
Ground water quality	III.E.2.a	3	4	4	3	4				3.60
Ground water quantity	III.E.2.b	3	4	4	4	4				3.80
<b>Ground Water Monitoring Average Score</b>										3.70
<b>Surface Water Monitoring (III.E.3)</b>										
Surface water quality	III.E.3.a	3	4	4	3	3				3.40
Surface water quantity	III.E.3.b	3	4	4	4	4				3.80
<b>Surface Water Monitoring Average Score</b>										3.60
<b>Resource Protection (III.F)</b>										
Boundary survey	III.F.1	4	4	5	5	5				4.60
Gates & fencing	III.F.2	5	4	5	5	4				4.60
Signage	III.F.3	5	4	5	5	5				4.80
Law enforcement presence	III.F.4	5	5	5	5	5				5.00
<b>Resource Protection Average Score</b>										4.75
<b>Adjacent Property Concerns (III.G)</b>										
<b>Land Use</b>										
Expanding development	III.G.1.a	4	4	5	3	4				4.00
Inholdings/additions	III.G.2	3	4	5	5	4				4.20
<b>Public Access &amp; Education (IV.1, IV.2, IV.3, IV.4, IV.5)</b>										
<b>Public Access</b>										

Roads	IV.1.a	5	5	4	5	5				4.80
Parking	IV.1.b	5	5	4	5	5				4.80
<b>Environmental Education &amp; Outreach</b>										
Wildlife	IV.2.a	3	4	5	5	4				4.20
Invasive Species	IV.2.b	3	4	5	5	4				4.20
Habitat Management Activities	IV.2.c	3	4	5	5	4				4.20
Interpretive facilities and signs	IV.3	3	4	5	4	4				4.00
Recreational Opportunities	IV.4	3	4	5	5	5				4.40
Management of Visitor Impacts	IV.5	3	4	5	4	4				4.00
<b>Public Access &amp; Education Average Score</b>										4.33
<b>Management Resources (V.1, V.2, V.3, V.4)</b>										
<b>Maintenance</b>										
Waste disposal	V.1.a	3	4	4	4	4				3.80
Sanitary facilities	V.1.b	4	4	4	3	4				3.80
<b>Infrastructure</b>										
Buildings	V.2.a	3	4	4	4	3				3.60
Equipment	V.2.b	2	4	4	4	3				3.40
Staff	V.3	2	3	3	3	2				2.60
Funding	V.4	2	3	3	3	3				2.80
<b>Management Resources Average Score</b>										3.33

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. **Ground Water Monitoring, specifically ground water quality and quantity, received a below average score. This is an indication that the management plan does not sufficiently address ground water quality and quantity.**

**Managing Agency Response:** *The FFS disagrees with a below average score for ground water quality and quantity. All team members except for one believed that the management plan viewed these as average. The current plan states that a surface and ground water analysis monitoring program should be planned and implemented within the timeframe of this plan in cooperation with agencies statutory responsibility such as SJRWMD and DEP. To date this*

*priority has made progress through communications with SJRWMD (as noted in the commendations section of this review – number 1)*

2. **Surface Water Monitoring, specifically water quality and quantity, received a below average score. This is an indication that the management plan does not sufficiently address surface water quality and quantity.**

**Managing Agency Response:** *The FFS disagrees with a below average score for surface water quality and quantity. All team members except for one believed that the management plan viewed these as average. The current plan states that a surface and ground water analysis monitoring program should be planned and implemented within the timeframe of this plan in cooperation with agencies statutory responsibility such as SJRWMD and DEP. To date this priority has made progress through communications with SJRWMD (as noted in the commendations section of this review – number 1)*

3. **Adjacent Property Concerns, specifically discussion of potential surplus land determination, received a below average score. This is an indication that the management plan does not sufficiently address surplus lands.**

**Managing Agency Response:** *The FFS disagrees with a below average score for the discussion of potential surplus land determination. It had been determined that all property within the current boundaries of Jennings State Forest is important for management and none should be declared surplus.*

### 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 )										
Sandhill	I.A.1	4	3	5	5	5				4.40
Mesic Flatwoods	I.A.2	4	3	5	5	4				4.20
Baygall	I.A.3	4	3	5	5	4				4.20
Bottomland Forest	I.A.4	4	3	5	5	5				4.40
Wet Flatwoods	I.A.5	4	3	5	5	4				4.20
Basin Swamp	I.A.6	4	3	5	5	5				4.40
Seepage Slope	I.A.7	4	3	5	5	3				4.00
Scrubby Flatwoods	I.A.8	4	3	5	5	3				4.00
Slope Forest	I.A.9	4	3	5	5	4				4.20
Dome Swamp	I.A.10	4	3	5	5	4				4.20
Xeric Hammock	I.A.11	4	3	5	4	4				4.00
Depression Marsh	I.A.12	4	3	4	5	3				3.80

Sandhill Upland Lake	I.A.13	4	3	5	2	4				3.60
Seepage Stream	I.A.14	3	3	5	2	4				3.40
Blackwater Stream	I.A.15	3	3	5	2	4				3.40
<b>Natural Communities Average Score</b>										4.03
<b>Listed species: Protection &amp; Preservation ( I.B )</b>										
Animals	I.B.1	3	4	4	5	4				4.00
Plants	I.B.2	4	3	4	4	4				3.80
<b>Listed Species Average Score</b>										3.90
<b>Natural Resources Survey/Management Resources (I.C)</b>										
Listed species or their habitat monitoring	I.C.2	4	3	4	4	5				4.00
Other non-game species or their habitat monitoring	I.C.3	4	3	4	4	4				3.80
Fire effects monitoring	I.C.4	1	3	5	4	4				3.40
Other habitat management effects monitoring	I.C.5	2	3	4	5	3				3.40
Invasive species survey / monitoring	I.C.6	4	3	4	5	3				3.80
<b>Cultural Resources (Archeological &amp; Historic sites) (II.A,II.B )</b>										
Cultural Res. Survey	II.A	3	4	5	4	3				3.80
Protection and preservation	II.B	3	4	5	5	4				4.20
<b>Cultural Resources Average Score</b>										4.00
<b>Resource Management, Prescribed Fire (III.A)</b>										
Area Being Burned (no. acres)	III.A.1	4	4	5	5	5				4.60
Frequency	III.A.2	3	4	5	5	5				4.40
Quality	III.A.3	3	4	5	5	5				4.40
<b>Resource Management, Prescribed Fire Average Score</b>										4.47
<b>Restoration (III.B)</b>										
Upland Ecosystem Restoration Project	III.B.1	2	3	3	3	4				3.00
Sandhill Restoration	III.B.2	4	3	3	5	4				3.80
<b>Restoration Average Score</b>										3.40
<b>Forest Management (III.C)</b>										
Timber Inventory	III.C.1	4	4	5	4	5				4.40
Timber Harvesting	III.C.2	4	4	5	4	5				4.40
Reforestation/Afforestation	III.C.3	4	4	5	5	5				4.60
Site Preparation	III.C.4	4	4	5	5	5				4.60
<b>Forest Management Average Score</b>										4.50
<b>Non-Native, Invasive &amp; Problem Species (III.D)</b>										
<b>Prevention</b>										
prevention - plants	III.E.1.a	3	4	5	4	3				3.80
prevention - animals	III.E.1.b	3		5	4	4				4.00
<b>Control</b>										
control - plants	III.E.2.a	3	4	5	4	5				4.20
control - animals	III.E.2.b	3	4	5	4	5				4.20
<b>Non-Native, Invasive &amp; Problem Species Average Score</b>										4.05
<b>Hydrologic/Geologic function, Hydro-Alteration (III.E.1)</b>										

Roads/culverts	III.F.1.a		4	5		4				4.33
Soil Erosion	III.F.1.f	2	4	5	2	4				3.40
<b>Hydrologic/Geologic function, Hydro-Alteration Average Score</b>										<b>3.87</b>
<b>Ground Water Monitoring (III.E.2)</b>										
Ground water quality	III.F.2.a	2	3	3	3	3				2.80
Ground water quantity	III.F.2.b	2	3	3	3	3				2.80
<b>Ground Water Monitoring Average Score</b>										<b>2.80</b>
<b>Surface Water Monitoring (III.E.3)</b>										
Surface water quality	III.F.3.a	2	3	3	3	3				2.80
Surface water quantity	III.F.3.b	2	3	3	3	3				2.80
<b>Surface Water Monitoring Average Score</b>										<b>2.80</b>
<b>Resource Protection (III.F)</b>										
Boundary survey	III.G.1	5	4	5	5	5				4.80
Gates & fencing	III.G.2	5	4	5	5	4				4.60
Signage	III.G.3	5	4	5	5	4				4.60
Law enforcement presence	III.G.4	5	4	5	5	5				4.80
<b>Resource Protection Average Score</b>										<b>4.70</b>
<b>Adjacent Property Concerns (III.G)</b>										
<b>Land Use</b>										
Expanding development	III.H.1.a	4	4	5	3	3				3.80
Inholdings/additions	III.H.2	2	4	5	5	5				4.20
Discussion of Potential Surplus Land Determination	III.H.3	2	3	2	4	3				2.80
Surplus Lands Identified?	III.H.4	2	3	3	4	4				3.30
<b>Public Access &amp; Education (IV.1, IV.2, IV.3, IV.4, IV.5)</b>										
<b>Public Access</b>										
Roads	IV.1.a	4	4	4	4	5				4.20
Parking	IV.1.b	4	4	4	4	5				4.20
<b>Environmental Education &amp; Outreach</b>										
Wildlife	IV.2.a	3	4	5	5	4				4.20
Invasive Species	IV.2.b	3	4	5	5	4				4.20
Habitat Management Activities	IV.2.c	3	4	5	5	4				4.20
Interpretive facilities and signs	IV.3	3	4	5	4	4				4.00
Recreational Opportunities	IV.4	3	4	5	5	5				4.40
Management of Visitor Impacts	IV.5	3	4	5	4	5				4.20
<b>Public Access &amp; Education Average Score</b>										<b>4.20</b>
<b>Managed Area Uses (VI.A, VI.B)</b>										
<b>Existing Uses</b>										
Hunting	VI.A.1	5	5	5	5	5				5.00
Horseback Riding	VI.A.2	5	5	5	5	4				4.80
Canoeing	VI.A.3	5	5	5	5	5				5.00
Fishing	VI.A.4	5	5	4	5	5				4.80
Swimming	VI.A.5	5	5	5	5	4				4.80
Nature Study	VI.A.6	5	5	5	5	5				5.00

Bicycling	VI.A.7	5	5	4	5	4				4.60
Primitive Camping	VI.A.8	5	5	4	5	5				4.80
Hiking	VI.A.9	5	5	5	5	5				5.00
<b>Proposed Uses</b>										
Geocaching	VI.B.1	5	5	5	5	4				4.80

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*

## Exhibit U

**Compliance with Local Comprehensive Plan(s)**  
(Will be inserted once received)

**From:** [Davis, Alan](#)  
**To:** "[KReed@coj.net](#)"  
**Subject:** Jennings State Forest - Land Management Plan  
**Date:** Monday, May 14, 2018 9:38:00 AM  
**Attachments:** JSF Draft LMP and Exhibits.pdf

---

Community Planning Division  
Ed Ball Building  
214 N. Hogan Street, Suite 300  
Jacksonville, FL 32202  
(904) 255-7837

Good morning,

Attached is a copy of the Florida Forest Service's **Draft** Ten-Year Land Management Plan for the Jennings State Forest (JSF). Please review the plan and reply as to whether the plan is consistent with the City of Jacksonville Local Comprehensive Plan. Please provide your response as soon as possible to keep this Draft Ten-year Land Management Plan moving forward.

Please address all correspondence concerning this matter to me at the below address. I can be reached by telephone at (850) 681-5816 or email at [Alan.Davis@freshfromflorida.com](mailto:Alan.Davis@freshfromflorida.com) if you have any questions or concerns.

Thank you for your attention to this matter.

Sincerely,

Alan Davis  
Land Planning Coordinator

Attached: Jennings State Forest Draft Ten-Year Land Management Plan and Exhibits

cc: Frank Burley, Forestry Supervisor II

Thanks,

**Alan Davis**  
Land Planning Coordinator  
Florida Forest Service  
Florida Department of Agriculture and Consumer Services

(850)-681-5816  
(850)-681-5801 Fax  
[Alan.Davis@freshfromflorida.com](mailto:Alan.Davis@freshfromflorida.com)

The Conner Building  
3125 Conner Boulevard, Room 238  
Tallahassee, FL 32399-1650

[www.FreshFromFlorida.com](http://www.FreshFromFlorida.com)

Please note that Florida has a broad public records law (Chapter 119, Florida Statutes). Most written communications to or from state employees are public records obtainable by the public upon request. Emails sent to me at this email address may be considered public and will only be withheld from disclosure if deemed confidential pursuant to the laws of the State of Florida.

**From:** [Davis, Alan](#)  
**To:** "[planning@claycountypgov.com](mailto:planning@claycountypgov.com)"  
**Cc:** "[Ed.Lehman@claycountypgov.com](mailto:Ed.Lehman@claycountypgov.com)"  
**Subject:** Jennings State Forest - Land Management Plan  
**Date:** Monday, May 14, 2018 9:29:00 AM  
**Attachments:** [JSF Draft LMP and Exhibits.pdf](#)

---

477 Houston Street  
Green Cove Springs, FL 32043

Good morning,

Attached is a copy of the Florida Forest Service's **Draft** Ten-Year Land Management Plan for the Jennings State Forest (JSF). Please review the plan and reply as to whether the plan is consistent with the Clay County Local Comprehensive Plan. Please provide your response as soon as possible to keep this Draft Ten-year Land Management Plan moving forward.

Please address all correspondence concerning this matter to me at the below address. I can be reached by telephone at (850) 681-5816 or email at [Alan.Davis@freshfromflorida.com](mailto:Alan.Davis@freshfromflorida.com) if you have any questions or concerns.

Thank you for your attention to this matter.

Sincerely,

Alan Davis  
Land Planning Coordinator

Attached: Jennings State Forest Draft Ten-Year Land Management Plan and Exhibits

cc: Frank Burley, Forestry Supervisor II

Thanks,

**Alan Davis**  
Land Planning Coordinator  
Florida Forest Service  
Florida Department of Agriculture and Consumer Services

(850)-681-5816  
(850)-681-5801 Fax  
[Alan.Davis@freshfromflorida.com](mailto:Alan.Davis@freshfromflorida.com)

The Conner Building  
3125 Conner Boulevard, Room 238  
Tallahassee, FL 32399-1650

[www.FreshFromFlorida.com](http://www.FreshFromFlorida.com)

Please note that Florida has a broad public records law (Chapter 119, Florida Statutes). Most written communications to or from state employees are public records obtainable by the public upon request. Emails sent to me at this email address may be considered public and will only be withheld from disclosure if deemed confidential pursuant to the laws of the State of Florida.

## Exhibit V

### State Forest Management Plan Advisory Group Summary

**Management Plan Advisory Group Organizational Meeting**  
**Jennings State Forest**  
**10 -Year Land Management Plan**

May 23, 2018  
10:30 a.m.

**Meeting Minutes**

**MPAG Members Present:**

- |                  |   |
|------------------|---|
| • Jennifer Hart  | Florida Forest Service (FFS)                            |
| • Allan Hallman  | Florida Fish and Wildlife Conservation Commission (FWC) |
| • Heather Venter | St. Johns River Water Management District (SJRWMD)      |
| • Wes Taylor     | Clay County Soil & Water Conservation District          |
| • John Panagos   | Local Private Property Owner                            |
| • Martha Fethe   | Local Conservation Organization (Audubon Society)       |

**MPAG Members Not Present:**

- |                    |  |
|--------------------|--|
| • Doyle Carter     | Local Elected Official (Council Member City of Jacksonville District 12) |
| • Wayne Bolla      | Local Elected Official (Clay County Commissioner)                        |
| • Chereese Stewart | Local Private Property Owner   |
| • Richard Owen     | Florida Department of Environmental Protection (FDEP)                    |

**Staff:**

- Alan Davis, FFS
- Bill Korn, FFS
- Sam Negaran, FFS
- Frank Burley, FFS
- Daniel Head, FFS
- Elizabeth Smith, FFS
- Judy Andrews, FFS
- Justin Rogers, FFS
- Danny Caraway, FFS

**Guests:**

- Eric Dennis, FWC

**Meeting Start Time: 10:30 a.m.**

- Mr. Davis opened the meeting, introduced himself, and continued by explaining 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 also explained the Sunshine Law's role in the MPAG public hearings and MPAG member appointment timeframe.
- Mr. Davis provided an overview of how the meetings were advertised to the public.

- Mr. Davis stated the MPAG meeting was advertised through local newspaper (The Clay Today), Florida Administrative Weekly, FFS webpage, as well as posted on the kiosk at the entrance to the forest. It was also announced at the Clay County Commission meeting and City of Jacksonville Council meeting on May 8, 2018.
- Mr. Davis provided a rundown of the various approvals the draft land management plan must go through both before and after the MPAG public hearings have occurred.
- Next, everyone in the room introduced themselves and explained what entity or organization they are with, and/or why they have interest in the meeting.
- Mr. Davis explained the notion of consensus and how it relates to the group's determinations. He also explained the fact that the FFS Director is the ultimate decider on any changes made to the draft plan.
- Mr. Davis explained that following a PowerPoint presentation at the public hearing, there would be a question/answer session and they were all welcome to ask questions. During the public hearing, Mr. Davis encouraged MPAG members to listen for the public's ideas/concerns. He advised that at the MPAG Workshop meeting to follow would be an opportunity to share their thoughts on what they heard from the public and their ideas on the draft management plan.
- The advisory group all agreed to designate Jennifer Hart as MPAG chairperson.
- Mr. Davis thanked everyone and adjourned the meeting.

Meeting End Time: 10:42 a.m.

**Management Plan Advisory Group Public Hearing**  
**Jennings State Forest**  
**10 -Year Land Management Plan**

May 23, 2018

11:00 a.m.

**Meeting Minutes**

**MPAG Members Present:**

- |                  |   |
|------------------|---|
| • Jennifer Hart  | Florida Forest Service (FFS)                            |
| • Allan Hallman  | Florida Fish and Wildlife Conservation Commission (FWC) |
| • Heather Venter | St. Johns River Water Management District (SJRWMD)      |
| • Wes Taylor     | Clay County Soil & Water Conservation District          |
| • John Panagos   | Local Private Property Owner                            |
| • Martha Fethe   | Local Conservation Organization (Audubon Society)       |

**MPAG Members Not Present:**

- |                    |  |
|--------------------|--|
| • Doyle Carter     | Local Elected Official (Council Member City of Jacksonville District 12) |
| • Wayne Bolla      | Local Elected Official (Clay County Commissioner)                        |
| • Chereese Stewart | Local Private Property Owner   |
| • Richard Owen     | Florida Department of Environmental Protection (FDEP)                    |

**Staff:**

- Alan Davis, FFS
- Bill Korn, FFS
- Sam Negaran, FFS
- Frank Burley, FFS
- Daniel Head, FFS
- Elizabeth Smith, FFS
- Judy Andrews, FFS
- Justin Rogers, FFS
- Danny Caraway, FFS

**Guests:**

- Eric Dennis, FWC

**Meeting Start Time: 11:00 a.m.**

- Mr. Davis introduced Ms. Hart.
- Ms. Hart, the MPAG Chairperson, welcomed everyone to the public hearing and thanked everyone for coming.
- Mr. Davis thanked everyone for being here and gave a general overview of the purpose of the public hearing.

- Mr. Davis stated at this time, one (1) speaker form was filled out. He encouraged all visitors to complete a speaker form, which he reminded everyone could be used also to provide FFS with written comments on the plan.
- Mr. Burley welcomed everyone and gave a PowerPoint presentation on the draft plan, the plan included the location of Jennings State Forest along with boundaries, Florida statutes concerning State Forests, historical data and nine (9) goals and objectives to be accomplished on the forest during the next ten (10) years. The presentation also included the current status of JSF.
- Mr. Davis thanked Mr. Burley. Mr. Davis then asked FFS staff to the front of the room for a question/Answer session.

Speaker(s)

- Mr. Dennis with FWC had 2 comments about the plan. Goal (4), objective (1) Fire Management - return interval the math doesn't add up. The number of annual burn acres does not line up with maintaining 2-4 yr. burn interval across 18,110 acres of fire dependent communities. Eric recommended a 4500—9000-acre annual burn objective. Goal (8), objective (3) Hydrological Preservation and Restoration - Rehabilitation of roads, firelines, and trails that have evidence of erosion in surrounding waterbodies causing alterations to water quality. Wheeler Branch Road, a closed area that leads to Sweet Water Branch, water turn outs have not been maintained or serviced. A couple of other areas could have water turn outs as well. Heather Venter asked if that area is heavily used by equestrians, FFS respond yes, the riders tend to ride the closed road and not the marked trail contributing to the erosion.
- Mr. Davis thanked Mr. Dennis for his comments and advised we would look at his concerns during the workshop meeting at 1:30 pm.
- Mr. Davis confirmed the number of speaker forms, and Mr. Dennis was the only one. He asked if there was anyone else that would like to speak or provide written comments.
- With no other speakers, Mr. Davis thanked everyone for their time, and adjourned the public hearing.

Meeting End Time: 11:30 a.m.

**Management Plan Advisory Group Workshop Meeting**  
**Jennings State Forest**  
**10 -Year Land Management Plan**

May 23, 2018  
1:30 p.m.

**Meeting Minutes**

**MPAG Members Present:**

- |                  |   |
|------------------|---|
| • Jennifer Hart  | Florida Forest Service (FFS)                            |
| • Allan Hallman  | Florida Fish and Wildlife Conservation Commission (FWC) |
| • Heather Venter | St. Johns River Water Management District (SJRWMD)      |
| • Richard Owen   | Florida Department of Environmental Protection (FDEP)   |
| • Wes Taylor     | Clay County Soil & Water Conservation District          |
| • John Panagos   | Local Private Property Owner                            |
| • Martha Fethe   | Local Conservation Organization (Audubon Society)       |

**MPAG Members Not Present:**

- |                    |  |
|--------------------|--|
| • Doyle Carter     | Local Elected Official (Council Member City of Jacksonville District 12) |
| • Wayne Bolla      | Local Elected Official (Clay County Commissioner)                        |
| • Chereese Stewart | Local Private Property Owner   |

**Staff:**

- Alan Davis, FFS
- Bill Korn, FFS
- Sam Negaran, FFS
- Frank Burley, FFS
- Daniel Head, FFS
- Elizabeth Smith, FFS
- Judy Andrews, FFS
- Justin Rogers, FFS
- Danny Caraway, FFS

**Guests:**

- Eric Dennis, FWC

**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 staff and member responsibilities regarding the meeting minutes in the coming days/week.
- Mr. Davis declared a "page-by-page" process would be used to for reviewing and commenting on the draft plan. The notion of "consensus" was also once again discussed.
- Mr. Davis asked the group if they wanted to discuss the concerns expressed in the public meeting by Mr. Dennis concerning his comments on the burn interval and hydrological preservation.

- Language change was discussed for goal (4), objective (1) Fire Management – that Mr. Dennis brought up. The consensus was extending the burn interval to 2-5 years it would change the annual burn adjective to 3,600 - 9000-acre and would also encompass the natural community types better.
- Ms. Venter suggest language change to Fire Management Objective (3) in Performance Measures – “number of projects underway” to “number of acres treated for fuel reduction.”
- Ms. Fethe was for the change if it did not add additional cost to the management of the property.
- Ms. Venter - Goal (7) Cultural and Historical Resources – Change wording to say, “maintain number of archaeological monitors” instead of “increase”. There was a consensus to remove objective 4.
- Goal (8) Hydrological Preservation and Restoration – consensus was made that the plan address Mr. Dennis’ concerns, but this specific issue would be addressed on the local level.
- E-mail was received May 18, 2018, by Colin Moore, City of Jacksonville, that the City of Jacksonville be recognized in Public Access and Recreation – Planned Recreation Trails. The language was changed to add the City of Jacksonville in the cooperative venture.
- Exhibit Z – the SORBA bike trail was also discussed in the plan and as an exhibit. This trail was approved under the current management plan, but has not been constructed as funds are being raised by SORBA.
- Mr. Korn mentioned the unique ecosystems found on JSF: seepage stream, seepage slope, and upland sandhill lake are not listed in the Historical Natural Communities. Mr. Davis said he would check with FNAI on why they are not included. It is thought they were not included because FNAI considered the amount of acreage was not enough to recognize, but are included in the acreage of another community type.
- Ms. Venter suggest a language change in Basin Marsh – Management Needs, in the second paragraph “prior to logging to restrict and/or limit access by heavy equipment.” That it be changed to allow timber to be removed so the basin marsh could be restored.
- Mr. Korn suggested that all community fire return intervals are double checked to match local JSF goals.
- Mr. Korn brought up that the current cattle lease on JSF would be following the new “Notice of Intent” guideline since it is in an active BMAP zone. Language in the plan will be added to address this.
- The MPAG member review of the plan is complete.
- Mr. Davis asked the group if everyone, as a consensus, was generally good with the plan. All agreed.
- Mr. Davis went around the table to each MPAG Member and asked for their overall general comments and if they had any other issues. They all thought it was a good plan and appreciated the invite to participate.
- 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 October 19 Acquisition and Restoration Council (ARC) meeting.
- Mr. Davis thanked everyone for their time and participation, then adjourned the meeting.

Meeting End Time: 2:48 p.m.

Written Comments Received:

- Eric Dennis (FWC)
  - Fire Management – Fire return interval
  - Hydrological Preservation and Restoration

## Exhibit W

### State Forest Summary Budget

### Jennings State Forest Summary Budget

	JENNINGS STATE FOREST MGT. ONLY 15-16 EXPENDITURES	Percentages Based on Total Dollar Amount of Expenditures	JSF Assessed Needed Funding Based Upon LMUAC Resource Management
<b>Resource Management</b>	<b>\$ 123,575</b>	<b>25.30%</b>	<b>\$ 136,609.31</b>
Exotic Species Control	\$ 15,700	3.50%	\$ 23,210.32
Prescribed Burning	\$ 31,168	4.70%	\$ -
Cultural Resources Management	\$ 449	0.10%	\$ 663.15
Timber Management	\$ 35,886	8.00%	\$ 53,052.16
Hydrological Management	\$ 3,140	0.70%	\$ 4,642.06
	\$ -		\$ -
<u>OTHER RESOURCE MANAGEMENT</u>	\$ 37,232	8.30%	\$ 55,041.62
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			\$ -
			\$ -
<b>Administration</b>	<b>\$ 35,886</b>	<b>8.00%</b>	<b>\$ 53,052.16</b>
Central Office Headquarters	\$ 35,886	8.00%	\$ 53,052.16
District/Regions	\$ -		\$ -
Units/Projects	\$ -		\$ -
	\$ -		\$ -
<b>Support</b>	<b>\$ 144,890</b>	<b>32.30%</b>	<b>\$ 127,988.34</b>
Land Management Planning	\$ 8,972	2.00%	\$ 13,263.04
Land Management Reviews	\$ 1,794	0.40%	\$ 2,652.61
Training/Staff Development	\$ 38,129	8.50%	\$ 55,367.92
Vehicle Purchase	\$ 3,589	0.80%	\$ 5,305.22
Vehicle Operations and Maintenance	\$ 58,315	13.00%	\$ -
	\$ -		\$ -
OTHER SUPPORT	\$ 34,092	7.60%	\$ 50,399.55
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	\$ -		\$ -
			\$ -
<b>Capital Improvements</b>	<b>\$ 98,687</b>	<b>22.00%</b>	<b>\$ 145,893.44</b>
New Facility Construction	\$ 22,877	5.10%	\$ 33,820.75
Facility Maintenance	\$ 75,810	16.90%	\$ 112,072.69
			\$ -
<b>Visitor Services/Recreation</b>	<b>\$ 55,624</b>	<b>12.80%</b>	<b>\$ 82,230.85</b>
Information/Education	\$ 13,906	3.10%	\$ 20,557.71
Operations	\$ 41,718	9.30%	\$ 61,673.14
			\$ -
<b>Law Enforcement</b>	<b>\$ -</b>	<b>0.00%</b>	<b>\$ -</b>
<b>Total</b>	<b>\$ 448,577</b>	<b>100.00%</b>	<b>\$ 663,152</b>

## Exhibit X

### Arthropod Control Plans on JSF Responses from Clay County and the City of Jacksonville



UF/IFAS Extension  
Clay County



2463 State Road 16 West  
Green Cove Springs, FL 32043  
904-284-6355

November 21, 2017

Alan Davis  
Land Planning Coordinator  
Florida Forest Service  
Florida Department of Agriculture and Consumer Services

Dear Alan,

Clay County has not conducted any mosquito control activities in Jennings State Forest and we will not conduct any control activities on this property in the future. As such, an arthropod control plan will not be required. Feel free to contact me if you have any questions, comments, or concerns.

Sincerely,

A handwritten signature in blue ink, which appears to read "B. Burbaugh".

Bradley Burbaugh, Ph.D.  
Acting Mosquito Control Director  
Clay County

*The Foundation for The Gator Nation*

An Equal Opportunity Institution



ONE CITY ONE JACKSONVILLE

## City of Jacksonville, Florida

*Lenny Curry, Mayor*

Mosquito Control Division  
1321 Eastport Road  
Jacksonville, Florida 32218  
(904) 696-4374  
[www.coi.net](http://www.coi.net)

March 5, 2018

Alan Davis  
Land Planning Coordinator  
Florida Forest Service  
Florida Department of Agriculture and Consumer Services

Dear Alan,

The City of Jacksonville Mosquito Control Division (JMCD) does not conduct mosquito activities within Jennings State Forest except under the following conditions: a state declaration of emergency due to a natural disaster, a mosquito borne disease public health advisory or higher that could impact nearby residents, and/or at the request of the Florida Forest Service.

JMCD will notify the designated land manager prior to any applications made within the designated lands. If you have any questions or concerns, please contact Marah Clark, Entomologist at [mclark@coi.net](mailto:mclark@coi.net) or (904)696-4374, extension 245.

Sincerely,

Randy Wishard  
Division Chief  
City of Jacksonville Mosquito Control Division

RW/msc

## Exhibit Y

### Planned Recreational Vehicle Site(s)



Florida Forest Service

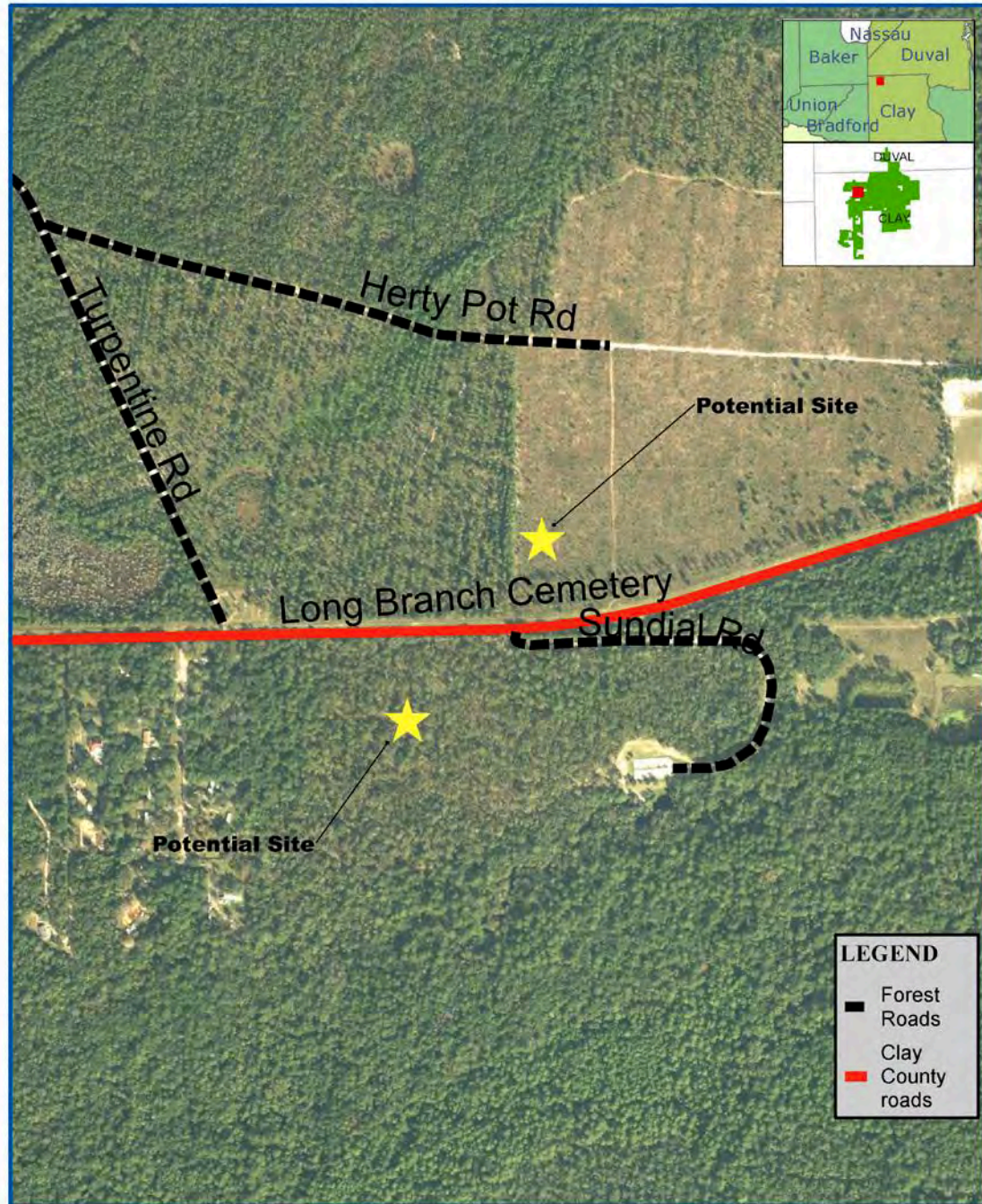
Coordinate System: Florida Albers  
High Accuracy Reference Network (HARN) Datum

# Jennings State Forest

## Planned Recreational Vehicle Site Locations

**DISCLAIMER**  
This map was prepared by the Florida Forest Service for informational purposes only. It is not intended to be used as a legal document. The Florida Forest Service does not warrant the accuracy or completeness of the information contained herein. The user assumes all liability for any use of this map.

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0 0.0228 0.045 0.09 0.135 0.18  
Miles

Map Month/Year: March 2018



0 0.035 0.07 0.14 0.21 0.28  
Kilometers

## Exhibit Z

### Proposed SORBA Biking Trails



Florida Forest Service

Coordinate System: Florida Albers  
NAD 83 Survey Reference Network (NAD83) Datum

# Jennings State Forest Proposed SORBA Bike Trails Map

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Map prepared by the Florida Forest Service, Tallahassee, Florida, May 2018. Prepared by: [Name], [Title], [Company]

