

BLACKWATER RIVER STATE FOREST
2026 LAND MANAGEMENT PLAN

EXHIBITS

Exhibit A

Twelve-Year Management Accomplishment Summary

Blackwater River State Forest

12-Year Accomplishments Summary

Site Preparation	Number	Acres
Chop Single Pass	374	N/A
Chop Double Pass	51	N/A
Burning	N/A	3,097
Mowing	N/A	200
Herbicide	N/A	1,723
Other	N/A	115

Planting	Number	Acres
Longleaf Bareroot	649,044	894
Slash Bareroot	1,452	2
Longleaf Containerized	3,625,156	5,039

Seedling Survival Checks	Number	Acres
Planting Checks	N/A	7,975

Timber Stand Improvement	Number	Acres
Herbicide Treatment	N/A	2,008
Mechanical Treatment	N/A	294
Mowing	N/A	564

Timber Sales	Tons	Acres
Marking	N/A	9,887
Cruising	N/A	22,574
Harvest	668,053.91	36,947

Timber Inventory	Number	Acres
Inventory Update	N/A	180,300
Plots	N/A	10,550

Invasive Control	Number	Acres
Air Potato	N/A	0.1
Autumn Olive	N/A	20.4
Bamboo	N/A	7.8
Callery Pear	N/A	3,707.70
Camphortree	N/A	5.3
Chinaberry	N/A	61.7
Chinese Tallowtree	N/A	371.2
Cogongrass	N/A	1,763.05
Earleaf Acacia	N/A	0.5
Japanese Climbing Fern	N/A	6,795.90
Japanese Honeysuckle	N/A	18.8
Kudzu	N/A	150.90
Mimosa	N/A	256.1
Multiflora Rose	N/A	0.20
Nandina Domestica	N/A	0.3
Chinese Privet	N/A	1,665.15
Showy Crotalaria	N/A	273.5
Silverthorn	N/A	1.00
Skunk Vine	N/A	16.3
Sword Fern	N/A	273.50
Torpedograss	N/A	161.9
Trifoliate Orange	N/A	0.50
Tropical Soda Apple	N/A	59.6
Tung Oil Tree	N/A	71.30
Chinese Wisteria	N/A	293.6

Fire	Number	Acres
Wildfire	171	9,492.10
Prescribed Burning	N/A	780,257.30

Recreation	Number	Acres
Day Use Estimated Forest Visitors	27,095,402	N/A
Overnight Camping (Full Facility)	723,604	N/A
Overnight Camping (Primitive)	70,804	N/A
Annual Entrance Pass	586	N/A
Annual OHV / Motorcycle Permits	1,642	N/A
Day / 3 Day OHV / Motorcycle Permits	5,936	N/A
Commercial Vendor Permits	3,185	N/A

Roadwork	Number	Miles
Roads Constructed	N/A	26.6
Roads Graded	N/A	7,817.78
Roads Rebuilt	N/A	901.8
Bridge Built	13	N/A
Bridge Repaired	86	N/A
Culverts Installed	161	N/A
Low Water Crossing	38	N/A
Trail Maintenance	N/A	209
Other	5	N/A

Boundary Maintenance	Number	Miles
Maintenance / Marking	N/A	382.45

I&E Activities	Number	Acres
Programs / Tours	547	N/A
Radio / TV Articles	145	N/A

Other Activities	Number	Acres
Trail Maintenance	N/A	N/A
Midstory Hardwood Control (NFWF)	N/A	150
Native Grass Planting (NFWF)	N/A	80
Pine Seed Planting	167	N/A
Archaeological Sites Monitored	245	N/A
Old Boundary Removal	2	N/A

Exhibit B

Boundary and Roads Map



Florida Forest Service

Blackwater River State Forest

Boundary and Roads Map

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

DISCLAIMER:
This map was created by the Florida Forest Service using data provided by the Florida Department of Transportation (FDOT) and the Florida Department of Natural Resources (FDNR). 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. The Florida Forest Service is not responsible for any claims or liabilities resulting from the use of this map.

Blackwater River boundary line courtesy of
US Forest Service. All data courtesy of
Florida Department of Natural Resources (FDNR).
From the US Army Corps of Engineers.

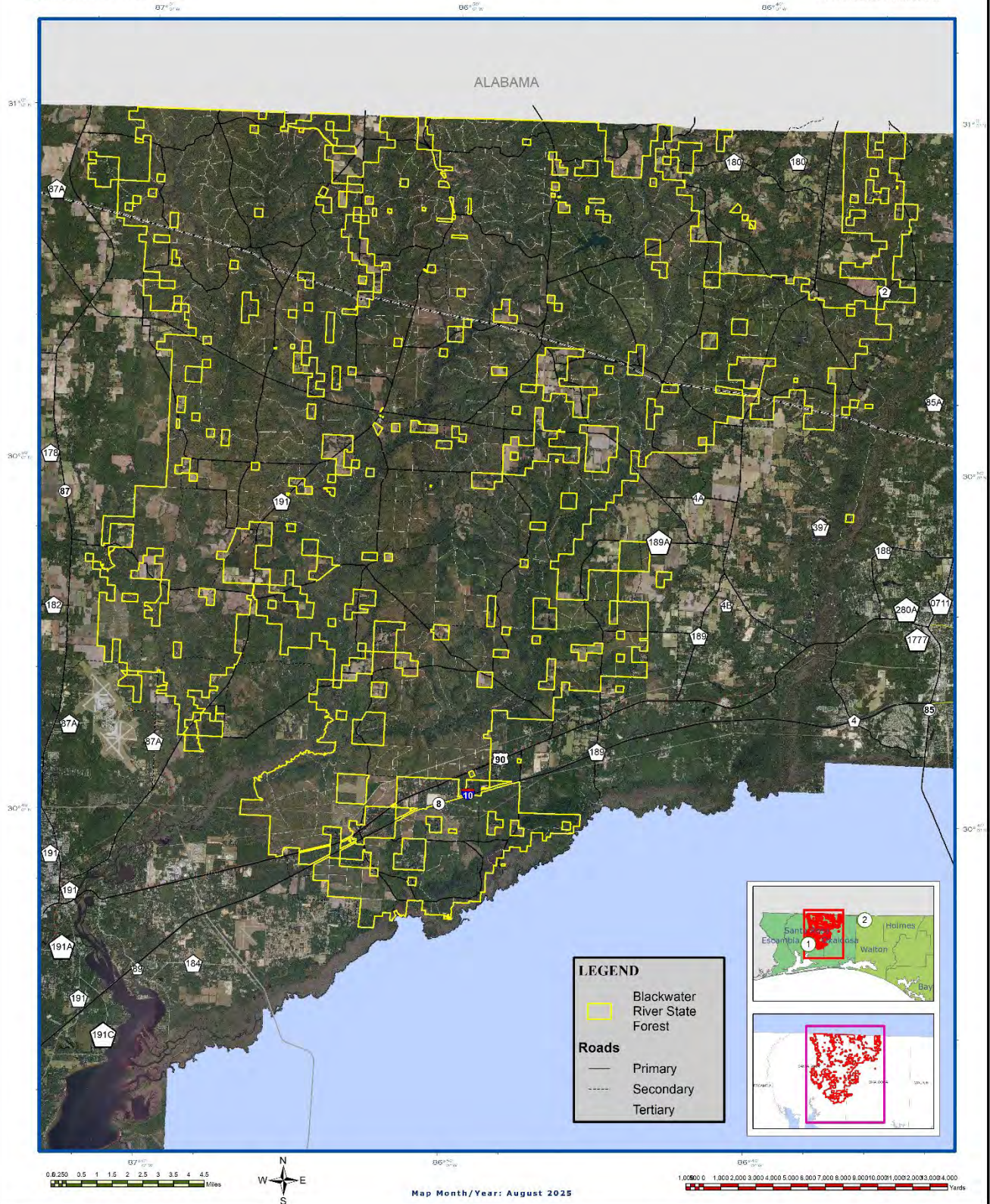


Exhibit C

Optimal Management Boundary Map

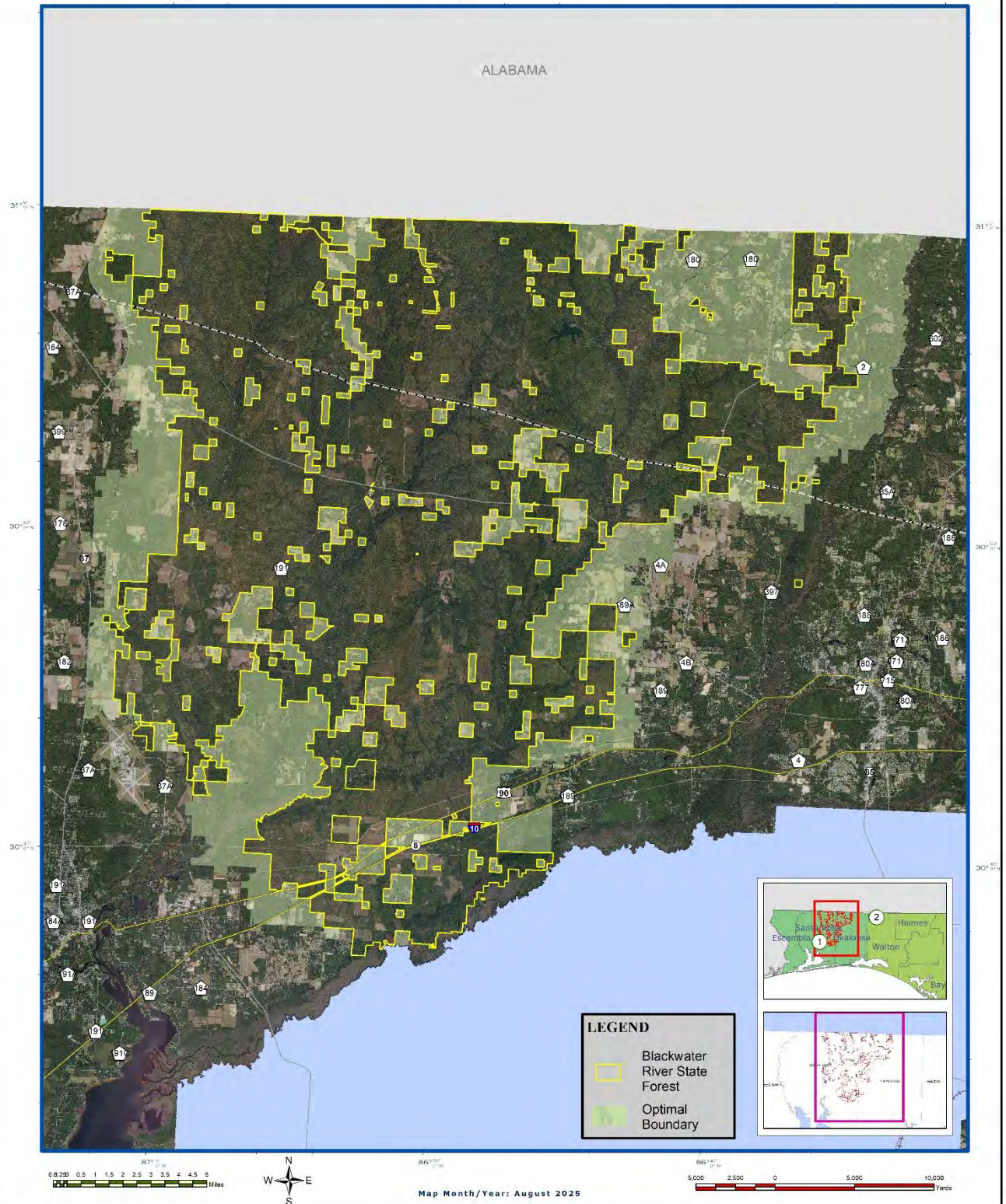


Florida Forest Service

Blackwater River State Forest Optimal Management Boundary Map

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

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Map Month/Year: August 2025

Exhibit D

Facilities, Recreation, and Improvements Map

LEGEND

Blackwater River State Forest

Equestrian Trail Legend

Blue

Red Blue

Orange

Pink

Red

Yellow

Purple

Red Yellow

Orange

Hiking Trail Legend

Wiregrass Trail 12.7 Miles

Sweetwater Trail 1.3 Miles

Karick Loop Trail 3.8 Miles

Jackson Trail 21.5 Miles

Bear Lake Mountain Bike 6 Miles

Bear Lake Hiking 3.6 Miles

Bear Lake - Jackson Connector 2.5 M.

Juniper Creek Trail 6.7 Miles

Blackwater River Trail 6.4 Miles

Florida National Scenic Trail 11 Miles

Yellow River Ravines Trail 3.9 Miles

Bone Creek Hiking Trail 1.25 Miles

Recreation Sites

Krul Lake

Bear Lake

Hurricane Lake North

Hurricane Lake South

Karick Lake North

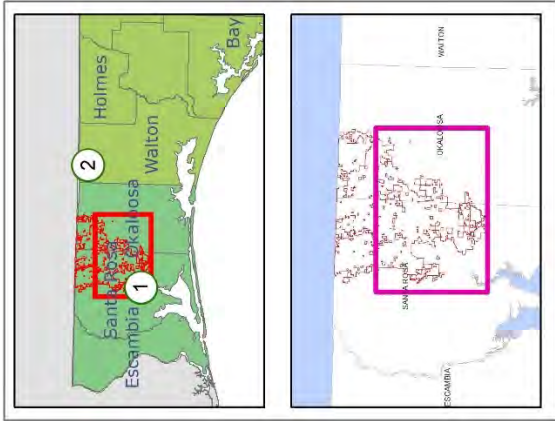
Karick Lake South

Coldwater

Camp Paquette

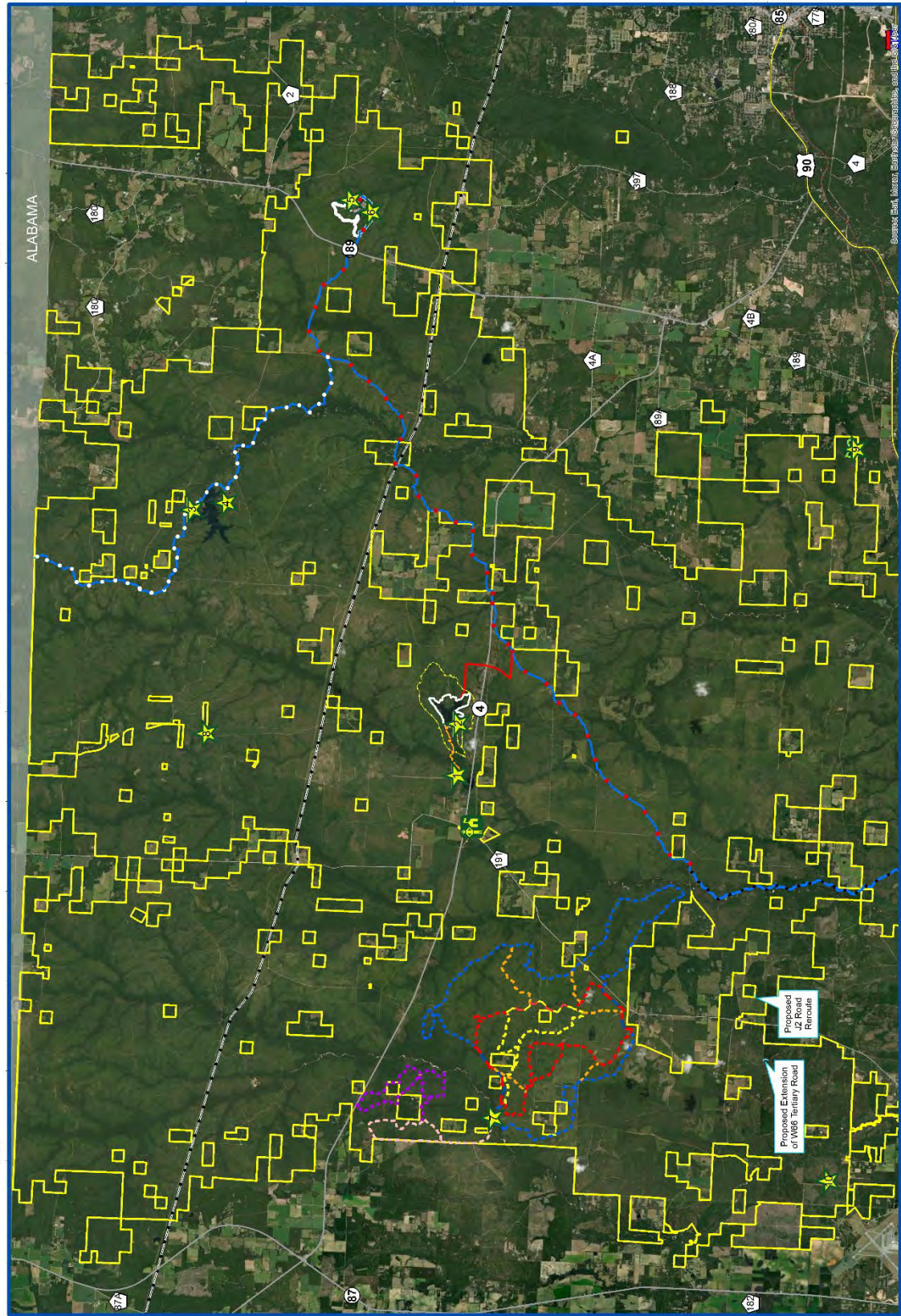
Bone Creek

Clear Creek OHV Trails





Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum
87⁰ 01' 00"



Map Month/Year: January 2026



Somax East, West, Central Securities, and the Old West

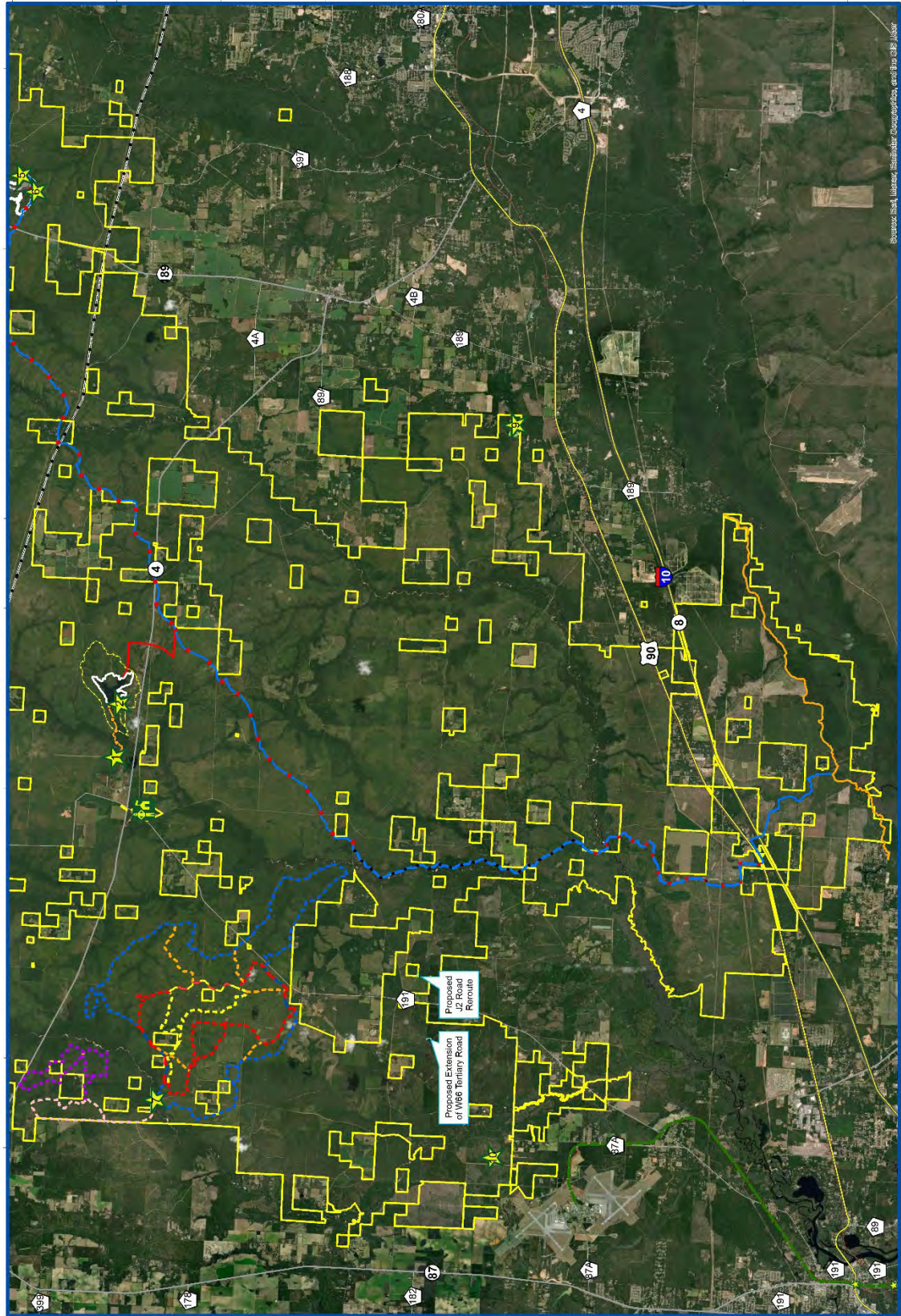


Florida Forest Service

Blackwater River State Forest Facilities, Recreation, and Improvements Map (South)

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Map Date: 01/2025
Map Scale: 1 inch = 1 mile
Map Projection: NAD 83 UTM Zone 18N
Map Author: Florida Forestry
Map Reviewer: Florida Forestry
Map Approved: Florida Forestry
Map Contact: Florida Forestry
Map Phone: 850-488-1234
Map Email: info@floridaforestry.com
Map Website: www.floridaforestry.com



Source: Esri, Imagery, Mapbox, OpenStreetMap, and others

0 2,500 5,000 Feet

0 1 2 Miles

Map Month/Year: January 2026

N
W E
S

Exhibit E

Tract and Acreage Map

Legend

	Blackwater River State Forest
	Wolfe Creek Forest, Ellis Creek Tract, 2024 Legacy Closing, 1,544 Acres
	Wolfe Creek Forest, Peaden Tract, 2024 Legacy Closing, 40.7 Acres
	Wolfe Creek Forest, Pridgen Tract, 2024 Legacy Closing, 102 Acres
	Wolf Creek Forest, Kingfisher Timber Tract, 2019 Legacy Closing, 1,272 Acres
	Wolfe Creek Forest, Tupelo Timberlands Tract, 2021 Legacy Closing, 1,699.57 Acres
	Wolfe Creek Forest, Kingfisher 2022, 2022 Legacy Closing, 3,680 Acres
	Wolfe Creek Forest, Paddle Trail Tract, 2023 Legacy Closing, 1,486 acres
	Wolfe Creek Forest Springhill Tract, 2018 Legacy Closing, 799 Acres
	Gulf Coastal Longleaf Initiative Redesign, 2021 Legacy Closing, 2,115 Acres
	Coldwater Tract
	Yellow River Tract
	Horse Creek Tract
	Juniper Tract
	Rock Creek Tract
	Sweetwater Tract
	West Boundary Tract
	Floridale Tract
	Bone Creek Tract



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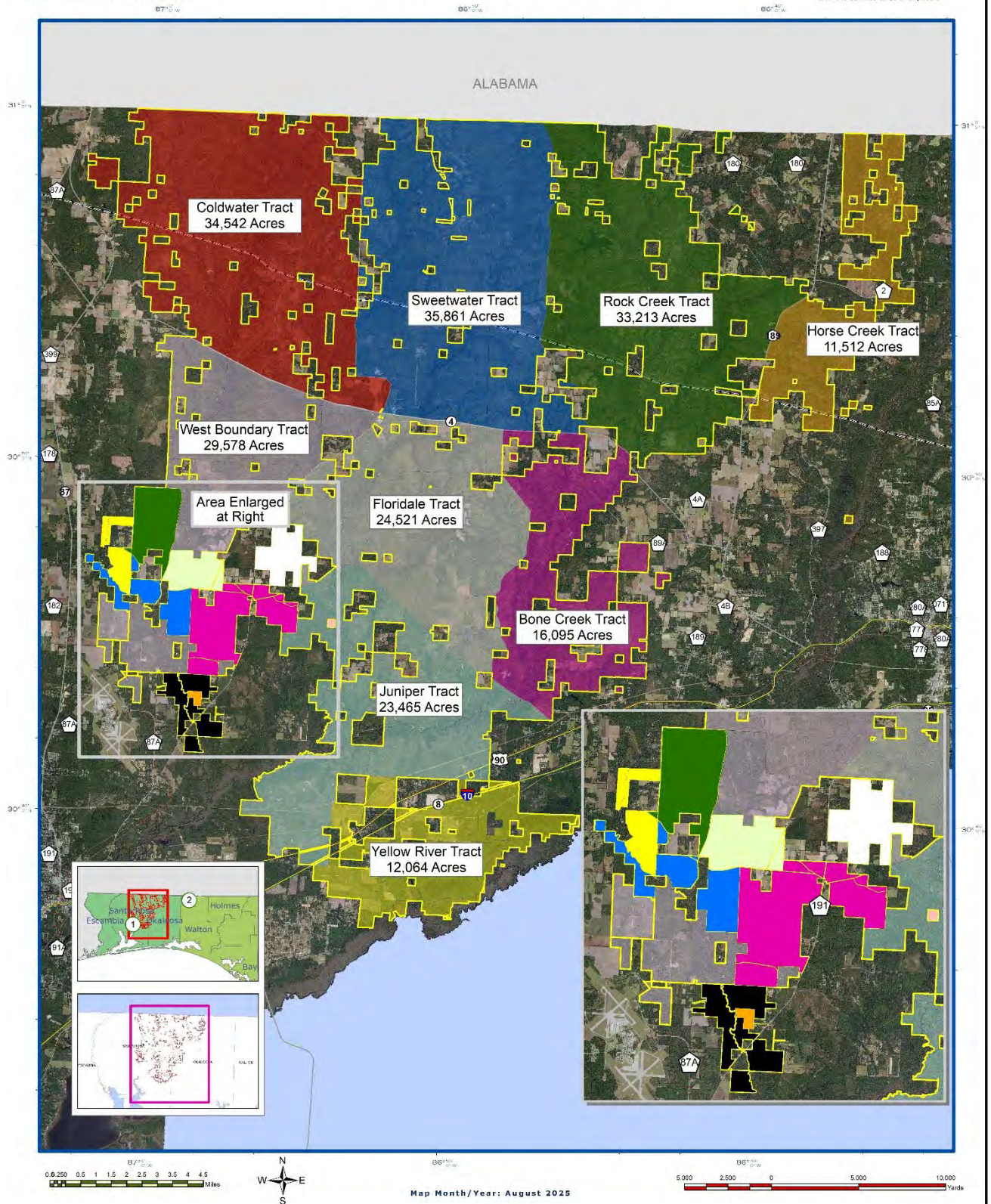


Exhibit F

Proximity
to
Significant Managed Lands Map

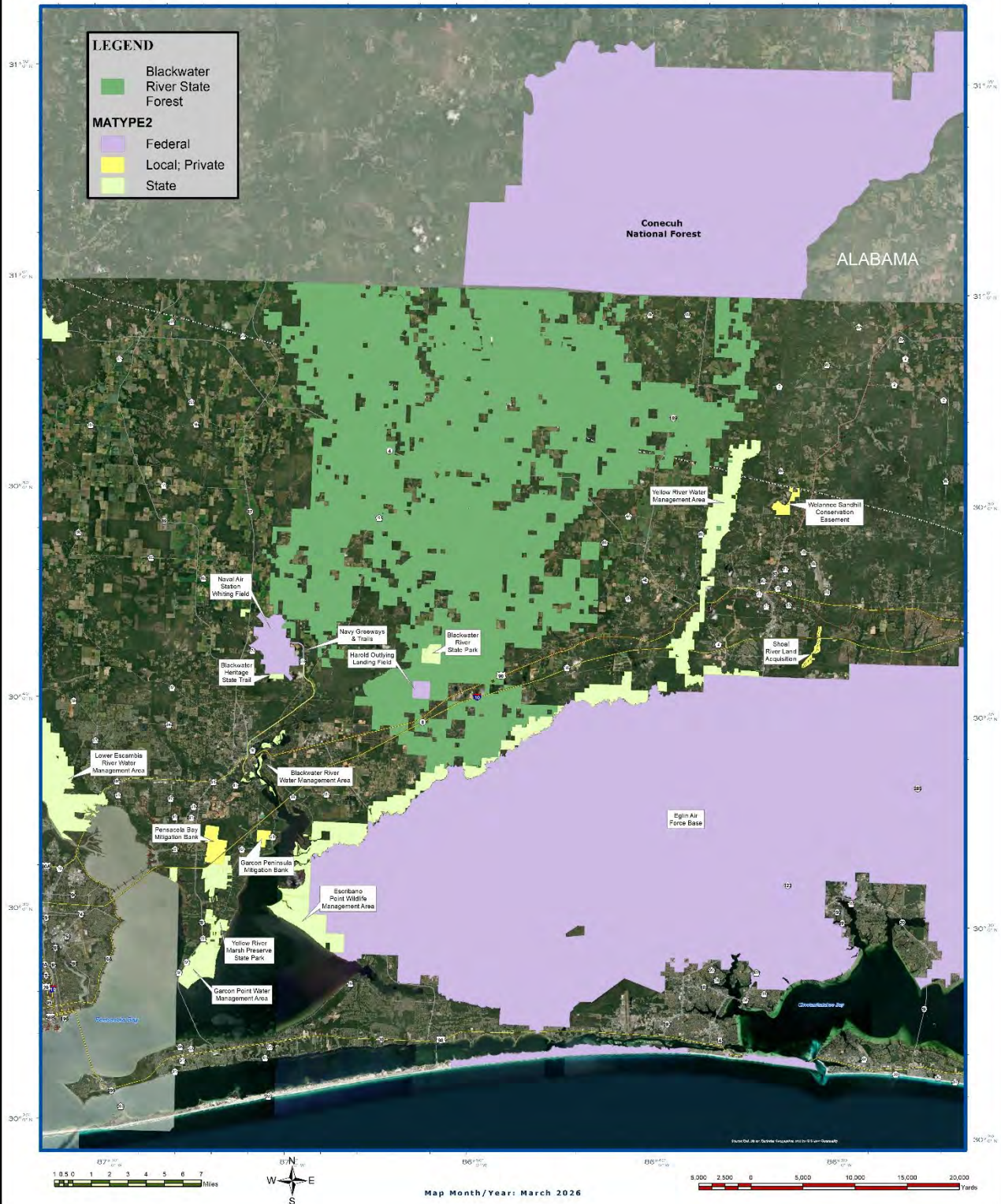


Exhibit G

Florida Forever Projects

Exhibit G

Clear Creek / Whiting Field Phase I

Santa Rosa County

Clear Creek/Whiting Field

Partnerships and Regional Incentives
Santa Rosa County

<i>Year Added to Priority List</i>	<i>2004</i>
<i>Project Acres</i>	<i>5,045</i>
<i>Acquired Acres</i>	<i>2,178</i>
<i>Cost of Acquired Acres</i>	<i>\$6,258,258</i>
<i>Remaining Project Acres</i>	<i>2,867</i>
<i>2021 Assessed Value of Remaining Acres</i>	<i>\$14,125,867</i>

Purpose for State Acquisition

The Clear Creek/Whiting Field project will support conservation and regional protection through the creation of a significant wildlife corridor between conservation lands. The project will provide open space in an urbanizing area and protect habitat for native and imperiled species. The project will also stabilize the land uses around the Whiting Field Naval Air Station to forestall encroachment that could be incompatible with the continued function of this military installation.

General Description

The project is three miles north of the Blackwater River Wildlife Management Area, 12 miles east of the Lower Escambia River Wildlife Management Area and 8 miles north of the Yellow River Wildlife Management Area. The project is close to the city of Milton. It adjoins Whiting Field, the Naval Air Station used to train Navy pilots on T-34 aircraft and helicopters. Most of the project is upland pine forests, sandhills, mature and young pine plantations, recent clear-cuts and agricultural lands. The upland pine forests and sandhills are in various stages of selective harvest. Narrow bands of upland hardwood forest occur on the slopes of the two creeks. Approximately 5 percent of the site is in a Strategic Habitat Conservation Area.

FNAI Element Occurrence Summary

<u>FNAI Elements</u>	<u>Score</u>
Florida black bear	G5T4/S4
<i>hairy-peduncled beaksedge</i>	G3/S3
<i>Panhandle lily</i>	G3/S3
<i>trailing arbutus</i>	G5/S2

Public Use

Potential recreational uses include canoeing, camping, hiking, biking, wildlife observation, environmental education, nature photography and scientific research. Hunting may also be done in some areas. The site is particularly appropriate for extending the Blackwater River Heritage State Trail to expand the growing recreational trail network in this region.

Acquisition Planning**2004**

On June 4, 2004, the Acquisition and Restoration Council added the Clear Creek/Whiting Field project to Group B of the 2004 Florida Forever Interim Priority List. This fee-simple acquisition, sponsored by The Nature Conservancy, consisted of approximately 5,026 acres, 45 landowners and a taxable value of \$1,648,733.

2005

On December 9, 2005, the Acquisition and Restoration Council approved a project design change to allow acquisition phasing. Phase I was added to Group A, consisting of seven landowners, approximately 2,029 acres and a taxable value of \$665,593. The ownership acreage is as follows: International Paper Company (1,154 acres); Phillips (121 acres); Leonard (160 acres); Florimor Inc. (320 acres); Blue Sky (120 acres); Lowery (74 acres); and Jernigan (80 acres).

Phase II remained in Group B, consisting of 38 landowners and about 2,996 acres with a taxable value of \$982,808.

2006

On June 9, 2006, the Acquisition and Restoration Council moved the Group B portion of this project to Group A.

2008

On December 12, 2008, the Acquisition and Restoration Council voted to amend the boundary by adding Coldwater Creek Addition, consisting of two parcels totaling 265 acres owned by The Nature Conservancy, with a tax-assessed value of \$28,167. The acquisition is proposed fee-simple, and the parcels were approved as essential.

2009

On March 10, 2009, 210.48 acres were purchased from The Nature Conservancy for \$1,158,258 (with the help of the U.S. Navy).





On September 30, 2009, 1,401 acres were purchased from The Nature Conservancy by Florida Forever (\$2,625,000), Florida Forest Service/Incidental Trust Fund (\$1,200,000), a.k.a. off-highway vehicle funds, and the U.S. Navy and U.S. Department of Justice (\$1,275,000).

2011

On June 30, 2011, the Division of State Lands purchased 172.59 acres to be managed by the Florida Forest Service.

On December 9, 2011, the Acquisition and Restoration Council placed this project in the Partnerships and Regional Incentives category.

2012

On August 17, 2012, the Acquisition and Restoration Council removed 163 acres from the project because staff analysis found these lands were either developed or not contiguous to the project.

Coordination

Acquisition partners are the U.S. Navy, Santa Rosa County, DEP's Office of Greenways and Trails and Florida Forest Service. Developing the management plan will be conducted with the project partners (Whiting Field, Florida Forest Service and Santa Rosa County).

Management Policy Statement

The Division of Recreation and Parks proposes to manage the project with the Florida Forest Service, Whiting Field and Santa Rosa County to: protect habitat for native and imperiled species; protect water quality in wetlands and surface waters, notably Clear Creek and Coldwater Creek; provide interpretive and recreation activities consistent with resource protection, including development of a multi-use loop trail surrounding Whiting Field and connecting to the northern terminus of the existing Blackwater Heritage State Trail; and protect archaeological and historical sites. In general, the project area will be managed to protect its environmental and natural resource values, drawing upon its natural characteristics to provide appropriate recreation opportunities, and enhancing other adjacent managed lands, such as Whiting Field and the Blackwater River State Forest. The project will be managed consistent with the appropriate goals and objectives of Florida Forever, as well as consistent with other projects that are part of the statewide system of greenways and trails.

Manager(s)

The Division of Recreation and Parks will accept management responsibility for the Clear Creek project.

Management Prospectus

Qualifications for State Designation

The project will protect a conservation landscape adjacent to a vital military training facility, Whiting Field. More than half of the project area lies within an identified Priority Ecological Greenway and a portion lies within a High Priority Segment of the Florida Recreational Trails Network Opportunities (the Blackwater Multi-Use Trail). This project will help enhance the resource and recreation value of the adjacent Blackwater River State Forest, Blackwater Heritage State Trail and State Designated Coldwater Creek





Canoe Trail. Coldwater Creek and Clear Creek are also tributaries to the Blackwater River which ultimately flows into Blackwater Bay, an Outstanding Florida Water.

Conditions Affecting Intensity of Management

In general, the property does not appear to require intense management beyond that typically associated with a managed greenway or trail project. But the intensity of long-term management will depend on the ability to acquire as intact an area surrounding Whiting Field as possible. Areas with adjacent residential properties will require more management.

The intensity of management will increase as recreation facilities and trails are developed and public usage increases. Other issues that will determine intensity of management include exotic plant removal, with particular attention to areas where imperiled species exist; water quality protection and enhancement, particularly related to Clear Creek; and protecting archaeological sites and historical structures.

Management Implementation, Public Access, Site Security and Protection of Infrastructure

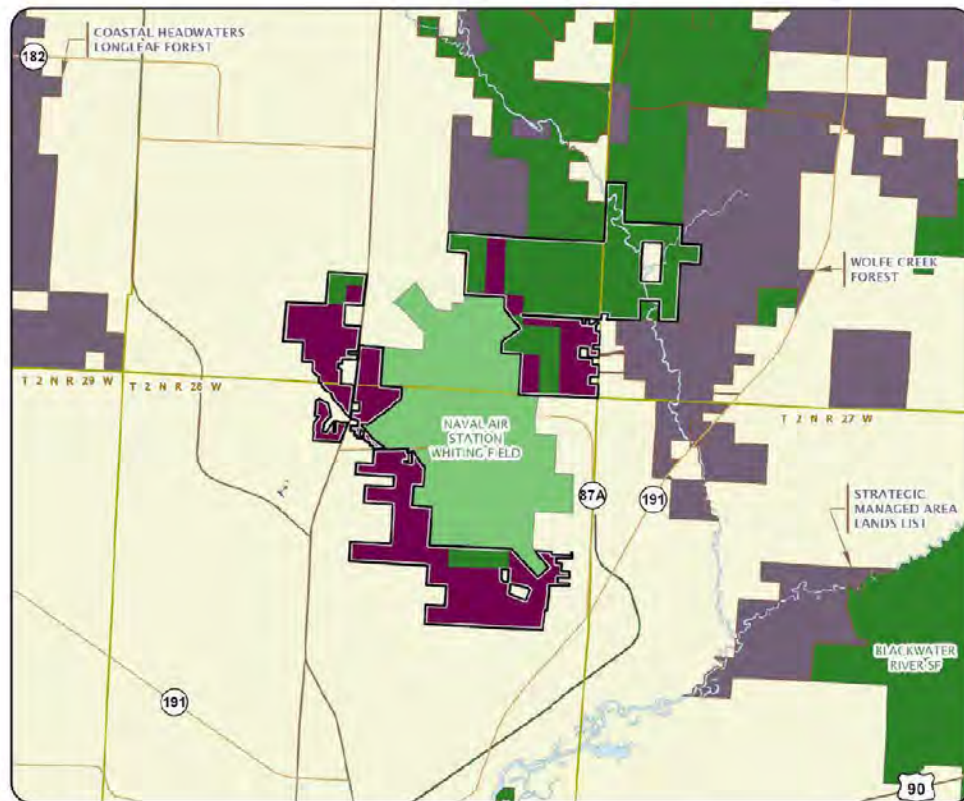
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Revenue-generating Potential

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CLEAR CREEK/WHITING FIELD

SANTA ROSA COUNTY

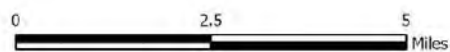


Exhibit G

Clear Creek / Whiting Field Phase II

Santa Rosa County

Clear Creek/Whiting Field

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Santa Rosa County

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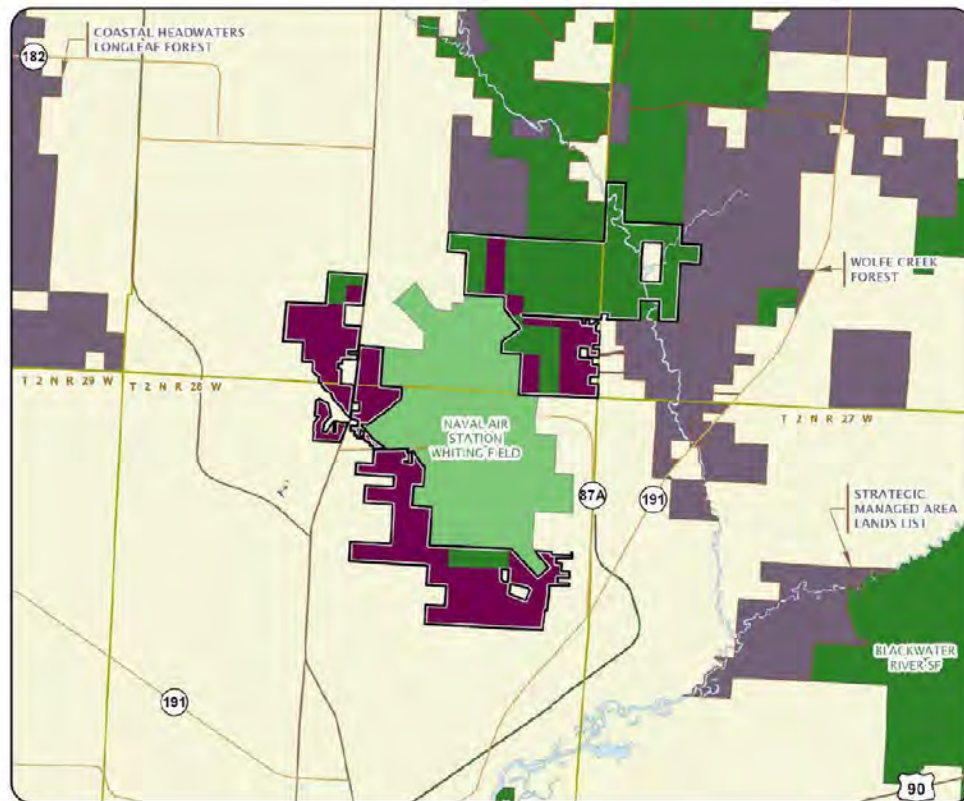
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CLEAR CREEK/WHITING FIELD

SANTA ROSA COUNTY

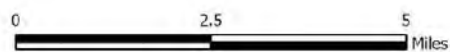


Exhibit G

Coastal Headwaters Longleaf Forest

Santa Rosa County

Coastal Headwaters Longleaf Forest

Less-Than-Fee

Escambia and Santa Rosa Counties

<i>Year Added to Priority List</i>	<i>2014</i>
<i>Project Acres</i>	<i>99,544</i>
<i>Acquired Acres</i>	<i>2,109</i>
<i>Cost of Acquired Acres</i>	<i>\$6,387,200</i>
<i>Remaining Project Acres</i>	<i>97,435</i>
<i>2021 Assessed Value of Remaining Acres</i>	<i>\$148,591,176</i>

Purpose for State Acquisition

The Coastal Headwaters Longleaf Forest project would preserve working forest lands and provide resource protection for the Escambia River watershed. The project will enhance coordination and completion of adjacent conservation land acquisitions and increase the amount of forest land available for sustainable resource management. The project will support state water quality and quantity by maintaining the quality and natural functions of the land, water and wetland systems.

General Description

The Coastal Headwaters Longleaf Forest Florida Forever project is in Escambia and Santa Rosa counties. The Lower Escambia River Water Management Area bisects the two main tracts of the proposal. The Perdido River Water Management Area is about six miles south of the proposal in Escambia County. Two of the easternmost tracts of the proposal are adjacent to the western boundary of Blackwater River State Forest. These two tracts are adjacent to the Wolfe Creek Forest Florida Forever Project, which, in conjunction with the Clear Creek/Whiting Field Florida Forever Project, would form a continuous corridor between Blackwater River State Forest and Naval Air Station Whiting Field. State Road 89 passes through the proposal area.

The property has been managed for commercial timber production and, to a much lesser extent, private hunting, fishing, camping and other outdoor recreation. Prescribed fire is used to prepare the land for planting, particularly of longleaf pine stands. If a conservation easement is established on the property, the application outlines a plan to plant longleaf pine stands for the purposes of ecological restoration and sustainable forestry with a 5-year rotation of prescribed fire. The proposed project is located on the Escambia Terraced Lands and on the western side of the Blackwater Hills (uplands that are underlain by sand, gravel, silt and clay).

A small, fragmented proportion of the upland areas (totaling less than 450 acres) remains as upland pine in somewhat natural condition. Before it was converted to pine plantations, upland pine was the dominant natural community within the proposed project. Bottomland forest is the most extensive natural



community within the project boundary, occurring as a closed-canopy forest on terraces and levees in floodplains of larger streams and rivers. Loblolly pine had been planted on the upper slopes of the community, creating moderately dense pine stands.

Agricultural land and pastures comprise only a small part of the proposal and include food plots for wildlife. Other ruderal areas include cemeteries, utility rights-of-way, sand pits, clearings and successional hardwood forests that often develop between planted pine stands and adjacent agricultural land.

Rare plants such as the Florida flame azalea and White-top pitcher plant are found in the forest. Rare animals that have been documented on-site include gopher tortoise, alligator snapping turtle, little blue heron, swallow-tailed kite and Bachmann's sparrow.

FNAI Element Occurrence Summary

<u>FNAI Elements</u>	<u>Score</u>
Gopher tortoise	G3/S3
Florida black bear	G5T4/S4
<i>Panhandle lily</i>	G2/S2
<i>Turk's cap lily</i>	G5/S1
Gulf crayfish	G4/S1
Harlequin Darter	G5/S1
<i>Florida flame azalea</i>	G3/S3
<i>Hairy-peduncled Beaksedge</i>	G3/S3
Alligator snapping turtle	G3/S3
Alligator Gar	G3G4/S3
bluenose Shiner	G3G4/S3S4
Spiny Softshell	G5/S3

Public Use

Coastal Headwaters Longleaf Forest is proposed for less-than-fee acquisition and does not provide for public access. However, the owner has indicated an interest in making the site available for some limited research or educational efforts.

Acquisition Planning

The Coastal Headwaters Longleaf Forest was submitted as a conservation easement by The Conservation Fund and Resource Management Services, LLC; Resource Management Services, LLC is a timber investment and management organization that conducts silvicultural operations on multiple continents.

2014

On August 15, 2014, the Acquisition and Restoration Council voted to approve the evaluation of this proposal.

On December 12, 2014, the Acquisition and Restoration Council voted to add this project to the Less-than-Fee category.





2021

DEP acquired 2,115 acres fee simple from Evergreen Timberco FL, LLC to be managed by the Florida Forest Service as an addition to Blackwater River State Forest.

Coordination

There were no confirmed acquisition partners when this project was added. However, the landowner is in contact with the U.S. Department of Agriculture's Natural Resources Conservation Service to match some federal funding with Florida Forever funding. The applicants may explore other less-than-fee acquisition opportunities as well. The landowner is interested in phased acquisition.

Management Policy Statement

As a less-than-fee acquisition, the Coastal Headwaters Longleaf Forest would be managed by the landowner as outlined in the conservation easement.

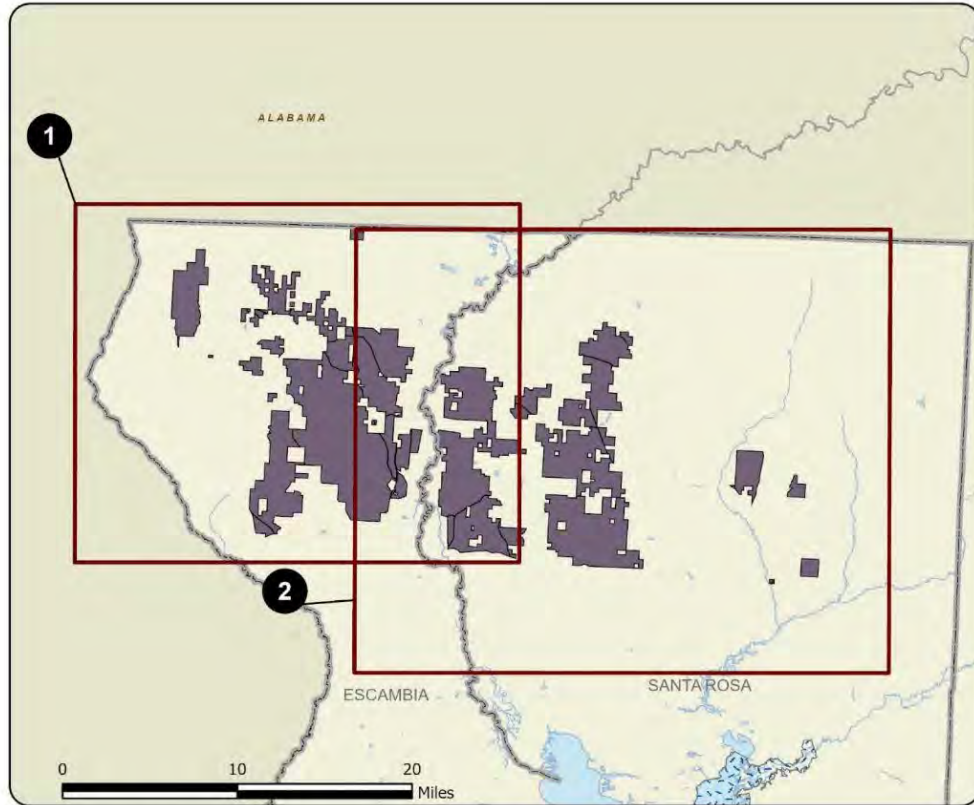
Manager(s)

If acquired less-than-fee, management responsibility of the Coastal Headwaters Longleaf Forest would remain with the landowner. Periodic monitoring of the site's management to confirm continued compliance with the conditions of the conservation easement would be coordinated by the Division of State Lands.

Management Prospectus

The Division of State Lands will periodically monitor the conservation easement, while the management will be conducted by the property owner.

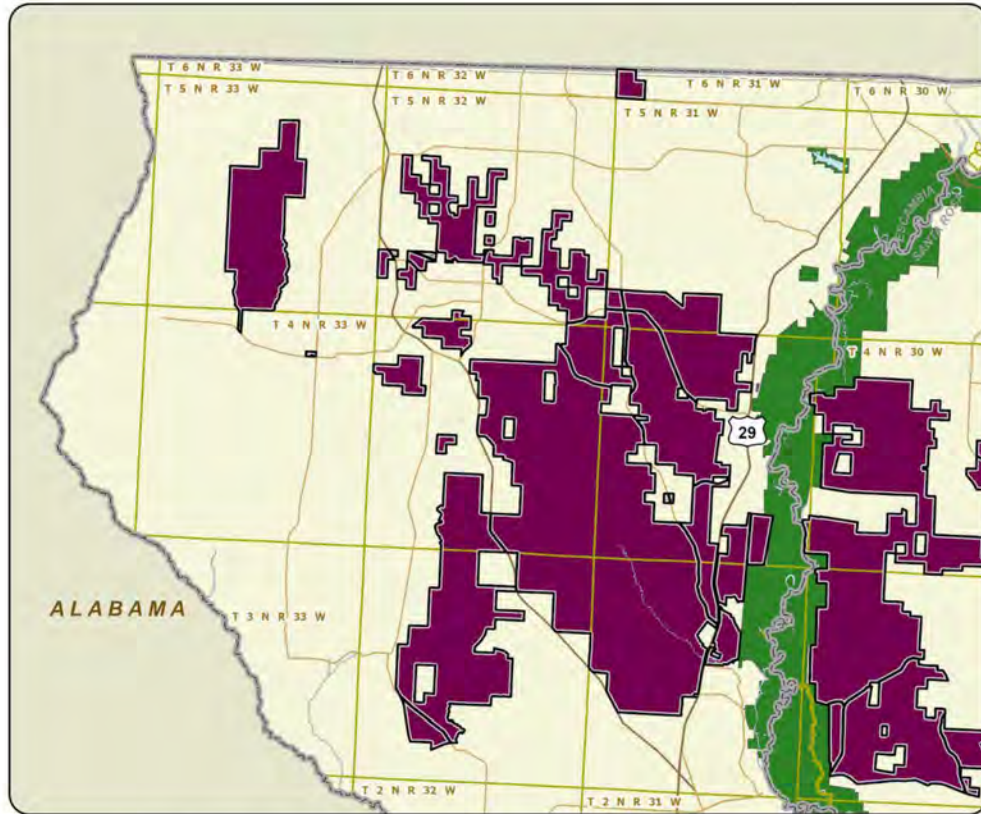




COASTAL HEADWATERS LONGLEAF FOREST: OVERVIEW

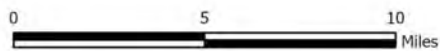
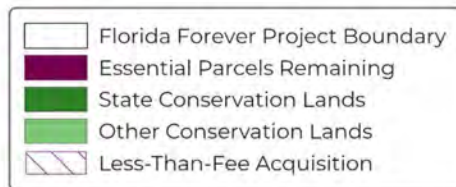
ESCAMBIA AND SANTA ROSA COUNTIES

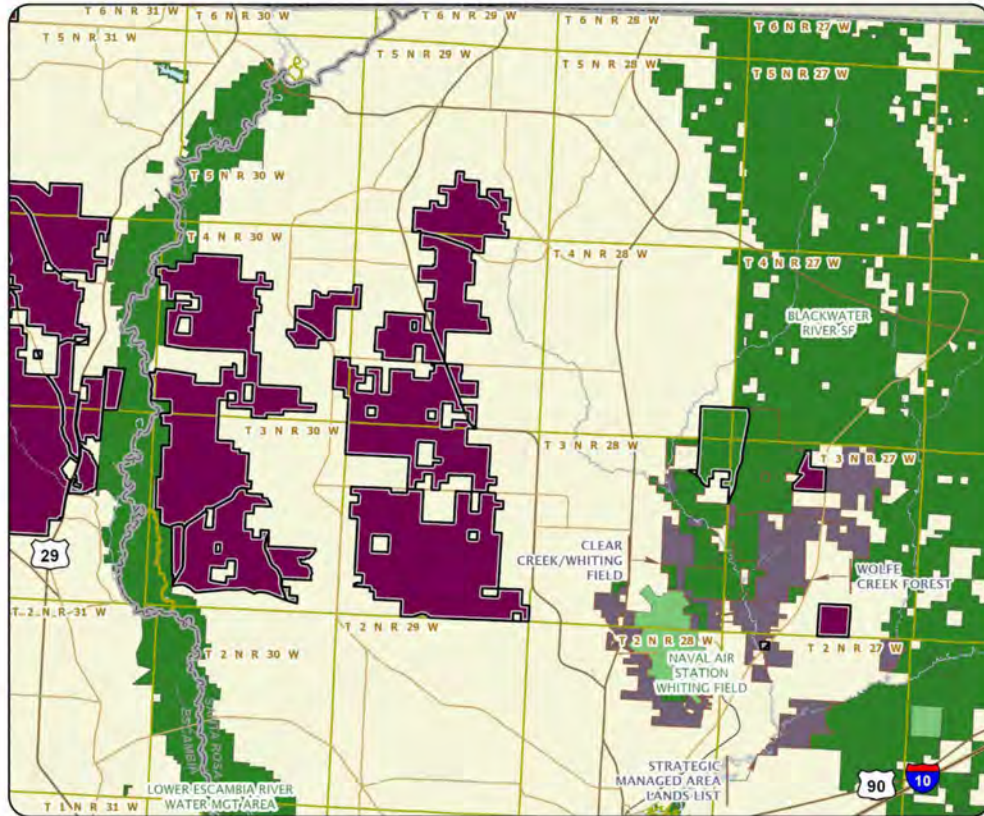




COASTAL HEADWATERS LONGLEAF FOREST: MAP 1

ESCAMBIA COUNTY





COASTAL HEADWATERS LONGLEAF FOREST: MAP 2

ESCAMBIA AND SANTA ROSA COUNTIES

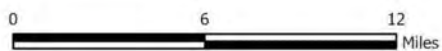


Exhibit G

Welannee Watershed Forest

Okaloosa County

Welannee Watershed Forest

Partnerships and Regional Incentives

Okaloosa County

<i>Year Added to Priority List</i>	<i>2020</i>
<i>Project Acres</i>	<i>8,378</i>
<i>Acquired Acres</i>	<i>0</i>
<i>Cost of Acquired Acres</i>	<i>\$0</i>
<i>Remaining Project Acres</i>	<i>8,378</i>
<i>2021 Assessed Value of Remaining Acres</i>	<i>\$9,797,192</i>

Purpose for State Acquisition

The Welannee Watershed Forest project will protect upper stretches of the Yellow River and provide connectivity to adjacent conservation lands such as the Yellow River Water Management Area, Blackwater River State Forest, Conecuh National Forest and Eglin Air Force Base. The project will also preserve habitat critical to native species such as the Gulf sturgeon, gopher tortoise, Florida black bear and alligator snapping turtle.

General Description

The Welannee Watershed Forest project consists of floodplain and adjacent upland habitat along the Yellow River, from the Florida-Alabama state line extending downstream for approximately 11.5 straight-line miles (estimated 15-16 river miles). The project contains two large timber tracts: the first is owned by H.T.L. Family Limited Partnership that stretches along both sides of the Yellow River from the north boundary of the Yellow River Water Management Area to the Alabama state line; the second tract is owned by U.I.L. Family Limited Partnership and is located on the east side of the Yellow River (which it borders for 3.6 miles). There is a small discontinuity within the northern tract at State Road 2. Blackwater River State Forest lies generally 0.5 to 2 miles west of the northern tract, which encompasses both banks of the Yellow River, although the forest and project share a small common border. The Yellow River Water Management Area lies immediately downstream of the northern tract (sharing a short common border) and directly across the Yellow River from the southern tract, which itself is restricted to the eastern side of the river.

The project is comprised of approximately 30 percent floodplain forest and wetlands and 70 percent uplands, most of which is planted pine plantation that has been historically planted with loblolly pine. The project contains more than 500 acres of longleaf pine and, as loblolly pine is harvested, the owners are transitioning suitable uplands to longleaf pine. The project is managed under a very active prescribed fire regime, with the longleaf burned on a two-year rotation and other upland areas burned on a three-year rotation. The facilities and equipment for the management of the project's forest resources are located



on-site. The project is managed not only for its timber resources, but also with the purpose of restoring longleaf pine habitat (particularly groundcover for wildlife). The property is managed to promote healthy populations of game wildlife such as whitetail deer and turkey.

Welannee Watershed Forest includes the same properties as the original Upper Yellow River Florida Forever project, which was removed from the priority list in 2011 when the land was no longer available for acquisition.

FNAI Element Occurrence Summary

<u>FNAI Elements</u>	<u>Score</u>
Gulf sturgeon	G3T2T3/S2?
Gopher tortoise	G3/S3
Florida black bear	G5T4/S4
Narrow pigtoe	G1G2/S1
Choctaw bean	G2G3/S1S2
Escambia map turtle	G2/S2
Alligator snapping turtle	G3/S3
Pine barrens treefrog	G4/S3
<i>little brown jug</i>	G5/S3
Eastern chipmunk	G5/S3

Public Use

As the project is proposed for less-than-fee acquisition, public access is not available. However, upon coordination with the landowner, the Florida Forest Service could provide Operation Outdoor Freedom events and/or the Florida Fish and Wildlife Conservation Commission could organize youth hunting opportunities.

Acquisition Planning

2020

On October 9, 2020, the Acquisition and Restoration Council added the Welannee Watershed Forest project to the Partnerships and Regional Incentives category of the 2021 Florida Forever Priority List. This less-than-fee project was proposed by Conservation Florida and consists of 11 parcels among two ownerships.

Coordination

Additional funding to assist with acquisition has been secured through federal grants from the Forest Legacy Program and the Regional Conservation Partnership Program. The program requires a non-federal match of 25 percent which could be met with Florida Forever funds.

Management Policy Statement

As a less-than-fee acquisition, the Welannee Watershed Forest project would be managed by the landowner as outlined in the conservation easement.





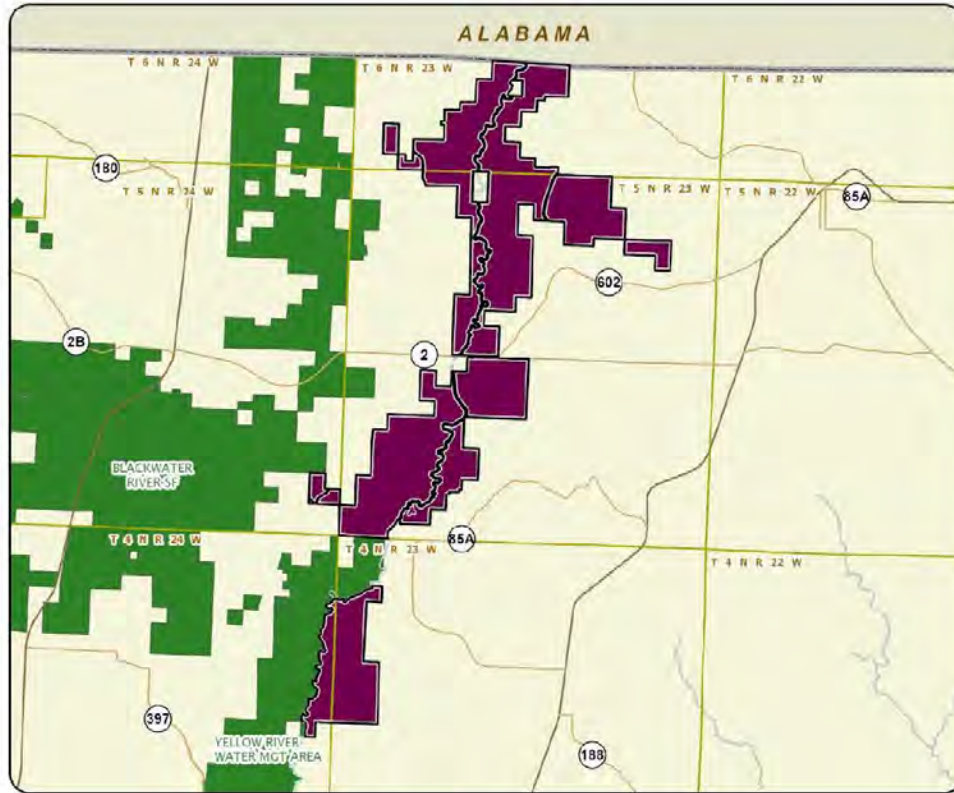
Manager(s)

If acquired as less-than-fee, management responsibility of Wetlannee Watershed Forest would remain with the landowner. Periodic monitoring of the site's management to confirm continued conservation easement compliance would be coordinated with the Division of State Lands.

Management Prospectus

The Division of State Lands will periodically monitor the conservation easement, while the primary management will be conducted by the property owner.





WELANEE WATERSHED FOREST

OKALOOSA COUNTY



Exhibit G

Wolfe Creek Forest

Santa Rosa County

Wolfe Creek Forest

Critical Natural Lands

Santa Rosa County

<i>Year Added to Priority List</i>	<i>2010</i>
<i>Project Acres</i>	<i>14,072</i>
<i>Acquired Acres</i>	<i>10,576</i>
<i>Cost of Acquired Acres</i>	<i>\$16,706,478</i>
<i>Remaining Project Acres</i>	<i>3,496</i>
<i>2021 Assessed Value of Remaining Acres</i>	<i>\$4,914,853</i>

Purpose for State Acquisition

The Wolfe Creek Forest project will protect numerous seepages and blackwater stream systems that are contiguous with the Blackwater River State Forest and other conservation lands. The project will conserve habitat for wildlife species such as the Florida black bear, little blue heron and southeastern weasel. The stream systems within this project support numerous rare aquatic species and are considered a focal habitat for the Florida Fish and Wildlife Conservation Commission's Comprehensive Wildlife Conservation Strategy. The project will provide the public with resource-based recreational opportunities and support the continuation of sustainably managed silviculture practices. Twelve archaeological sites, two of which are historic and 10 of which are prehistoric, are within the project.

General Description

Wolfe Creek Forest is a fee simple project in central Santa Rosa County, between Blackwater River State Forest to the east and Whiting Field Naval Air Station to the southwest. This project shares 5.7 miles of its southern boundary with two disjunct tracts of the state forest, forming a connection between all three tracts. Within it runs 35 miles of streams that feed into Big Coldwater Creek and Big Juniper Creek, two major tributaries of the Blackwater River.

Most of the site (82 percent) is intensively managed pine plantation within areas that historically supported upland pine forest and sandhills. The remainder of the site can be readily classified as natural communities. The most prominent and in the best condition are wetlands that include seepage and blackwater streams, associated bottomland forest, floodplain swamp and baygall. A few dome swamps occur with the plantations. Upland natural communities include a few small areas of mesic flatwoods and mesic hammock. The highest elevations (220 feet above mean sea level) occur in the northernmost and easternmost portions of the project. The lowest elevations (around 30 feet above sea level) are in the Coldwater Creek floodplain in the western part of the proposal. From County Road 191, the terrain generally slopes downward toward Big Juniper Creek. West of the road, the terrain slopes downward in a southwesterly direction toward Coldwater Creek.



The project is within a large gap in conservation lands between Whiting Field, outparcels of Blackwater River State Forest and the main tract of the state forest. According to the Florida Master Site File, the Wolfe Creek Forest tract holds 12 archaeological sites (two are historic and 10 are prehistoric); one of those sites is Wolfe Creek Mill.

FNAI Element Occurrence Summary

FNAI Elements	Score
Florida black bear	G5T4/S4
Westfall's clubtail	G2/S2
<i>small-flowered meadowbeauty</i>	G2G3/S2
<i>West Florida cowlily</i>	G5T2T3/S2
<i>hairy-peduncled beaksedge</i>	G3/S3
<i>Panhandle lily</i>	G3/S3
Alligator snapping turtle	G3/S3
Southeastern weasel	G5T4/S3?
Spiny softshell	G5/S3
Little blue heron	G5/S4

Public Use

The project has potential for a variety of forest-related recreational activities including canoeing, bird watching, hunting, hiking, horseback riding, biking, environmental education and photography. Once the project area is acquired and assigned to the Florida Forest Service, public access will be immediately provided for low-intensity recreation activities such as hiking, hunting and fishing.

Acquisition Planning

2010

On June 11, 2010, the Acquisition and Restoration Council added the Wolfe Creek Forest project to the Critical Natural Lands category. After a boundary change in 2010, the project had a combined estimated tax value of \$14,080,729.

2016

On November 3, 2016, DEP purchased a 626-acre restrictive easement to protect flight operations at nearby Whiting Field. The Florida Forest Service will manage the easement to restore and maintain native ecosystems.

2021

In 2021, DEP purchased 1,789.77 acres fee simple from The Trust for Public Land to be managed by the Florida Forest Service as an addition to Blackwater River State Forest.

In 2021, DEP also acquired 1,699.57 acres fee simple via donation.

On December 10, 2021, the Acquisition and Restoration Council approved an addition of 757 acres in Santa Rosa County to the project boundary.





2022

On October 14, 2022, the Acquisition and Restoration Council approved a boundary amendment proposed by The Trust for Public Land which added 3,173 acres to the project.

DEP completed two fee acquisitions totaling 4,352.68 acres that will be managed as part of Blackwater River State Forest.

Coordination

The Florida Forest Service is partnering with The Trust for Public Land and the U.S. Forest Service to acquire portions of this project through the U.S. Forest Legacy Program. The U.S. Department of Defense has been interested in partnering with the state for nearby lands.

Management Policy Statement

The primary land management goals are restoration, maintenance and protection in perpetuity of all native ecosystems; integration of compatible human uses; and insurance of long-term viability of populations and species considered rare or imperiled.

Manager(s)

The Florida Forest Service is recommended as manager of the project.

Management Prospectus

Qualifications for State Designation

The tract is dominated by silviculture, but many of the plantations have retained some of the understory including wiregrass, bluestem grass, and gallberry and yaupon holly. With thinning, prescribed fire and sustainable forestry management practices, the project could be quickly transformed from an area managed for silviculture to an area managed for its ecological and recreational benefits. With the removal of off-site pine species, replanting of longleaf pines, introduction of prescribed fire and sustainable forestry management practices, this project could be restored to a more natural state. The project's size and diversity make it desirable for use and management as a state forest.

Conditions Affecting Intensity of Management

Much of the project's upland pine and sandhill areas have been altered by silvicultural operations and will require restoration efforts. Areas where timber species are off-site species will necessitate removal as well as the restoration of native ground covers and canopy. Biotic surveys would be important to accomplish during the early part of plan development and implementation due to rare or imperiled species expected to occur in the project. Development of facilities would be kept to a level necessary to assure a high-quality experience and would be confined to areas of previous disturbance. Restoration efforts will focus on introduction of prescribed fire, removal of off-site pine species, exotic species treatment, restoration of native groundcovers and possibly wetland restoration. The level of management intensity and related management costs is expected to be moderate to high initially as the necessary information and resources to restore and manage this system as a state forest are obtained. Once this





information is obtained and resources are available, long-term management costs are expected to be moderate to maintain the project as a state forest.

Management Implementation, Public Access, Site Security and Protection of Infrastructure

Once the project area is acquired and assigned to the Florida Forest Service, public access will be immediately provided for low intensity outdoor resource-based recreation activities such as hiking, hunting and fishing. The Florida Forest Service proposes to manage the site as a state forest and will carry out management activities and coordinate public access and use. Initial and intermediate management efforts will concentrate on resource inventory, restoration of harvested areas, providing site security and assessing public and fire management access. Inventories of the site's natural resources and listed species will be conducted to provide a basis for the formulation of a management plan.

The roads throughout the property necessitate the development of a road plan to identify those roads that are to be utilized for access by the public and for administrative use; roads that are determined to be unnecessary for management or access should be closed. Steps will be taken to ensure that the public is provided appropriate access while simultaneously affording protection of sensitive resources.

Prior to collection of resource information, management proposals for this project are conceptual in nature. Long-range plans for this property will be directed toward the restoration of disturbed areas, maintenance of natural communities, and responsible public access. Disturbed sites will be restored to conditions that would be expected to occur in naturally functioning ecosystems. Off-site species will eventually be replaced with species that would be expected to occur naturally on those sites.

Very little of this project area has been burned by prescribed fire in recent years. Burning goals for this project will be to eventually establish an all-season prescribed burning program on all the fire dependent community types. Whenever possible, existing roads, black lines, foam lines and natural breaks will be utilized to contain and control fires.

Timber management activities will primarily consist of re-introducing longleaf pines, restoration harvests and improvement cuts aimed at restoring and perpetuating native ground covers. Stands will not have a targeted rotation age but will be managed to maintain a broad diversity of age classes. This will provide habitat for various native species and will enhance and maintain biodiversity.

The resource inventory will be used to identify areas that need special attention, protection or management and areas that are appropriate for recreational or administrative facilities. Development will be primarily located in disturbed areas and will be at a minimum required for management and public access and use. The Florida Forest Service will promote recreation and environmental education in the natural environment. It is anticipated that interpretive and user services recreation facilities will be developed and the use of low impact, rustic facilities will be stressed. High impact organized recreation areas are not planned due to possible adverse effects on the natural environment. Unnecessary roads, fire lines and hydrological disturbances will be abandoned and/or restored to the greatest extent practical.





Capital project expenditures are needed on this tract for prescribed fire, vegetative and hydrologic restoration, improved public access/use and facilities, both public and administrative. It is anticipated that some of the existing roads and trails may be used as multi-use trails for hiking, horseback riding and biking. This Management Prospectus is not intended to be an application for capital project funding; however, as more information is gathered, and an analysis of the site is completed, the Florida Forest Service intends to apply for capital project funds.

Revenue-generating Potential

Timber sales will be conducted as needed to improve or maintain desirable ecosystem conditions. These sales will primarily take place in planted pine stands and will provide a variable source of revenue dependent upon a variety of factors. Due to the existing condition and volume of the timber resources on the property, revenue generating potential of this project is expected to be moderately high.

Cooperators in Management Activities

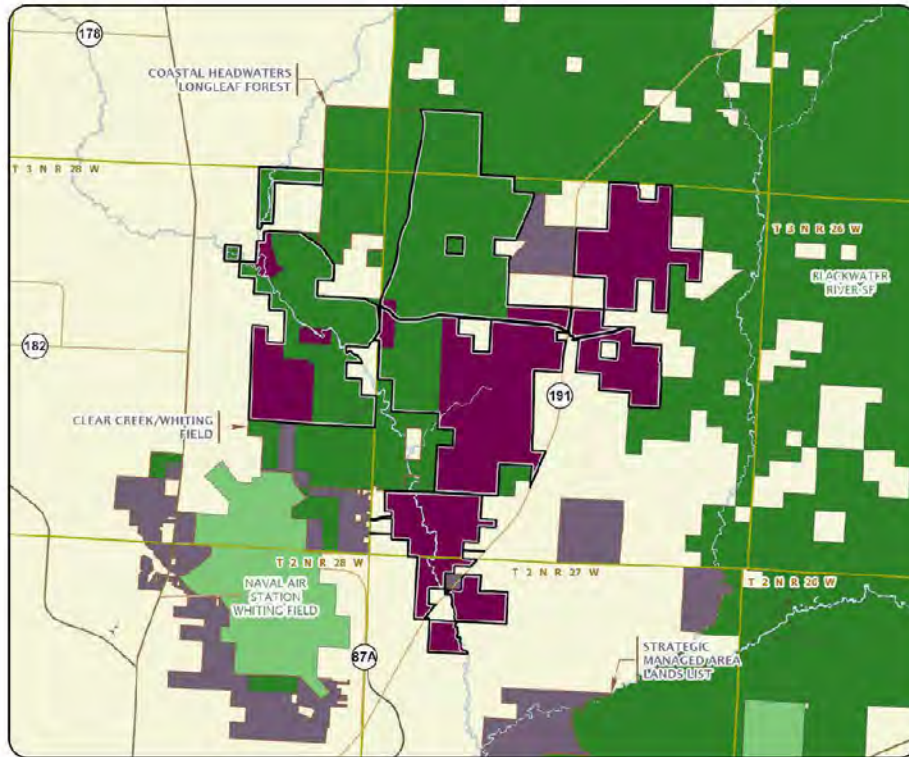
The Florida Forest Service will cooperate with and seek the assistance of other state agencies, local government entities and interested parties as appropriate.

Management Cost Summary

FFS	Startup	Recurring
Source of Funds	CARL	not provided
Salary (4 FTE)	\$132,141	not provided
Expense	\$315,000	not provided
OCO	\$188,600	not provided
TOTAL	\$635,741	not provided

Source: Management Prospectus as originally submitted





WOLFE CREEK FOREST

SANTA ROSA COUNTY

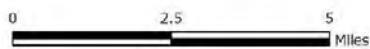


Exhibit H

Division of Historical Resources

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 CompliancePermits@dos.MyFlorida.com for project review information.

September 22, 2023

Emily Marsh

State Lands Management Planner

Florida Forest Service

Florida Department of Agriculture and Consumer Services

In response to your request on September 22, 2003, the Florida Master Site File lists 236 archeological sites, three standing structures, two historic bridges, two cemeteries and two resource groups recorded for Blackwater River State Forest's area located in within Santa Rosa and Okaloosa Counties.

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 CompliancePermits@dos.MyFlorida.com**

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

Sincerely,

Eman M. Vovsi, Ph.D.

Florida Master Site File

Eman.Vovsi@DOS.MyFlorida.com



AR=236
SS=3
CH=2
RG=2
BR=2
Total=245

Cultural Resource Roster

SiteID	Type	Site Name	Address	Additional Info	SHPO Eval	NR Status
OK00110	AR	KENNEDY BRIDGE				
OK00113	AR	BURNHILL PLANTATION MILL				
OK00118	AR	WEST HORSE CREEK				
OK00119	AR	EAST HORSE CREEK				
OK00120	AR	NORTH PANTHER CREEK				
OK00121	AR	MIDDLE PANTHER CREEK				
OK00122	AR	MARE CREEK				
OK00123	AR	LOWER PANTHER CREEK				
OK00127	AR	E H & A OKALOOSA 25	BEAVER CREEK		Not Eligible	
OK00128	AR	E H & A OKALOOSA 5	BLACKMAN		Not Eligible	
OK00479	AR	BOUNDARY LINE	MUNSON			
OK00507	AR	NN	Baker			
OK00508	AR	NN				
OK00509	AR	NN				
OK00510	AR	NN				
OK00511	AR	NN	Blackwater		Not Eligible	
OK00512	AR	NN				
OK00513	AR	NN				
OK00514	AR	NN				
OK00515	AR	NN				
OK00526	AR	LM90-58				
OK00527	AR	LM90-59				
OK00528	AR	LM90-60				
OK00529	AR	LM90-61				
OK00530	AR	LM90-62				
OK00531	AR	LM90-68	NONE < 4 MILES			
OK00532	AR	LM90-69				
OK00541	AR	LM 92-4	NONE <4 MI			
OK00542	AR	LM 92-516	NONE <4 MI			
OK00543	AR	LM 92-7	NONE <4 MI			
OK00544	AR	LM 92-8	NONE <4 MI			
OK00545	AR	LM 92-9/11	NONE <4 MI			
OK00546	AR	LM 92-10/12	NONE <4 MI			
OK00547	AR	LM 92-13	NONE <4 MI			
OK00548	AR	LM 92-14	NONE <4 MI			
OK00550	AR	LM 92-17	NONE <4 MI			
OK00551	AR	LM 92-18	NONE <4 MI			
OK00552	AR	LM 92-19	NONE <4 MI			
OK00553	AR	LM 92-20	NONE <4 MI			
OK00554	AR	LM 92-21	NONE <4 MI			
OK00559	AR	LM 92-26	NONE <4 MI			
OK00566	AR	LM 92-33	NONE <4 MI			
OK00567	AR	LM 92-34	NONE <4 MI			
OK00569	AR	LM 92-36	NONE <4 MI			

SiteID	Type	Site Name	Address	Additional Info	SHPO Eval	NR Status
OK00570	AR	LM 92-37	NONE <4 MI			
OK00571	AR	LM 92-38	NONE <4 MI			
OK00572	AR	LM 92-39	NONE <4 MI			
OK00573	AR	LM 92-40	NONE <4 MI			
OK00574	AR	LM 92-41	NONE <4 MI			
OK00575	AR	LM 92-42	NONE <4 MI			
OK00576	AR	LM 92-43	NONE <4 MI			
OK00577	AR	LM 92-44	NONE <4 MI			
OK00610	AR	LM 92-46	NONE <4 MI			
OK00611	AR	LM 92-47	NONE <4 MI			
OK00613	AR	LEFT FIELD HAMMOCK	NONE <4 MI			
OK00614	AR	LM 92-50	NONE <4 MI			
OK00615	AR	LM 92-51	NONE <4 MI			
OK00616	AR	LM 92-52	NONE <4 MI			
OK00617	AR	LM 92-53	NONE <4 MI			
OK00618	AR	LM 92-54/55	NONE <4 MI			
OK00619	AR	LM 92-56	NONE <4 MI			
OK00620	AR	LM 92-58	NONE <4 MI			
OK00621	AR	LM 92-59	NONE <4 MI			
OK00622	AR	LM 92-60	NONE <4 MI			
OK00624	AR	LM 92-61	NONE <4 MI			
OK00625	AR	LM 92-62	NONE <4 MI			
OK00626	AR	LM 92-63	NONE <4 MI			
OK00627	AR	LM 92-64	NONE <4 MI			
OK00628	AR	LM 92-65	NONE <4 MI			
OK00629	AR	LM 92-66	NONE <4 MI			
OK00630	AR	LM 92-67	NONE <4 MI			
OK00633	AR	LM 92-70	NONE <4 MI			
OK00634	AR	92-71	NONE <4 MI			
OK00684	AR	KARICK LAKE	NONE < 4 MILES			
OK00901	AR	P19-1	CANNON TOWN		Not Eligible	
OK00902	AR	P19-2	CANNON TOWN		Not Eligible	
OK00908	AR	SITCO #23	UNSP			
OK00909	AR	SITCO #24	UNSP			
OK00910	AR	SITCO #25	UNSP			
OK00911	AR	SITCO #26	UNSP			
OK00924	AR	SITCO #33	UNSP			
OK00925	AR	SITCO #34	UNSP			
OK00926	AR	SITCO #35	UNSP			
OK01659	AR	GUEST LAKE LANDING	HOLT			
OK01660	AR	FLORIDALE # 2	HOLT			
OK01661	AR	FLORIDALE # 3	HOLT			
OK02248	AR	Deer Toe Site	Munson		Not Eligible	
OK02695	AR	80K2695			Not Eligible	
OK02913	BR	Bone Creek Road / Bone Creek #3	Bone Creek Road / Bone Creek #3	1930 - FDOT #574009		
OK02915	BR	Peacock Road / Bailey Branch	Peacock Road / Bailey Branch	1935 - FDOT #574088		
OK02942	AR	Blackwater River Pillings	Baker		Insufficient Info	
OK02957	AR	Logging Railroad R17	Munson			
SR00078	AR	EH & A SANTA ROSA 25	MUNSON		Not Eligible	
SR00079	AR	CORAL SNAKE	BELANDVILLE		Not Eligible	

SiteID	Type	Site Name	Address	Additional Info	SHPO Eval	NR Status
SR00242	AR	NN				
SR00246	AR	NN	ROCK CREEK GV			
SR00247	AR	NN	ROCK CREEK			
SR00248	AR	NN	MCLELLAN		Not Eligible	
SR00249	AR	CAMP LOWERY	Unknown		Not Eligible	
SR00250	AR	NN				
SR00761	AR	SWEETWATER CREEK 1	MILTON			
SR00762	AR	SWEETWATER CREEK 2	MUNSON			
SR00789	AR	NN				
SR00797	AR	NN	MCLELLAN			
SR00801	AR	NN	MUNSON			
SR00803	AR	NN				
SR00808	AR	NN				
SR00809	AR	NN				
SR00810	AR	NN				
SR00811	AR	NN				
SR00812	AR	NN				
SR00813	AR	NN				
SR00814	AR	NN	unspecified		Not Eligible	
SR00815	AR	NN				
SR00816	AR	NN				
SR00817	AR	NN				
SR00818	AR	NN				
SR00822	AR	NN				
SR00823	AR	NN				
SR00824	AR	NN				
SR00825	AR	NN				
SR00826	AR	NN				
SR00828	AR	SITCO SURVEY 2	UNSP			
SR00829	AR	NN				
SR00832	AR	NN				
SR00833	AR	NN				
SR00834	AR	NN				
SR00835	AR	NN				
SR00836	AR	NN				
SR00837	AR	NN				
SR00838	AR	NN				
SR00839	AR	SWEETWATER CREEK MILL				
SR00849	AR	LONG BRANCH GV				
SR00865	AR	LM90-12				
SR00866	AR	LM90-13				
SR00868	AR	LM90-15				
SR00869	AR	LM90-16				
SR00870	AR	LM90-17				
SR00871	AR	LM90-18				
SR00872	AR	LM90-19				
SR00876	AR	LM90-23				
SR00877	AR	LM90-24				
SR00878	AR	LM90-25				
SR00879	AR	LM90-26	Munson			

SiteID	Type	Site Name	Address	Additional Info	SHPO Eval	NR Status
SR00880	AR	LM90-27				
SR00881	AR	LM90-28				
SR00882	AR	LM90-29	NONE < 4 MILES			
SR00883	AR	LM90-30				
SR00884	AR	LM90-31				
SR00885	AR	LM90-32				
SR00886	AR	LM90-33				
SR00887	AR	LM90-34				
SR00888	AR	LM90-35				
SR00889	AR	LM90-36				
SR00890	AR	LM90-37				
SR00891	CM	CONCORD/SIMMONS CEMETERY	unspecified	Established 188	Insufficient Info	
SR00892	AR	LM90-39				
SR00893	AR	LM90-40				
SR00894	AR	LM90-41				
SR00895	AR	LM90-42				
SR00896	AR	LM90-43				
SR00897	AR	LM90-44				
SR00903	AR	LM90-50				
SR00904	AR	LM90-51	nn		Not Eligible	
SR00905	AR	LM90-52	Unknown		Not Eligible	
SR00906	AR	LM90-53				
SR00907	AR	LM90-54	nn	Human Remains May Be Present	Not Eligible	
SR00910	AR	LM90-57				
SR00911	AR	LM90-63				
SR00912	AR	LM90-64				
SR00913	AR	LM90-65				
SR00915	AR	LM90-67				
SR00916	AR	LM90-70				
SR00918	AR	LM90-72				
SR00919	AR	LM90-73				
SR00922	AR	LM90-76				
SR00923	AR	LM90-77				
SR00927	AR	BW3-D				
SR01018	AR	SPRINGHILL TRANSECT 3	NONE <4 MI			
SR01019	AR	SPRINGHILL TRANSECT	NONE <4 MI			
SR01021	AR	MCLELLAN TRANSECT 3	NONE <4 MI			
SR01028	SS	MUNSON POST OFFICE				
SR01031	SS	SPEARS HOUSE		1908 Frame Vernacular c1885 Frame Vernacular c1920 Commercial		
SR01172	SS	FOREST SERVICE BUILDING			Insufficient Info	
SR01175	AR	FLORIDALE TRANSECT 1	NONE <4 MI			
SR01176	AR	FLORIDALE TRANSECT 2A	NONE <4 MI			
SR01177	AR	FLORIDALE TRANSECT 2B	NONE <4 MI			
SR01178	AR	MCLELLAN TRANSECT 2	NONE <4 MI			
SR01194	AR	LM91-1	nn		Not Eligible	
SR01196	AR	LM91-3	NONE <4 MI			
SR01197	AR	LM92-2	NONE <4 MI			
SR01198	AR	LM92-3	NONE <4 MI			
SR01199	AR	GUM LANDING HAMMOCK 1	NONE <4 MI			
SR01200	AR	GUM LANDING HAMMOCK 2	NONE <4 MI			

SiteID	Type	Site Name	Address	Additional Info	SHPO Eval	NR Status
SR01201	AR	GUM LANDING HAMMOCK 3	NONE <4 MI			
SR01215	AR	NN	NONE < 4 MILES			
SR01216	CM	SELLERSVILLE CEMETERY	UNSPECIFIED			
SR01217	AR	NN	NONE < 4 MILES			
SR01218	AR	NN	NONE < 4 MILES			
SR01221	AR	NN	NONE < 4 MILES			
SR01222	AR	NN	NONE < 4 MILES			
SR01226	AR	BIG JUNIPER MILL	NONE < 4 MILES			
SR01227	AR	REEDY CREEK DAM	NONE < 4 MILES			
SR01231	AR	COTTON'S CHOP MILL	NONE < 4 MILES			
SR01233	AR	ATES CREEK MILL	NONE < 4 MILES			
SR01237	AR	COON CAMP MILL	NONE < 4 MILES			
SR01240	AR	DIXON WASTEWAY	NONE < 4 MILES			
SR01243	AR	COLDWATER CREEK DAM	NONE < 4 MILES			
SR01264	AR	P11-1	BERRYDALE		Not Eligible	
SR01265	AR	P11-2	MCLELLAN		Not Eligible	
SR01266	AR	P11-3	nn		Not Eligible	
SR01267	AR	P16-1	nn		Not Eligible	
SR01269	AR	SITCO #1	ROCK CREEK			
SR01270	AR	SITCO #2	ALLENTOWN			
SR01271	AR	SITCO #3	ALLENTOWN			
SR01272	AR	SITCO #4	ALLENTOWN			
SR01273	AR	SITCO #5	ALLENTOWN			
SR01281	AR	S3-15-1	MCLELLAN		Not Eligible	
SR01285	AR	S3-21-1	SELLERSVILLE		Not Eligible	
SR01288	AR	SITCO #8	ALLENTOWN			
SR01290	AR	SITCO #10	ALLENTOWN			
SR01298	AR	SITCO #11	UNSP.			
SR01299	AR	J5SR001	UNSP.			
SR01300	AR	J5SR002	UNSP.			
SR01301	AR	SITCO #12	UNSP.			
SR01305	AR	SITCO #16	UNSP.			
SR01306	AR	SITCO #17	UNSP.			
SR01307	AR	SITCO #18	UNSP.			
SR01308	AR	SITCO #19	UNSP.			
SR01338	AR	WOLFTRAP BRANCH	NONE			
SR01339	AR	DARRYL	NONE			
SR01368	AR	NN	MILTON			
SR01382	AR	DIXON CREEK LOG DITCH	PACE			
SR01399	AR	JULIAN MILL	MILTON			
SR01501	AR	MILLER BLUFF WEST	PARKERVILLE			
SR01502	AR	HAROLD SE #2&3	PARKERVILLE			
SR01503	AR	WEST PITTS RIVER BOAT RAMP	PARKERVILLE			
SR01915	AR	SHOP	Harold			
SR01916	AR	Fish Hatchery Bridge	Holt		Not Eligible	
SR02125	RG	Louisville & Nashville (L&N) Railroad	Milton	Linear Resource - 1 Contrib Resources	Eligible	
SR02126	RG	Bagdad Lumber Co. Railroad	Milton	Linear Resource - 1 Contrib Resources	Not Eligible	
SR02143	AR	Herty Cup Cluster			Not Eligible	
SR02144	AR	Metal Cup Cluster			Not Eligible	
SR02600	AR	J22	Holt, FL			

Florida Master Site File

SiteID	Type	Site Name	Address	Additional Info	SHPO Eval	NR Status
SR02722	AR	Lighter (Not Dam				

Created: 9/22/2023



Total=65

Manuscript Roster

MS#	Title	Publication Information	Year
28095	Archaeological Trip Report for USDA-NRCS Environmental Quality Incentives Program; Okaloosa County, Florida; Deborah Vaughan	Report prepared for Florida State Historic Preservation Office. Manuscript on file at USDA Natural Resources Conservation Service, Gainesville, FL.	2022
28632	Cultural Resource Assessment Survey, Canoe Creek Solar, Okaloosa County, Florida 2022		2022
27069	Historic Architecture Survey for the Eglin AFB Facilities Inventory Task Order CR-16-00019 (Support Facilities): Okaloosa and Walton Counties, Florida.	Report 5 of 6. Report prepared by New South Associates, Stone Mountain, Georgia, under contract with Potomac-Hudson Engineering to support Air Force Civil Engineer Center cultural resources work with Eglin Air Force Base in Florida.	2020
27076	Historic Architecture Survey, Eglin Air Force Base, Okaloosa, Santa Rosa, and Walton Counties, Florida, Task Order CR-16-00020: Bridges	Report 6 of 6. Report prepared by New South Associates, Stone Mountain, Georgia, under contract with Potomac-Hudson Engineering to support Air Force Civil Engineer Center cultural resources work with Eglin Air Force Base in Florida.	2020
27084	Historic Architecture Survey for the Eglin AFB Facilities Inventory Task Order CR-16-00018 (Range Support): Bay, Gulf, Okaloosa, Santa Rosa, and Walton Counties, Florida	Report 4 of 6. Report prepared by New South Associates, Stone Mountain, Georgia, under contract with Potomac-Hudson Engineering to support Air Force Civil Engineer Center cultural Resources work with Eglin Air Force Base in Florida.	2020
27104	Historic Architecture Survey for the Eglin AFB Facilities Inventory Task Order 3 (Sheds & Shops): Bay, Gulf, Okaloosa, Santa Rosa, and Walton Counties, Florida.	Report 3 of 6. Report prepared by New South Associates, Stone Mountain, Georgia, under contract with Potomac-Hudson Engineering to support Air Force Civil Engineer Center Cultural Resources work with Eglin Air Force Base in Florida.	2020
27320	Historic Architecture Survey for the Eglin AFB Facilities Inventory Task Order 2 (Runways): Bay, Gulf, Okaloosa, Santa Rosa, and Walton Counties, Florida	Report 2 of 6. Report prepared by New South Associates, Stone Mountain, Georgia, under contract with Potomac-Hudson Engineering to support Air Force Civil Engineer Center cultural resources work with Eglin Air Force Base in Florida.	2020
27472	Cultural Resource Assessment Survey for the SR 8 (I-10) Project Development and Environment Study from SR 281 (Avalon Boulevard) to CR 189 (Log Lake Road), Santa Rosa and Okaloosa Counties, Florida	On file at SEARCH, Newberry. SEARCH Project No. T19172. FDOT FM Nos. 413062-4 and 413062-5.	2020
27820	A Phase I Cultural Resource Assessment of the 365.72-Acre FPL Blackwater River Solar Energy Center, Santa Rosa County, Florida	Prepared by VHB - Orlando, Florida	2020
27148	Eglin Air Force Base National Register of Historic Places Cold War Properties Evaluation, Four Volumes, Okaloosa and Walton Counties, Florida	Van Citters Historic Preservation, LLC, prepared for Eglin AFB]	2019
27154	Eglin Air Force Base National Register of Historic Places Cold War Properties Evaluation, Four Volumes; Okaloosa and Walton Counties, Florida	Van Citters Historic Preservation, LLC, prepared for Eglin AFB	2019
27311	Eglin Air Force Base National Register of Historic Places Cold War Properties Evaluation, Four Volumes, Okaloosa, Santa Rosa, and Walton Counties, Florida		2019
25001	Historic Architecture Survey for the Eglin AFB Facilities Inventory Task Order 1 (Utilities): Bay, Gulf, Okaloosa, Santa Rosa, and Walton Counties, Florida	Report 1 of 6. Report prepared by New South Associates, Stone Mountain, Georgia, under contract with Potomac-Hudson Engineering to support Air Force Civil Engineer Center cultural resources work with Eglin Air Force Base in Florida.	2018
23095	Treatment of Cultural Resources During the Sklar Exploration Company 3D Seismic Survey in Santa Rosa County, Florida, Including Portions of Blackwater River State Forest	Manuscript submitted to Florida Master Site File during Compliance and Review process, and submitted to Bureau of Archaeological Research under terms of 1A-32 permit.	2016
22584	Cultural Resource Assessment Survey in Support of the Proposed Replacement of the SR 4 Bridge (FDOT Bridge No. 570033) over the Blackwater River, Okaloosa County, Florida	on file at SEARCH, Newberry. SEARCH Project No. 3510 FDOT FM No.432828-1	2015

MS#	Title	Publication Information	Year
22656	250-Acre Phase I Archaeological Survey at NAS Whiting Field's NOLF Harold, Santa Rosa County, Florida	On File, Southeastern Archaeological Research, Jacksonville, FL, prepared for NAVFAC Southeast	2015
25029	Historic Resources Survey (Built Environment) Naval Air Station Whiting Field Santa Rosa County and Outlying Fields in Baldwin County, Alabama and Escambia County, Florida	Contract N69450-12-D-0073 Delivery Order 41	2015
20341	NAS Whiting Field Archaeological Survey, Santa Rosa County, Florida	Southeastern Archaeological Research, Inc. (SEARCH), Jacksonville, Florida, prepared for NAVFAC Southeast	2013
19441	Cultural Resource Survey for the Retrieval and Removal of Pre-Cut Submerged Timber in the Blackwater River, Santa Rosa and Okaloosa Counties, Application Number: 46-0311545-001-E1	Cockrell, Wilburn A, prepared for Gary and Kimberly Brielmayer	2012
18742	Treatment of Cultural Resources during a 3D Seismic Survey, by Fairways Exploration and Production, within Blackwater River State Forest, Florida	Manuscript Report submitted to Florida Division of Historical Resources, on file, Florida Master Site File, Tallahassee	2011
16938	Florida Gas Transmission Phase VIII Second Addendum Report Related to Report Nos. 2008-07035 and 2008-07036 (Goodwin & Coughlin et al. 2010)	R. Christopher Goodwin & Associates, Inc., New Orleans, LA. Prepared for Florida Gas Transmission Company, Houston, TX	2010
18035	Cultural Resource Assessment Survey Off-Highway Vehicle Trail Facilities Blackwater State Forest Santa Rosa County, Florida	Archaeological Consultants, Inc., 8110 Blaikie Court, Suite A, Sarasota, Florida 34240, November 2010, DBAR Permit No.: 1011.034	2010
16730	Archaeological Monitoring Results/Letter of Transmission Blackwater River State Forest Munson Borrow Pit	Blackwater River State Park, Holt	2009
15970	Blackwater River State Park, Campground Renovation , Santa Rosa County	Blackwater River State Park, Holt	2009
16532	Florida Gas Transmission Phase VIII First Addendum Report Related to Report Nos. 2008-07035 and 2008-07036	R. Christopher Goodwin & Associates, Inc., New Orleans, LA. Prepared for Florida Gas Transmission Company, Houston, TX	2009
17291	Phase I Cultural Resources Survey and Archaeological Inventory of Loops 2, 3, 4, 5, 6, and Greenfield 1 of the Florida Gas Transmission Company, LLC Phase VIII Expansion Project, Escambia, Santa Rosa, Okaloosa, Walton, Washington, Bay, Calhoun, Jackson,	R. Christopher Goodwin and Associates, Inc., New Orleans, LA. Submitted for Florida Gas Transmission Company, Houston, TX	2008
14097	Training Center Rd./N. end re-alignment, Blackwater River State Forest, Santa Rosa County	Blackwater River State Forest, Milton. Ms. on file, Florida Master Site File, Bureau of Historic Preservation, Division of Historical Resources, Department of State, Tallahassee	2007
14034	Sherman Kennedy Road Improvements at Panther Creek, Blackwater River State Forest	Blackwater River State Forest, Milton. Ms. on file, Florida Master Site File, Bureau of Historic Preservation, Division of Historical Resources, Department of State, Tallahassee	2007
14576	New Blackwater Forestry Center septic field line installation, Blackwater River State Forest, Santa Rosa County	Blackwater River State Forest, Milton. Ms. on file, Florida Master Site File, Bureau of Historic Preservation, Division of Historical Resources, Department of State, Tallahassee	2007
13073	Blackwater River State Forest, Brooks Pit Expansion, Okaloosa County	Blackwater River State Forest, Okaloosa County. Ms. on file, Department of State, Division of Historical Resources, Bureau of Historic Preservation, Florida Master Site File, Tallahassee	2006
11216	Phase I Cultural Resources Survey of the Proposed 319 Waiver Requests, Blackwater River State Forest, Okaloosa County, Florida	Archaeology Institute, University of West Florida, Pensacola. Report of Investigations 130, Submitted to Blackwater River State Forest, Milton	2005
11482	An Archaeological and Historical Survey of the Wilderness Landing Project Area in Okaloosa County, Florida	Sponsoring agent: Panamerican Consultants, Inc. Submitted to: Okaloosa County Board of County Commissioners	2005
12940	Phase I Cultural Resources Survey of the Equestrian Trailhead in the Blackwater River State Forest, Santa Rosa County, Florida	Report of Investigations Number 138. Archaeology Institute, The University of West Florida, Pensacola	2005
12943	Phase I Cultural Resources Survey of the Proposed Lawrence Cooley Road Paving Project in the Blackwater River State Forest Santa Rosa County, Florida	The University of West Florida Archaeology Institute, Pensacola. Report of Investigations Number 137. Performed for Blackwater Forestry Center, Milton	2005
13527	Phase I Cultural Resources Survey of the Proposed 2006 DEP 319 Grant Project in the Blackwater River State Forest Santa Rosa County, Florida	The University of West Florida Archaeology Institute, Pensacola. Report of Investigations Number 139. Ms. on file, Department of State, Division of Historical Resources, Bureau of Historic Preservation, Florida Master Site File, Tallahassee	2005

MS#	Title	Publication Information	Year
10552	Cultural Resource Assessment Survey of the Blackwater River State Forest Road Improvement Project	R.O.I. 118, University of West Florida, Pensacola. Submitted to Florida Department of Agriculture and Consumer Affairs, Milton	2004
9010	Cultural Resources Survey of the Northwest Florida Water Management District Sand and Gravel Aquifer Test Site In Blackwater River State Forest, Okaloosa County, Florida	Panamerican Consultants, Inc., Tampa. Submitted to Northwest Florida Water Management District	2003
13372	Survey of X-684 Cultural Resources Support Eglin Air Force Base, Okaloosa, Santa Rosa and Walton Counties, Florida	PRENTICE THOMAS AND ASSOCIATES REPORT OF INVESTIGATIONS NO. 783. SUBMITTED TO EGLIN AIR FORCE BASE, FLORIDA.	2003
7322	Addendum Cultural Resource Assessment Survey/ Section 106 Review; Replacement Cellular Tower: Santa 17096-003-024; 11650 Munson Highway, Santa Rosa County, Florida	ARCHAEOLOGICAL CONSULTANTS INC., SARASOTA. Submitted to URS CORPORATION, NICEVILLE	2002
7759	An Archaeological and Historical Survey of the Proposed PO-81 Spring Hill Tower Location in Santa Rosa County, Florida	PANAMERICAN CONSULTANTS, INC., TAMPA. Submitted to ATC ASSOCIATES, INC., MARIETTA, GA	2001
5930	A Cultural Resources Survey of the Lower Yellow River, Northwest Florida Water Management District Land in Okaloosa and Santa Rosa Counties, Florida	PANAMERICAN CONSULTANTS, INC., TAMPA. Submitted to NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT, HAVANA	2000
18552	Cultural Resource Assessment of a Portion of State Road 4, From the Santa Rosa County Line to State Road 189 in Baker.	Penton, Daniel T.1995 Cultural Resource Assessment of a Portion of State Road 4, From the Santa Rosa County Line to State Road 189 in Baker. PBS & J, Inc. Prepared for Florida DOT, District III, Chipley.	1995
4295	Phase I Cultural Resources Investigation of Proposed Access Roads Within the Florida Portion of the Proposed Florida Gas Transmission Company Phase III Expansion Project Pipeline Corridor [Draft Report]	R. Christopher Goodwin & Associates, Inc., New Orleans, LA. Submitted to Florida Gas Transmission Company, Houston, TX	1994
5402	An Architectural Inventory, Naval Air Station Whiting Field, Milton, Florida	US Army Corps of Engineers, Mobile District, Submitted to Naval Air Station, Whiting Field	1994
18545	Cultural Resource Assessment of a Segment of State Road 189, From State Road 4, in Baker, North Alabama State Line.	Penton, Daniel T.1994 Cultural Resource Assessment of a Segment of State Road 189, From State Road 4, in Baker, North Alabama State Line. PBS & J, Inc. Prepared for Florida DOT, District III, Chipley.	1994
4017	Eglin Air Force Base, Historic Preservation Plan, Technical Synthesis of Cultural Resources Investigations at Eglin Santa Rosa, Okaloosa, and Walton Counties, Florida, Vol. 1: Text; Vol. 2, Technical Synthesis and Appendices; Vol. 3: Folios.	Report of Investigations No. 192. New World Associates, Inc., Fort Walton Beach. Submitted to Eglin Air Force Base	1993
4382	Phase I C.R.I. of the 453.18 KM (281.60 MI) Florida Portion on the Proposed F.G.T. Company Phase III Expansion Project Vol. I-II; App.I Site Maps, III's; Photo's; A.II, Vol.I Materials by FMSF No.;A.III, VOL.II Mt. by Rec.no.; App.III Site Forms	R. Christopher Goodwin & Associates, Inc., New Orleans, LA. Submitted to Florida Gas Transmission Company, Houston, TX	1993
19836	Phase I Archaeological Survey of the Proposed Florida Gas Transmission Compressor Station 12 Upgrade		1993
3167	Historic Building Survey of Okaloosa County	Historic Property Associates, Inc., St. Augustine. Submitted to Okaloosa County Planning & Inspection, Crestview.	1992
3184	Archaeology and the Geographic Resource Analysis Support System: An Evaluation of a Soil Conservation Service Model of Archaeological Site Locations in Santa Rosa County, Florida	Report of Investigations #47, Archaeology Institute, University of West Florida, Pensacola. Submitted to Florida Division of Historical Resources, Bureau of Archaeological Research, Tallahassee.	1992
2974	Phase III Archaeological Survey of the Blackwater River Drainage	University of West Florida, Archaeology Institution Report of Investigations No. 42, Pensacola.	1991
2527	An archaeological survey of the proposed Tommy Steele Road Project, Okaloosa County, Florida	Manuscript prepared for Southeastern Engineers, Inc. by New World Research, Inc., Fort Walton Beach.	1990
2583	An archaeological survey of a proposed drill site in Blackwater State Forest, Santa Rosa County, Florida	New World Research, Inc., Fort Walton Beach.	1990
1531	Cultural resources survey of a proposed road and well pad, Santa Rosa County, Florida	New World Research. Ft. Walton Beach.	1988

MS#	Title	Publication Information	Year
1703	A Cultural Resources Investigation for the Yellow River Seismic Study: GIS Lines 1, 2 and 3A, Santa Rosa County, Florida [Confidential per F. S. 377.2409; in BHP/CR]	New World Research, Inc., Ft. Walton Beach.	1988
1704	An Archaeological Survey of the Teledyne Exploration Company Seismic Testing Lines DNR No. G-100-88, Blackwater State Forest, Santa Rosa and Okaloosa Counties. [Confidential per F. S. 377.2409; in BHP/CR]	New World Research, Ft. Walton Beach.	1988
2291	Cultural resources investigations at Eglin Air Force Base, Santa Rosa, Okaloosa and Walton Counties, Florida	New World Research, Inc., Ft. Walton Beach.	1984
825	Cultural resources reconnaissance Tenneco Oil Co. proposed drilling operations, Blackwater River State Forest, Okaloosa County, Florida	Ms. on file, FDHR/BAR.	1983
2287	Management summary, Phase I cultural resources survey, Eglin Air Force Base, Florida	New World Research, Inc., Ft. Walton Beach.	1983
298	Cultural Resources Survey of Alabama Electric Cooperative Inc., Munson Substation, Blackwater River State Forest	Ms. on file, FDHR/BAR.	1981
586	Cultural Resource Reconnaissance of the Baker-Beda Transmission Line, Okaloosa County, Florida and Covington County, Alabama	Ms. on file, FDHR/BAR.	1981
291	A Cultural Resources Survey of the Zachary-Fort Lauderdale Pipeline Construction and Conversion Project: Alternate II/Florida	Espey-Houston, Inc., TX.	1980
103	Archaeological Site Assessment Survey of the Cedar Creek RC&D Pproject	Letter Report Submitted to Pete Heard, Soil Conservation Service, Gainesville, from George W. Percy [FDHR/BAR], July 28, 1978.	1978
90	Blackwater River State Forest Well Survey	Report submitted to Houston Oil and Minerals Corporation. Florida State University, Tallahassee.	1977
502	Archaeological and Historical Survey of Two Proposed Borrow Pits	Letter to M. L. Chamberlain, April 15, 1977.	1977

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 June 2021)

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

A. Historic Property Definition

Historic properties include archaeological sites and historic structures as well as other types of resources. Chapter 267, Florida Statutes states: “*‘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 Chapter 267, F.S. and state policy related to historic properties, state agencies of the executive branch must provide the Division of Historical Resources (Division) the opportunity to comment on any undertakings with the potential to affect historic properties that are listed, or eligible for listing, in the National Register of Historic Places, 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 undertaking. (267.061(2)(a))

State agencies must consult with the Division when, as a result of state action or assistance, a historic property will be demolished or substantially altered in a way that will adversely affect the property. State agencies must take timely steps to consider feasible and prudent alternatives to the adverse effect. If no feasible or prudent alternatives exist, the state agency must take timely steps to avoid or mitigate the adverse effect. (267.061(2)(b))

State agencies must consult with Division to establish a program to locate, inventory and evaluate all historic properties under ownership or controlled by the agency. (267.061(2)(c))

State agencies are responsible for preserving historic properties under their control. State agencies are directed to use historic properties available to the agency when that use is consistent with the historic property and the agency’s mission. State agencies are also directed to pursue preservation of historic properties to support their continued use. (267.061(2)(d))

C. Statutory Authority

The full text of Chapter 267, F.S. and additional information related to the treatment of historic properties is available at:

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

D. Management Implementation

Although the Division sits on the Acquisition and Restoration Council and approves land management plans, these plans are conceptual and do not include detailed project information. Specific information for individual projects must be submitted to the Division for review and comment.

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. The Division's recommendations may include, but are not limited to: approval of the project as submitted, recommendation for a cultural resource assessment survey by a qualified professional archaeologist, and modifications to the proposed project to avoid or mitigate potential adverse effects.

Projects such as additions or alterations to historic structures as well as new construction must also be submitted to the Division for review. Projects involving structures fifty years of age or older must be submitted to the Division for a significance determination. In rare cases, structures under fifty years of age may be deemed historically significant.

Adverse effects to historic properties must be avoided when possible, and if avoidance is not possible, additional consultation with the Division is necessary to develop a mitigation plan. Furthermore, managers of state property should make preparations for locating and evaluating historic properties, both archaeological sites and historic structures.

E. Archaeological Resource Management (ARM) Training

The ARM Training Course introduces state land managers to the nature of archaeological resources, Florida archaeology, and the role of the Division in managing state-owned archaeological resources. Participants gain a better understanding of the requirements of state and federal laws with regard to protecting and managing archaeological sites on state managed lands. Participants also receive a certificate recognizing their ability to conduct limited monitoring activities in accordance with the Division's Review Procedure, thereby reducing the time and money spent to comply with state regulations. Additional information regarding the ARM Training Course is available at:

<https://dos.myflorida.com/historical/archaeology/education/arm-training-courses/>

F. Matrix for Ground Disturbance on State Lands

The matrix is a tool designed to help streamline the Division's Review Procedure. The matrix allows state land managers to make decisions about balancing ground disturbance and stewardship of historic resources. The matrix establishes types of undertakings that are either minor or major disturbances and then guides the land manager to consult the Division, conduct ARM-trained project monitoring, or proceed with the project. Additional information regarding the matrix is available at:

<https://dos.myflorida.com/historical/archaeology/education/dhr-matrix-for-ground-disturbance-on-state-lands/>

G. Human Remains Treatment

Chapter 872, *Florida Statutes* makes it illegal to willfully and knowingly disturb human remains. In the event human remains are discovered, cease all activity in the area that may disturb the remains. Leave the bones and nearby items in place. Immediately notify law enforcement or the local district medical examiner of the discovery and follow the provisions of Chapter 872, FS. Additional information regarding the treatment of human remains and cemeteries is available at:

<https://dos.myflorida.com/historical/archaeology/human-remains/>

<https://dos.myflorida.com/historical/archaeology/human-remains/abandoned-cemeteries/what-are-the-applicable-laws-and-regulations/>

H. Division of Historical Resources Review Procedure

Projects on state owned or controlled properties may submit projects to the Division for review using the streamlined State Lands Consultation Form. The form provides instructions to submit projects for review and outlines the necessary information for the Division to complete the review process. The State Lands Consultation Form and additional information about the Division's review process is available at:

<https://dos.myflorida.com/historical/preservation/compliance-and-review/state-lands-review/>

* * *

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

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

StateLandsCompliance@dos.myflorida.com

Phone: (850) 245-6333
Toll Free: (800) 847-7278
Fax: (850) 245-6435

Exhibit J

Soil Types Maps and Descriptions



Florida Forest Service

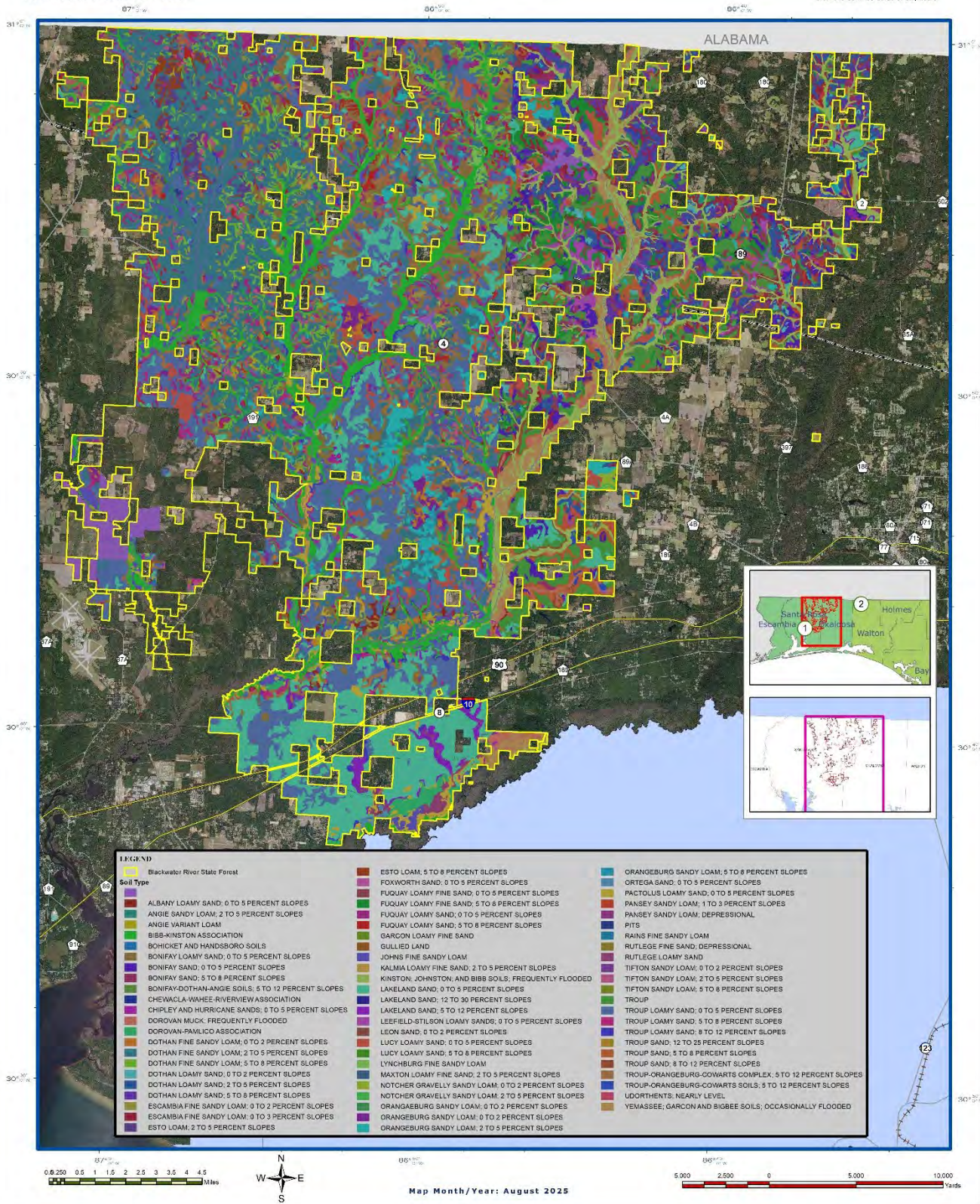
Blackwater River State Forest

Soils Map

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

DISCLAIMER:
This map was created by the Florida Forest Service for the purpose of providing information to the public. It is not intended to be used for legal 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. The Florida Forest Service is not responsible for any claims, including consequential claims, arising from the use of this map. The Florida Forest Service is not responsible for any claims, including consequential claims, arising from the use of this map.

Map Data:
The Florida Forest Service is not responsible for any claims, including consequential claims, arising from the use of this map.



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--Okaloosa County, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
2--Arents, 2 to 8 percent slopes	410						
		100	Arents	Taxon above family	2.0	5.0	8.0
3--Beaches	390						
		100	Beaches	Miscellaneous area	1.0	2.0	3.0
4--Chipley and Hurricane soils, 0 to 5 percent slopes	10,090						
		45	Chipley	Series	0.0	3.0	5.0
		40	Hurricane	Series	0.0	3.0	5.0
6--Dorovan muck, frequently flooded	35,330						
		92	Dorovan	Series	0.0	1.0	1.0
7--Duckston sand, frequently flooded	490						
		85	Duckston	Series	0.0	0.5	1.0
8--Foxworth sand, 0 to 5 percent slopes	6,240						
		95	Foxworth	Series	0.0	3.0	5.0
10--Kureb sand, 0 to 8 percent slopes	3,610						
		80	Kureb	Series	0.0	4.0	8.0
12--Lakeland sand, 0 to 5 percent slopes	213,830						
		80	Lakeland	Series	0.0	3.0	5.0
13--Lakeland sand, 5 to 12 percent slopes	21,670						
		90	Lakeland	Series	5.0	9.0	12.0
14--Lakeland sand, 12 to 30 percent slopes	6,090						
		94	Lakeland	Series	12.0	21.0	30.0

Component Legend--Okaloosa County, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
15—Leon sand, 0 to 2 percent slopes	2,840						
		80	Leon	Series	0.0	1.0	2.0
16—Lucy loamy sand, 0 to 5 percent slopes	8,020						
		85	Lucy	Series	0.0	3.0	5.0
17—Mandarin sand, 0 to 3 percent slopes	1,110						
		94	Mandarin	Series	0.0	1.0	2.0
18—Newhan-Corolla complex, 2 to 30 percent slopes	4,320						
		60	Newhan	Series	2.0	16.0	30.0
		30	Corolla	Series	2.0	16.0	30.0
20—Udorthents, nearly level	3,770						
		100	Udorthents	Taxon above family	0.0	1.0	2.0
21—Resola sand, 0 to 5 percent slopes	1,410						
		95	Resola	Series	0.0	3.0	5.0
22—Rutlege fine sand, depressional	4,450						
		93	Rutlege, depressional	Series	0.0	1.0	1.0
23—Troup sand, 0 to 5 percent slopes	34,090						
		80	Troup	Series	0.0	3.0	5.0
24—Troup sand, 5 to 8 percent slopes	12,020						
		88	Troup	Series	5.0	7.0	8.0
25—Troup sand, 8 to 12 percent slopes	14,870						
		85	Troup	Series	8.0	10.0	12.0
26—Troup sand, 12 to 25 percent slopes	3,780						
		87	Troup	Series	12.0	19.0	25.0
27—Urban land	7,190						
		75	Urban land	Miscellaneous area	0.0	3.0	5.0
34—Albany loamy sand, 0 to 5 percent slopes	2,170						
		87	Albany	Series	0.0	2.5	5.0

Component Legend--Okaloosa County, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
35—Angie sandy loam, 2 to 5 percent slopes	1,360						
		87	Angie	Series	2.0	4.0	5.0
36—Bonifay sand, 0 to 5 percent slopes	17,620						
		88	Bonifay	Series	0.0	3.0	5.0
37—Bonifay sand, 5 to 8 percent slopes	7,520						
		85	Bonifay	Series	5.0	7.0	8.0
38—Dothan loamy sand, 0 to 2 percent slopes	3,600						
		80	Dothan	Series	0.0	1.0	2.0
39—Dothan loamy sand, 2 to 5 percent slopes	23,380						
		80	Dothan	Series	2.0	3.0	5.0
40—Dothan loamy sand, 5 to 8 percent slopes	10,500						
		90	Dothan	Series	5.0	7.0	8.0
41—Fuquay loamy fine sand, 0 to 5 percent slopes	10,610						
		90	Fuquay	Series	0.0	3.0	5.0
42—Fuquay loamy fine sand, 5 to 8 percent slopes	6,950						
		90	Fuquay	Series	5.0	7.0	8.0
43—Kinston, Johnston, and Bibb soils, frequently flooded	44,700						
		31	Kinston	Series	0.0	1.0	2.0
		30	Johnston	Series	0.0	1.0	2.0
		29	Bibb	Series	0.0	1.0	2.0
44—Leefield-Stilson complex, 0 to 5 percent slopes	4,370						
		70	Leefield	Series	0.0	3.0	5.0
		20	Stilson	Series	0.0	3.0	5.0
45—Orangeburg sandy loam, 0 to 2 percent slopes	5,720						
		90	Orangeburg	Series	0.0	1.0	2.0
46—Orangeburg sandy loam, 2 to 5 percent slopes	5,520						
		90	Orangeburg	Series	2.0	3.0	5.0
47—Orangeburg sandy loam, 5 to 8 percent slopes	1,020						
		90	Orangeburg	Series	5.0	7.0	8.0

Component Legend--Okaloosa County, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
48—Pickney loamy sand, depressional	1,880						
		86	Pickney	Series	0.0	1.0	2.0
49—Bonifay-Dothan-Angle complex, 5 to 12 percent slopes	11,920						
		36	Bonifay	Series	5.0	9.0	12.0
		34	Dothan	Series	5.0	9.0	12.0
		21	Angle	Series	5.0	9.0	12.0
50—Yemassee, Garcon, and Bigbee soils, occasionally flooded	17,680						
		40	Yemassee	Series	0.0	1.0	2.0
		30	Garcon	Series	0.0	1.0	2.0
		22	Bigbee	Series	0.0	1.0	2.0
51—Troup-Orangeburg-Cowarts complex, 5 to 12 percent slopes	5,200						
		47	Troup	Series	5.0	9.0	12.0
		18	Orangeburg	Series	5.0	9.0	12.0
		15	Cowarts	Series	5.0	9.0	12.0
52—Escambia fine sandy loam, 0 to 3 percent slopes	13,200						
		94	Escambia	Series	0.0	2.0	3.0
53—Notcher gravelly sandy loam, 0 to 2 percent slopes	910						
		96	Notcher	Series	0.0	1.0	2.0
54—Notcher gravelly sandy loam, 2 to 5 percent slopes	410						
		89	Notcher	Series	2.0	4.0	5.0
55—Pansey sandy loam, depressional	560						
		95	Pansey	Series	1.0	1.0	2.0
56—Pansey sandy loam, 1 to 3 percent slopes	2,170						
		88	Pansey	Series	1.0	2.0	3.0
99—Water	8,450						
		100	Water	Miscellaneous area			

Component Legend--Okaloosa County, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
100--Waters of the Gulf of Mexico	33,560						
		100	Water of the gulf of mexico	Miscellaneous area			

Data Source Information

Soil Survey Area: Okaloosa County, Florida
Survey Area Data: Version 22, Aug 24, 2023

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)

Okaloosa County, Florida

Map Unit: 2—Arents, 2 to 8 percent slopes

Component: Arents (100%)

The Arents component makes up 100 percent of the map unit. Slopes are 2 to 8 percent. This component is on fills, rises on marine terraces on coastal plains. The parent material consists of altered 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 very 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 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: 3—Beaches**Component: Beaches (100%)**

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

Map Unit: 4—Chipley and Hurricane soils, 0 to 5 percent slopes**Component: Chipley (45%)**

The Chipley component makes up 45 percent of the map unit. Slopes are 0 to 5 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 30 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 4 percent. This component is in the F152AY320FL East Central Sandy Flat ecological site. 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: Hurricane (40%)

The Hurricane component makes up 40 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 33 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 1 percent. This component is in the F152AY320FL East Central Sandy Flat 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: Leon (10%)

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

Component: Rutlege (5%)

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

Map Unit: 6—Dorovan muck, frequently flooded

Component: Dorovan (92%)

The Dorovan component makes up 92 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 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 moderately 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 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 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: Leon (2%)

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

Component: Kinston (2%)

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

Component: Bibb (2%)

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

Component: Rutlege (2%)

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

Map Unit: 7—Duckston sand, frequently flooded

Component: Duckston (85%)

The Duckston component makes up 85 percent of the map unit. Slopes are 0 to 1 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy marine deposits. 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 very 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 6 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. This component is in the F152AY215FL Central Coastal Adjacent Flooded Interdunal Flats ecological site. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 14 within 30 inches of the soil surface.

Component: Rutlege (10%)

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

Component: Leon (5%)

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

Map Unit: 8—Foxworth sand, 0 to 5 percent slopes

Component: Foxworth (95%)

The Foxworth component makes up 95 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges, 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 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 June, July, August, September, October. Organic matter content in the surface horizon is about 1 percent. This component is in the F152AY305FL East Central Sandy Ridges, Rises, and Knolls ecological site. Nonirrigated land capability classification is 3s. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Lakeland (4%)

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

Component: Chipley (1%)

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

Map Unit: 10—Kureb sand, 0 to 8 percent slopes

Component: Kureb (80%)

The Kureb component makes up 80 percent of the map unit. Slopes are 0 to 8 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of eolian deposits or sandy fluvial or 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. This component is in the F152AY205FL Central Coastal Adjacent Dune ecological site. 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.

Component: Resota (10%)

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

Component: Mandarin (5%)

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

Component: Corolla (3%)

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

Component: Newhan (2%)

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

Map Unit: 12—Lakeland sand, 0 to 5 percent slopes

Component: Lakeland (80%)

The Lakeland component makes up 80 percent of the map unit. Slopes are 0 to 5 percent. This component is on hills, 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 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 3s. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Troup (6%)

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

Component: Foxworth (5%)

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

Component: Bonifay (5%)

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

Component: Albany (2%)

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

Component: Chipley (2%)

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

Map Unit: 13—Lakeland sand, 5 to 12 percent slopes

Component: Lakeland (90%)

The Lakeland component makes up 90 percent of the map unit. Slopes are 5 to 12 percent. This component is on hills, 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.

Component: Troup (5%)

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

Component: Fuquay (3%)

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

Component: Foxworth (2%)

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

Map Unit: 14—Lakeland sand, 12 to 30 percent slopes**Component: Lakeland (94%)**

The Lakeland component makes up 94 percent of the map unit. Slopes are 12 to 30 percent. This component is on hills 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 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.

Component: Foxworth (3%)

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

Component: Bonifay (3%)

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

Map Unit: 15—Leon sand, 0 to 2 percent slopes**Component: Leon (80%)**

The Leon component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods, marine terraces, 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 6 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. This component is in the F152AY320FL East Central Sandy Flat ecological site. Nonirrigated land capability classification is 4w. Irrigated 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: Leon, hydric (5%)

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

Component: Pottsburg (4%)

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

Component: Hurricane (4%)

Generated brief soil descriptions are created for major soil components. The Hurricane 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: Pickney (2%)

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

Component: Rutlege (2%)

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

Map Unit: 16—Lucy loamy sand, 0 to 5 percent slopes

Component: Lucy (85%)

The Lucy component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on interfluvies, 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 moderate. 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 2s. Irrigated land capability classification is 2s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Orangeburg (4%)

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

Component: Troup (4%)

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

Component: Bonneau (3%)

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

Component: Fuquay (2%)

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

Component: Rattlesnake Forks (2%)

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

Map Unit: 17—Mandarin sand, 0 to 3 percent slopes

Component: Mandarin (94%)

The Mandarin component makes up 94 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 30 inches during June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 1 percent. This component is in the F152AY320FL East Central Sandy Flat ecological site. 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: Leon (2%)

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

Component: Rutlege (2%)

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

Component: Resota (2%)

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

Map Unit: 18—Newhan-Corolla complex, 2 to 30 percent slopes

Component: Newhan (60%)

The Newhan component makes up 60 percent of the map unit. Slopes are 2 to 30 percent. This component is on dunes on marine terraces on coastal plains. The parent material consists of sandy eolian 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 very 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 0 percent. This component is in the F152AY205FL Central Coastal Adjacent Dune ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria. The soil has a slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 14 within 30 inches of the soil surface.

Component: Corolla (30%)

The Corolla component makes up 30 percent of the map unit. Slopes are 2 to 30 percent. This component is on marine terraces on 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 very high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 23 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 0 percent. This component is in the F152AY200FL Central Coastal Adjacent Ridges and Rises ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 13 within 30 inches of the soil surface.

Component: Duckston (10%)

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

Map Unit: 20—Udorthents, nearly level

Component: Udorthents (100%)

The Udorthents component makes up 100 percent of the map unit. Slopes are 0 to 2 percent. This component is on fills on marine terraces on coastal plains. The parent material consists of altered 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 moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 54 inches during June, July, August, September, October. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 8. 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: 21—Resota sand, 0 to 5 percent slopes

Component: Resota (95%)

The Resota component makes up 95 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 moderately well drained. Water movement in the most restrictive layer is very 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, February, March, April, December. Organic matter content in the surface horizon is about 1 percent. This component is in the F152AY200FL Central Coastal Adjacent Ridges and Rises ecological site. 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: Mandarin (5%)

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

Map Unit: 22—Rutlege fine sand, depressional

Component: Rutlege, depressional (93%)

The Rutlege, depressional component makes up 93 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 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 not flooded. It is frequently ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 6 percent. This component is in the F152AY350FL East Central Sandy Lowland ecological site. 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: Dorovan (4%)

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

Component: Leon (3%)

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

Map Unit: 23—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 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 excessively 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. 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: Blanton (10%)

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

Component: Foxworth (5%)

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

Component: Lakeland (5%)

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

Map Unit: 24—Troup sand, 5 to 8 percent slopes**Component: Troup (88%)**

The Troup component makes up 88 percent of the map unit. Slopes are 5 to 8 percent. This component is on ridges, 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 excessively 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 4s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Lakeland (4%)

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

Component: Bonifay (4%)

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

Component: Lucy (4%)

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

Map Unit: 25—Troup sand, 8 to 12 percent slopes**Component: Troup (85%)**

The Troup component makes up 85 percent of the map unit. Slopes are 8 to 12 percent. This component is on marine terraces, ridges, 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. 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: Bonifay (5%)

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

Component: Fuquay (4%)

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

Component: Lucy (3%)

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

Component: Lakeland (3%)

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

Map Unit: 26—Troup sand, 12 to 25 percent slopes**Component: Troup (87%)**

The Troup component makes up 87 percent of the map unit. Slopes are 12 to 25 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. 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 7e. 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: Cowarts (10%)

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

Component: Dothan (3%)

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

Map Unit: 27—Urban land

Component: Urban land (75%)

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

Component: Troup (5%)

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

Component: Foxworth (5%)

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

Component: Kureb (5%)

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

Component: Lakeland (5%)

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

Component: Bonifay (5%)

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

Map Unit: 34—Albany loamy sand, 0 to 5 percent slopes

Component: Albany (87%)

The Albany component makes up 87 percent of the map unit. Slopes are 0 to 5 percent. This component is on — Error in Exists On —. 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 low. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 21 inches during January, February, March, December. 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: Fuquay (5%)

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

Component: Troup (5%)

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

Component: Plummer (3%)

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

Map Unit: 35—Angie sandy loam, 2 to 5 percent slopes

Component: Angie (87%)

The Angie component makes up 87 percent of the map unit. Slopes are 2 to 5 percent. This component is on knolls on marine terraces on coastal plains. The parent material consists of loamy and clayey 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 low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 48 inches during January, February, March, April, December. 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: Norfolk (5%)

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

Component: Dothan (5%)

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

Component: Orangeburg (3%)

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

Map Unit: 36—Bonifay sand, 0 to 5 percent slopes

Component: Bonifay (88%)

The Bonifay component makes up 88 percent of the map unit. Slopes are 0 to 5 percent. This component is on — Error in Exists On —. 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 57 inches during January, February, March, April, May, 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: Troup (5%)

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

Component: Foxworth (4%)

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

Component: Lakeland (3%)

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

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

The Bonifay 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 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 54 inches during January, February. 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: Troup (5%)

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

Component: Foxworth (5%)

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

Component: Lakeland (5%)

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

Map Unit: 38—Dothan loamy sand, 0 to 2 percent slopes**Component:** Dothan (80%)

The Dothan component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on interfluvies on coastal plains. The parent material consists of 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 41 inches during January, February, March. Organic matter content in the surface horizon is about 0 percent. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Clarendon (5%)

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

Component: Orangeburg (5%)

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

Component: Cowarts (5%)

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

Component: Fuquay (5%)

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

Map Unit: 39—Dothan loamy sand, 2 to 5 percent slopes

Component: Dothan (80%)

The Dothan component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on interfluvies on coastal plains. The parent material consists of 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 41 inches during January, February, March. Organic matter content in the surface horizon is about 0 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Fuquay (8%)

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

Component: Cowarts (5%)

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

Component: Nankin (5%)

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

Component: Clarendon (2%)

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

Map Unit: 40—Dothan loamy sand, 5 to 8 percent slopes

Component: Dothan (90%)

The Dothan component makes up 90 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 loamy and clayey 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 48 inches during January, February, March, April. Organic matter content in the surface horizon is about 1 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: Orangeburg (4%)

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

Component: Fuquay (4%)

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

Component: Faceville (2%)

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

Map Unit: 41—Fuquay loamy fine sand, 0 to 5 percent slopes

Component: Fuquay (90%)

The Fuquay component makes up 90 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges, coastal plains. The parent material consists of fine-loamy fluviomarine deposits derived from sedimentary rock. 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 48 inches during January, February, March, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2s. Irrigated land capability classification is 2s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Bonifay (7%)

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

Component: Dothan (3%)

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

Map Unit: 42—Fuquay loamy fine sand, 5 to 8 percent slopes**Component: Fuquay (90%)**

The Fuquay component makes up 90 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 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 60 inches during January, February, March, 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: Troup (8%)

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

Component: Leefield (2%)

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

Map Unit: 43—Kinston, Johnston, and Bibb soils, frequently flooded**Component: Kinston (31%)**

The Kinston component makes up 31 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 loamy 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 moderately high. Available water to a depth of 60 inches (or restricted depth) is 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, November, December. Organic matter content in the surface horizon is about 4 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: Johnston (30%)

The Johnston 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 loamy and sandy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is 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 frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, November, December. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Bibb (29%)

The Bibb component makes up 29 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 loamy and 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 moderately high. Available water to a depth of 60 inches (or restricted depth) is high. 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, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Rutlege (10%)

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

Map Unit: 44—Leefield-Stilson complex, 0 to 5 percent slopes**Component: Leefield (70%)**

The Leefield component makes up 70 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 23 inches during January, February, March, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2w. 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: Stilson (20%)

The Stilson component makes up 20 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 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 33 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2s. 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: Dothan (4%)

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

Component: Bonifay (3%)

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

Component: Fuquay (3%)

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

Map Unit: 45—Orangeburg sandy loam, 0 to 2 percent slopes

Component: Orangeburg (90%)

The Orangeburg component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on rises on marine terraces on coastal plains. The parent material consists of loamy and clayey 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 moderate. 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 1. 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: Lucy (4%)

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

Component: Red Bay (3%)

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

Component: Dothan (3%)

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

Map Unit: 46—Orangeburg sandy loam, 2 to 5 percent slopes**Component:** Orangeburg (90%)

The Orangeburg component makes up 90 percent of the map unit. Slopes are 2 to 5 percent. This component is on ridges, coastal plains. The parent material consists of loamy and clayey fine-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 moderate. 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 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Dothan (5%)

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

Component: Faceville (3%)

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

Component: Lucy (2%)

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

Map Unit: 47—Orangeburg sandy loam, 5 to 8 percent slopes**Component:** Orangeburg (90%)

The Orangeburg component makes up 90 percent of the map unit. Slopes are 5 to 8 percent. This component is on ridges, coastal plains. The parent material consists of loamy and clayey marine deposits derived from sedimentary rock. 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 moderate. 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 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Dothan (6%)

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

Component: Lucy (4%)

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

Map Unit: 48—Pickney loamy sand, depressional**Component:** Pickney (86%)

The Pickney component makes up 86 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 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, November, December. Organic matter content in the surface horizon is about 7 percent. This component is in the F152AY350FL East Central Sandy Lowland ecological site. 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: Dorovan (9%)

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

Component: Leon (5%)

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

Map Unit: 49—Bonifay-Dothan-Angle complex, 5 to 12 percent slopes

Component: Bonifay (36%)

The Bonifay component makes up 36 percent of the map unit. Slopes are 5 to 12 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 51 inches during January, February, March, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. 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: Dothan (34%)

The Dothan component makes up 34 percent of the map unit. Slopes are 5 to 12 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of loamy and clayey 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 48 inches during January, February, March, April. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. 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: Angie (21%)

The Angie component makes up 21 percent of the map unit. Slopes are 5 to 12 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of loamy and clayey 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 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 48 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4e. 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: Troup (3%)

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

Component: Lakeland (3%)

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

Component: Orangeburg (3%)

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

Map Unit: 50—Yemassee, Garcon, and Bigbee soils, occasionally flooded

Component: Yemassee (40%)

The Yemassee component makes up 40 percent of the map unit. Slopes are 0 to 2 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 moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 15 inches during January, February, March, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2w. 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: Garcon (30%)

The Garcon 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 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 moderate. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 23 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2w. 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: Bigbee (22%)

The Bigbee component makes up 22 percent of the map unit. Slopes are 0 to 2 percent. This component is on stream terraces on marine terraces on coastal plains. The parent material consists of sandy fluviomarine 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 low. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 57 inches during January, February, March. 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: Kinston (2%)

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

Component: Bibb (2%)

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

Component: Rutlege (2%)

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

Component: Johnston (2%)

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

Map Unit: 51—Troup-Orangeburg-Cowarts complex, 5 to 12 percent slopes

Component: Troup (47%)

The Troup component makes up 47 percent of the map unit. Slopes are 5 to 12 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. 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: Orangeburg (18%)

The Orangeburg component makes up 18 percent of the map unit. Slopes are 5 to 12 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of loamy and clayey 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 moderate. 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 4e. 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: Cowarts (15%)

The Cowarts component makes up 15 percent of the map unit. Slopes are 5 to 12 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of 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 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. 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 4e. 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: Dothan (10%)

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

Component: Bonifay (7%)

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

Component: Chipley (3%)

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

Map Unit: 52—Escambia fine sandy loam, 0 to 3 percent slopes

Component: Escambia (94%)

The Escambia component makes up 94 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 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 high. 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, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2w. 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: Stilson (2%)

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

Component: Fuquay (2%)

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

Component: Dothan (2%)

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

Map Unit: 53—Notcher gravelly sandy loam, 0 to 2 percent slopes**Component:** Notcher (96%)

The Notcher component makes up 96 percent of the map unit. Slopes are 0 to 2 percent. This component is on rises on marine terraces on coastal plains. The parent material consists of 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 42 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 1. 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: Angie (2%)

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

Component: Escambia (2%)

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

Map Unit: 54—Notcher gravelly sandy loam, 2 to 5 percent slopes**Component:** Notcher (89%)

The Notcher component makes up 89 percent of the map unit. Slopes are 2 to 5 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 42 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2e. 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: Angie (8%)

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

Component: Escambia (3%)

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

Map Unit: 55—Pansey sandy loam, depressional

Component: Pansey (95%)

The Pansey component makes up 95 percent of the map unit. Slopes are 1 to 2 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of loamy 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 moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Paleaquults, clayey substratum (5%)

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

Map Unit: 56—Pansey sandy loam, 1 to 3 percent slopes

Component: Pansey (88%)

The Pansey component makes up 88 percent of the map unit. Slopes are 1 to 3 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of loamy 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 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, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Escambia (10%)

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

Component: Dothan (2%)

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

Map Unit: 100—Waters of the Gulf of Mexico

Component: Water of the Gulf of Mexico (100%)

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

Data Source Information

Soil Survey Area: Okaloosa County, Florida
Survey Area Data: Version 22, Aug 24, 2023

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—Santa Rosa 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 loamy sand, 0 to 5 percent slopes	5,460						
		87	Albany	Series	0.0	2.5	5.0
2—Angle variant loam	1,700						
		85	Angle variant	Variant	0.0	1.0	2.0
3—Bibb-Kinston association	51,450						
		50	Bibb	Series	0.0	1.0	2.0
		25	Kinston	Series	0.0	0.8	2.0
4—Bohicket and Handsboro soils	7,340						
		80	Bohicket	Series	0.0	0.2	0.5
		20	Handsboro	Series	0.0	0.2	0.5
5—Bonifay loamy sand, 0 to 5 percent slopes	27,610						
		80	Bonifay	Series	0.0	3.0	5.0
6—Chewacla-Wahee-Riverview association	20,440						
		36	Chewacla	Series	0.0	1.0	2.0
		34	Wahee, non-hydric	Series	0.0	1.0	2.0
		20	Riverview	Series	0.0	1.0	2.0
7—Dorovan-Pamlico association	17,120						
		50	Dorovan	Series	0.0	0.5	1.0
		30	Pamlico	Series	0.0	0.5	1.0
8—Dothan fine sandy loam, 0 to 2 percent slopes	13,790						
		85	Dothan	Series	0.0	1.0	2.0
9—Dothan fine sandy loam, 2 to 5 percent slopes	48,870						
		83	Dothan	Series	2.0	4.0	5.0

Component Legend--Santa Rosa County, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
10--Dothan fine sandy loam, 5 to 8 percent slopes	9,800						
		88	Dothan	Series	5.0	7.0	8.0
11--Escambia fine sandy loam, 0 to 2 percent slopes	2,680						
		80	Escambia	Series	0.0	1.0	2.0
12--Esto loam, 2 to 5 percent slopes	1,820						
		82	Esto	Series	2.0	4.0	5.0
13--Esto loam, 5 to 8 percent slopes	800						
		82	Esto	Series	5.0	7.0	8.0
14--Fuquay loamy sand, 0 to 5 percent slopes	20,190						
		80	Fuquay	Series	0.0	3.0	5.0
15--Fuquay loamy sand, 5 to 8 percent slopes	4,070						
		80	Fuquay	Series	5.0	7.0	8.0
16--Garcon loamy fine sand	750						
		85	Garcon	Series	0.0	0.8	2.0
17--Gullied land	850						
		100	Gullied land	Miscellaneous area	5.0	10.0	15.0
18--Johns fine sandy loam	6,240						
		85	Johns	Series	0.0	1.0	2.0
19--Kalmia loamy fine sand, 2 to 5 percent slopes	1,430						
		83	Kalmia	Series	2.0	4.0	5.0
20--Kureb sand, 0 to 8 percent slopes	3,280						
		80	Kureb	Series	0.0	4.0	8.0
21--Lakeland sand, 0 to 5 percent slopes	95,390						
		80	Lakeland	Series	0.0	3.0	5.0
22--Lakeland sand, 5 to 12 percent slopes	7,930						
		90	Lakeland	Series	5.0	9.0	12.0
23--Lakeland sand, 12 to 30 percent slopes	1,370						
		83	Lakeland	Series	12.0	21.0	30.0

Component Legend--Santa Rosa County, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
24—Leon sand 0 to 2 percent slopes	5,560						
		80	Leon	Series	0.0	1.0	2.0
25—Lucy loamy sand, 0 to 5 percent slopes	23,300						
		85	Lucy	Series	0.0	3.0	5.0
26—Lucy loamy sand, 5 to 8 percent slopes	600						
		85	Lucy	Series	5.0	7.0	8.0
27—Lynchburg fine sandy loam	4,300						
		83	Lynchburg	Series	0.0	1.0	2.0
28—Maxton loamy fine sand, 2 to 5 percent slopes	490						
		85	Maxton	Series	2.0	4.0	5.0
29—Mulat loamy fine sand	4,890						
		85	Mulat	Series	0.0	0.2	1.0
30—Orangeburg sandy loam, 0 to 2 percent slopes	12,900						
		90	Orangeburg	Series	0.0	1.0	2.0
31—Orangeburg sandy loam, 2 to 5 percent slopes	9,250						
		90	Orangeburg	Series	2.0	3.0	5.0
32—Orangeburg sandy loam, 5 to 8 percent slopes	1,280						
		90	Orangeburg	Series	5.0	7.0	8.0
33—Ortega sand, 0 to 5 percent slopes	5,460						
		85	Ortega	Series	0.0	3.0	5.0
34—Pactolus loamy sand, 0 to 5 percent slopes	21,290						
		85	Pactolus	Series	0.0	3.0	5.0
35—Pickney loamy sand	3,780						
		80	Pickney	Series	0.0	0.8	2.0
36—Pits	790						
		100	Pits	Miscellaneous area	0.0	2.0	4.0
37—Rains fine sandy loam	3,470						
		85	Rains	Series	0.0	1.0	2.0
38—Red Bay sandy loam, 0 to 2 percent slopes	18,200						
		85	Red bay	Series	0.0	1.0	2.0

Component Legend—Santa Rosa County, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
39—Red Bay sandy loam, 2 to 5 percent slopes	600						
		80	Red bay	Series	2.0	4.0	5.0
40—Rutlege loamy sand	12,950						
		82	Rutlege	Series	0.0	0.9	2.0
41—Tifton sandy loam, 0 to 2 percent slopes	790						
		85	Tifton	Series	0.0	1.0	2.0
42—Tifton sandy loam, 2 to 5 percent slopes	3,440						
		85	Tifton	Series	2.0	4.0	5.0
43—Tifton sandy loam, 5 to 8 percent slopes	300						
		85	Tifton	Series	5.0	7.0	8.0
44—Troup loamy sand, 0 to 5 percent slopes	112,530						
		85	Troup	Series	0.0	3.0	5.0
45—Troup loamy sand, 5 to 8 percent slopes	10,870						
		85	Troup	Series	5.0	7.0	8.0
46—Troup loamy sand, 8 to 12 percent slopes	5,750						
		85	Troup	Series	8.0	10.0	12.0
47—Troup-Orangeburg-Cowarts complex, 5 to 12 percent slopes	25,570						
		39	Troup	Series	5.0	9.0	12.0
		20	Orangeburg	Series	5.0	9.0	12.0
		15	Cowarts	Series	5.0	9.0	12.0
48—Urban land	1,000						
		80	Urban land	Miscellaneous area	0.0	3.0	5.0
49—Newhan-Corolla complex, 2 to 30 percent slopes	570						
		60	Newhan	Series	2.0	16.0	30.0
		30	Corolla	Series	2.0	16.0	30.0
50—Beaches	180						
		90	Beaches	Miscellaneous area	1.0	3.0	5.0
51—Meadowbrook fine sand, 0 to 2 percent slopes	3,510						
		80	Meadowbrook	Series	0.0	1.0	2.0

Component Legend--Santa Rosa County, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
52—Goldhead fine sand	3,230						
		85	Goldhead	Series	0.0	0.5	1.0
53—Arents, moderately wet	200						
		100	Arents	Taxon above family	0.0	3.0	5.0
54—Foxworth sand, 0 to 5 percent slopes	2,170						
		95	Foxworth	Series	0.0	3.0	5.0
55—Corolla-Duckston sands, gently undulating, flooded	780						
		50	Corolla	Series	1.0	3.0	5.0
		35	Duckston	Series	0.0	0.5	1.0
99—Water	6,550						
		100	Water	Miscellaneous area			
100—Waters of the Gulf of Mexico	75,070						
		100	Waters of the gulf of mexico	Miscellaneous area			

Data Source Information

Soil Survey Area: Santa Rosa County, Florida
 Survey Area Data: Version 20, Aug 24, 2023

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)

Santa Rosa County, Florida

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

Component: Albany (87%)

The Albany component makes up 87 percent of the map unit. Slopes are 0 to 5 percent. This component is on — Error in Exists On —. 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 low. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 21 inches during January, February, March, December. 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: Fuquay (5%)

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

Component: Troup (5%)

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

Component: Plummer (3%)

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

Map Unit: 2—Angle variant loam**Component:** Angle variant (85%)

The Angle variant component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on rises on marine terraces on coastal plains. The parent material consists of loamy and clayey 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 low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is high. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 39 inches during January, February, March, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 2w. 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: Lynchburg (5%)

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

Component: Johns (5%)

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

Component: Escambia (5%)

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

Map Unit: 3—Bibb-Kinston association

Component: Bibb (50%)

The Bibb 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 loamy and 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 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 12 inches during January, February, March, April, May, December. 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: Kinston (25%)

The Kinston component makes up 25 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 loamy 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 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, November, December. 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: Rutlege (10%)

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

Component: Pamlico (5%)

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

Component: Johns (4%)

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

Component: Escambia (3%)

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

Component: Pactolus (3%)

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

Map Unit: 4—Bohicket and Handsboro soils

Component: Bohicket (80%)

The Bohicket component makes up 80 percent of the map unit. Slopes are 0 to 1 percent. This component is on tidal marshes on marine terraces on coastal plains. The parent material consists of loamy and clayey 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 low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is moderate. This soil is frequently 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 25 percent. This component is in the F152AY220FL Central Coastal Adjacent Tidal Zones ecological site. Nonirrigated land capability classification is 8. This soil meets hydric criteria. The soil has a strongly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 30 within 30 inches of the soil surface.

Component: Handsboro (20%)

The Handsboro component makes up 20 percent of the map unit. Slopes are 0 to 1 percent. This component is on tidal marshes on marine terraces on coastal plains. The parent material consists of herbaceous organic material over clayey 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 moderate. This soil is frequently 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 36 percent. This component is in the F152AY220FL Central Coastal Adjacent Tidal Zones ecological site. Nonirrigated land capability classification is 8. This soil meets hydric criteria. The soil has a strongly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 30 within 30 inches of the soil surface.

Map Unit: 5—Bonifay loamy sand, 0 to 5 percent slopes

Component: Bonifay (80%)

The Bonifay component makes up 80 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges, 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 51 inches during January, February, March, April, 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 (4%)

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

Component: Blanton (4%)

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

Component: Fuquay (4%)

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

Component: Troup (4%)

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

Component: Lakeland (4%)

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

Map Unit: 6—Chewacla-Wahee-Riverview association

Component: Chewacla (36%)

The Chewacla component makes up 36 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 loamy 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 moderately high. Available water to a depth of 60 inches (or restricted depth) is high. 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, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Wahee, non-hydric (34%)

The Wahee, non-hydric component makes up 34 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 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 high. Shrink-swell potential is moderate. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during January, February, March, April, December. 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: Riverview (20%)

The Riverview component makes up 20 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 loamy alluvium. 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 moderate. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 48 inches during January, February, March, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2w. 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: Bibb (5%)

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

Component: Wahee, hydric (5%)

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

Map Unit: 7—Dorovan-Pamlico association

Component: Dorovan (50%)

The Dorovan component makes up 50 percent of the map unit. Slopes are 0 to 1 percent. This component is on swamps 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 frequently 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 50 percent. This component is in the F152AY345FL East Central Sandy Flooded Lowland ecological site. 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 (30%)

The Pamlico component makes up 30 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 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 frequently flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, November, December. Organic matter content in the surface horizon is about 40 percent. This component is in the F152AY345FL East Central Sandy Flooded Lowland ecological site. 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: Bibb (5%)

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

Component: Rutlege (5%)

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

Component: Pickney (5%)



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

Component: Leon (3%)

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

Component: Pactolus (2%)

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

Map Unit: 8—Dothan fine sandy loam, 0 to 2 percent slopes

Component: Dothan (85%)

The Dothan component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of loamy and clayey 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 48 inches during January, February, March, April. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 1. 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: Orangeburg (8%)

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

Component: Fuquay (7%)

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

Map Unit: 9—Dothan fine sandy loam, 2 to 5 percent slopes

Component: Dothan (83%)

The Dothan component makes up 83 percent of the map unit. Slopes are 2 to 5 percent. This component is on ridges, coastal plains. The parent material consists of loamy and clayey 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 48 inches during January, February, March, April. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. 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: Orangeburg (7%)

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

Component: Fuquay (5%)

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

Component: Esto (5%)

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

Map Unit: 10—Dothan fine sandy loam, 5 to 8 percent slopes

Component: Dothan (88%)

The Dothan component makes up 88 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 loamy and clayey 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 48 inches during January, February, March, April. Organic matter content in the surface horizon is about 3 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: Orangeburg (7%)

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

Component: Fuquay (5%)

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

Map Unit: 11—Escambia fine sandy loam, 0 to 2 percent slopes

Component: Escambia (80%)

The Escambia component makes up 80 percent of the map unit. Slopes are 0 to 2 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 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 24 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 2w. 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: Rains (10%)

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

Component: Lynchburg (5%)

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

Component: Dothan (3%)

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

Component: Albany (2%)

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

Map Unit: 12—Esto loam, 2 to 5 percent slopes

Component: Esto (82%)

The Esto component makes up 82 percent of the map unit. Slopes are 2 to 5 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of clayey 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 low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 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: Tifton (5%)

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

Component: Orangeburg (5%)

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

Component: Dothan (5%)

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

Component: Fuquay (3%)

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

Map Unit: 13—Esto loam, 5 to 8 percent slopes

Component: Esto (82%)

The Esto component makes up 82 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 clayey 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 low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4e. 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: Dothan (5%)

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

Component: Orangeburg (4%)

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

Component: Tifton (3%)

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

Component: Lucy (3%)

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

Component: Fuquay (3%)

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

Map Unit: 14—Fuquay loamy sand, 0 to 5 percent slopes

Component: Fuquay (80%)

The Fuquay component makes up 80 percent of the map unit. Slopes are 0 to 5 percent. This component is on interfluvies, coastal plains. The parent material consists of sandy marine deposits over 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 43 inches during January, February, March. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2s. 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: Nankin (4%)

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

Component: Cowarts (4%)

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

Component: Ailey (3%)

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

Component: Bonneau (3%)

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

Component: Blanton (2%)

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

Component: Dothan (2%)

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

Component: Bonifay (1%)

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

Component: Troup (1%)

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

Map Unit: 15—Fuquay loamy sand, 5 to 8 percent slopes

Component: Fuquay (80%)

The Fuquay component makes up 80 percent of the map unit. Slopes are 5 to 8 percent. This component is on hillslopes on coastal plains. The parent material consists of sandy marine deposits over 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 43 inches during January, February, March. 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: Nankin (4%)

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

Component: Cowarts (4%)

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

Component: Alley (3%)

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

Component: Bonneau (3%)

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

Component: Dothan (2%)

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

Component: Troup (2%)

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

Component: Blanton (2%)

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

Map Unit: 16—Garcon loamy fine sand

Component: Garcon (85%)

The Garcon component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 23 inches during January, February, March, April. Organic matter content in the surface horizon is about 2 percent. This component is in the F152AY320FL East Central Sandy Flat ecological site. Nonirrigated land capability classification is 2w. 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 soil components. The Albany soil is a minor component.

Component: Mulat (5%)

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

Component: Pactolus (5%)

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

Map Unit: 17—Gullied land**Component: Gullied land (100%)**

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

Map Unit: 18—Johns fine sandy loam**Component: Johns (85%)**

The Johns component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on stream terraces on marine terraces on coastal plains. The parent material consists of loamy and sandy fluviomarine 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 moderate. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 27 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2w. 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: Escambia (3%)

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

Component: Albany (3%)

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

Component: Pactolus (3%)

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

Component: Lynchburg (3%)

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

Component: Kalmia (3%)

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

Map Unit: 19—Kalmia loamy fine sand, 2 to 5 percent slopes**Component:** Kalmia (83%)

The Kalmia component makes up 83 percent of the map unit. Slopes are 2 to 5 percent. This component is on stream terraces on marine terraces on coastal plains. The parent material consists of loamy and sandy marine or fluvial 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 moderate. Shrink-swell potential is low. This soil is rarely 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 3 percent. Nonirrigated land capability classification is 2e. 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: Maxton (6%)

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

Component: Johns (6%)

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

Component: Angie variant (5%)

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

Map Unit: 20—Kureb sand, 0 to 8 percent slopes**Component:** Kureb (80%)

The Kureb component makes up 80 percent of the map unit. Slopes are 0 to 8 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of eolian deposits or sandy fluvial or 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. This component is in the F152AY205FL Central Coastal Adjacent Dune ecological site. 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.

Component: Resota (10%)

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

Component: Mandarin (5%)

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

Component: Corolla (3%)

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

Component: Newhan (2%)

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

Map Unit: 21—Lakeland sand, 0 to 5 percent slopes

Component: Lakeland (80%)

The Lakeland component makes up 80 percent of the map unit. Slopes are 0 to 5 percent. This component is on hills, 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 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 3s. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Troup (6%)

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

Component: Bonifay (5%)

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

Component: Foxworth (5%)

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

Component: Albany (2%)

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

Component: Chipley (2%)

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

Map Unit: 22—Lakeland sand, 5 to 12 percent slopes

Component: Lakeland (90%)

The Lakeland component makes up 90 percent of the map unit. Slopes are 5 to 12 percent. This component is on hills, 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.

Component: Troup (5%)

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

Component: Fuquay (3%)

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

Component: Foxworth (2%)

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

Map Unit: 23—Lakeland sand, 12 to 30 percent slopes

Component: Lakeland (83%)

The Lakeland component makes up 83 percent of the map unit. Slopes are 12 to 30 percent. This component is on hills 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 very 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 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.

Component: Troup (5%)

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

Component: Lucy (3%)

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

Component: Fuquay (3%)

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

Component: Bonifay (2%)

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

Component: Albany (2%)

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

Component: Pactolus (2%)

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

Map Unit: 24—Leon sand, 0 to 2 percent slopes

Component: Leon (80%)

The Leon component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods, marine terraces, 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 6 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. This component is in the F152AY320FL East Central Sandy Flat ecological site. Nonirrigated land capability classification is 4w. Irrigated 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: Leon, hydric (5%)

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

Component: Hurricane (4%)

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

Component: Pottsburg (4%)

Generated brief soil descriptions are created for major soil components. The Pottsburg 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: Pickney (2%)

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

Component: Rutlege (2%)

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

Map Unit: 25—Lucy loamy sand, 0 to 5 percent slopes**Component: Lucy (85%)**

The Lucy component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on interfluvies, 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 moderate. 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 2s. Irrigated land capability classification is 2s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Troup (4%)

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

Component: Orangeburg (4%)

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

Component: Bonneau (3%)

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

Component: Fuquay (2%)

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

Component: Rattlesnake Forks (2%)

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

Map Unit: 26—Lucy loamy sand, 5 to 8 percent slopes

Component: Lucy (85%)

The Lucy component makes up 85 percent of the map unit. Slopes are 5 to 8 percent. This component is on coastal plains on broad interstream divides. 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 moderate. 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. Irrigated land capability classification is 2s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Troup (4%)

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

Component: Orangeburg (4%)

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

Component: Bonneau (3%)

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

Component: Benevolence (2%)

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

Component: Fuquay (2%)

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

Map Unit: 27—Lynchburg fine sandy loam

Component: Lynchburg (83%)

The Lynchburg component makes up 83 percent of the map unit. Slopes are 0 to 2 percent. This component is on rises on marine terraces on coastal plains. The parent material consists of 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 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, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2w. 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: Rains (5%)

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

Component: Albany (3%)

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

Component: Escambia (3%)

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

Component: Angie variant (2%)

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

Component: Dothan (2%)

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

Component: Kalmia (2%)

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

Map Unit: 28—Maxton loamy fine sand, 2 to 5 percent slopes

Component: Maxton (85%)

The Maxton component makes up 85 percent of the map unit. Slopes are 2 to 5 percent. This component is on stream terraces on marine terraces on coastal plains. The parent material consists of loamy and sandy marine or fluvial 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 rarely 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 3 percent. Nonirrigated land capability classification is 2e. 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: Kalmia (10%)

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

Component: Angie variant (5%)

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

Map Unit: 29—Mulat loamy fine sand

Component: Mulat (85%)

The Mulat component makes up 85 percent of the map unit. Slopes are 0 to 1 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. 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 rarely flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 3 percent. This component is in the F152AY320FL East Central Sandy Flat ecological site. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Rutlege (5%)

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

Component: Lynchburg (3%)

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

Component: Rains (3%)

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

Component: Garcon (2%)

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

Component: Pactolus (2%)

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

Map Unit: 30—Orangeburg sandy loam, 0 to 2 percent slopes**Component:** Orangeburg (90%)

The Orangeburg component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on rises on marine terraces on coastal plains. The parent material consists of loamy and clayey 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 moderate. 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 1. 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: Lucy (4%)

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

Component: Red Bay (3%)

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

Component: Dothan (3%)

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

Map Unit: 31—Orangeburg sandy loam, 2 to 5 percent slopes**Component:** Orangeburg (90%)

The Orangeburg component makes up 90 percent of the map unit. Slopes are 2 to 5 percent. This component is on ridges, coastal plains. The parent material consists of loamy and clayey fine-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 moderate. 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 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Dothan (5%)

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

Component: Faceville (3%)

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

Component: Lucy (2%)

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

Map Unit: 32—Orangeburg sandy loam, 5 to 8 percent slopes

Component: Orangeburg (90%)

The Orangeburg component makes up 90 percent of the map unit. Slopes are 5 to 8 percent. This component is on ridges, coastal plains. The parent material consists of loamy and clayey marine deposits derived from sedimentary rock. 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 moderate. 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 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Dothan (6%)

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

Component: Lucy (4%)

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

Map Unit: 33—Ortega 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 — Error in Exists On —. 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. This component is in the F152AY305FL East Central Sandy Ridges, Rises, and Knolls ecological site. 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: Lakeland (10%)

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

Component: Leon (5%)

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

Map Unit: 34—Pactolus loamy sand, 0 to 5 percent slopes

Component: Pactolus (85%)

The Pactolus 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 and fluvial 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 low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 23 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 4 percent. This component is in the F152AY305FL East Central Sandy Ridges, Rises, and Knolls ecological site. 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 soil components. The Albany soil is a minor component.

Component: Leon (3%)

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

Component: Bonifay (2%)

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

Component: Lakeland (2%)

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

Component: Rutlege (2%)

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

Component: Troup (1%)

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

Map Unit: 35—Pickney loamy sand**Component:** Pickney (80%)

The Pickney component makes up 80 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 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 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, December. Organic matter content in the surface horizon is about 7 percent. This component is in the F152AY350FL East Central Sandy Lowland ecological site. 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 (5%)

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

Component: Rutlege (5%)

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

Component: Dorovan (5%)

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

Component: Leon (3%)

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

Component: Pactolus (2%)

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

Map Unit: 36—Pits

Component: Pits (100%)

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

Map Unit: 37—Rains fine sandy loam

Component: Rains (85%)

The Rains 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 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 occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 5 percent. This component is in the F152AY335FL East Central Sandy Flooded Flat ecological site. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Angie variant (5%)

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

Component: Escambia (5%)

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

Component: Lynchburg (5%)

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

Map Unit: 38—Red Bay sandy loam, 0 to 2 percent slopes

Component: Red Bay (85%)

The Red Bay component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on rises, coastal plains. The parent material consists of 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 moderate. 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 3 percent. Nonirrigated land capability classification is 1. 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: Orangeburg (9%)

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

Component: Dothan (6%)

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

Map Unit: 39—Red Bay sandy loam, 2 to 5 percent slopes

Component: Red Bay (80%)

The Red Bay component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on ridges on uplands. The parent material consists of fine-loamy marine deposits derived from sedimentary rock. 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 moderate. 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 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Greenville (5%)

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

Component: Dothan (5%)

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

Component: Lucy (5%)

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

Component: Orangeburg (5%)

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

Map Unit: 40—Rutlege loamy sand

Component: Rutlege (82%)

The Rutlege component makes up 82 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 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 frequently ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 3 percent. This component is in the F152AY345FL East Central Sandy Flooded Lowland ecological site. 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: Pickney (5%)

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

Component: Pamlico (4%)

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

Component: Dorovan (4%)

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

Component: Leon (3%)

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

Component: Pactolus (2%)

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

Map Unit: 41—Tifton sandy loam, 0 to 2 percent slopes**Component: Tifton (85%)**

The Tifton component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of 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 moderate. 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. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 1. 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: Dothan (7%)

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

Component: Fuquay (5%)

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

Component: Orangeburg (3%)

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

Map Unit: 42—Tifton sandy loam, 2 to 5 percent slopes**Component: Tifton (85%)**

The Tifton component makes up 85 percent of the map unit. Slopes are 2 to 5 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of 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 moderate. 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. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2e. 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: Dothan (5%)

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

Component: Orangeburg (5%)

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

Component: Estlo (3%)

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

Component: Fuquay (2%)

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

Map Unit: 43—Tifton sandy loam, 5 to 8 percent slopes**Component: Tifton (85%)**

The Tifton 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 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 moderate. 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. Organic matter content in the surface horizon is about 1 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: Dothan (5%)

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

Component: Orangeburg (5%)

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

Component: Esto (3%)

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

Component: Fuquay (2%)

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

Map Unit: 44—Troup loamy sand, 0 to 5 percent slopes

Component: Troup (85%)

The Troup component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges, coastal plains. The parent material consists of unconsolidated sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat excessively 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. 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 3s. Irrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Bonifay (4%)

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

Component: Lakeland (3%)

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

Component: Lucy (3%)

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

Component: Fuquay (3%)

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

Component: Orangeburg (2%)

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

Map Unit: 45—Troup loamy sand, 5 to 8 percent slopes

Component: Troup (85%)

The Troup 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 and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat excessively 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 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: Lucy (5%)

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

Component: Orangeburg (3%)

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

Component: Lakeland (3%)

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

Component: Fuquay (2%)

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

Component: Bonifay (2%)

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

Map Unit: 46—Troup loamy sand, 8 to 12 percent slopes

Component: Troup (85%)

The Troup component makes up 85 percent of the map unit. Slopes are 8 to 12 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 excessively 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 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 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: Lucy (5%)

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

Component: Lakeland (3%)

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

Component: Orangeburg (3%)

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

Component: Fuquay (2%)

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

Component: Bonifay (2%)

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

Map Unit: 47—Troup-Orangeburg-Cowarts complex, 5 to 12 percent slopes

Component: Troup (39%)

The Troup component makes up 39 percent of the map unit. Slopes are 5 to 12 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 excessively 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. 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 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: Orangeburg (20%)

The Orangeburg component makes up 20 percent of the map unit. Slopes are 5 to 12 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of loamy and clayey 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 moderate. 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: Cowarts (15%)

The Cowarts component makes up 15 percent of the map unit. Slopes are 5 to 12 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of 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 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. 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 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: Dothan (10%)

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

Component: Troup (5%)

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

Component: Lakeland (3%)

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

Component: Fuquay (3%)

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

Component: Lucy (3%)

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

Component: Albany (2%)

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

Map Unit: 48—Urban land

Component: Urban land (80%)

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

Component: Lucy (5%)

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

Component: Fuquay (5%)

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

Component: Lakeland (5%)

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

Component: Troup (5%)

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

Map Unit: 49—Newhan-Corolla complex, 2 to 30 percent slopes

Component: Newhan (60%)

The Newhan component makes up 60 percent of the map unit. Slopes are 2 to 30 percent. This component is on dunes on marine terraces on coastal plains. The parent material consists of sandy eolian 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 very 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 0 percent. This component is in the F152AY205FL Central Coastal Adjacent Dune ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria. The soil has a slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 14 within 30 inches of the soil surface.

Component: Corolla (30%)

The Corolla component makes up 30 percent of the map unit. Slopes are 2 to 30 percent. This component is on marine terraces on 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 very high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 23 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 0 percent. This component is in the F152AY200FL Central Coastal Adjacent Ridges and Rises ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 13 within 30 inches of the soil surface.

Component: Duckston (10%)

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

Map Unit: 50—Beaches

Component: Beaches (90%)

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

Component: Corolla (5%)

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

Component: Newhan (3%)

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

Component: Duckston (2%)

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

Map Unit: 51—Meadowbrook fine sand, 0 to 2 percent slopes**Component:** Meadowbrook (80%)

The Meadowbrook 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 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 9 inches during January, February, March, August, September, October, November, December. Organic matter content in the surface horizon is about 2 percent. This component is in the F152AY500FL Eastern Karst Flat ecological site. 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: Clara, depressional (5%)

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

Component: Meadowbrook, depressional (5%)

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

Component: Oldtown, depressional (5%)

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

Component: Chaires, depressional (5%)

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

Map Unit: 52—Goldhead fine sand

Component: Goldhead (85%)

The Goldhead component makes up 85 percent of the map unit. Slopes are 0 to 1 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. 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 January, February, March, April. Organic matter content in the surface horizon is about 3 percent. This component is in the F152AY320FL East Central Sandy Flat ecological site. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Pactolus (5%)

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

Component: Meadowbrook (5%)

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

Component: Garcon (3%)

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

Component: Rutlege (2%)

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

Map Unit: 53—Arents, moderately wet

Component: Arents (100%)

The Arents component makes up 100 percent of the map unit. Slopes are 0 to 5 percent. This component is on fills, rises on marine terraces on coastal plains. The parent material consists of altered 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 January, February, March, April, December. Organic matter content in the surface horizon is about 0 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.

Map Unit: 54—Foxworth sand, 0 to 5 percent slopes

Component: Foxworth (95%)

The Foxworth component makes up 95 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges, 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 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 June, July, August, September, October. Organic matter content in the surface horizon is about 1 percent. This component is in the F152AY305FL East Central Sandy Ridges, Rises, and Knolls ecological site. Nonirrigated land capability classification is 3s. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Lakeland (4%)

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

Component: Chipley (1%)

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

Map Unit: 55—Corolla-Duckston sands, gently undulating, flooded

Component: Corolla (50%)

The Corolla component makes up 50 percent of the map unit. Slopes are 1 to 5 percent. This component is on dunes 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 very high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 23 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 0 percent. This component is in the F152AY200FL Central Coastal Adjacent Ridges and Rises ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 13 within 30 inches of the soil surface.

Component: Duckston (35%)

The Duckston component makes up 35 percent of the map unit. Slopes are 0 to 1 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy marine deposits. 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 very 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 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. This component is in the F152AY215FL Central Coastal Adjacent Flooded Interdunal Flats ecological site. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 14 within 30 inches of the soil surface.

Component: Newhan (10%)

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

Component: Dirego (5%)

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

Map Unit: 100—Waters of the Gulf of Mexico

Component: Waters of the Gulf of Mexico (100%)

Generated brief soil descriptions are created for major soil components. The Waters of the Gulf of Mexico is a miscellaneous area.

Data Source Information

Soil Survey Area: Santa Rosa County, Florida

Survey Area Data: Version 20, Aug 24, 2023

Exhibit K

Department of Environmental Protection Outstanding Florida Waters



FLORIDA DEPARTMENT OF Environmental Protection

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

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Secretary

Via Email

October 3, 2023

Ms. Emily Marsh
Land Management Planner, Florida Forest Service
Florida Department of Agriculture and Consumer Services
3125 Conner Boulevard, Suite I-258, Mail Stop C-25
Tallahassee, FL 32399-1650

RE: Blackwater River State Forest

Dear Ms. Marsh:

Thank you for your inquiry regarding the surface water quality classifications and Outstanding Florida Waters (OFW) for Blackwater River State Forest in Santa Rosa and Okaloosa counties. All of the surface waters within and adjacent to the state forest are classified as Class III waters according to Rule 62-302.400, Florida Administrative Code (F.A.C.).

According to our Outstanding Florida Waters layer and rule, the Blackwater River State Forest itself is not currently designated as an OFW. However, parts of the state forest are covered by the Blackwater River State Park OFW, per subparagraph 62-302.700(9)(c)9., F.A.C., and the Blackwater River Special Water OFW, per subparagraph 62-302.700(9)(i)3., F.A.C. There are other OFWs downstream of Blackwater River State Forest, however, they are over 5 miles away from the nearest boundary of the state forest.

Other important managed areas that are within or adjacent to Blackwater River State Forest include the Blackwater River Wildlife Management Area.

Please see the map below for the boundaries of the Blackwater River State Forest and OFWs.

If you have any questions or need additional information about this response, please feel free to contact me via e-mail at Talia.E.Smith-Sickler@FloridaDEP.gov or by phone at 850-245-8068.

Sincerely,

Talia Elisa Smith-Sickler
Standards Development Section
Water Quality Standards Program
Florida Department of Environmental Protection

Map: Blackwater River State Forest and OFWs

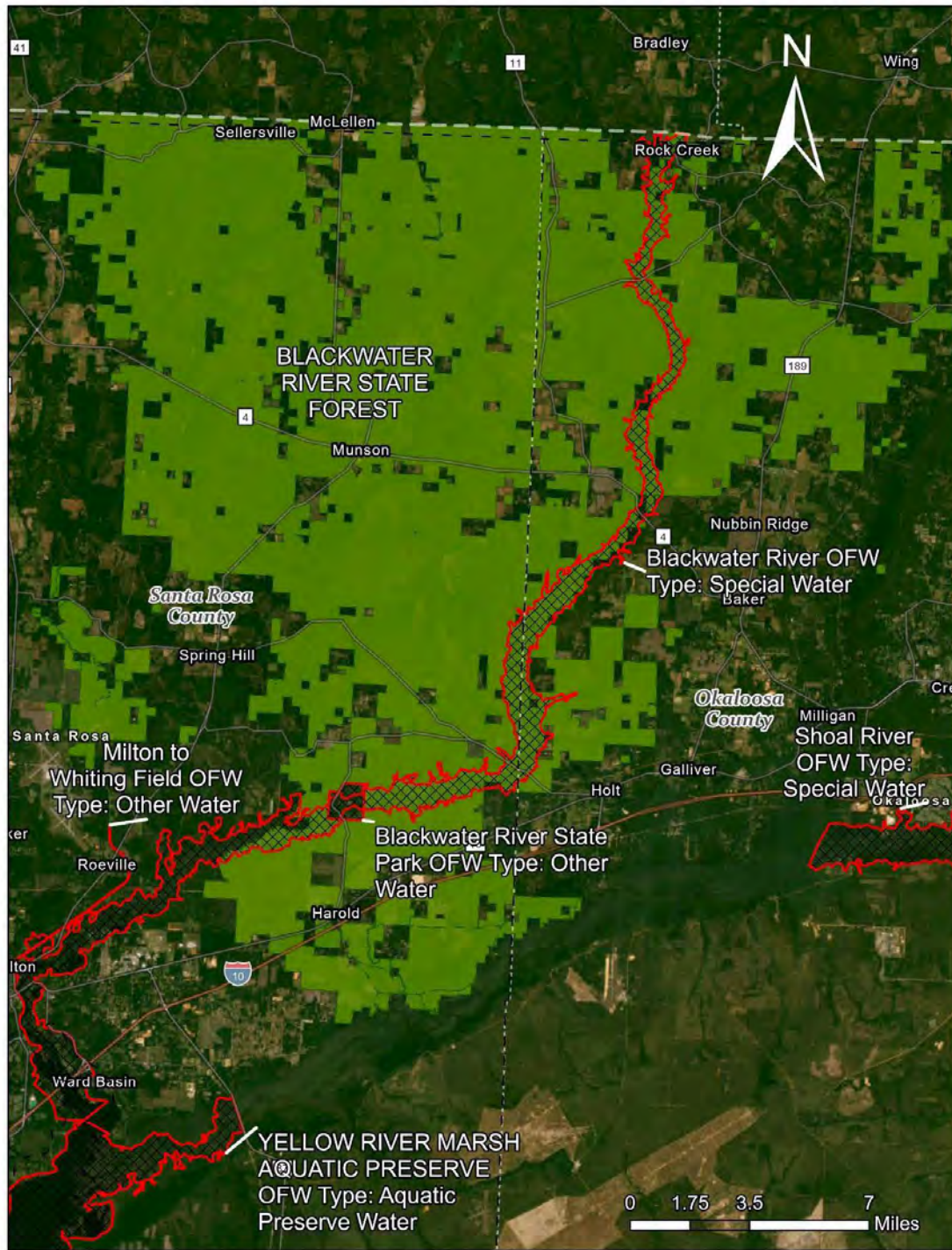


Exhibit L

Water Resources Map



Florida Forest Service

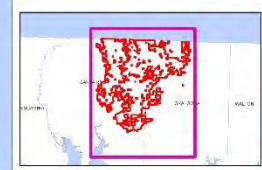
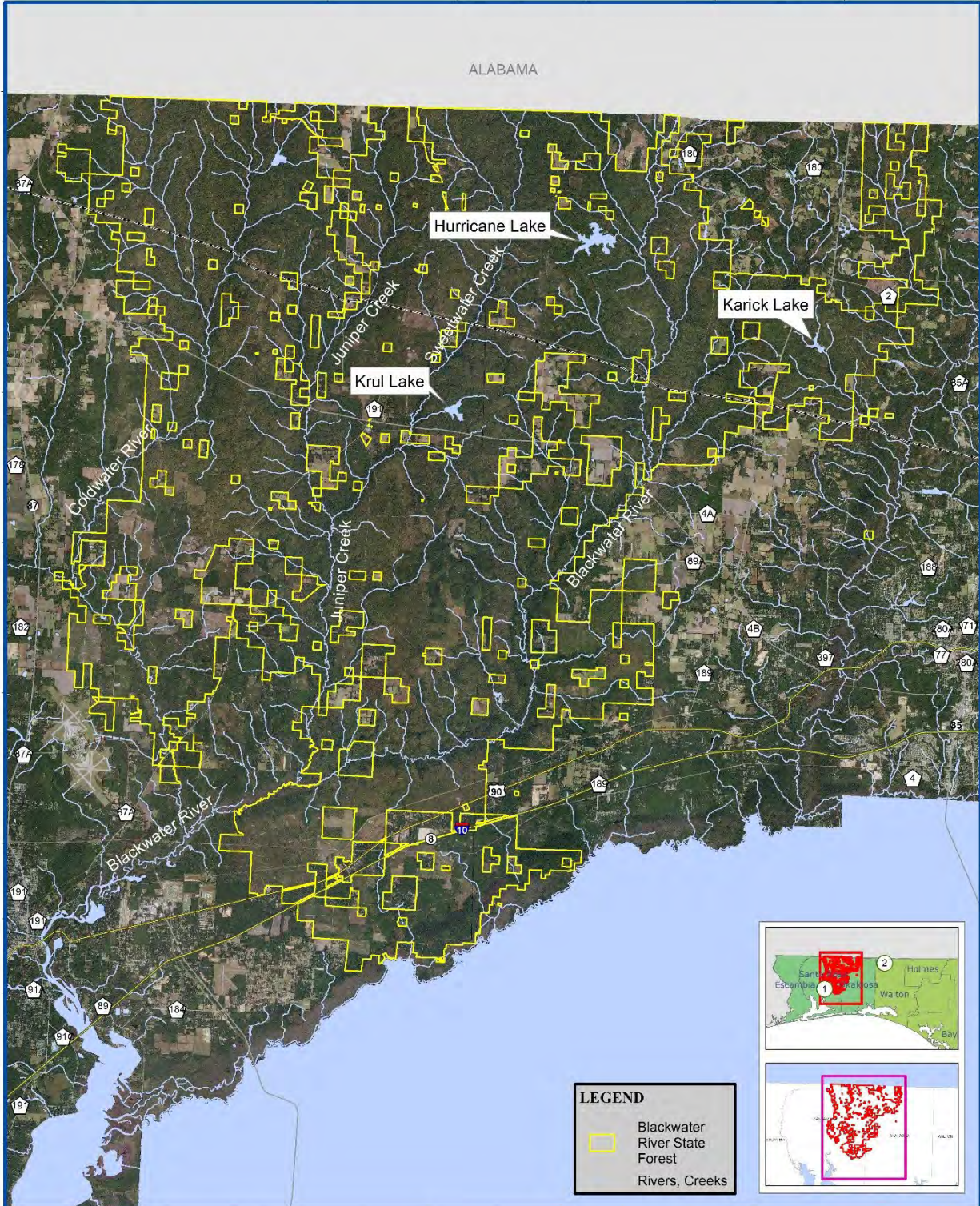
Blackwater River State Forest

Water Resources Map

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

DISCLAIMER:
This is not a warranty or endorsement of any product or service. 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 or losses resulting from the use of this map. The Florida Forest Service is not responsible for any claims or liabilities resulting from the use of this map.

Managed Area boundaries courtesy of the Florida National Forest System. Formally Used Defense Sites (FUDS) from the US Army Corps of Engineers.



LEGEND

- Blackwater River State Forest
- Rivers, Creeks



Map Month/Year: August 2025



Exhibit M

Florida Natural Areas Inventory

Managed Area Tracking Record



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

March 10, 2026

Emily Marsh
Florida Forest Service
FL Dept of Agriculture & Consumer Services
3125 Conner Boulevard
Tallahassee, FL 32399

Dear Ms. Marsh,

Thank you for requesting information from the Florida Natural Areas Inventory (FNAI). At your request we have produced the following report for your project area.

The purpose of this Standard Data Report is to provide objective scientific information on natural resources located in the vicinity of a site of interest, in order to inform those involved in project planning and evaluation. This Report makes no determination of the suitability of a proposed project for this location, or the potential impacts of the project on natural resources in the area.

Project: Blackwater River State Forest
Date Received: 3/10/2026
Location: Santa Rosa & Okaloosa 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.

Element Occurrences

A search of our maps and database indicates that we currently have many element occurrences mapped in the vicinity of the study area (see enclosed map and element occurrence table). 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, specifically Reticulated Flatwoods Salamander (*Ambystoma bishopi*), chaffseed (*Schwalbea americana*), Red-cockaded Woodpecker (*Leuconotopicus borealis*), Narrow Pigtoe (*Fusconaia escambia*) and **proposed** Southern Hognose Snake (*Heterodon simus*) (see enclosed map and tables 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. Extirpated element occurrences will be marked with an 'X' following the occurrence label on the enclosed map.



Florida Resources
and Environmental
Analysis Center

Institute of Science
and Public Affairs

The Florida State University

Tracking Florida's Biodiversity

*Several of the species and natural communities tracked by the Inventory are considered **data sensitive**. Occurrence records for these elements contain information that we consider sensitive due to collection pressures, extreme rarity, or at the request of the source of the information. The Element Occurrence Record has been labeled "Data Sensitive." We request that you not publish or release specific locational data about these species or communities without consent from the Inventory. If you have any questions concerning this please do not hesitate to call.*

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.

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.

CLIP

The enclosed map shows natural resource conservation priorities based on the Critical Lands and Waters Identification Project. CLIP is based on many of the same natural resource data developed for the Florida Forever Conservation Needs Assessment, but provides an overall picture of conservation priorities across different resource categories, including biodiversity, landscapes, surface waters, and aggregated CLIP priorities (that combine the individual resource categories). CLIP is also based primarily on remote sensed data and is not intended to be the definitive authority on natural resources on a site.

For more information on CLIP, visit <https://www.fnai.org/services/clip>.

Managed Areas

Portions of the site appear to be located within the Blackwater River State Forest, managed by the FL Dept. of Environmental Protection, Div. of Recreation and Parks.

The Managed Areas data layer shows public and privately managed conservation lands throughout the state. Federal, state, local, and privately managed conservation lands are included.

Land Acquisition Projects

This site appears to be located within the Coastal Headwaters Longleaf Forest Florida Forever BOT Project, and the Clear Creek/Whiting Field Florida Forever BOT Project- Phase I which is part of the State of Florida's Conservation and Recreation Lands land acquisition program. For more information on this Florida Forever Project, contact the Florida Department of Environmental Protection, Division of State Lands or visit <https://floridadep.gov/lands/environmental-services/content/florida-forever>.

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/species-communities/tracking-main 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. **The maps contain sensitive environmental information, please do not distribute or publish without prior consent from FNAI.** FNAI data may not be resold for profit.

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

Sincerely,

Kerri Brinegar

Kerri Brinegar
GIS / Data Services

Encl



Florida Natural Areas Inventory

CLIP v4.0 Resource Priorities

Biodiversity Resource Category



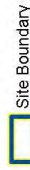
Landscape Resource Category



Surface Water Resource Category



Aggregated CLIP Priorities

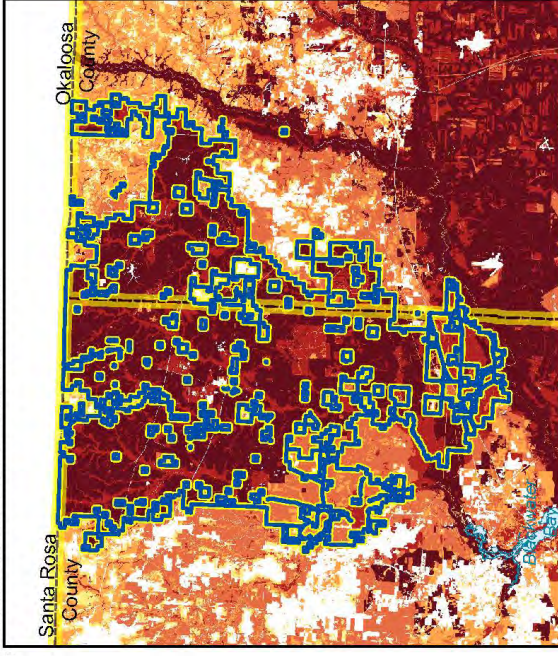


Map should not be interpreted without accompanying documents.

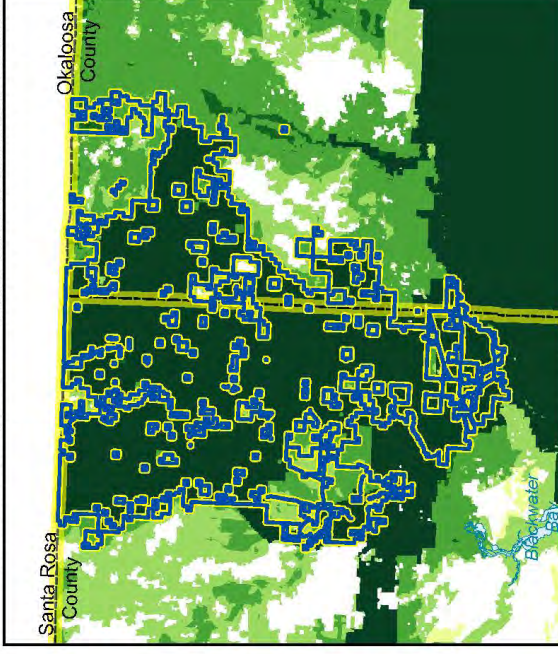
Critical Lands and Waters Identification Project (CLIP) is a collaborative effort between the FSU Florida Natural Areas Inventory, UF Center for Landscape Conservation Planning, and FL Fish & Wildlife Conservation Commission, with additional funding from FL Dept of Environmental Protection and US Fish & Wildlife Service.

Blackwater River State Forest

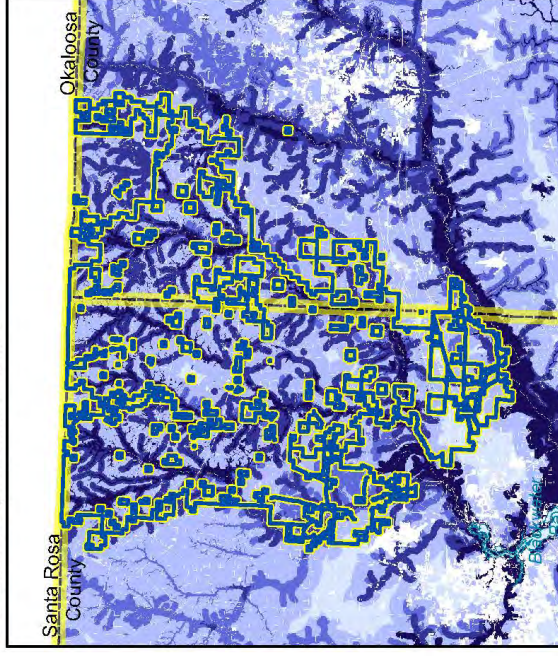
Site boundaries are approximate. Santa Rosa & Okaloosa Counties



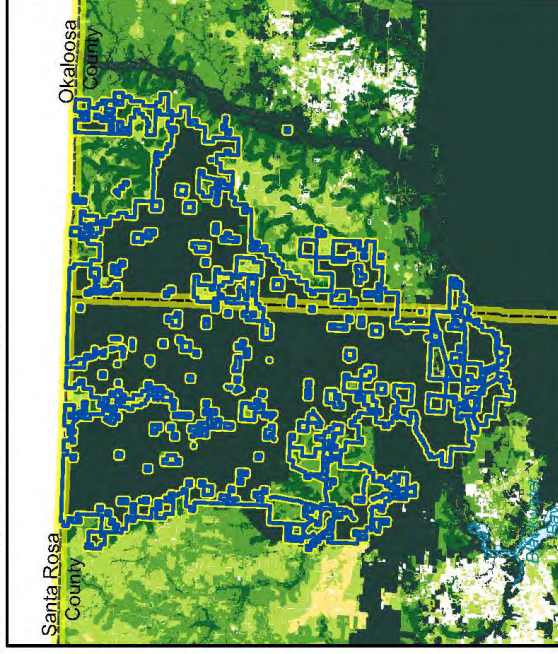
CLIP Biodiversity Resource Priorities



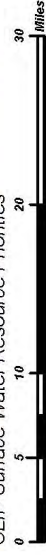
CLIP Landscape Resource Priorities



CLIP Surface Water Resource Priorities



CLIP Aggregated Resource Priorities



Map produced by KAB
3/10/2026



1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
(850) 224-8207
www.fnai.org

Florida Natural Areas Inventory
Managed Area Element Summary
Blackwater River State Forest



SCIENTIFIC NAME	COMMON NAME	Global rank	State rank	Federal status	State status
PLANTS					
<i>Agalinis georgiana</i>	pine barren false foxglove	G1	S1	N	E
<i>Agrimonia incisa</i>	incised groove-bur	G3G4	S2	N	T
<i>Baptisia hirsuta</i>	hairy wild indigo	G3T3	S3	N	T
<i>Calycanthus floridus</i>	sweet-shrub	G5	S2	N	E
<i>Dichantherium nudicaule</i>	naked-stemmed panic grass	G3Q	S3	N	T
<i>Drosera filiformis</i> var. <i>floridana</i>	Florida thread-leaf sundew	G4TNR	S1	N	E
<i>Epigaea repens</i>	trailing arbutus	G5	S2	N	E
<i>Fothergilla milleri</i>	dwarf witch-alder	G2	S1	N	E
<i>Kalmia latifolia</i>	mountain laurel	G5	S3	N	T
<i>Lachnocaulon digynum</i>	pineland bogbutton	G3G4	S3	N	T
<i>Lilium iridollae</i>	Panhandle lily	G3	S3	UR	E
<i>Macranthera flammea</i>	hummingbird flower	G3	S2	N	E
<i>Mitreola angustifolia</i>	narrowleaf hornpod	G4G5	S2	N	N
<i>Mnesithea tuberculosa</i>	Piedmont jointgrass	G3	S3	N	T
<i>Najas filifolia</i>	Narrowleaf Naiad	G3	S2	UR	T
<i>Nuphar ulvacea</i>	West Florida cowlily	G5T2T3	S2	N	N
<i>Pinguicula primuliflora</i>	primrose-flowered butterwort	G3G4	S3	N	E
<i>Platanthera clavellata</i>	little club-spur orchid	G5	S1	N	E
<i>Platanthera integra</i>	yellow fringeless orchid	G3G4	S2	N	E
<i>Quercus arkansana</i>	Arkansas oak	G3	S3	N	T
<i>Rhexia parviflora</i>	small-flowered meadowbeauty	G2G3	S2	UR	E
<i>Rhododendron austrinum</i>	Florida flame azalea	G3	S3	N	E
<i>Rhynchospora crinipes</i>	hairy-peduncled beaksedge	G3	S3	N	E
<i>Sagittaria australis</i>	longbeak arrowhead	G4	S2	N	N
<i>Sarracenia alabamensis</i> ssp. <i>wherryi</i>	Wherry's redflower pitcherplant	G3T1?	S1	UR	T
<i>Sarracenia rubra</i> ssp. <i>gulfensis</i>	Gulf Coast redflower pitcherplant	G3G4T2T3	S2S3	UR	T
<i>Schwalbea americana</i>	chaffseed	G2	S1	E	FE
<i>Spiranthes floridana</i>	Florida ladies'-tresses	G1	S1	N	N
<i>Symphotrichum concolor</i> var. <i>devestitum</i>	Gulf Coast Silvery Aster	G5T2	S2	N	N
FISH					
<i>Lythrurus atrapiculus</i>	Blacktip Shiner	G4	S2	N	N
AMPHIBIANS					
<i>Ambystoma bishopi</i>	Reticulated Flatwoods Salamander	G1	S1	E	FE
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	G5	S3	N	N
<i>Amphiuma pholeter</i>	One-toed Amphiuma	G4	S3	N	N
<i>Desmognathus conanti</i>	Spotted Dusky Salamander	G4	S2S3	N	N
<i>Eurycea sphagnicola</i>	Bog Dwarf Salamander	G1G2	S1S2	N	N
<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	UR	N
<i>Lithobates okaloosae</i>	Florida Bog Frog	G2	S2	N	ST
REPTILES					
<i>Agkistrodon contortrix</i>	Eastern Copperhead	G5	S2	N	N
<i>Apalone spinifera</i>	Spiny Softshell	G5	S3	N	N
<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G3	S3	UR	N

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

Florida Natural Areas Inventory

Managed Area Element Summary

Blackwater River State Forest

SCIENTIFIC NAME	COMMON NAME	Global rank	State rank	Federal status	State status
REPTILES (cont.)					
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G2G3	S2?	T	FT
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST
<i>Graptemys ernsti</i>	Escambia Map Turtle	G2	S2	SAT, PDL	N
<i>Heterodon simus</i>	Southern Hognose Snake	G2G3	S2S3	PT	N
<i>Lampropeltis rhombomaculata</i>	Northern Mole Kingsnake	G4	S2	N	N
<i>Macrochelys temminckii</i>	Alligator Snapping Turtle	G3	S3	PT	N
<i>Nerodia sipedon</i>	Common Watersnake	G5	S2	N	N
<i>Ophisaurus mimicus</i>	Mimic Glass Lizard	G2	S1S2	N	N
<i>Pituophis melanoleucus</i>	Pinesnake	G4	S3	PS	ST
<i>Plestiodon anthracinus</i>	Coal Skink	G5	S3	N	N
<i>Pseudemys concinna concinna</i>	Eastern River Cooter	G5T5	S3	N	N
<i>Tantilla coronata</i>	Southeastern Crowned Snake	G5	S2S3	N	N
BIRDS					
<i>Elanoides forficatus</i>	Swallow-tailed Kite	G5	S2	N	N
<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3	N	N
<i>Leuconotopicus borealis</i>	Red-cockaded Woodpecker	G3	S2	T	FT
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
MAMMALS					
<i>Neogale frenata olivacea</i>	Southeastern Weasel	G5T4	S3?	N	N
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N
INVERTEBRATES					
<i>Acronyria evoluta</i>	A Stonefly	G5	S1	N	N
<i>Agarodes libalis</i>	Spring-loving Psiloneuran Caddisfly	G3	S3	N	N
<i>Agarodes ziczac</i>	Zigzag Blackwater River Caddisfly	G2	S2	N	N
<i>Alloblackburneus aegrotus</i>	Small Pocket Gopher Aphodius Beetle	G3G4	S3?	N	N
<i>Alloblackburneus troglodytes</i>	Gopher Tortoise Aphodius Beetle	G2G3	S2	N	N
<i>Amblyscirtes aesculapius</i>	Lace-winged Roadside Skipper	G4	S3S4	N	N
<i>Amblyscirtes alternata</i>	Dusky Roadside-Skipper	G3G4	S2	N	N
<i>Amblyscirtes reversa</i>	Reversed Roadside-Skipper	G3	S1	N	N
<i>Atrytone arogos arogos</i>	Arogos Skipper	G2G3T1T2	S2	N	N
<i>Baetisca becki</i>	A Mayfly	G2G3	S2	N	N
<i>Baetisca gibbera</i>	Humpback Mayfly	G5	S1S2	N	N
<i>Baetisca rogersi</i>	A Mayfly	G4	S3	N	N
<i>Callophrys augustinus</i>	Brown Elfin	G5	S2	N	N
<i>Callophrys hesseli</i>	Hessel's Hairstreak	G3	S2	N	N
<i>Callophrys irus</i>	Frosted Elfin	G3	S1	N	N
<i>Celastrina ladon</i>	Spring Azure	G4G5	S2?	N	N
<i>Cheumatopsyche petersi</i>	Peters' Cheumatopsyche Caddisfly	G3	S2	N	N
<i>Chimarra florida</i>	Floridian Finger-net Caddisfly	G4	S3S4	N	N
<i>Cryptoscatomaseter gambrinus</i>	Amber Pocket Gopher Aphodius Beetle	G2	S1S2	N	N
<i>Cryptoscatomaseter hubbelli</i>	Hubbell's Pocket Gopher Aphodius Beetle	GNR	S3?	N	N

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INVERTEBRATES (cont.)					
<i>Cryptoscatomaseter pholetus</i>	Rare Pocket Gopher Aphodius Beetle	G1G2	S1	N	N
<i>Cryptoscatomaseter platypleurus</i>	Broad-Sided Pocket Gopher Aphodius Beetle	G2G3	S2	N	N
<i>Cupido comyntas</i>	Eastern Tailed Blue	G5	S2	N	N
<i>Dellacasiellus laevigatus</i>	Large Pocket Gopher Aphodius Beetle	G3G4	S3?	N	N
<i>Dolania americana</i>	American Sand-burrowing Mayfly	G4	S2	N	N
<i>Dromogomphus armatus</i>	Southeastern Spinyleg	G4	S3	N	N
<i>Ellipsoptera wapleri</i>	White-sand Tiger Beetle	G3G4	S2	N	N
<i>Erynnis baptisiae</i>	Wild Indigo Duskywing	G5	S2S3	N	N
<i>Euphoria discicollis</i>	Pocket Gopher Flower Beetle	G2	S1S2	N	N
<i>Eutrichota gopheri</i>	Gopher Tortoise Burrow Fly	G2	S2S3	N	N
<i>Fusconaia escambia</i>	Narrow Pigtoe	G1G2	S1	T	FT
<i>Geomysaprinus xerobatis</i>	Gopher Tortoise Hister Beetle	G2G3	S1S2	N	N
<i>Helocordulia selysii</i>	Selys' Sunfly	G4	S4	N	N
<i>Helopicus subvarians</i>	A Stonefly	G4	S3	N	N
<i>Hesperia attalus slossonae</i>	Seminole Skipper	G3G4T3	S3	N	N
<i>Hesperia meskei straton</i>	Eastern Meske's Skipper	G3G4T3	S2S3	N	N
<i>Hexagenia bilineata</i>	A Mayfly	G5	S2	N	N
<i>Hydroperla phormidia</i>	A Stonefly	G3	S2	N	N
<i>Hylogomphus geminatus</i>	Twin-striped Clubtail	G3G4	S3	N	N
<i>Isonychia beneri</i>	A Mayfly	G2G3	S1S2	N	N
<i>Leuctra cottaquilla</i>	A Stonefly	G2	S2	N	N
<i>Macdunna brunnea</i>	A Mayfly	G3G4	S2S3	N	N
<i>Machimus polyphemi</i>	Gopher Tortoise Robber Fly	G2	S1S2	N	N
<i>Nannothemis bella</i>	Elfin Skimmer	G4G5	S2	N	N
<i>Neurocordulia molesta</i>	Smoky Shadowfly	G4	S2S3	N	N
<i>Nymphalis antiopa</i>	Mourning Cloak	G5	S2	N	N
<i>Onthophagus polyphemi sparsisetosus</i>	Smooth Gopher Tortoise Onthophagus Beetle	G3T2?	S1	N	N
<i>Oxyethira elerobi</i>	Elerob's Microcaddisfly	G3G4	S2S3	N	N
<i>Oxyethira novasota</i>	Novasota Oxyethiran Microcaddisfly	G4G5	S2	N	N
<i>Oxyethira pescadori</i>	Pescador's Bottle-Cased Caddisfly	G4	S3	N	N
<i>Oxyomoides dyspistus</i>	Surprising Pocket Gopher Aphodius Beetle	G3G4	S3?	N	N
<i>Perlina zwicki</i>	A Stonefly	G4	S2	N	N
<i>Phanogomphus hodgei</i>	Hodges' Clubtail	G3	S3	N	N
<i>Phanogomphus westfalli</i>	Westfall's Clubtail	G2	S2	UR	N
<i>Phyllophaga ovalis</i>	Oval June Beetle	G1	S1	N	N
<i>Polyphylla gracilis</i>	Slender Polyphyllan Scarab Beetle	G2G3	S2	N	N
<i>Progomphus bellei</i>	Belle's Sanddragon	G3	S3	N	N
<i>Ptomaphagus geomysi</i>	Elongate Pocket Gopher Ptomaphagus Beetle	G2G3	S1S2	N	N
<i>Ptomaphagus schwarzi</i>	Schwarz' Pocket Gopher Ptomaphagus Beetle	G3	S3	N	N
<i>Pustulosa succissa</i>	Purple Pigtoe	G3G4	SNR	N	N
<i>Satyrrium kingi</i>	King's Hairstreak	G3G4	S2	N	N

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INVERTEBRATES (cont.)					
<i>Scabrostomus bakeri</i>	Baker's Pocket Gopher Beetle	G2G3	S2	N	N
<i>Scabrostomus tanytarsus</i>	Long-Clawed Pocket Gopher Aphodius Beetle	G2G3	S2S3	N	N
<i>Selonodon santarosae</i>	Santa Rosa Cebrionid Beetle	G1	S1	N	N
<i>Sparbarus miccosukee</i>	Miccosukee Mayfly	G1G2	S1S2	N	N
<i>Stenacron floridense</i>	A Mayfly	G3G4	S3S4	N	N
<i>Stylurus potulentus</i>	Yellow-sided Clubtail	G2	S2	UR	N
<i>Stylurus townesi</i>	Bronze Clubtail	G3	S2	N	N
<i>Tallaperla cornelia</i>	Southeastern Roachfly	G4	S1	N	N
<i>Toxolasma sp. 1</i>	Gulf Lilliput	G2	S2	N	N

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ACIPDES0*13	<i>Acipenser desotoi</i>	Gulf Sturgeon	G2G3	S2?	T	FT	2001	Confirmed spawning sites along the Yellow River with substrates of hard clay, cobble, sand and rock. Sites have either a small hard clay bank or limestone bluff. All on east side of the river.
ACROEVOL*2	<i>Acroneturia evoluta</i>	A Stonewall	G5	S1	N	N	1974-05-03	Blackwater river
AGALGEOR*1	<i>Agalinis georgiana</i>	pine barren false foxglove	G1	S1	N	SE	2011-09-26	Longleaf pine/wiregrass upland pine forest with <i>Quercus falcata</i> , <i>Diospyros virginiana</i> , <i>Ilex glabra</i> and <i>Ctenium aromaticum</i> .
AGALGEOR*10	<i>Agalinis georgiana</i>	pine barren false foxglove	G1	S1	N	SE	2011-09-26	Mature longleaf/red oak savanna.
AGALGEOR*16	<i>Agalinis georgiana</i>	pine barren false foxglove	G1	S1	N	SE	1998-09-21	Dry longleaf pine savanna
AGALGEOR*20	<i>Agalinis georgiana</i>	pine barren false foxglove	G1	S1	N	SE	2021-09-12	Longleaf pine sandhill (U22GBI05FLUS).
AGALGEOR*3	<i>Agalinis georgiana</i>	pine barren false foxglove	G1	S1	N	SE	2011-09-26	longleaf pine/wiregrass savanna.
AGALGEOR*5	<i>Agalinis georgiana</i>	pine barren false foxglove	G1	S1	N	SE	2001-09-26	remnant longleaf pine savanna/mesic bog/seepage slope with wiregrass understory burned in summer 2011.
AGALGEOR*6	<i>Agalinis georgiana</i>	pine barren false foxglove	G1	S1	N	SE	2001-09-27	meisc to dry longleaf pine savanna dominated by wiregrass
AGALGEOR*8	<i>Agalinis georgiana</i>	pine barren false foxglove	G1	S1	N	SE	2006-09-16	Sandhill recently burned in 2006; not burned since 2008-09 in 2011.
AGALGEOR*9	<i>Agalinis georgiana</i>	pine barren false foxglove	G1	S1	N	SE	2011-09-26	Young stand of longleaf pine in upland pine community that was recently burned in 2011.



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Map Label	Scientific Name	Common Name	Global State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
AGARLUBA*23	<i>Agarodes libalis</i>	Spring-loving Psiloneuran Caddisfly	G3	S3	N	N	1976-04-25: No description given (U06RAS01FLUS).	1976-04-25: An unknown number of specimens were collected on 1976-04-25 (U06RAS01FLUS).
AGARLUBA*36	<i>Agarodes libalis</i>	Spring-loving Psiloneuran Caddisfly	G3	S3	N	N	2007-05-19: No description given other than that the locality was near a creek (U09RAS01FLUS).	2007-05-19: Thirty-four specimens were collected using a 15 watt black light over an alcohol-filled white pan (U09RAS01FLUS, U08RAS01FLUS).
AGARZICZ*25	<i>Agarodes ziczac</i>	Zigzag Blackwater River Caddisfly	G2	S2	N	N	1970-04-24: No description given (U06RAS01FLUS).	1970-04-24: An unknown number of specimens were collected on 1970-04-24 (U06RAS01FLUS).
AGKICONT*20	<i>Agkistrodon contortrix</i>	Eastern Copperhead	G5	S2	N	N	1998: deep, cool, mature southern temperate hardwood forest ravine formed as gully in a retreating escarpment; a relic habitat (A98MEA02FLUS, U98MEA01FLUS).	1998-04: 1 live adult male (A98MEA02FLUS, U98MEA01FLUS). Specific data are in source features and Additional Topics.
AGKICONT*27	<i>Agkistrodon contortrix</i>	Eastern Copperhead	G5	S2	N	N	2014-08-03: Mostly forested lands contiguous with Blackwater River State Forest; some cleared agricultural lands, includes home sites, mixed hardwoods, upland pine, and seepage stream, perhaps river floodplain (U13FR01FLUS, U14SMI03FLUS, PNDFR02FLUS).	Based on multiple records extending from 2005-2014, it is likely that a large population inhabits this area.
AGKICONT*28	<i>Agkistrodon contortrix</i>	Eastern Copperhead	G5	S2	N	N	2015-07-02: Blackwater River State Forest is a large managed area with pine-dominated sandy (and clay) uplands dissected by seepage streams and associated wetland habitats; contains some private, rural parcels with varied levels of disturbance.	This occurrence is documented by multiple records extending from 2014-2015.
AGKICONT*9	<i>Agkistrodon contortrix</i>	Eastern Copperhead	G5	S2	N	N	1985: 2004 DOQQ: rural area with mixed fields and forests; less than 1 km from Blackwater River State Forest.	1985: J. Godwin (PNDGOD03FLUS) observed but did not save badly mutilated roadkill specimen (U90NOL03FLUS).
AGRIINCI*44	<i>Agriornis incisus</i>	Incised groove-bur	G3G4	S2	N	ST	2023-08-31: none given	At least one reproductive individual was observed and documented with a photograph.



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AGRIINC*45	<i>Agrimonia incisa</i>	incised groove-bur	G3G4	S2	N	N	ST	2023-06-29	none given
ALLOAEGR*41	<i>Alloblackburneaeus aegrotus</i>	Small Pocket Gopher Aphodius Beetle	G3G4	S3?	N	N	N	1998-12-05 -- 1998-12-20	1998-12-20: One specimen was collected from 1998-12-05 to 1998-12-20, most likely at light or in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01SKE02FLUS).
ALLOAEGR*42	<i>Alloblackburneaeus aegrotus</i>	Small Pocket Gopher Aphodius Beetle	G3G4	S3?	N	N	N	1998-12-06 -- 1998-12-20	1998-12-20: Two specimens were collected from 1998-12-06 to 1998-12-20, most likely at light or in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS).
ALLOAEGR*47	<i>Alloblackburneaeus aegrotus</i>	Small Pocket Gopher Aphodius Beetle	G3G4	S3?	N	N	N	1999-04-10	One specimen collected at each of two survey sites in 1999.
ALLOAEGR*49	<i>Alloblackburneaeus aegrotus</i>	Small Pocket Gopher Aphodius Beetle	G3G4	S3?	N	N	N	1999-01-03 -- 1999-01-18	1999-01-18: One specimen was collected from 1999-01-03 to 1999-01-18, most likely at light or in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01SKE02FLUS).
ALLOAEGR*50	<i>Alloblackburneaeus aegrotus</i>	Small Pocket Gopher Aphodius Beetle	G3G4	S3?	N	N	N	1998-11-21 -- 1998-12-06	1998-12-06: Six specimens were collected from 1998-11-21 to 1998-12-06, most likely at light or in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS).
ALLOAEGR*51	<i>Alloblackburneaeus aegrotus</i>	Small Pocket Gopher Aphodius Beetle	G3G4	S3?	N	N	N	1999-01-03 -- 1999-01-19	1999-01-19: One specimen was collected from 1999-01-03 to 1999-01-19, most likely at light or in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01SKE02FLUS).
ALLOAEGR*52	<i>Alloblackburneaeus aegrotus</i>	Small Pocket Gopher Aphodius Beetle	G3G4	S3?	N	N	N	1998-11-22 -- 1998-12-06	1998-12-06: One specimen was collected from 1998-11-22 to 1998-12-06, most likely at light or in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01SKE02FLUS).
ALLOTROG*22	<i>Alloblackburneaeus troglodytes</i>	Gopher Tortoise Aphodius Beetle	G2G3	S2	N	N	N	2016-05-27	Specimens were collected at 3 locations during 2 one week survey periods using gopher tortoise burrow facade traps in upland pine habitat.



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ALLOTROG*23	<i>Alloblackburneius troglodytes</i>	Gopher Tortoise Aphodius Beetle	G2G3	S2	N	N	2016-04-29	sandhill habitat	Specimens were collected in two localities in sandhill habitat in gopher tortoise burrow facade traps that were set on 2016-04-25.
AMBLAESC*26	<i>Amblyscirtes aesculapius</i>	Lace-winged Roadside Skipper	G4	S3S4	N	N	2023-03-22	None given.	One butterfly was photographed at Blackwater River State Forest in 2023 (U23INA08FLUS).
AMBLREVE*5	<i>Amblyscirtes reversa</i>	Reversed Roadside-Skipper	G3	S1	N	N	2022-04-10	None given.	An adult was photographed along Big Juniper Creek in Blackwater River State Forest in 2022.
AMBYBISH*2	<i>Ambystoma bishopi</i>	Reticulated Flatwoods Salamander	G1	S1	E	FE	1993-02-26	Ephemeral pond with Ilex myrtifolia, Nyssa biflora, Taxodium ascendens within mature Pinus palustris/Pinus elliptici flatwoods (PNDPAL02FLUS).	Moler et. al. collected several specimens from 1983-1986 (PNDMOL01FLUS), Palis (PNDPAL02FLUS) captured larvae in 1990 and 1993 (U93PAL02FLUS).
AMPHPHOL*43	<i>Amphiuma pholeter</i>	One-toed Amphiuma	G4	S3	N	N	1998-09-23 -- 1999-09-01	First and second order portions of 700-m long tributary that flows north into Bone Creek (A05ENG01FLUS).	Population present based on 3 captures at drift fences monitored in 1998 and 1999 (A05ENG01FLUS). Specific data are in source features and Additional Topics.
APALSPIN*2	<i>Apelone spinifera</i>	Spiny Softshell	G5	S3	N	N	2023-04-02	Blackwater River is a blackwater river system with blackwater and seepage tributaries, high white sand bars at some bends probably provide nesting habitat. Much of system runs through conservation lands, so there is little streamside development except at lower end.	The abundance of observations, from at least 1947-2012, confirms a viable, apparently healthy population in this river. Recent incidental observations reported via iNaturalist for Sweetwater Creek (2016) and Coldwater Creek (2023).
APALSPIN*6	<i>Apelone spinifera</i>	Spiny Softshell	G5	S3	N	N	2013-06-21	The Yellow-Shoal River system is a medium-sized river system with alluvial and blackwater characteristics. Much of the adjacent landscape is on Eglin Air Force Base, which limits future development.	Known from multiple records (from 1993-2013) and sites spanning much of Yellow River system.
ASIODOLA*2	<i>Asiopanax dolani</i>	A Mayfly	G4	S1S2	N	N	2007-08-29	2007-08-29: No description given (U09DEP01FLUS).	2007-08-29: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).



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BAETBECK*15	<i>Baetisca becki</i>	A Mayfly	G2G3	S2	N	N	1998-12-09: No description given (U09DEP01FLUS).	1998-12-09: This species was documented by Florida Department of Environmental Protection agency staff at two localities (U09DEP01FLUS).
BAETBECK*16	<i>Baetisca becki</i>	A Mayfly	G2G3	S2	N	N	1979-02-28: No description given (U09DEP01FLUS).	1979-02-28: Staff from the Florida Department of Environmental Protection collected this species on this date and on 1978-03-14 (U09DEP01FLUS).
BAETBECK*18	<i>Baetisca becki</i>	A Mayfly	G2G3	S2	N	N	2007-03-26: No description given (U09DEP01FLUS).	2007-03-26: This species was documented by Florida Department of Environmental Protection agency staff at two localities on nine dates going back to 1960-03-09 (U09DEP01FLUS).
BAETBECK*20	<i>Baetisca becki</i>	A Mayfly	G2G3	S2	N	N	1962-05-01: No description given (U09DEP01FLUS).	1962-05-01: Staff from the Florida Department of Environmental Protection collected this species on this date and on 1960-03-09 (U09DEP01FLUS).
BAETBECK*23	<i>Baetisca becki</i>	A Mayfly	G2G3	S2	N	N	2006-02-20: No description given (U09DEP01FLUS).	2006-02-20: Staff from the Florida Department of Environmental Protection collected this species on this date and on 1995-01-30 (U09DEP01FLUS).
BAETBECK*27	<i>Baetisca becki</i>	A Mayfly	G2G3	S2	N	N	1998-02-26: No description given (U09DEP01FLUS).	1998-02-26: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
BAETESCA*2	<i>Baetisca escambiensis</i>	Escambia Mayfly	G2G3	S1S2	N	N	2011-05-27: Blackwater River, a medium-sized blackwater river.	Specimens collected in Blackwater River State Park in 2007 and 2011, 1967 specimen from river noted in A81PES01FLUS.
BAETESCA*4	<i>Baetisca escambiensis</i>	Escambia Mayfly	G2G3	S1S2	N	N	1999-06-10: No description given (U09DEP01FLUS).	1999-06-10: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
BAETGIBB*11	<i>Baetisca gibbera</i>	Humpback Mayfly	G5	S1S2	N	N	1968-11-28: Blackwater River.	Nymphs collected on 2 dates in November, on both sides of river (N04PES01FLUS).
BAETROGE*45	<i>Baetisca rogersi</i>	A Mayfly	G4	S3	N	N	2001-11-27: No description given (U09DEP01FLUS).	2001-11-27: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
BAETROGE*51	<i>Baetisca rogersi</i>	A Mayfly	G4	S3	N	N	1998-12-09: No description given (U09DEP01FLUS).	1998-12-09: This species was documented by Florida Department of Environmental Protection agency staff at two localities (U09DEP01FLUS).



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BAETROGE*55	<i>Baetisca rogersi</i>	A Mayfly	G4	S3	N	N	1979-02-28	1979-02-28: No description given (U09DEP01FLUS).	1979-02-28: Staff from the Florida Department of Environmental Protection collected this species on this date and on the following dates: 1978-03-14, 1976-11-23 (U09DEP01FLUS).
BAETROGE*56	<i>Baetisca rogersi</i>	A Mayfly	G4	S3	N	N	1988-02-20	1988-02-20: No description given (U09DEP01FLUS).	1988-02-20: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
BAETROGE*59	<i>Baetisca rogersi</i>	A Mayfly	G4	S3	N	N	1988-02-25	1988-02-25: No description given (U09DEP01FLUS).	1988-02-25: This species was documented by Florida Department of Environmental Protection agency staff at three localities on fifteen dates going back to 1965-03-16 (U09DEP01FLUS).
BAETROGE*60	<i>Baetisca rogersi</i>	A Mayfly	G4	S3	N	N	1977-05-04	1977-05-04: No description given (U09DEP01FLUS).	1977-05-04: Staff from the Florida Department of Environmental Protection collected this species on this date and on the following dates: 1969-02-19, 1962-10-15, 1962-05-01, 1960-03-09 (U09DEP01FLUS).
BAETROGE*62	<i>Baetisca rogersi</i>	A Mayfly	G4	S3	N	N	2007-03-20	2007-03-20: No description given (U09DEP01FLUS).	2007-03-20: This species was documented by Florida Department of Environmental Protection agency staff at two localities on three dates going back to 1977-05-04 (U09DEP01FLUS).
BAETROGE*64	<i>Baetisca rogersi</i>	A Mayfly	G4	S3	N	N	1977-05-04	1977-05-04: No description given (U09DEP01FLUS).	1977-05-04: Staff from the Florida Department of Environmental Protection collected this species on this date and on the following dates: 1962-10-15, 1962-02-09 (U09DEP01FLUS).
BAETROGE*65	<i>Baetisca rogersi</i>	A Mayfly	G4	S3	N	N	2005-05-25	2005-05-25: No description given (U09DEP01FLUS).	2005-05-25: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
BAETROGE*66	<i>Baetisca rogersi</i>	A Mayfly	G4	S3	N	N	1988-02-18	1988-02-18: No description given (U09DEP01FLUS).	1988-02-18: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
BAETROGE*69	<i>Baetisca rogersi</i>	A Mayfly	G4	S3	N	N	2006-02-20	2006-02-20: No description given (U09DEP01FLUS).	2006-02-20: Staff from the Florida Department of Environmental Protection collected this species on this date and on 2001-02-08 (U09DEP01FLUS).



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BAETROGE*71	<i>Baetisca rogersi</i>	A Mayfly	G4	S3	N	N	2005-05-26	No description given (U09DEP01FLUS).	2005-05-26: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
BAPTHIRS*1	<i>Baptisia hirsuta</i>	hairy wild indigo	G3T3	S3	N	ST	1992-06-17	OVERGROWN PINUS PALUSTRIS SANDHILL (CLOSED SUBCANOPY COMPOSED OF QUERCUS HEMISPHAERICA, Q. INCANA, Q. LAEVIS, DIOSPYRUS VIRGINIANA, AND ILEX VOMITORIA) EXCEPT BENEATH POWER LINE WHERE BAPTISIA OCCURS. VEGETATION OF OPEN AREA UNDER POWER LINE INCLUDES: ARISTIDA STRICTA, LICANIA MICHAUXII, ASCLEPIAS HUMISTRATA, PTERIDIUM AQUILINUM, CLADONIA, YUCCA FLACCIDA, SMILAX, BERLANDIERA, PUMILA, CROTON, RUBUS CUNEIFOLIUS, OPUNTIA, AND SILPHIUM COMPOSITUM.	FIRST OBSERVED IN 1964 (S. MCDANIEL SPECIMEN: FSU-34351). 21 PLANTS OBSERVED BY PALIS ON 17 JUNE 1992 (2 IN FLOWER, REST IN FRUIT).
BAPTHIRS*62	<i>Baptisia hirsuta</i>	hairy wild indigo	G3T3	S3	N	ST	1992-06-19	DEGRADED SANDHILL. PINUS ELIOTTII PLANTATION (TREES CA. 40 FT. TALL) ON E SIDE OF ROAD. VAST CLEARCUT ON W SIDE OF ROAD VEGETATED WITH QUERCUS LAEVIS, Q. MARGARETTA, Q. INCANA, DIOSPYRUS VIRGINIANA, ILEX OPACA, RUBUS CUNEIFOLIUS, ANDROPOGON, PTERIDIUM AQUILINUM, ARISTIDA STRICTA, LICANIA MICHAUXII, RHUS COPALLINA, YUCCA FLACCIDA, BERLANDIERA, PUMILA, CROTON, EUPHORBIA INUNDATA, CLADONIA, SMILAX, POLYGALA INCARNATA, ASCLEPIAS, HUMISTRATA, STYLODON CARNEUS, AND INDIGOFERA.	50 PLANTS OBSERVED ON W SIDE OF ROAD; 14 OBSERVED ON E SIDE. MANY PLANTS ON ROAD BERM.



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BAPTHIRS*63	<i>Baptisia hirsuta</i>	hairy wild indigo	G3T3	S3	N	ST	1992-06-19	DEGRADED SANDHILL ON LAKELAND SAND DOMINATED BY QUERCUS LAEVIS, Q. INCANA, Q. GEMINATA, AND DIOSPYRUS VIRGINIANA. REMNANT GROUND COVER VEGETATION INCLUDES ARISTIDA STRICTA, ANDROPOGON, PTERIDIUM AQUILINUM, LIGARIA, MICHAUXII, SERENOA REPENS, CROTON, RHEXIA, MARIANA, SMILAX, RUBUS, AND YUCCA FLACCIDA.	2 PLANTS OBSERVED (NOT IN BLOOM).
BAPTHIRS*66	<i>Baptisia hirsuta</i>	hairy wild indigo	G3T3	S3	N	ST	2010-11-18	Sandhill	Between 11-50 plants observed in 1992. A few scattered plants observed in 1994. One plant observed in 2010 in quick survey of area.
BAPTHIRS*90	<i>Baptisia hirsuta</i>	hairy wild indigo	G3T3	S3	N	ST	2010-06-21	Sandhill	In 1990, a survey found a total of 37 individuals at 27 locations; mostly single individuals were encountered, but at a few sites up to four plants of <i>B. hirsuta</i> were observed. In 1996, 100 plants were observed throughout this sandhill. Several points of a few plants each have been observed in 2006 and 2010.
CALLHESS*14	<i>Callophrys hesseli</i>	Hessel's Hairstreak	G3	S2	N	N	2019-03-29	None given.	One adult was photographed near Big Juniper Creek in Blackwater River State Forest in 2019 (U23INA13FLUS).
CALLHESS*7	<i>Callophrys hesseli</i>	Hessel's Hairstreak	G3	S2	N	N	2022-04-12	2008-03-26: No description provided, but the butterfly was undoubtedly in an Atlantic white cedar tree near the water (PNDJUE02FLUS).	Small numbers of adults have been found in the southwestern portion of Blackwater River State Forest since 2008. Seven adults have been photographed from 2008-2022 (U23INA13FLUS).
CALYFLOR*16	<i>Calycanthus floridus</i>	sweet-shrub	G5	S2	N	SE	2006-05-02	2006-05-02: Floodplain forest, near roadside with heavy exotics disturbance from <i>Lonicera japonica</i> (F06FNA12FLUS).	2006-05-02: 1 plant in flower/bud, being smothered by <i>Lonicera japonica</i> (F06FNA12FLUS).
CHEUPETE*18	<i>Cheumatopsyche petersi</i>	Peters' Cheumatopsyche Caddisfly	G3	S2	N	N	2007-05-19	1970-04-25: No description given (U08RAS01FLUS).	2007-05-19: Specimens have been collected at 3 sites on a total of at least 4 dates ranging back to 1968-04-07.



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CHEUPETE*29	<i>Cheumatopsyche petersi</i>	Peters' Cheumatopsyche Caddisfly	G3	S2	N	N	2007-06-13	2007-06-13: No description given other than that the locality was near a river (U09RAS01FLUS).
CHEUPETE*30	<i>Cheumatopsyche petersi</i>	Peters' Cheumatopsyche Caddisfly	G3	S2	N	N	2007-06-13	2007-06-13: Forty-six specimens were collected using a 15 watt black light over an alcohol-filled white pan (U09RAS01FLUS, U06RAS01FLUS).
CHIMELOR*41	<i>Chimarra florida</i>	Floridian Finger-net Caddisfly	G4	S3S4	N	N	2007-05-19	2007-05-19: Thirty specimens were collected using a 15 watt black light over an alcohol-filled white pan at the "Okaloosa Co. Mare Creek, Blackwater R SF 75m from bridge" site (U09RAS01FLUS, U06RAS01FLUS). 1967-04-26: One specimen was collected at the "Okaloosa Co., Blackwater R, 4.5 mi NW of Cannon Town" site (U06RAS01FLUS).
CHIMELOR*60	<i>Chimarra florida</i>	Floridian Finger-net Caddisfly	G4	S3S4	N	N	2007-06-13	2007-06-13: Forty-five specimens were collected using a 15 watt black light over an alcohol-filled white pan (U09RAS01FLUS, U06RAS01FLUS).
CHIMELOR*68	<i>Chimarra florida</i>	Floridian Finger-net Caddisfly	G4	S3S4	N	N	2007-06-13	2007-06-13: Sixty-five specimens were collected using a 15 watt black light over an alcohol-filled white pan (U09RAS01FLUS, U06RAS01FLUS).
CROTADAM*123	<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G3	S3	UR	N	1994-08-14	1994-08-14: 4.5 foot individual observed crossing road (U94SCH06).
CROTADAM*202	<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G3	S3	UR	N	1995 pre	1995-Pre: snake observed by Paul Moler on site (M95MAR01FLUS).
CROTADAM*258	<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G3	S3	UR	N	1996-04-17	Yearling snake D.O.R.
CROTADAM*284	<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G3	S3	UR	N	1999-08-04	99-08-04: one snake, approximately 28 inches total length, observed dead on roadway (PNDPR103).
CROTADAM*92	<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G3	S3	UR	N	1978	1978: DOR adult (U94MOL01FLUS).



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CRYPGAMB*2	<i>Cryptoscatomaseter gambirinus</i>	Amber Pocket Gopher Aphodius Beetle	G2	S1S2	N	1998-01-19 -- 1998-04-05	1998-04-05: No information given (U06SKE01FLUS).	1998-04-05: One specimen was collected from 1998-01-19 to 1998-04-05, most likely in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01SKE02FLUS).
CRYPGAMB*3	<i>Cryptoscatomaseter gambirinus</i>	Amber Pocket Gopher Aphodius Beetle	G2	S1S2	N	1998-12-19 -- 1999-01-03	1999-01-03: No information given (U06SKE01FLUS).	1999-01-03: Three specimens were collected from 1998-12-08 to 1999-01-03, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS).
CRYPGAMB*4	<i>Cryptoscatomaseter gambirinus</i>	Amber Pocket Gopher Aphodius Beetle	G2	S1S2	N	1998-12-19 -- 1999-01-03	None given.	8 specimens were collected from 1998-12-19 to 1999-01-03, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS).
CRYPGAMB*6	<i>Cryptoscatomaseter gambirinus</i>	Amber Pocket Gopher Aphodius Beetle	G2	S1S2	N	1999-01-03 -- 1999-01-18	1999-01-18: No information given (U06SKE01FLUS).	1999-01-18: Eight specimens were collected from 1998-12-17 to 1999-01-18, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS).
CRYPGAMB*7	<i>Cryptoscatomaseter gambirinus</i>	Amber Pocket Gopher Aphodius Beetle	G2	S1S2	N	1998-11-21 -- 1998-12-06	1998-12-06: No information given (U06SKE01FLUS).	1998-12-06: One specimen was collected from 1998-11-21 to 1998-12-06, most likely in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01SKE02FLUS).
CRYPGAMB*8	<i>Cryptoscatomaseter gambirinus</i>	Amber Pocket Gopher Aphodius Beetle	G2	S1S2	N	1999-01-03 -- 1999-01-19	None given.	Thirteen specimens were collected at two trapping sites from 1999-01-03 to 1999-01-19, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS).
CRYPGAMB*9	<i>Cryptoscatomaseter gambirinus</i>	Amber Pocket Gopher Aphodius Beetle	G2	S1S2	N	1998-12-06 -- 1998-12-20	1998-12-20: No information given (U06SKE01FLUS).	1998-12-20: One specimen was collected from 1998-12-06 to 1998-12-20, most likely in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01SKE02FLUS).
CRYPHUBB*23	<i>Cryptoscatomaseter hubbelli</i> Hubbell's Pocket Gopher Aphodius Beetle	Hubbell's Pocket Gopher Aphodius Beetle	GNR	S3?	N	1998-12-19 -- 1999-01-03	1999-01-03: No information given (U06SKE01FLUS).	1999-01-03: Eight specimens were collected from 1997-12-28 to 1999-01-03, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).



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CRYPHUBB*26	<i>Cryptoscatomaser hubbelli</i>	Hubbell's Pocket Gopher Aphodius Beetle	GNR	S3?	N	N	1998-12-20 -- 1999-01-02 (U06SKE01FLUS)	1999-01-02: Three specimens were collected from 1998-12-20 to 1999-01-02, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
CRYPHUBB*29	<i>Cryptoscatomaser hubbelli</i>	Hubbell's Pocket Gopher Aphodius Beetle	GNR	S3?	N	N	1998-12-19 -- 1999-01-02 (U06SKE01FLUS)	1999-01-02: Three specimens were collected from 1998-12-19 to 1999-01-02, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
CRYPHUBB*32	<i>Cryptoscatomaser hubbelli</i>	Hubbell's Pocket Gopher Aphodius Beetle	GNR	S3?	N	N	1998-11-21 -- 1998-12-06 (U06SKE01FLUS)	1998-12-06: One specimen was collected from 1998-11-21 to 1998-12-06, most likely in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
CRYPHUBB*33	<i>Cryptoscatomaser hubbelli</i>	Hubbell's Pocket Gopher Aphodius Beetle	GNR	S3?	N	N	1998-12-20 -- 1999-01-19	Four specimens were collected at two survey sites from 1998-12-20 to 1999-01-19, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
CRYPHOL*1	<i>Cryptoscatomaser pholetus</i>	Rare Pocket Gopher Aphodius Beetle	G1G2	S1	N	N	1997-12-28 -- 1998-01-19 (U06SKE01FLUS)	1998-01-19: One specimen was collected from 1997-12-28 to 1998-01-19, most likely in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
CRYPPLAT*13	<i>Cryptoscatomaser platyleurus</i>	Broad-Sided Pocket Gopher Aphodius Beetle	G2G3	S2	N	N	1998-12-28 -- 1999-01-18 (U06SKE01FLUS)	1999-01-18: Nineteen specimens were collected from 1997-12-28 to 1999-01-18, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
CRYPPLAT*14	<i>Cryptoscatomaser platyleurus</i>	Broad-Sided Pocket Gopher Aphodius Beetle	G2G3	S2	N	N	1998-12-19 -- 1999-01-02 (U06SKE01FLUS)	1999-01-02: Four specimens were collected from 1998-12-19 to 1999-01-02, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).



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CRYPPLAT*15	<i>Cryptoscatomaseter platypleurus</i>	Broad-Sided Pocket Gopher Aphodius Beetle	G2G3	S2	N	N	1998-12-20 -- 1998-12-20 (U06SKE01FLUS)	1998-12-20: One specimen was collected on 1998-12-20, most likely in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
CRYPPLAT*17	<i>Cryptoscatomaseter platypleurus</i>	Broad-Sided Pocket Gopher Aphodius Beetle	G2G3	S2	N	N	1998-12-20 -- 1999-01-02 (U06SKE01FLUS)	1999-01-02: Fourteen specimens were collected from 1998-12-06 to 1999-01-02, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
CRYPPLAT*20	<i>Cryptoscatomaseter platypleurus</i>	Broad-Sided Pocket Gopher Aphodius Beetle	G2G3	S2	N	N	1998-12-19 -- 1999-01-02 (U06SKE01FLUS)	1999-01-02: Nine specimens were collected from 1998-12-19 to 1999-01-02, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
CRYPPLAT*21	<i>Cryptoscatomaseter platypleurus</i>	Broad-Sided Pocket Gopher Aphodius Beetle	G2G3	S2	N	N	1998-11-21 -- 1998-12-06 (U06SKE01FLUS)	1998-12-06: One specimen was collected from 1998-11-21 to 1998-12-06, most likely in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
CUPICOM*14	<i>Cupido cornyntas</i>	Eastern Tailed Blue	G5	S2	N	N	2022-04-01	One adult was photographed near at Blackwater River State Forest in 2022 (U23INA13FLUS).
CUPICOM*19	<i>Cupido cornyntas</i>	Eastern Tailed Blue	G5	S2	N	N	2022-10-27	One adult was photographed near the Blackwater River in 2022 (U23INA13FLUS).
DANNSIMP*6	<i>Dannella simplex</i>	A Mayfly	G4G5	S2	N	N	2007-09-27	2007-09-27: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
DELLAEV*58	<i>Dellacasiellus laevigatus</i>	Large Pocket Gopher Aphodius Beetle	G3G4	S3?	N	N	1998-01-19 -- 1998-04-05 (U06SKE01FLUS)	1998-04-05: Six specimens were collected from 1997-12-28 to 1998-04-05, most likely at light or in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS).



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DELLAEV*60	<i>Dellacasiellus laevigatus</i>	Large Pocket Gopher Aphodius Beetle	G3G4	S3?	N	N	1998-12-20 -- 1999-01-02	1999-01-02: No information given (U06SKE01FLUS). 1998-12-20: One specimen was collected from 1998-12-20 to 1999-01-02, most likely at light or in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01SKE02FLUS).
DELLAEV*63	<i>Dellacasiellus laevigatus</i>	Large Pocket Gopher Aphodius Beetle	G3G4	S3?	N	N	1998-11-21 -- 1998-12-06	1998-12-06: No information given (U06SKE01FLUS). 1998-12-06: Four specimens were collected from 1998-11-21 to 1998-12-06, most likely at light or in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS).
DELLAEV*64	<i>Dellacasiellus laevigatus</i>	Large Pocket Gopher Aphodius Beetle	G3G4	S3?	N	N	1998-12-20 -- 1999-01-02	1999-01-02: No information given (U06SKE01FLUS). 1998-12-20: Nine specimens were collected from 1998-11-22 to 1999-01-02, most likely at light or in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS).
DESMCON*3	<i>Desmognathus conanti</i>	Spotted Dusky Salamander	G4	S2S3	N	N	1999	Blackwater River State Forest, an ecosystem dominated by upland pine forest. 1999 observation was in shrub portion of seepage bog that drains into Reedy Creek, a tributary of the Yellow River (A02ENG02FLUS).
DICHNUD*83	<i>Dichanthelium nudicaule</i>	naked-stemmed panic grass	G3Q	S3	N	ST	2006-08-10	shrubs: Ilex coriacea, Myriophyllum heterophyllum, Nyssa sylvatica var. biflora, Clethra alnifolia, Magnif. Herbs: Sarfla, Sarracenia peltata, Eriocaulon decanulare, Juncus trigonocarpus, Bidens mitis, Carex glaucescens, Oxypolis filiformis.
DICHNUD*84	<i>Dichanthelium nudicaule</i>	naked-stemmed panic grass	G3Q	S3	N	ST	2006-08-15	Sarracenia leucophylla, Aristida stricta var. beyrichiana/Cynilla racemiflora. FNAI NC recorded as seepage slope.
DOLAMER*10	<i>Dolania americana</i>	American Sand-burrowing Mayfly	G4	S2	N	N	2001-11-27	2001-11-27: No description given (U09DEP01FLUS). 2001-11-27: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).



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DOLAAMER*11	<i>Dolania americana</i>	American Sand-burrowing Mayfly	G4	S2	N	N	1978-11-23	1978-11-23: No description given (U09DEP01FLUS).
DOLAAMER*13	<i>Dolania americana</i>	American Sand-burrowing Mayfly	G4	S2	N	N	1998-02-24	1998-02-24: No description given (U09DEP01FLUS).
DOLAAMER*14	<i>Dolania americana</i>	American Sand-burrowing Mayfly	G4	S2	N	N	1977-05-04	1977-05-04: No description given (U09DEP01FLUS).
DOLAAMER*15	<i>Dolania americana</i>	American Sand-burrowing Mayfly	G4	S2	N	N	1995-07-17	1995-07-17: No description given (U09DEP01FLUS).
DOLAAMER*9	<i>Dolania americana</i>	American Sand-burrowing Mayfly	G4	S2	N	N	1993-06-22	1993-06-22: No description given (U09DEP01FLUS).
DROMARMA*28	<i>Dromogomphus armatus</i>	Southeastern Spinyleg	G4	S3	N	N	2004-07-29	2004-07-29: No description given (U09DEP01FLUS).
DROMARMA*32	<i>Dromogomphus armatus</i>	Southeastern Spinyleg	G4	S3	N	N	2001-11-27	2001-11-27: No description given (U09DEP01FLUS).
DROMARMA*34	<i>Dromogomphus armatus</i>	Southeastern Spinyleg	G4	S3	N	N	2007-10-24	2007-10-24: No description given (U09DEP01FLUS).
DROSFLOR*34	<i>Drosera filiformis</i> var. <i>floridana</i>	Florida thread-leaf sundew	G4TNR	S1	N	SE	2023-06-27	seepage slope with no evident disturbance
DROSFLOR*35	<i>Drosera filiformis</i> var. <i>floridana</i>	Florida thread-leaf sundew	G4TNR	S1	N	SE	2023-06-28	seepage slope
DRYMCOU*106	<i>Drymarchon couperi</i>	Eastern Indigo Snake	G2G3	S2?	T	FT	1978 pre	No general description given



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DRYMCOLUP*108	<i>Drymarchon couperi</i>	Eastern Indigo Snake	G2G3	S2?	T	FT	1977	No general description given
DS*15815	<i>Data Sensitive Element</i>	Data Sensitive	G5	S3	N	N	1989-02-20	Data Sensitive
DS*17284	<i>Data Sensitive Element</i>	Data Sensitive	G5	S1	N	SE	1993-06-27	Data Sensitive
DS*33111	<i>Data Sensitive Element</i>	Data Sensitive	32G3T1T2	S2	N	N	2007-08-18	Data Sensitive
DS*33446	<i>Data Sensitive Element</i>	Data Sensitive	G3G4	S2	N	N	2023-04-10	Data Sensitive
DS*33679	<i>Data Sensitive Element</i>	Data Sensitive	G5	S2	N	N	2005-03-28	Data Sensitive
DS*34107	<i>Data Sensitive Element</i>	Data Sensitive	G5	S2	N	N	2010-03-19	Data Sensitive
DS*34110	<i>Data Sensitive Element</i>	Data Sensitive	G4G5	S2?	N	N	2010-02-14	Data Sensitive
DS*34111	<i>Data Sensitive Element</i>	Data Sensitive	G3	S1	N	N	2017-08-11	Data Sensitive
DS*34126	<i>Data Sensitive Element</i>	Data Sensitive	G3G4	S2	N	N	2009-06-20	Data Sensitive
DS*34129	<i>Data Sensitive Element</i>	Data Sensitive	G3	S2	N	N	2008-06-18	Data Sensitive
DS*34131	<i>Data Sensitive Element</i>	Data Sensitive	G3G4T3	S2S3	N	N	2008-06-18	Data Sensitive
DS*34137	<i>Data Sensitive Element</i>	Data Sensitive	G3G4T3	S3	N	N	2010-04-23	Data Sensitive
DS*34138	<i>Data Sensitive Element</i>	Data Sensitive	G5	S2S3	N	N	2008-08-10	Data Sensitive
DS*34264	<i>Data Sensitive Element</i>	Data Sensitive	G5	S2	N	N	2009-02-12	Data Sensitive
DS*34267	<i>Data Sensitive Element</i>	Data Sensitive	G3	S2	N	N	2019-03-30	Data Sensitive
DS*34294	<i>Data Sensitive Element</i>	Data Sensitive	G5	S2	N	N	2010-03-26	Data Sensitive
DS*34556	<i>Data Sensitive Element</i>	Data Sensitive	G4	S2	N	SE	2007-04-10	Data Sensitive
DS*34932	<i>Data Sensitive Element</i>	Data Sensitive	G3	S1	N	N	2017	Data Sensitive
DS*34933	<i>Data Sensitive Element</i>	Data Sensitive	G3G4T3	S2S3	N	N	2009-05-27	Data Sensitive
DS*34937	<i>Data Sensitive Element</i>	Data Sensitive	G3G4	S2	N	N	2009-06-23	Data Sensitive
DS*34946	<i>Data Sensitive Element</i>	Data Sensitive	G5	S2S3	N	N	2009-09-20	Data Sensitive
DS*34947	<i>Data Sensitive Element</i>	Data Sensitive	G5	S2S3	N	N	2009-09-19	Data Sensitive



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DS*34948	<i>Data Sensitive Element</i>	Data Sensitive	G4	S2S3	N	N	2009-09-18	Data Sensitive	Data Sensitive
DS*34950	<i>Data Sensitive Element</i>	Data Sensitive	G5	S2	N	N	2019-03-30	Data Sensitive	Data Sensitive
DS*40765	<i>Data Sensitive Element</i>	Data Sensitive	G3	S1	N	N	2023	Data Sensitive	Data Sensitive
ELLIMCMI*16	<i>Elliptio mcMichaeli</i>	Fluted Elephant-ear	G2G3	S1S2	N	N	2014 pre	Yellow River	Williams et al. (2014) depict 2 sites from which this occurrence has been documented.
ELLIWAPL*12	<i>Ellipsoptera waplery</i>	White-sand Tiger Beetle	G3G4	S2	N	N	2019-05-23	Along the shore of Bear Lake.	One beetle was documented with a photograph.
ELLIWAPL*2	<i>Ellipsoptera waplery</i>	White-sand Tiger Beetle	G3G4	S2	N	N	2007-07-01	Sand bar on Blackwater River.	1 adult photographed on sand bar.
ELLIWAPL*5	<i>Ellipsoptera waplery</i>	White-sand Tiger Beetle	G3G4	S2	N	N	2018-07-21	Along East Fork Big Coldwater Creek, and probably on a sandbar	One beetle was documented with a photo.
ELLIWAPL*9	<i>Ellipsoptera waplery</i>	White-sand Tiger Beetle	G3G4	S2	N	N	2016-07-15	One site was a sandy river bank and the other a sand/clay road in sandhill.	Ca. 35 beetles were documented at one location along a river and a single specimen was found ca. .3 km away from the river.
EPIGREPE*17	<i>Epigaea repens</i>	trailing arbutus	G5	S2	N	SE	2012-05-12	2010-06-09: Relatively undisturbed steep slope of upland pine with old growth Pinus palustris. Other associated species: Magnolia grandiflora, chinquapin, Quercus hemisphaerica, Quercus nigra (U10FNA02FLUS).	In 2010, 11-20 plants in leaf covering less than 10 sq meters and in 2012, hundreds (well more than 300) of clumps widely scattered and concentrated in 3 areas.
ERYNBAPT*13	<i>Erynnis baptisiae</i>	Wild Indigo Duskywing	G5	S2S3	N	N	2018-08-09	None given.	One adult was photographed at Blackwater River State Forest in 2018 (U23INA08FLUS).
EUPHDISC*3	<i>Euphoria discicollis</i>	Pocket Gopher Flower Beetle	G2	S1S2	N	N	1998-01-19 -- 1998-04-05	1998-04-05: No information given (U06SKE01FLUS).	1998-04-05: A total of 22 specimens were collected from 1998-01-19 to 1998-04-05, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS).
EUPHDISC*5	<i>Euphoria discicollis</i>	Pocket Gopher Flower Beetle	G2	S1S2	N	N	1998-03-01 -- 1999-04-10	1999-04-10: No information given (U06SKE01FLUS).	1999-04-10: Two specimens were collected from 1999-03-01 to 1999-04-10, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS).



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EUPHISC*6	<i>Euphorbia discicollis</i>	Pocket Gopher Flower Beetle	G2	S1S2	N	N	1999-03-01 ~ 1999-04-10	1999-04-10: No information given (U06SKE01FLUS).	1999-04-10: Two specimens were collected from 1999-03-01 to 1999-04-10, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS).
EURYSPPH*1	<i>Eurycea sphagnicola</i>	Bog Dwarf Salamander	G1G2	S1S2	N	N	2016-09-27	Bog and seepage stream surrounded by pine-dominated upland in Blackwater River State Forest.	Known from 23 specimens (at least from 2016) at 4 proximate sites (A17WRA01FLUS, U18MEA01FLUS).
EURYSPPH*2	<i>Eurycea sphagnicola</i>	Bog Dwarf Salamander	G1G2	S1S2	N	N	2017-08-03	Gentle slope next to tiny seepage stream; salamander in tiny, wet leafy depression.	Known from only 1 specimen (U18MEA01FLUS).
EURYSPPH*6	<i>Eurycea sphagnicola</i>	Bog Dwarf Salamander	G1G2	S1S2	N	N	1999	Blackwater River State Forest, an ecosystem dominated by upland pine forest, 1998-1999 observations were in herbaceous and shrub portions of seepage bog that drains into Bull Pen Branch, a tributary of the Blackwater River (A02ENG02FLUS).	Based on 43 captures at 2 drift fences in 1999 (A02ENG02FLUS), apparently a very large population.
EURYSPPH*7	<i>Eurycea sphagnicola</i>	Bog Dwarf Salamander	G1G2	S1S2	N	N	1999	Blackwater River State Forest, an ecosystem dominated by upland pine forest, 1998-1999 observations were in herbaceous and shrub portions of seepage bog that drains into Reedy Creek, a tributary of the Yellow River (A02ENG02FLUS).	Based on 21 captures at 2 drift fences in 1999 (A02ENG02FLUS), apparently a large population.
EUTRGOPH*8	<i>Eutrichota gopheri</i>	Gopher Tortoise Burrow Fly	G2	S2S3	N	N	2016-05-27	upland pine	Specimens were collected at 7 locations during 2 one week survey periods using gopher tortoise burrow facade traps and examining burrow mouths in upland pine habitat.
EUTRGOPH*9	<i>Eutrichota gopheri</i>	Gopher Tortoise Burrow Fly	G2	S2S3	N	N	2016-05-26	sandhill habitat	Specimens were collected at 3 locations during 2 one week survey periods using gopher tortoise burrow facade traps and examining burrow mouths in sandhill habitat.
FOTHMILL*1	<i>Fothergilla milleri</i>	dwarf witch-alder	G2	S1	N	SE	1998-09-08	seepage slope (burned in 1998; reported as fire-suppressed in 2009).	First reported in 1998. Site visited in 2006 but plant ID was uncertain. No plants found in same area in 2009.



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FOTHMILL*6	<i>Fothergilla milleri</i>	dwarf witch-alder	G2	S1	N	SE	2024-09	seepage areas or streams	From 2020 to 2024, yearly stems counts were made at five discrete points which represents a total population (clonal) count. Over this time the population appears to have remained fairly stable, with a total count in 2020 of 533 stems and a total count in 2024 of 575 stems. 2012: 13 plants with clones in two discrete areas.
FOTHMILL*8	<i>Fothergilla milleri</i>	dwarf witch-alder	G2	S1	N	SE	2006-04-11	FNAI NC recorded as baygall.	Observed one 5 foot plant seen on slope leading to baygall.
FUSCESCA*5	<i>Fusconaia eschambia</i>	Narrow Pigtoe	G1G2	S1	T	FT	1986-06-02	Yellow River at SR-2: 30 m wide, up to 1.3 m deep, visibility 1.0+ m, slightly turbid, slow current, shifting sand in channel, stable silty sand margins, with some logs and detritus along banks; thickly vegetated riparian zone (UNDBUT01FLUS).	Decades of observations, so population is persistent, though it does not seem to be large, and the species is uncommon at most sites.
GEOLFEAT*64	Geological feature		GNR	SNR	N	N	1990-04-07	LARGE MOUND WITH LIMONITE ROCK ON FLAT TOP	No EO data given
GEOMXERO*12	<i>Geomysaprinus xerobatis</i>	Gopher Tortoise Hister Beetle	G2G3	S1S2	N	N	2016-05-26	sandhill	One specimen was collected in the mouth of a gopher tortoise burrow in sandhill habitat.
GOPHPOLY*1011	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	1996-10-29	Sandhill: Grasses in and around apron: <i>Andropogon gyrans</i> , <i>Aristida purpurea</i> ; longleaf pine/turkey oak association; large patch of gopher apples (<i>Licania michauxii</i>) ca. 20 feet from burrow exit.	1996-10-29: One active burrow found; 8 inches long, oval shape, with 3.5 foot apron--yellow sand (PNDHER03FLUS).
GOPHPOLY*1038	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	2019-01-22	Sandhill: Approximately half of site is high quality sandhill, and half of site is mowed grass helicopter landing field, estimated 600 acres of potential habitat in immediate area; 2% of this habitat is apparently occupied by species: Tortoises using north landing pad area and northwest-southeast trail edge (PNDPRI03FLUS).	At least 14 burrows (some with tortoises) seen in four visits spanning 1997-2019. Population seems to be fairly low.



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GOPHPOLY*1040	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST		1997-01-13	Rolling sandhill with some mesic flatwood-like areas. Canopy is primarily longleaf pine. Turkey oak is abundant in the subcanopy of drier portions. Shrub layer variable (20-40%) dominated by saw palmetto and deerberry. Herb coverage is 30-50% dominated by wiregrass.	Twelve active/inactive burrows were observed in 38.95 ha of transects. 5 tortoises were observed with a burrow camera. Observed tortoise density was 0.128 tortoises/ha.
GOPHPOLY*1042	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST		1997-01-14	Rolling good quality sandhill with an open canopy of longleaf pine. Patches of turkey oak occur in the well drained portions of the site (10-20% of the area). Some less well drained areas with gallberry. Ground cover throughout is dominated by wiregrass and dwarf live oak.	Fifteen active/inactive burrows were observed in 19.62 ha of transects. Eight tortoises were observed with a burrow camera. Observed tortoise density was .41/ha.
GOPHPOLY*1044	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST		1997-01-15	Recently burned old age planted pine on upland pine forest/upland mixed forest site (D. Hipes guess at historic community). A few large southern red oak are scattered within a moderately dense pine canopy. Shrub and herb cover is sparse. A few dense patches of wiregrass are present.	Five active/inactive burrows were observed in 17.08 ha of transect. No tortoises were observed with the burrow camera.
GOPHPOLY*1045	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST		1997-01-15	Area not homogeneous, some planted pine, some semi-natural sandhill. Transects were through the planted slash pine. Open canopy, sparse ground cover of wiregrass and weedy herbs.	1997-01-15. Five active/inactive burrows were observed in 4.75 ha of transect. One tortoise was observed with a burrow camera. Observed tortoise density was .21 tortoises per hectare (PNDHIP01FLUS).
GOPHPOLY*1046	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST		1997-01-15	Flat to rolling sandhill with some mesic areas. Canopy of longleaf pine in some portions, planted loblolly in other portions. Shrub coverage is sparse with exception of patches of Ilex and Vaccinium myrsinites. Herb cover is dominated by wiregrass. Natural portion is in good condition.	Five active/inactive burrows were observed in 26.77 hectares of transect. Three tortoises were observed with a burrow camera. Observed tortoise density was .11/ha.



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GOPHPOLY*1465	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	2006-04-11	A utility corridor flanked by sandhill.
GOPHPOLY*1466	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	2006-05-04	Upland pine with streams (F13FNA03FLUS, PNDSUR01FLUS).
GOPHPOLY*1467	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	2006-05-04	Sandhill with woody encroachment from fire suppression.
GOPHPOLY*1531	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	2016-12-14	Fire-suppressed sandhill/upland pine. Overstory consisted of <i>Pinus palustris</i> and <i>Quercus laevis</i> . Midstory was often absent, but at times contained thick stands of shrubs and small trees such as <i>Vaccinium</i> arboreum. Understory mostly consisted of wiregrass with open ground and Turkey Oak leaf litter.
GOPHPOLY*1532	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	2016-12-13	Fire-suppressed sandhill
GOPHPOLY*1533	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	2016-12-13	Fire-suppressed sandhill
GOPHPOLY*1534	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	2016-12-14	Sandhill
GOPHPOLY*261	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	1984-10	No general description given
GOPHPOLY*268	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	1987 pre	No general description given
GOPHPOLY*297	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	1987 pre	No general description given
GOPHPOLY*299	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	2019-01-21	Sandhill
GOPHPOLY*300	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	1987 pre	No general description given
GOPHPOLY*301	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	2006-04-11	Sandhill



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GOPHPOLY*607	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	1987 pre	No general description given
GOPHPOLY*608	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	1987 pre	No general description given
GOPHPOLY*87	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	1983	IN HIGH PINELANDS N and S OF RIVER.
GRAPERNS*2	<i>Graptemys ernsti</i>	Escambia Map Turtle	G2	S2	SAT, PDL	N	2006-07	The Yellow River is a moderately sized alluvial stream with blackwater characteristics, as is its primary tributary, the Shoal River (PNDJAC01FLUS).
HALILEUC*1365	<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3	N	N	2003	2005-07-12: Source does not provide a description.
HELOSELY*2	<i>Helocordulia selysii</i>	Selys' Sunfly	G4	S4	N	N	2021-03-22	Clear, sand-bottom seepage stream.
HELOSUBV*16	<i>Helopicus subvarians</i>	A Stonewall	G4	S3	N	N	1980-02-27	1980-02-27: No description given (U09DEP01FLUS).
HELOSUBV*23	<i>Helopicus subvarians</i>	A Stonewall	G4	S3	N	N	1980-02-20	1980-02-20: No description given (U09DEP01FLUS).
HELOSUBV*25	<i>Helopicus subvarians</i>	A Stonewall	G4	S3	N	N	1988-02-20	1988-02-20: No description given (U09DEP01FLUS).
HELOSUBV*27	<i>Helopicus subvarians</i>	A Stonewall	G4	S3	N	N	1988-02-24	1988-02-24: No description given (U09DEP01FLUS).



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HETAAMER*14	<i>Hetaerina americana</i>	American Rubyspot	G5	S2	N	N	1974-07-31	1974-07-31: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
HETESIMU*34	<i>Heterodon sinuatus</i>	Southern Hognose Snake	G2G3	S2S3	PT	N	2015	Sand pine forest (U13SNY01FLUS)
HETESIMU*43	<i>Heterodon sinuatus</i>	Southern Hognose Snake	G2G3	S2S3	PT	N	1994-05-24	State forest; open pineland visible in aerial photograph (2020).
HEXABILI*47	<i>Hexagenia bilineata</i>	A Mayfly	G5	S2	N	N	1998-07-15	1998-07-15: No description given (U09DEP01FLUS).
HOMODOLA*1	<i>Homoeoneuria dolani</i>	Blue Sand-river Mayfly	G3G4	S1S2	N	N	1967-08	Relatively shallow, sand-bottomed blackwater river, 1967 series of nymphs collected from shallow burrows in shifting sand, mostly in deeper parts of river (A89PES01FLUS).
HYDRPHOR*10	<i>Hydroperta phormidia</i>	A Stonefly	G3	S2	N	N	1999-03-10	1999-03-10: No description given (U07RAS01FLUS).
HYDRPHOR*12	<i>Hydroperta phormidia</i>	A Stonefly	G3	S2	N	N	1980-02-27	1980-02-27: No description given (U09DEP01FLUS).
HYDRPHOR*3	<i>Hydroperta phormidia</i>	A Stonefly	G3	S2	N	N	1978-04-12	1978-04-12: No description given (U07RAS01FLUS).
HYDRPHOR*4	<i>Hydroperta phormidia</i>	A Stonefly	G3	S2	N	N	1977-04-25	1977-04-25: No description given (U07RAS01FLUS).
HYLAANDE*108	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1999	1980-06-28: occurrence was on seepage slope with seeping shrub bog (P82MOL01FLUS); 1980 visit. 1982: additional description by Godwin.



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HYLAANDE*109	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1980-06-28	1980-06-28: occurrence was on seepage slope with seepage shrub bog (P82MOL01FLUS).	1980-06-28: Moler heard males calling at this site (#107) (P82MOL01FLUS, PNDMOL01FLUS).
HYLAANDE*110	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1980-06-28	1980-06-28: occurrence was on seepage slope with seepage shrub bog (P82MOL01FLUS).	1980-06-28: Moler heard males calling at this site (#108) (P82MOL01FLUS, PNDMOL01FLUS).
HYLAANDE*111	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1980-05-22	1980-05-22: occurrence was on seepage slope with seepage shrub bog (P82MOL01FLUS).	1980-05-22: Moler heard males calling at this site (P82MOL01FLUS).
HYLAANDE*114	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1980-06-28	1980-06-28: occurrence was on seepage slope with seepage shrub bog (P82MOL01FLUS).	1980-06-28: Moler heard males calling at this site (P82MOL01FLUS).
HYLAANDE*115	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1982-05-24	1982-05-24: occurrence was on seepage slope with seepage shrub bog (P82MOL01FLUS).	1982-05-24: Moler heard males calling at this site (P82MOL01FLUS).
HYLAANDE*116	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1981-06-23	1981-06-23: occurrence was on seepage slope with seepage shrub bog (P82MOL01FLUS).	1981-06-23: Moler heard males calling at this site (P82MOL01FLUS).
HYLAANDE*117	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1980-05-22	1980-05-22: occurrence was on seepage slope with seepage shrub bog (P82MOL01FLUS).	1980-05-22: Moler heard males calling at this site (P82MOL01FLUS).
HYLAANDE*118	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1980-05-22	1980-05-22: occurrence was on seepage slope with seepage shrub bog (P82MOL01FLUS).	1980-05-22: Moler heard males calling at this site (P82MOL01FLUS).
HYLAANDE*119	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1980-06-24	1980-06-24: occurrence was on seepage slope with seepage shrub bog (P82MOL01FLUS).	1980-06-24: Moler heard males calling at this site (P82MOL01FLUS).
HYLAANDE*120	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1980-06-24	1980-06-24: occurrence was on seepage slope with seepage shrub bog (P82MOL01FLUS).	1980-06-24: Moler heard males calling at this site (#104) (P82MOL01FLUS, PNDMOL01FLUS).
HYLAANDE*121	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1980-06-24	1980-06-24: seepage slope with seepage shrub bog (PNDMOL01FLUS).	1980-06-24: Moler heard males calling at this site (#105) (P82MOL01FLUS, PNDMOL01FLUS).
HYLAANDE*122	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1982-05-22	1982-05-22: seepage slope with seepage shrub bog (PNDMOL01FLUS).	1982-05-22, 1980: Moler heard males calling at this site (#83) (P82MOL01FLUS, PNDMOL01FLUS).



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HYLAANDE*123	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1980-05-20	1980-05-20: seepage slope with seepage shrub bog; site surrounded by agricultural field (PNDMOL01FLUS).	1980-05-20: Moler heard males calling at this site (#84) (P82MOL01FLUS, PNDMOL01FLUS).
HYLAANDE*124	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1982-06-11	No general description given	1982-06-11 Moler heard ca. half dozen males calling at this site (P82MOL01FLUS, PNDMOL01FLUS).
HYLAANDE*126	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1994-07-16	1994-07-16: disturbed Seepage Slope (PNDPRI03FLUS).	1994-07-16: D. Printiss heard at least 3 males calling at this site from dusk to ca. 2230 h; other choruses heard both to north and south (PNDPRI03FLUS, U94PRI01FLUS).
HYLAANDE*57	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1979-06-06	1979-06-06: occurrence was on seepage slope with seepage shrub bog (PNDMOL01FLUS).	1979-06-06: Moler heard males calling at this site (his H. andersonii site 37) (P82MOL01FLUS, PNDMOL01FLUS).
HYLAANDE*58	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1979-06-06	1979-06-06: occurrence was on seepage slope with seepage shrub bog (PNDMOL01FLUS).	1979-06-06: Moler heard males calling at this site (his H. andersonii site 35) (P82MOL01FLUS, PNDMOL01FLUS).
HYLAANDE*59	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1999	Blackwater River State Forest, an ecosystem dominated by upland pine forest. 1999 observations were in herbaceous and shrub portions of seepage bog that drains into Bull Pen Branch, a tributary of the Blackwater River (A02ENG02FLUS). 1979: seepage slope with seepage shrub bog (PNDMOL01FLUS).	1999: Engle trapped 9 in herb and shrub bogs (A02ENG02FLUS). 1979-06-06: Moler heard males calling at this site (his H. andersonii site 36) (P82MOL01FLUS, PNDMOL01FLUS).
HYLAANDE*80	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1979-06-06	1979-06-06: occurrence was on seepage slope with seepage shrub bog (PNDMOL01FLUS).	1979-06-06: Moler heard males calling at this site (his H. andersonii site 38) (P82MOL01FLUS, PNDMOL01FLUS).
HYLAANDE*61	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1979-07-19	1979-07-19: occurrence was on seepage slope with seepage shrub bog (PNDMOL01FLUS).	1979-07-19: Moler heard males calling at this site (his H. andersonii site 64) (P82MOL01FLUS, PNDMOL01FLUS); site partly destroyed, occurrence status unknown.
HYLAANDE*62	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1979-07-19	1979-07-19: occurrence was on seepage slope with seepage shrub bog (PNDMOL01FLUS).	1979-07-19: Moler heard males calling at this site (his H. andersonii site 65) (P82MOL01FLUS, PNDMOL01FLUS).



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HYLAANDE*63	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1979-07-19: occurrence was on seepage slope with seepage shrub bog (PNDMOL01FLUS).	1979-07-19: Moler heard males calling at this site (his H. andersonii site 57) (P82MOL01FLUS, PNDMOL01FLUS).
HYLAANDE*64	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1979-07-19: occurrence was on seepage slope with seepage shrub bog (PNDMOL01FLUS).	1979-07-19: Moler heard males calling at this site (his H. andersonii site 63) (P82MOL01FLUS, PNDMOL01FLUS).
HYLAANDE*74	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1979-07-19: occurrence was on seepage slope with seepage shrub bog (PNDMOL01FLUS).	1979-07-19: Moler heard males calling at this site (his H. andersonii site 59) (PNDMOL01FLUS).
HYLAANDE*75	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1979-07-19: occurrence was on seepage slope with seepage shrub bog (PNDMOL01FLUS).	1979-07-19: Moler heard males calling at this site (his H. andersonii site 62) (PNDMOL01FLUS).
HYLAANDE*76	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1979-07-18: occurrence was on seepage slope with seepage shrub bog (PNDMOL01FLUS).	1979-07-18: Moler heard males calling at this site (his H. andersonii site 55) (PNDMOL01FLUS).
HYLAANDE*77	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1979-07-18: occurrence was on seepage slope with seepage shrub bog (PNDMOL01FLUS).	1979-07-18: Moler heard males calling at this site (his H. andersonii site 54) (PNDMOL01FLUS).
HYLAANDE*78	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1979-07-18: occurrence was on seepage slope with seepage shrub bog (PNDMOL01FLUS).	1979-07-18: Moler heard males calling at this site (his H. andersonii site 53) (PNDMOL01FLUS).
HYLAANDE*79	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1979-07-18: occurrence was on seepage slope with seepage shrub bog (PNDMOL01FLUS).	1979-07-18: Moler heard males calling at this site (his H. andersonii site 56) (P82MOL01FLUS, PNDMOL01FLUS).
HYLAANDE*82	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1979-07-19: occurrence was on seepage slope with seepage shrub bog (P82MOL01FLUS).	1979-07-19: Moler heard males calling at this site (#72 on map) (P82MOL01FLUS, PNDMOL01FLUS).
HYLAANDE*83	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1979-07-19: occurrence was on seepage slope with seepage shrub bog (P82MOL01FLUS).	1979-07-19: Moler heard males calling at this site (#71 on map) (P82MOL01FLUS, PNDMOL01FLUS).
HYLAANDE*84	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1979-07-19: occurrence was on seepage slope with seepage shrub bog (PNDMOL01FLUS).	1979-07-19: Moler heard males calling at this site (his H. andersonii site 58) (PNDMOL01FLUS).
HYLAANDE*85	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1979-05-22: occurrence was on seepage slope with seepage shrub bog (PNDMOL01FLUS).	1979-05-22: Moler heard males calling at this site (his H. andersonii site 33) (PNDMOL01FLUS).



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HYLAANDE*86	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1992-06-11	1979: occurrence was on seepage slope with seepage shrub bog (PNDMOL01FLUS).	1992-06-11: Moler heard chorus of at least 2 dozen males calling at this site (his H. andersonii site 32) (PNDMOL01FLUS). 1979-07-19: Moler photographed frogs at this site (PNDMOL01FLUS).
HYLAANDE*87	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1978-07-20	1978: occurrence was on seepage slope with seepage shrub bog (PNDMOL01FLUS).	1978-07-20: Moler heard males calling at this site (his H. andersonii site 23) (PNDMOL01FLUS). Mapped boundaries are only approximate.
HYLAANDE*88	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1979-09-02	1979: occurrence was on seepage slope with seepage shrub bog (PNDMOL01FLUS).	1979-09-02: Moler heard males calling at this site (his H. andersonii site 22) (PNDMOL01FLUS).
HYLAANDE*89	<i>Hyla andersonii</i>	Pine Barrens Treefrog	G3	S2S3	DL	N	1979-07-19	1979-07-19: occurrence was on seepage slope with seepage shrub bog (PNDMOL01FLUS).	1979-07-19: Moler heard males calling at this site (his H. andersonii site 60) (PNDMOL01FLUS).
HYLOGEMI*3	<i>Hylonomphus geminatus</i>	Twin-striped Clubtail	G3G4	S3	N	N	2004-07-28	2004-07-28: No description given (U09DEP01FLUS).	2004-07-28: Staff from the Florida Department of Environmental Protection collected this species on this date and on 2002-03-05 (U09DEP01FLUS).
HYLOGEMI*38	<i>Hylonomphus geminatus</i>	Twin-striped Clubtail	G3G4	S3	N	N	2001-02-08	2001-02-08: No description given (U09DEP01FLUS).	2001-02-08: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
HYLOGEMI*4	<i>Hylonomphus geminatus</i>	Twin-striped Clubtail	G3G4	S3	N	N	2005-06-07	2005-06-07: No description given (U09DEP01FLUS).	2005-06-07: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
HYLOGEMI*5	<i>Hylonomphus geminatus</i>	Twin-striped Clubtail	G3G4	S3	N	N	2007-10-24	2007-10-24: No description given (U09DEP01FLUS).	2007-10-24: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
ILEXAMEL*11	<i>Ilex amelanclhier</i>	serviceberry holly	G4	S2	N	ST	1994-08-01	Ilex amelanclhier inhabits the extensive floodplain swamp that bounds the south side of the Yellow River. The shrubs grow under a canopy of Taxodium distichum, Nyssa aquatica, Quercus laurifolia and Acer rubrum. Understory associates include Cornus foemina, Fraxinus caroliniana, Gleditsia aquatica and Ilex verticillata.	Shrubs frequent and in some places abundant, over an extensive area (several acres) along the south side of the Yellow River. Fruit abundant suggesting an excellent potential for reproduction.



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ILEXAMEL*2	<i>Ilex amelanclhier</i>	serviceberry holly	G4	S2	N	ST	EDGE OF LOW SWAMP.	FLOWERING. S.C. HOOD SPECIMEN #1947, COLLECTED 9 APRIL 1949, FLAS #52039.
ISONBERN*1	<i>Isonychia berneri</i>	A Mayfly	G2G3	S1S2	N	N	2011-05-27 Blackwater River.	Specimen collected (S11XXX02FLUS).
ISONBERN*3	<i>Isonychia berneri</i>	A Mayfly	G2G3	S1S2	N	N	1976-07-15 Blackwater River.	4 male specimens collected (S76PET01FLUS).
ISONSICC*12	<i>Isonychia sicca</i>	A Mayfly	G5	S2S3	N	N	1993-02-16: No description given (U09DEP01FLUS).	1993-02-16: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
JUNCGYMN*17	<i>Juncus gymnocarpus</i>	Coville's rush	G4	S2	N	SE	2006-08-11 Woodwardia areolata, Lyonia lucida. FNAI NC recorded as floodplain forest.	Observed greater than 1000 plants in fruit dominant species in ground layer, also large population W of road.
KALMLATI*80	<i>Kalmia latifolia</i>	mountain laurel	G5	S3	N	ST	2006-04-13 With Illicium floridanum, Oxycandrum arboreum, Quercus nigra. FNAI NC recorded as baygall.	Observed 11-50 plants in flower/bud up to 16 feet tall.
KALMLATI*81	<i>Kalmia latifolia</i>	mountain laurel	G5	S3	N	ST	2006-04-12 FNAI NC recorded as floodplain forest.	Observed 11-50 plants in flower/fruit 12 feet tall.
KALMLATI*84	<i>Kalmia latifolia</i>	mountain laurel	G5	S3	N	ST	2006-04-04 FNAI NC recorded as baygall.	Observed 1-10 plants in flower/bud in levee forest.
KALMLATI*86	<i>Kalmia latifolia</i>	mountain laurel	G5	S3	N	ST	2006-05-03 Floodplain forest	At least 12 plants observed
LACHDIGY*3	<i>Lachnocaulon digynum</i>	pineland bogbutton	G3G4	S3	N	ST	HILLSIDE SEEPAGE BOG. HERBACEOUS SPECIES DOMINATE EXCEPT NEAR SEEPAGE STREAM WHERE SHRUBS DOMINATE.	1989-09-21: ORZELL and BRIDGES OBSERVED.
LACHDIGY*5	<i>Lachnocaulon digynum</i>	pineland bogbutton	G3G4	S3	N	ST	MID-SLOPE, QUAKING SAPRIC MUCK SEEPAGE HERB BOG ALONG TRIUTARY TO MIDDLE CREEK, IN FREQUENTLY BURNED, FIRE-MAINTAINED SAVANNA WITH INTACT GROUND COVER TO FACILITATE FIRE ACROSS THE LANDSCAPE.	PLANTS IN FLOWER ON 9-20-89. ASSOCIATES INCLUDE RHYNCHOSPORA STENOPHYLLA, R. MACRA, XYRIS SCABRIFOLIA, UTRICULARIA JUNCEA, AND SARRACENIA LEUCOPHYLLA. PLANTS LOCALLY ABUNDANT IN AREAS OF COPIOUS TELLURIC SEEPAGE.
LACHDIGY*54	<i>Lachnocaulon digynum</i>	pineland bogbutton	G3G4	S3	N	ST	1994-10-11 Seepage slope.	100+ plants observed; flowering and in leaf.



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	LACHDIGY*72	<i>Lachnocaulon diglymum</i>	pineland bogbutton	G3G4	S3	N	N	ST	2006-08-10	2006-08-10: Upper edge of seepage slope; open area with a scattering of shrubs but no pitcher plants. Seepage slope associated with drainage of Reedy Creek. Associated rare species include <i>Panicum nudicaule</i> and <i>Platanthera integrifolia</i> . Other associates: <i>Ilex coriacea</i> , <i>Nyssa sylvatica</i> var. <i>biflora</i> , <i>Clethra alnifolia</i> , <i>Magnolia virginiana</i> , Herbs: <i>Myriophyllum heterophyllum</i> , <i>Sarracenia flava</i> , <i>Sarracenia psittacina</i> , <i>Eriocaulon decangulare</i> , <i>Juncus trigonocarpus</i> , <i>Bidens mitis</i> , <i>Carex glaucescens</i> , <i>Oxypolis filiformis</i> (PNDSCH01ALUS).	2008-08-10: Observed about 55-60 clumps. At same location as <i>Panicum nudicaule</i> and <i>Platanthera integrifolia</i> . Inhabits sapric muck where competition is minimal (PNDSCH01ALUS).
	LACHDIGY*74	<i>Lachnocaulon diglymum</i>	pineland bogbutton	G3G4	S3	N	N	ST	2023-06-29	<i>Pinus elliptici</i> , <i>Morella inodora</i> , <i>Morella carolinensis</i> , <i>Ilex coriacea</i> , <i>Aristida stricta</i> , <i>Zigadenus glaberrimus</i> , <i>Pilea tenuifolia</i> , <i>Sarracenia flava</i> , <i>Sarracenia leucophylla</i> , <i>Sarracenia psittacina</i> , <i>Muhlenbergia capillaris</i> , <i>Rhexia lutea</i> , <i>Dichantheium nudicaule</i> , <i>Lophiola aurea</i>	2023-06-29: underneath a "canopy" of perennial bunch grasses and forbs (F23FNA03FLUS).
	LAMPRHOM*2	<i>Lampropeltis rhombomaculata</i>	Northern Mole Kingsnake	G4	S2	N	N	N	1987-03-24	State forest; open pineland visible in aerial photograph (2020).	Based on 1 snake found in 1987 (A98BOU01FLUS). Detailed data are in Additional Topics.
	LAMPRHOM*5	<i>Lampropeltis rhombomaculata</i>	Northern Mole Kingsnake	G4	S2	N	N	N	1999-07-01	Blackwater River State Forest, an ecosystem dominated by upland pine forest. 1999 observation was in upslope herbaceous portion of seepage bog (A02ENG02FLUS).	Based on capture of 1 snake in 1999 (A02ENG02FLUS, U20ENG02FLUS), but potentially a substantial population.
	LESTINAE*3	<i>Lestes inaequalis</i>	Elegant Spreadwing	G5	S2	N	N	N	2001-11-27	2001-11-27: No description given (U09DEP01FLUS).	2001-11-27: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
	LEUCBORE* (X)76	<i>Leuconotopicus borealis</i>	Red-cockaded Woodpecker	G3	S2	T	T	FT	1978	PINE.	Baker found active colony around 1978 (UNDBAK02FLUS). No longer present in 1994; aerials show major clearing in area (Google Earth 1994).



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LEUCBORE*107	<i>Leuconotopicus borealis</i>	Red-cockaded Woodpecker	G3	S2	T	FT	1978	PINE.
LEUCBORE*107	<i>Leuconotopicus borealis</i>	Red-cockaded Woodpecker	G3	S2	T	FT	2020	Mostly sandhill with longleaf pines and short oaks.
LEUCBORE*79	<i>Leuconotopicus borealis</i>	Red-cockaded Woodpecker	G3	S2	T	FT	2019	large expanse of sandhill and longleaf-dominated upland pine forest
LEUCCOTT*1	<i>Leuctra cottaquila</i>	A Stonefly	G2	S2	N	N	2006-01-31	2006-01-31: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
LEUCCOTT*2	<i>Leuctra cottaquila</i>	A Stonefly	G2	S2	N	N	2000-12-06	2000-12-06: Eighteen specimens were collected using a beating sheet. (U07RAS01FLUS). 1998-11-21: Three specimens were collected (U07RAS01FLUS).
LEUCCOTT*3	<i>Leuctra cottaquila</i>	A Stonefly	G2	S2	N	N	2000-12-06	2000-12-06: Five specimens were collected using a beating sheet (U07RAS01FLUS).
LEUCCOTT*4	<i>Leuctra cottaquila</i>	A Stonefly	G2	S2	N	N	1978-11-12	1978-11-12: Two specimens were collected (U07RAS01FLUS). 1974-01-24: One specimen was collected (U07RAS01FLUS).
LEUCFERR*8	<i>Leuctra ferruginea</i>	A Stonefly	G4G5	S2	N	N	1978-08-15	1978-08-15: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).



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LLIURID*101	<i>Lilium lindollae</i>	Panhandle Lily	G3	S3	UR	SE	2006-08-16: Floodplain swamp with <i>Arundinaria gigantea</i> / <i>Chamaecyparis thyoides</i> , <i>Cyrilla racemiflora</i> , <i>Liriodendron tulipifera</i> , <i>Albizia julibrissin</i> . Exotics along road (U06JCH01FLUS).	2006-08-16: along the west side of the road there were 12 plants with 2 in flower and 10 in bud; 3 plants with immature fruits were observed along the east side of the road (U06JCH01FLUS; PNDSCH05FLUS).
LLIURID*110	<i>Lilium lindollae</i>	Panhandle Lily	G3	S3	UR	SE	2008-08-05: Along gas line right of way (U08WAR01FLUS).	2008-08-05: 16 plants observed (U08WAR01FLUS).
LLIURID*111	<i>Lilium lindollae</i>	Panhandle Lily	G3	S3	UR	SE	2006-04-12: in graminoid dominated area of bottomland forest	1-10 plants in leaf.
LLIURID*118	<i>Lilium lindollae</i>	Panhandle Lily	G3	S3	UR	SE	2018-08-01: In Sweetwater Creek floodplain	At least 75 plants in total here, some flowering, most just past flowering.
LLIURID*119	<i>Lilium lindollae</i>	Panhandle Lily	G3	S3	UR	SE	2021-07-26: Heavily eroded road now acting as a drainage and seepage stream in heavy shrub layer.	A total of 9 flowering plants observed in 2018. Observed again in 2021.
LLIURID*121	<i>Lilium lindollae</i>	Panhandle Lily	G3	S3	UR	SE	2018-08-20: None given	species observed in 2018
LLIURID*122	<i>Lilium lindollae</i>	Panhandle Lily	G3	S3	UR	SE	2018-10-08: none given	species observed
LLIURID*124	<i>Lilium lindollae</i>	Panhandle Lily	G3	S3	UR	SE	2019-07-30: None given	Flowering plant photographed (U20INA02FLUS).
LLIURID*126	<i>Lilium lindollae</i>	Panhandle Lily	G3	S3	UR	SE	2022-07-17: Streamside.	At least 14 stems in immediate vicinity with more up and down stream. Observed again in 2022, but viability not assessed.
LLIURID*130	<i>Lilium lindollae</i>	Panhandle Lily	G3	S3	UR	SE	1992-07-30: With <i>Sarracenia rubra</i> in wet peaty soil of semi-shade of mixed woodland. (S92AND03FLUS)	Considered frequent. Flowering specimen (FSU #184986) collected.
LLIURID*132	<i>Lilium lindollae</i>	Panhandle Lily	G3	S3	UR	SE	1999-08-04: Ecotone of seepage slope and shrub-lined seepage stream.	As many as 52 plants observed.
LLIURID*133	<i>Lilium lindollae</i>	Panhandle Lily	G3	S3	UR	SE	2006-08-16: Streamside baygall	3 plants with 1 in flower and 2 vegetative
LLIURID*135	<i>Lilium lindollae</i>	Panhandle Lily	G3	S3	UR	SE	2021-05-11: Flooded drains to creeks feeding Big Coldwater Creek.	Total of about 200 vegetative plants seen, many of them juveniles.



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LILIRID15	<i>Lilium iridolae</i>	Panhandle Lily	G3	S3	UR	SE	1999-08-06	99-08-06: FLOODPLAIN FOREST. CANOPY AND SUBCANOPY APPROXIMATELY 60% CLOSURE. CANOPY COMPOSED OF SCATTERED MATURE SLASH PINE. SUBCANOPY INCLUDES NYSSA SP., LIRIODENDRON TULIPIFERA, MAGNOLIA VIRGINIANA, AND ACER RUBRUM. SHRUBS VARY IN COVERAGE INCLUDE TITI, MYRICA HETEROPHYLLA, ILEX SP., LYONIA SP., SMALL A. RUBRUM AND SMALL CHAMAECYPARIS THYOIDES. GROUND COVER 40-50% BARE MUD OR LEAF LITTER WITH LARGE PATCHES OF SPHAGNUM SP. AND FERNS COMMON. ALSO: LACHNOCAULON SP., VITIS SP., SMILAX SP., DROSERA INTERMEDIA, GRASSES RELATIVELY MINOR COMPONENT. SOIL MOIST. CONSISTS OF LOAMY ROOTS AND SPHAGNUM (PNDPRI03); 1990: FIELDS CLEAR CUT AND BURNED. STILL SMOLDERING (PNDLUN02). 88-08-09: RECENTLY CUTOVER FLOODPLAIN FOREST. A FEW SMALL ATL. WHITE CEDAR, RED MAPLES AND BAYS REMAIN ALONG JUNIPER CREEK; GROUND COVER DENSE AND WEEDY (P88GAT01).	99-08-06: 2 REPRODUCTIVE PLANTS OBSERVED (PNDPRI03). 1990: NOT OBSERVED, BUT DIFFICULTY IN LOCATING SITE (PNDLUN02). 88-08-09: SCATTERED CLUMPS, LESS THAN 30 PLANTS; IN FLOWER (P88GAT01).



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LIIIRD*16	<i>Lilium iridolae</i>	Panhandle lily	G3	S3	UR	SE	1999-08-06	99-08-06: CANOPY 30% COVER INCLUDING PINUS ELLIOTTII, CHAMAECYPARIS THYOIDES, MAGNOLIA VIRGINIANA, AND NYSSA SP. SUBCANOPY 60% COVER INCLUDING TITI, ILEX SP., AND OTHERS. GROUND COVER VEGETATION SPARSE WITHIN THE HARDWOODS TO LUSH AT EDGES (SPHAGNUM SP., FERN SPP., SARRACENIA SPP., ETC.) SOUTH PLANT FOUND WITHIN THE HARDWOODS, NORTH PLANTS FOUND ON THE EDGE OF SEEPAGE STREAM. HARDWOODS WITH OPEN CANOPY TO THE EAST (PNDPRI03). 1987: SHRUB THICKET ALONG GARNIER CREEK. THIS SITE SEVERELY IMPACTED BY SEDIMENTATION FROM DIRT ROAD AND CLEARING OF LAND (POSSIBLY FOR TREES) THEREBY COVERING THE NATIVE MUCK SOIL WITH SANDY ORANGE SEDIMENTS (F87MOL01).	2012-02-16: failed to find. 99-08-06: ONE REPRODUCTIVE PLANT OBSERVED AT 1987 LOCATION (SOUTH SIDE OF ROAD, EAST SIDE OF CREEK). 14 REPRODUCTIVE AND 2 VEGETATIVE PLANTS OBSERVED IN TWO CLUMPS ON NORTH SIDE OF ROAD AND EAST SIDE OF CREEK (PNDPRI03). 1990: NOT OBSERVED (PNDLUN02). 1987: ONE PLANT IN BUD (F87MOL01).



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LILIRID*18	<i>Lilium iridolae</i>	Panhandle lily	G3	S3	UR	SE	2011-07-26 2008-10-13: Seepage slope needing more fire with woody encroachment, revisited for gas line right of way project (U08JEN04FLUS). 2006-08-15: Seepage slope with fire suppression and woody encroachment. Associates include <i>Sarracenia leucophylla</i> , <i>Eriocaulon deccangulare</i> , <i>Scleria muhlenbergii</i> , <i>Arnoglossum sulcatum</i> , <i>Xyris ambigua</i> , <i>Juncus trigonocarpus</i> , <i>Oxypolis filiformis</i> , <i>Cyrilla racemiflora</i> , <i>Cliftonia monophylla</i> , <i>Magnolia virginiana</i> , <i>Smilax laurifolia</i> . Clay is washing downslope from road and filling in site (U06JOH01FLUS). 1999-08-04: <i>Fuirena squarrosa</i> area with plants growing in open grassy scattered shrubs of poison sumac (<i>Rhus vernix</i>) and <i>Myrica heterophylla</i> on slope parallel to tit draw draining eastward into Panther Creek. Other species present include <i>Sarracenia leucophylla</i> , <i>Oxypolis rigidior</i> , <i>O. filiformis</i> , <i>Arnoglossum sp.</i> , <i>Lophiola americana</i> , <i>Coreopsis floridana</i> , <i>Zigadenus glaberrimus</i> , <i>Marshallia sp.</i> , <i>Tofieldia racemosa</i> , <i>Asclepias connivens</i> , <i>Eleocharis tuberculosa</i> (PNDJOH01FLUS). 1992: extensive hillside seepage and sapric muck bogs. Herbaceous species dominant except near seepage stream where shrubs dominate (Orzell and Bridges).	This species has been observed in this area from 1989 – 2011 at approximately 3 localities, with many hundreds observed in 2011. 2013-08-29: none seen near SF 49572.



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LULIRD*19	<i>Lilium iridollae</i>	Panhandle lily	G3	S3	UR	SE			1999-08-05	Very small seepage stream incised into ground level approximately 6 inches. Canopy 20% coverage of mature <i>Pinus elliotii</i> ; no subcanopy; shrub layer thick, mostly 3-6 feet <i>Arundinaria gigantea</i> with much <i>Ilex</i> sp. <i>titi</i> , and <i>Myrica heterophylla</i> as well. Groundcover nearly covered by <i>Sphagnum</i> sp., several fern species also present (PNDFR03FLUS). Seepage slope rim with 74 plant species, including <i>Fothergilla gardenii</i> , <i>Macranthera flammula</i> , <i>Xyris scabrifolia</i> , and watch list species <i>Zigadenus leimanthoides</i> (complete list attached to EOR in GMF). Burned in 1998 (PNDSOR01FLUS).	41 reproductive and 6 vegetative plants observed.	
LULIRD*20	<i>Lilium iridollae</i>	Panhandle lily	G3	S3	UR	SE			2016-09-15	2008-08-08: Well burned seepage area, but not in lowest parts (U08JEN04FLUS). 1999-08-05: plant in open sunny draw (where drainage curves N) growing w/ <i>Arundinaria gigantea</i> , <i>Ilex coriacea</i> , and <i>Hypericum fasciculatum</i> ; plant along edge of <i>titi</i> draw growing with denser set of shrubs incl. <i>Rhus vernix</i> , <i>Ilex glabra</i> , <i>Arundinaria</i> , and <i>Ilex coriacea</i> (PNDJOH01FLUS); 1984 seepage slope (bog) and nearby drainages. (U90MOL05FLUS).	This species has been documented in this general area at a total of approximately 4 localities on several dates from 1983-2012. On the most recent survey, more than 40 plants were documented 2013-8-29; no plants seen at SF 49572 probably due to recent prescribed fire. 2016 the species was confirmed to persist.	
LULIRD*22	<i>Lilium iridollae</i>	Panhandle lily	G3	S3	UR	SE			1984	None given	12-15 plants.	



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LLIURID*23	<i>Lilium iridollae</i>	Panhandle lily	G3	S3	UR	SE	1999-08-05: Seepage area with little slope, due to lack of slope, the ecotone between graminoid/forb seepage species and streamside woody species is large. Canopy mostly open, approximately 20% closure by 15 feet tall <i>Pinus elliotii</i> and 8-9 feet tall. Groundcover dense, mostly forbs some graminoids with: <i>Andropogon</i> sp., <i>Sarracenia flava</i> , <i>Rhexia</i> sp., <i>Eriocaulon</i> sp., <i>Lachnocaulon</i> sp., <i>Marshallia</i> sp., club moss, <i>Xyris</i> sp., <i>Sphagnum</i> sp. Soil saturated and laden with silt from upstream clay erosion- immediate portion of stream drainage orange bottomed. No sign of recent fire (PNDPRI03FLUS); 1990-07-24: Site has degraded considerably in last 12 yrs [first seen in 1978] and is badly in need of fire (U90MOL05FLUS)	None found in 2020. Two flowering plants observed in 1990 and another 3 in 1999.
LLIURID*27	<i>Lilium iridollae</i>	Panhandle lily	G3	S3	UR	SE	1999-08-03: Plants in open sun with <i>Arundinaria gigantea</i> , <i>Smilax laurifolia</i> , and scattered shrubs of <i>Ilex coriacea</i> and <i>Magnolia virginiana</i> (pndjoh01flus); 1990-07-24: shallow, intermittent seepage stream (Hynote branch) in longleaf pine/wiregrass wet flatwoods; stream course choked with <i>Ilex</i> spp., <i>Cliftonia monophylla</i> , <i>Clethra alnifolia</i> , and other shrubby vegetation (PNDKNI01FLUS).	2021: Species observed, but population size not recorded 1999-08-03: 42 plants seen (PNDJOH01FLUS); 1990-07-24: 35 plants (PNDKNI01FLUS).



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LLIIRD*29	<i>Lilium iridollae</i>	Panhandle lily	G3	S3	UR	SE	1990-08-24	90-08-24: HILLSIDE SEEPAGE BOG AND SLASH PINE ON ADJACENT UPLANDS; ASSOCIATES ILEX GLABRA, MYRICA HETEROPHYLLA, SARRACENIA FLAVA, SEE DATA SHEET (PNDORZ01). 1999-08-24: MAPPED LOCATION IS MESIC FLATWOODS WITH MINIMAL AMOUNT OF RELIEF AND LITTLE SEEPAGE (PNDPRI03).	90-08-24: 5 FLOWERING PLANTS, 1 FRUITING (PNDORZ01).
LLIIRD*3	<i>Lilium iridollae</i>	Panhandle lily	G3	S3	UR	SE	1999-08-04	2020-08-12: exceptional bayhead <i>Nyssa biflora</i> , <i>Magnolia virginiana</i> , <i>Acer rubra</i> , <i>Liriodendron tulipifera</i> , <i>Ilex opaca</i> . 99-08-04: dense canopy of mostly <i>Nyssa</i> sp. and <i>Persea palustris</i> with <i>Pinus elliotii</i> , and <i>Taxodium distichum</i> ; understory mostly open except for scattered young of above, clumps of <i>Lyonia</i> sp. and <i>titi</i> scattered; groundcover mostly leaf litter with sphagnum mats common, small areas of standing water, and patches of ferns and smilax sp. Soil moist and composed mostly of organic matter (roots and sphagnum) (PNDPRI03). Pre-1999: on moist sandy loam of bottomland forest (with <i>Chamaecyparis thymoides</i> and <i>Cynilla racemiflora</i>)	First documented in 1956 but not seen on visits in 1979, 1985, 1986, and 1990 until 15 plants were observed in 1999. Not seen again during 2020 survey.
LLIIRD*32	<i>Lilium iridollae</i>	Panhandle lily	G3	S3	UR	SE	1991-07-30	Seepage slope.	2020: none found. 1991: Only 1 individual seen



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LILIIRID*34	<i>Lilium iridollae</i>	Panhandle Lily	G3	S3	UR	SE	1991-07-30	Young baygall community developing along small drainage area. Characterized by a loose stand of <i>Persea palustris</i> , <i>Cliftonia monophylla</i> , <i>Rhus vernix</i> , <i>Liriodendron tulipifera</i> , <i>Viburnum nudum</i> (?), <i>Quercus laurifolia</i> , <i>Nyssa sylvatica</i> , and dense stands of <i>Clethra alnifolia</i> along the ecotone between sandhill and baygall.	Only 5 individuals of <i>L. iridollae</i> seen; 2 vegetative only, 1 in bud, 1 in full flower, 1 in young fruit.
LILIIRID*36	<i>Lilium iridollae</i>	Panhandle Lily	G3	S3	UR	SE	1991-07-30	1999-08-05: FIRE (PRESCRIBED?) HAS RECENTLY (1 YR AGO?) BURNED INTO THE NORTH SIDE OF BAYGALL AND TITI IS RE-SPROUTING DENSELY WITHIN BAYGALL SOIL IS SANDY (RATHER THAN MUCKY) UNDER DENSELY SHADY CANOPY OF MAGNOLIA VIRGINIANA WITH OPEN UNDERSTORY. SLOPE DOWN TO BAYGALL APPEARS TOO DRY (SANDHILL) TO SUPPORT LILIUM. GRASSY SEEPAGE SLOPE MENTIONED IN 1991 NOT SEEN IN 1991-07-30: DENSE BAYGALL DOMINATED BY CLIFTONIA MONOPHYLLA, PERSEA PALUSTRIS, CYRILLA RACEMIFLORA, YOUNG LIRIODENDRON TULIPIFERA, WITH AN OCCASIONAL CHAMAECYPORIS THYOIDES, AND PINUS ELLIOTTII (?) AND NYSSA SYLVATICA (UNDHIL02FLUS).	1999-08-05: NO PLANTS FOUND IN 1 HOUR SEARCH TO EAST OF ROAD ON NORTH SIDE OF BAYGALL (PNDJOH01FLUS); 1991-07-30: 40 INDIVIDUALS SEEN, MOST AT EDGE OF BAYGALL IN FULL SUN, BUT SOME SEEN WITHIN DENSE CLIFTONIA/PERSEA FOREST (UNDHIL02FLUS).



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LILIRID*37	<i>Lilium iridollae</i>	Panhandle lily	G3	S3	UR	SE	1999-08-06	2008-10-13: Very fire suppressed seepage with Cyrilla, Cliftonia, Magnolia virginiana, Lyonia lucida, and Smilax (U08JEN04FLUS). 1999-08-06: ONE PLANT FOUND NEAR CREEK ON WEST SIDE ABOUT 10 FT FROM ROAD. THE SECOND FOUND CA 200FT FURTHER WEST ON EDGE OF FOREST (PNDJOH01FLUS); FOREST OF SWEET BAY AND LAUREL OAK WITH UNDERSTORY OF OSMUNDA REGALIS - WHOLE SITE GENERALLY DRIER THAN MOST LILIUM SITES SEEN (PNDJOH01FLUS). 1991-07-30: BOTTOMLAND FOREST WITH LIRIODENDRUM TULIPIFERA, PERSEA PALUSTRIS, ACER SP. (PROBABLY RUBRUM), QUERCUS NIGRA, Q. LAURIFOLIA, NYSSA SYLVATICA, MAGNOLIA GRANDIFLORA, M. VIRGINIANA, ILEX CORIACEA, RHODODENDRON SERRULATUM, SABAL PALMETTO, AND PINUS ELLIOTTII (UNDHIL02FLUS).	2008-10-13: No plants found (U08JEN04FLUS). 1999-08-06: 2 PLANTS SEEN BOTH IN FLOWER (PNDJOH01FLUS); 1991-07-30: ONLY 6 LILIUM IRIDOLLAE NOTED ALONG MARGIN OF BOTTOMLAND FOREST COMMUNITY. MOST PLANTS SEEN IN SMALL (PERHAPS DISTURBED SITES) CLEARINGS WITHIN FOREST EDGE BUT IMMEDIATELY ADJACENT TO MOWED ROAD SHOULDER (UNDHIL02FLUS).	
LILIRID*39	<i>Lilium iridollae</i>	Panhandle lily	G3	S3	UR	SE	1999-08-03	1999-08-03: NARROW WOODED FLOODPLAIN OF SMALL CREEK THROUGH SANDHILL SWEETBAY SLASH PINE. BLACK TITI IN CANOPY. MYRICA HETEROPHYLLA AND CAREX SP. IN UNDERSTORY (PNDJOH01FLUS).	1999-08-03: 8 PLANTS SEEN, 6 IN FLOWER OR BUD AND 2 VEGETATIVE (PNDJOH01FLUS AND PNDBAR07FLUS).	



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LILIRID*50	<i>Lilium iridollae</i>	Panhandle lily	G3	S3	UR	SE	1993-05-16	1999-08-04: Floodplain forest with canopy of Pinus elliotli and Magnolia virginiana; open understory with Ilex coriacea, Myrica heterophylla, Arundinaria tecta and Ludwigia alternifolia; ground layer on sandy soil has Mayaka fluviatilis in flower. Platanthera cristata in flower. Pinguicula primuliflora common along creek banks, Drosera intermedia, Arnoglossum sp., Asclepias rubra, and Sphagnum moss (PNDJOH01FLUS); 1993-05-16: CREEK BOTTOM (U93AND01FLUS)	1999-08-04: NO PLANTS SEEN IN 40 MIN SEARCH FOR 0.2 MI SOUTH OF BRIDGE ALONG CREEK (PNDJOH01FLUS); 1993-05-16: 1 CLUMP OBSERVED (U93AND01FLUS).		
LILIRID*51	<i>Lilium iridollae</i>	Panhandle lily	G3	S3	UR	SE	2020-08-12	99-08-04: APPROXIMATELY 80% CANOPY CLOSURE TO THE SOUTH, MOSTLY CHAMAECYPARIS THYOIDES, PINUS ELLIOTTII, AND TITI; MIDSTORY AND SHRUB LAYER MOSTLY OPEN; GROUND COVER WEEDY, MOSTLY PANICUM SP., A FEW HYPERICUM SP.; CANOPY TO THE NORTH COMPLETELY OPEN; SOIL SANDY AND DRY, PRESUMABLY A RESULT OF EROSION FROM RIGHT OF WAY (PNDPRI03).	None found in 2020 after thorough survey at each location by 2 people. Twenty clumps were observed in 1993 at the three points and 10+ at one point in 1998, but only one plant was found at one point in 1999 despite a "thorough survey".		
LILIRID*70	<i>Lilium iridollae</i>	Panhandle lily	G3	S3	UR	SE	1999-08-05	99-08-05: weedy roadside ditch; dense, 1 meter high coverage of mostly Panicum sp. with other weedy and non weedy species (PNDPRI03).	99-08-05: 17 reproductive and 4 vegetative plants observed (south side of road), 5 reproductive plants observed (north side of road) (PNDPRI03). 91-08-28: Approximately 35 plants observed (U91KNI03).		
LILIRID*71	<i>Lilium iridollae</i>	Panhandle lily	G3	S3	UR	SE	2018-08-01	99-08-05: small seepage stream within mesic flatwoods community (PNDPRI03).	This species has been observed here from 1991-2018; more than 50 plants observed in 2012, 18 in 2018.		



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LILIIRD73	<i>Lilium iridollae</i>	Panhandle lily	G3	S3	UR	SE	1999-08-05
							99-08-05: growing amongst very dense stand of <i>Arundinaria gigantea</i> , very little else growing. Canopy towards stream approximately 65% closed by mostly <i>Nyssa</i> sp.; canopy upslope open. Understory dominated by cane up to 12 feet in height (6-8 feet immediately around <i>Lilium</i>). Soil is composed mostly of roots with sandy loam. No evidence of fire in last several years (PNDPRI03).
LILIIRD75	<i>Lilium iridollae</i>	Panhandle lily	G3	S3	UR	SE	1991-08-28
							No general description given
LILIIRD80	<i>Lilium iridollae</i>	Panhandle lily	G3	S3	UR	SE	1999-08-06
							99-08-06: small, isolated seepage area that does not develop into stream. Canopy 20% coverage including <i>Pinus elliotii</i> , <i>P. palustris</i> , and <i>Nyssa</i> sp. No subcanopy. Shrubs dense including <i>Myrica heterophylla</i> , <i>Ilex</i> sp., <i>Hypericum</i> sp. and others. <i>Arundinaria gigantea</i> abundant. Groundcover nearly completely covered by <i>Sphagnum</i> sp. with several fern sp., <i>Andropogon</i> sp., <i>Smilax</i> sp., and <i>Carex</i> glaucescens. Soil moist and consists of loamy roots and sphagnum. Fire scars on hardwoods indicate site burned within last 3-5 years (PNDPRI03). 95-12-16: Seepage head surrounded by upland pine forest. Plants growing in a very small seepage creek; <i>Arundinaria gigantea</i> abundant (PNDJEN02).
LILIIRD84	<i>Lilium iridollae</i>	Panhandle lily	G3	S3	UR	SE	1996-10-03
							A seepage stream, broadens out to about 30' width near the ERR 211 crossing. The baygall canopy, dominated by <i>Cliftonia</i> , thins out allowing more shrubs and herbaceous vegetation than found upstream.
							1996-10-03: One plant with immature fruit is growing in the water at the edge of the creek; no other <i>Lilium</i> were observed but more are probably in the area (PNDSCH03FLUS).



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LILIIRD*92	<i>Lilium indollae</i>	Panhandle lily	G3	S3	UR	SE	2006-08-11	2006-08-11: In semi-wet (wet-mesic) floodplain forest area adjacent to swamp forest under light shade of Pinus elliotii, Liriodendron tulipifera, and Magnolia virginiana. Site is shrubby (needs fire) being primarily comprised of Ilex glabra, Magnolia virginiana, Clethra alnifolia, and Acer rubrum. Herbs include Arundinaria gigantea, Carya glabra, Chasmanthium ornithorynchum, Platanthera cristata, and Dichanthelium scabriusculum (U06JOH01FLUS).	2006-08-11: Only one plant, with immature fruit, was observed (U06JOH01FLUS).
LILIIRD*93	<i>Lilium indollae</i>	Panhandle lily	G3	S3	UR	SE	2006-08-11	2006-08-09: Baygall with Pinus elliotii/Ilex coriacea, Clethra alnifolia, Rhus vernix. Unburned although nearby area recently burned-flowering heads extending above surrounding evergreen shrubs; wiregrass bog upslope (U06JOH01FLUS).	1-5 plants observed at four locations in 2006
LILIIRD*95	<i>Lilium indollae</i>	Panhandle lily	G3	S3	UR	SE	2006-08-09	2006-08-09: Floodplain forest with thick Arundinaria gigantea. Many trees down from hurricanes (U06JOH01FLUS).	2006-08-09: ca. 24 plants in flower and fruit (U06JOH01FLUS).
LITHCAPH*(X1)	<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	UR	N	2001	1992-02-25: two shallow intermittent ponds (frogs use both ponds) (PNDMOL01FLUS).	Gopher frogs have been collected from and documented breeding in Goose Pond from 1978-2001 and one DOR juvenile was found 2 mi. away. The site is now presumed extirpated (A23ENG02FLUS).
LITHCAPH*126	<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	UR	N	2021-02-11	Sandhill (high quality) with older mature longleaf pine canopy, midstory of turkey oak and southern red oak, abundant shrubs and herbs and thick, lush wiregrass; estimated 320 acres of potential habitat in immediate area (PNDPRI03FLUS).	Two frogs were observed at the mouths of two tortoise burrows (PNDPRI03FLUS, U96PRI02FLUS). Gopher frogs were documented at Boundary Line Rd. Pond in 2020 and an adult was observed crossing the road in 2021 (U23ENG04FLUS, U23NA03FLUS).
LITHCAPH*236	<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	UR	N	2020	None given.	Gopher frogs were documented at Beck Pond in 2020 (U23ENG04FLUS).



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LITHOKAL*11	<i>Lithobates okaloosae</i>	Florida Bog Frog	G2	S2	N	ST	1983	SEEPAGE STREAM, TRIBUTARY OF YELLOW RIVER; FROGS OCCUR WHERE CREEK DROPS ONTO FLOODPLAIN (P83MOL01FLUS).	Present in 1983 (P83MOL01FLUS) but not heard during 3 visits in 1998 (PNDPRI03FLUS). Specific data and citations are in source features and Additional Topics.
LITHOKAL*12	<i>Lithobates okaloosae</i>	Florida Bog Frog	G2	S2	N	ST	2022-06-27	Seepage stream, tributary of Yellow River. Surrounding uplands in silviculture. Moler noted that creek was heavily silted by runoff during I-10 construction (N88MOL01FLUS).	This is a known calling site for this frog. Heard on multiple occasions, but the population as of 2023 appears to be very small and tenuous. Specific data and citations are in source features and Additional Topics.
LITHOKAL*13	<i>Lithobates okaloosae</i>	Florida Bog Frog	G2	S2	N	ST	2023-08-02	Seepage stream, tributary on north side of Yellow River. 1989-1999 and 1983; Engle and Moler, respectively, caught and/or heard species within Atlantic white cedar-dominated forest just north of power line; abundant sphagnum. Frogs not caught in power line easement itself (PNDENG02FLUS, PNDMOL01FLUS, U04JAC02FLUS).	This is a known calling site for this frog. Documented on multiple occasions. Specific data and citations are in source features and Additional Topics.
LITHOKAL*14	<i>Lithobates okaloosae</i>	Florida Bog Frog	G2	S2	N	ST	2004	Seepage stream, tributary of Yellow River. 1983 discovery was within power line easement, where crossed by stream (U04MOL02FLUS, PNDMOL01FLUS, U04JAC02FLUS).	This is a known calling site for this frog. Documented on multiple occasions. Specific data and citations are in source features and Additional Topics.
LITHOKAL*4	<i>Lithobates okaloosae</i>	Florida Bog Frog	G2	S2	N	ST	2003	SEEPAGE STREAM THAT FLOWS NORTH TO YELLOW RIVER. 2004: impounded by beaver dam on upstream side of road. 2003: bad hog damage (PNDMOL01FLUS).	This is a known calling site for this frog; locally common in 1980s. Heard on multiple occasions. Specific data and citations are in source features and Additional Topics.
LITHOKAL*5	<i>Lithobates okaloosae</i>	Florida Bog Frog	G2	S2	N	ST	1998-05-18	1998-05-18: seepage stream that flows north to Yellow River; sphagnum and bushes; some siltation from road; seepage slope (P83MOL01FLUS).	This is a known calling site for this frog. Heard on multiple occasions. Specific data and citations are in source features and Additional Topics.



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LITHOKAL*6	<i>Lithobates okaloosae</i>	Florida Bog Frog	G2	S2	N	ST	1988-05-19
							SEEPAGE SLOPE ON SEEPAGE STREAM THAT FLOWS NORTH TO YELLOW RIVER.
LOBEBOYK*5	<i>Lobelia boykinii</i>	Boykin's lobelia	G2?	S1	UR	SE	1957-07-20
							Rare on wet peat or in shallow water of cypress pond
LYTHATRA*1	<i>Lythrus atripiculus</i>	Blacktip Shiner	G4	S2	N	N	1988-05-25
							1988-05-25: clear, blackwater stream, 10-15ft wide up to 3 ft deep, moderate current, sand bottom. Stream flows through cypress, magnolia, pine and oak forest (U90FSM01FLUS).
MACDBRUN*4	<i>Macdunnocia brunnea</i>	A Mayfly	G3G4	S2S3	N	N	1975-05-04
MACHPOLY*1	<i>Machimus polyphemus</i>	Gopher Tortoise Robber Fly	G2	S1S2	N	N	1984-05-05
							No description given.
MACRFLAM*1	<i>Macranthera flammea</i>	hummingbird flower	G3	S2	N	SE	1990-08-23
							HILLSIDE SEEPAGE BOG. HERBACEOUS SPECIES DOMINATE EXCEPT NEAR SEEPAGE STREAM WHERE SHRUBS DOMINATE.
MACRFLAM*15	<i>Macranthera flammea</i>	hummingbird flower	G3	S2	N	SE	2006-03-29
							baygall seepage area
MACRFLAM*2	<i>Macranthera flammea</i>	hummingbird flower	G3	S2	N	SE	1990-08-25
							ECOTONE BETWEEN OPEN SEEPAGE SLOPE AND SHRUB-LINED SEEPAGE STREAM.
MACRFLAM*20	<i>Macranthera flammea</i>	hummingbird flower	G3	S2	N	SE	2006-08-16
							2006-08-16: edge of baygall and road with <i>Cyrilla racemiflora</i> , <i>Ilex glabra</i> , <i>Smilax glauca</i> ; borders impounded creek along McDaniels Rd (PNDHERO1FLUS, U06JOHO1FLUS - shapetle "other_plts_waypoints_06").



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MACREFLAM*21	<i>Macranthera flammnea</i>	hummingbird flower	G3	S2	N	SE	2006-08-16 streamsides baygall with associated species: Toxicodendron vernix, Pinus elliptica, Magnolia virginiana, Acer rubrum/Arundinaria gigantea, Carex gigantea (PNDSCOH05FLUS, U06JOH01FLUS - shapefile "other_rare_plts_waypoints_06")	2006-08-16: 3 plants with 1 in flower and 2 vegetative (PNDSCOH05FLUS, U06JOH01FLUS - shapefile "other_rare_plts_waypoints_06").
MACREFLAM*22	<i>Macranthera flammnea</i>	hummingbird flower	G3	S2	N	SE	2019-09-26 seepage stream and seepage bog	2019: 53-110 plants observed; 2016: plants frequent; 2006-09-14: plants present at different site than 2016 (PNDLAN03FLUS).
MACREFLAM*24	<i>Macranthera flammnea</i>	hummingbird flower	G3	S2	N	SE	2016-09-13 ruderal (powerline R-O-W)	In 2016, many hundreds in early to mid flowering peak. Some flowers starting to set fruit. This population was 0.2 acres and along 100 meters of roadside. First observed at this site in 2007 and described as "nice colony".
MACREFLAM*3	<i>Macranthera flammnea</i>	hummingbird flower	G3	S2	N	SE	1989-09-20 MID-SLOPE, QUAKING SAPRIC MUCK SEEPAGE HERB-BOG ALONG TRIBUTARY TO MIDDLE CREEK, IN FREQUENTLY BURNED, FIRE-MAINTAINED SAVANNA WITH INTACT GROUND COVER TO FACILITATE FIRE ACROSS THE LANDSCAPE.	LOCALLY ABUNDANT ALONG OPEN ECOTONE OF SEEPAGE BOG AND BAYGALL VEGETATION IN STREAM VALLEY TRIBUTARY TO MIDDLE CREEK.
MACREFLAM*33	<i>Macranthera flammnea</i>	hummingbird flower	G3	S2	N	SE	2008-08-05 Gas pipeline right of way (U08WAR01FLUS).	2008-08-05: One plant observed (U08WAR01FLUS).
MACREFLAM*38	<i>Macranthera flammnea</i>	hummingbird flower	G3	S2	N	SE	2019-08-24 Along creek.	Species present. At least 3 individuals.
MACREFLAM*39	<i>Macranthera flammnea</i>	hummingbird flower	G3	S2	N	SE	2019-08-24 Along creek.	Species present. At least 11 individuals.
MACREFLAM*40	<i>Macranthera flammnea</i>	hummingbird flower	G3	S2	N	SE	2019-08-24 Along creek.	Species present. At least 13 individuals.
MACREFLAM*44	<i>Macranthera flammnea</i>	hummingbird flower	G3	S2	N	SE	2019-08-16 Baygall	11-50 plants
MACREFLAM*7	<i>Macranthera flammnea</i>	hummingbird flower	G3	S2	N	SE	1994-10-11 Seepage slope.	Three plants observed; flowering and in leaf.



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MACRTEMM*44	<i>Macrochelys temminckii</i>	Alligator Snapping Turtle	G3	S3	PT	N	2018	Blackwater stream system with seepage input.	River system clearly supports a substantial population, though perhaps not as large as that in some other (more nutrient-rich) rivers (A23ENG01FLUS). Specific data are in source features and Additional Topics.
MITRANGU*20	<i>Mitreola angustifolia</i>	narrowleaf hornpod	G4G5	S2	N	N	1969-12-31	On wet peat of cypress pond margin	1969: specimen collected
MNESTUBE*13	<i>Mnesithea tuberculosa</i>	Piedmont jointgrass	G3	S3	N	ST	1994-10-11	Depression Marsh dominated by Eriocaulon decangulare and compressum - many other grasses, forbs, and sedges. Ilex myrtifolia circles pond. Pond is shallow and ephemeral. Similar looking Rhexia maritana also common here as is Rhexia virginiana.	8-10 plants observed; fruiting.
MNESTUBE*35	<i>Mnesithea tuberculosa</i>	Piedmont jointgrass	G3	S3	N	ST	1995-12-16	Depression marsh is surrounded by young longleaf (maybe slash - didn't notice) pine forest with abundant wiregrass and Rubus.	1995-12-16: Old, fruiting plants abundant in inundated depression marsh - especially on NW end; pond is open canopied, but edged with Ilex myrtifolia and Nyssa biflora; pond dominated by Eleocharis elongata (PNDJEND2FLUS).
NAJAFIL*42	<i>Najas filifolia</i>	Narrowleaf Naiad	G3	S2	UR	ST	2011	Lacustrine	Species present (U18DEP01FLUS)
NAJAFIL*43	<i>Najas filifolia</i>	Narrowleaf Naiad	G3	S2	UR	ST	1988	Lacustrine	Species recorded as present in 1986 andamp; 1988 (U18DEP01FLUS).
NAJAFIL*47	<i>Najas filifolia</i>	Narrowleaf Naiad	G3	S2	UR	ST	2013	Lacustrine	Species present (U18DEP01FLUS)
NEOGOLIV*41	<i>Neogale frenata olivacea</i>	Southeastern Weasel	G5T4	S3?	N	N	1987	1987: Upland Mixed Forest; Blackwater River (U97GFC02FLUS).	1987: D. Pridgen, GFC, observation. Running along bank of river (U97GFC02FLUS).
NEOGOLIV*49	<i>Neogale frenata olivacea</i>	Southeastern Weasel	G5T4	S3?	N	N	1980 -- 1989	pine plantation	1987: S.P. Christman, DEP, observation.
NEROSIPE*1	<i>Nerodia sipedon</i>	Common Watersnake	G5	S2	N	N	2023-04-02	Within a large state forest. Coordinates provided are in Ates Creek, immediately south of fish hatchery complex, adjacent to access road.	2023: snake photographed (U25INA04FLUS). Specific data are in source features and Additional Topics.
NEURMOLE*12	<i>Neurocordulia molesta</i>	Smoky Shadowfly	G4	S2S3	N	N	1994-02-15	1994-02-15: No description given (U09DEP01FLUS).	1994-02-15: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).



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NEURMOLE*14	<i>Neurocordulia molesta</i>	Smoky Shadowfly	G4	S2S3	N	N	2007-09-27	2007-09-27: No description given (U09DEP01FLUS).
NEURMOLE*31	<i>Neurocordulia molesta</i>	Smoky Shadowfly	G4	S2S3	N	N	2012-03-25	None given
NUPHULVA*18	<i>Nuphar ulvacea</i>	West Florida cowlii	G5T2T3	S2	N	N	2003-11-20	Blackwater Stream
NUPHULVA*24	<i>Nuphar ulvacea</i>	West Florida cowlii	G5T2T3	S2	N	N	1995-08-20	On west side of blackwater stream; rooted on submerged vertical bank in a small ox bow.
NUPHULVA*29	<i>Nuphar ulvacea</i>	West Florida cowlii	G5T2T3	S2	N	N	2015-08-03	Blackwater stream.
NUPHULVA*51	<i>Nuphar ulvacea</i>	West Florida cowlii	G5T2T3	S2	N	N	2020-01-07	none given
NUPHULVA*54	<i>Nuphar ulvacea</i>	West Florida cowlii	G5T2T3	S2	N	N	2018-06-29	Crisped underwater foliage present in the individual and patch from which this specimen was collected. Next to patch of <i>Panicum hemitomon</i> , beneath canopy of <i>Acer rubrum</i> .
OBOVCHOC*8	<i>Obovaria choctawensis</i>	Choctaw Bean	G2G3	S1S2	E	FE	2018	1988-06-02: river ca. 30 m wide, to 1.3 m deep, visibility to 1.0 m, slightly turbid; mussels living in stable silty sand banks with some detritus and logs; thickly vegetated riparian zone with oaks, pines, cypress, magnolias (PNDBUT01FLUS).
ONTHSPAR*2	<i>Onthophagus polyphemus</i> <i>sparsisetosus</i>	Smooth Gopher Tortoise Onthophagus Beetle	G3T2?	S1	N	N	2016-05-27	upland pine
ONTHSPAR*3	<i>Onthophagus polyphemus</i> <i>sparsisetosus</i>	Smooth Gopher Tortoise Onthophagus Beetle	G3T2?	S1	N	N	2016-05-27	sandhill



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OPHIMI*1	<i>Ophisaurus mimicus</i>	Mimic Glass Lizard	G2	S1S2	N	N	2006-06-05 upland pine forest within state forest	2006: 1 individual in drift fence in upland pine forest (U23GBI01FLUS).
OPHIMI*13	<i>Ophisaurus mimicus</i>	Mimic Glass Lizard	G2	S1S2	N	N	1987 pre Pine uplands in Blackwater River State Forest.	Based on 2 specimens (A87PAL01FLUS) but indicative of a population, which may be substantial given large expanse of habitat on state forest.
OXYEELER*15	<i>Oxyethira elerobi</i>	Elerob's Microcaddisfly	G3G4	S2S3	N	N	2007-06-13 2007-06-13: No description given other than that the locality was near a river (U09RAS01FLUS).	2007-06-13: Twenty-three specimens were collected using a 15 watt black light over an alcohol-filled white pan (U09RAS01FLUS, U08RAS01FLUS).
OXYEELER*18	<i>Oxyethira elerobi</i>	Elerob's Microcaddisfly	G3G4	S2S3	N	N	2007-05-19 2007-05-19: No description given other than that the locality was near a creek (U09RAS01FLUS).	2007-05-19: Forty-five specimens were collected using a 15 watt black light over an alcohol-filled white pan (U09RAS01FLUS, U08RAS01FLUS).
OXYEELER*19	<i>Oxyethira elerobi</i>	Elerob's Microcaddisfly	G3G4	S2S3	N	N	2007-06-13 2007-06-13: No description given other than that the locality was near a creek (U09RAS01FLUS).	2007-06-13: Ninety-one specimens were collected using a 15 watt black light over an alcohol-filled white pan (U09RAS01FLUS, U08RAS01FLUS).
OXYENOVA*24	<i>Oxyethira novasota</i>	Novasota Oxyethiran Microcaddisfly	G4G5	S2	N	N	2007-05-19 2007-05-19: No description given other than that the locality was near a creek (U09RAS01FLUS).	2007-05-19: One specimen was collected using a 15 watt black light over an alcohol-filled white pan (U09RAS01FLUS, U08RAS01FLUS).
OXYEPESC*25	<i>Oxyethira pescadori</i>	Pescador's Bottle-Cased Caddisfly	G4	S3	N	N	2007-06-13 2007-06-13: No description given other than that the locality was near a river (U09RAS01FLUS).	2007-06-13: Four specimens were collected using a 15 watt black light over an alcohol-filled white pan (U09RAS01FLUS, U08RAS01FLUS).
OXYEPESC*30	<i>Oxyethira pescadori</i>	Pescador's Bottle-Cased Caddisfly	G4	S3	N	N	2007-05-19 2007-05-19: No description given other than that the locality was near a creek (U09RAS01FLUS).	2007-05-19: One specimen was collected using a 15 watt black light over an alcohol-filled white pan (U09RAS01FLUS, U08RAS01FLUS).
OXYEPESC*32	<i>Oxyethira pescadori</i>	Pescador's Bottle-Cased Caddisfly	G4	S3	N	N	2007-06-13 2007-06-13: No description given other than that the locality was near a creek (U09RAS01FLUS).	2007-06-13: Three specimens were collected using a 15 watt black light over an alcohol-filled white pan (U09RAS01FLUS, U08RAS01FLUS).
OXYODYSP*26	<i>Oxyomoides dyspistus</i>	Surprising Pocket Gopher Aphodius Beetle	G3G4	S3?	N	N	1998-12-19 -- 1999-01-03 No information given (U06SKE01FLUS).	1999-01-03: A total of 69 specimens were collected from 1997-12-28 to 1999-01-03, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).



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OXYODYSP*27	<i>Oxyomoides dyspistus</i>	Surprising Pocket Gopher Aphodius Beetle	G3G4	S3?	N	1999-03-01 -- 1999-04-10 (U06SKE01FLUS).	1999-04-10: Four specimens were collected from 1998-12-06 to 1999-04-10, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
OXYODYSP*28	<i>Oxyomoides dyspistus</i>	Surprising Pocket Gopher Aphodius Beetle	G3G4	S3?	N	1998-12-20 -- 1999-01-02 (U06SKE01FLUS).	1999-01-02: Two specimens were collected from 1998-12-20 to 1999-01-02, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
OXYODYSP*31	<i>Oxyomoides dyspistus</i>	Surprising Pocket Gopher Aphodius Beetle	G3G4	S3?	N	1998-12-20 -- 1999-01-02 (U06SKE01FLUS).	1999-01-02: Fourteen specimens were collected from 1998-12-20 to 1999-01-02, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
OXYODYSP*33	<i>Oxyomoides dyspistus</i>	Surprising Pocket Gopher Aphodius Beetle	G3G4	S3?	N	1998-12-20 -- 1999-01-02 (U06SKE01FLUS).	1999-01-02: One specimen was collected from 1998-12-20 to 1999-01-02, most likely in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
OXYODYSP*34	<i>Oxyomoides dyspistus</i>	Surprising Pocket Gopher Aphodius Beetle	G3G4	S3?	N	1999-01-03 -- 1999-01-18 (U06SKE01FLUS).	1999-01-18: A total of 28 specimens were collected from 1998-12-19 to 1999-01-18, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
OXYODYSP*35	<i>Oxyomoides dyspistus</i>	Surprising Pocket Gopher Aphodius Beetle	G3G4	S3?	N	1999-01-03 -- 1999-01-18 (U06SKE01FLUS).	1999-01-18: Eleven specimens were collected from 1998-12-19 to 1999-01-18, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
OXYODYSP*37	<i>Oxyomoides dyspistus</i>	Surprising Pocket Gopher Aphodius Beetle	G3G4	S3?	N	1998-12-20 (U06SKE01FLUS).	1998-12-20: Four specimens were collected on 1998-12-20, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).

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OXYODSP*38	<i>Oxyomoides dyspistus</i>	Surprising Pocket Gopher Aphodius Beetle	G3G4	S3?	N	N	1999-04-10	None given.
PERLZWIC*1	<i>Perlinella zwicki</i>	A Stonefly	G4	S2	N	N	1970-05-01	1970-05-01: No description given (U07RAS01FLUS).
								60 specimens collected at 3 different trapping locations. 1970-05-01: Two specimens were collected (U07RAS01FLUS).



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PERLZWIC*2	<i>Perlinella zwicki</i>	A Stonewy	G4	S2	N	N	1988 pre
							1988-Pre: No description given (U07RAS01FLUS).
							1988-Pre: One specimen was collected at the Bryant Bridge location (U07RAS01FLUS). 1980-06-13: One specimen was collected using a light trap at the FAMU Biological Station location (U07RAS01FLUS). 1980-05-13: One specimen was collected using light at the FAMU Biological Station location (U07RAS01FLUS). 1978-04-30: Two specimens were collected using light at the FAMU Biological Station location (U07RAS01FLUS). 1977-06-03: One specimen was collected using light at the FAMU Biological Station location (U07RAS01FLUS). 1977-05-06: Two specimens were collected using light at the FAMU Biological Station location (U07RAS01FLUS). 1977-05-06: One specimen was collected using light at the FAMU Biological Station location (U07RAS01FLUS). 1977-04-21: One specimen was collected using light at the FAMU Biological Station location (U07RAS01FLUS). 1976-05-08: Eight specimens were collected using light at the FAMU Biological Station location (U07RAS01FLUS). 1976-05-06: Thirteen specimens were collected using light at the FAMU Biological Station location (U07RAS01FLUS). 1974-05-02: Five specimens were collected using light at the FAMU Biological Station location (U07RAS01FLUS). 1971-06-05: One specimen was collected using light at the FAMU Biological Station location (U07RAS01FLUS). 1971-04-04: One specimen was collected using light at the FAMU Biological Station location (U07RAS01FLUS). 1970-05-09: Two specimens were collected at the Bryant Bridge location (U07RAS01FLUS). 1970-04-23: One specimen was collected at the Bryant Bridge location (U07RAS01FLUS).



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PERLZW/C*6	<i>Perlinella zwicki</i>	A Stonefly	G4	S2	N	N			1996-05-09	Sweetwater Creek, a tributary of Big Juniper Creek, which flows into Blackwater River.	1 specimen (INHS #Plecoptera 18501) collected (S96DEW01FLUS).
PEUCAEST*47	<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N			2010-06-21	Sandhill/upland pine community that was burned at least once between 1996 and 2006.	11-16 singing males observed
PEUCAEST*86	<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N			2006-05-03	2006-05-03: primarily upland pine forest of longleaf pine (Pinus palustris), southern red oak (Quercus falcata), wiregrass (Aristida stricta), but birds also heard in/around wet flatwoods in an ecotone of a seepage stream (F06FNA12FLUS, PNDJEN04FLUS).	2006-05-03: high density of singing males. Singing males noted by six gps points (F06FNA12FLUS, PNDJEN04FLUS).
PEUCAEST*87	<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N			2006-03-30	2006-03-30: upland pine forest dominated by longleaf pine (Pinus palustris), red oak (Quercus falcata) and wiregrass (Aristida stricta) (F06FNA12FLUS, PNDJEN04FLUS).	2006-03-30: 3 singing males noted at one gps point and "singing males" noted at a second gps point, the points approximately 0.5 miles apart (F06FNA12FLUS, PNDJEN04FLUS).
PEUCAEST*88	<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N			2006-05-04	2006-05-04: upland pine forest of longleaf pine (Pinus palustris), southern red oak (Quercus falcata), wiregrass (Aristida stricta), although in this area there are sandhill indicators on highest ground, where sand post oak (Q. margareta) and bluejack oak (Q. incana) occur with longleaf pine (F06FNA12FLUS, PNDJEN04FLUS).	2006-05-04: singing male(s) heard (F06FNA12FLUS, PNDJEN04FLUS).
PHANWEST*1	<i>Phanogomphus westfalli</i>	Westfall's Clubtail	G2	S2	UR	N			2021-03-22	Sandhill uplands divided by seepage streams draining into the Blackwater River (U07DAI03FLUS).	Type locality. Robust population that has persisted in the same place for decades. Up to dozens of individuals at a time.
PHANWEST*11	<i>Phanogomphus westfalli</i>	Westfall's Clubtail	G2	S2	UR	N			2006-04	Pine and turkey oak uplands bordering Blackwater River. Inhabits seepages and beaver ponds in open areas (U07DAI03FLUS).	Multiple specimens collected from 1974-2006. Jerrell Daigle commented "countless individuals seen" in 2006 (U07DAI03FLUS, W13ABB01FLUS).



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PHANWEST	PHANWEST*12	<i>Phanogomphus westfalli</i>	Westfall's Clubtail	G2	S2	UR	N	2017-02-26	None given	1 adult female photographed (U20INA01FLUS).
	PHANWEST*13	<i>Phanogomphus westfalli</i>	Westfall's Clubtail	G2	S2	UR	N	2018-03-16	None given	4 adults photographed (U20INA01FLUS).
	PHANWEST*7	<i>Phanogomphus westfalli</i>	Westfall's Clubtail	G2	S2	UR	N	1979-03-23	None provided (W13ABB01FLUS).	S. W. Dunkle collected two specimens (W13ABB01FLUS).
	PHANWEST*8	<i>Phanogomphus westfalli</i>	Westfall's Clubtail	G2	S2	UR	N	1974-04-03	None provided (W13ABB01FLUS).	S. W. Dunkle collected two specimens (W13ABB01FLUS).
PHYLOVAL	PHYLOVAL*1	<i>Phyllophaga ovalis</i>	Oval June Beetle	G1	S1	N	N	1989-04-14	1989-04-14: No description given (B89WOO01FLUS).	1989-04-14: Two specimens were collected by R.E. Woodruff, B.M. Beck, and P.E. Skelley on a Quercus laevis plant (B89WOO01FLUS).
	PHYLOVAL*2	<i>Phyllophaga ovalis</i>	Oval June Beetle	G1	S1	N	N	1987-04-12	1987-04-12: No description given (B89WOO01FLUS).	1987-04-12: One specimen was collected by E.G. Riley (B89WOO01FLUS).
PINGPRIM	PINGPRIM*17	<i>Pinguicula primuliflora</i>	primrose-flowered butterwort	G3G4	S3	N	SE	2010-04-07	2010-04-07: shallow seepage stream with very narrow band of forest on either side. Atlantic white cedar, sweetbay magnolia, black titi, spagnum. Sand road crosses stream, erosion occurring on both sides of stream along road (PNDKIN02FLUS).	1982-04-08: Five specimens were collected by E.G. Riley (B89WOO01FLUS).
	PINGPRIM*19	<i>Pinguicula primuliflora</i>	primrose-flowered butterwort	G3G4	S3	N	SE	2009-04-09	2009-04-09: Fire suppressed seepage slope and stream (U10JEN01FLUS).	2010-04-07: 10 plants in bloom within 20 meter stream segment, both sides of stream (PNDKIN02FLUS).
	PINGPRIM*20	<i>Pinguicula primuliflora</i>	primrose-flowered butterwort	G3G4	S3	N	SE	2009-04-09	2009-04-09: Seepage slope and stream (U10JEN01FLUS).	2009-04-09: 70 plus plants along creek in full flower (U10JEN01FLUS).
	PINGPRIM*21	<i>Pinguicula primuliflora</i>	primrose-flowered butterwort	G3G4	S3	N	SE	2009-04-09	2009-04-09: Very wet, well burned seepage slope and stream (U10JEN01FLUS).	2009-04-09: 40 plus plants in full flower (U10JEN01FLUS).
PINGPRIM*23	<i>Pinguicula primuliflora</i>	primrose-flowered butterwort	G3G4	S3	N	SE	SE	2013-08-29	2013-8-29: Recently burned and open, high quality Seepage Slope/Upland Pine ecotone.	Five plants here, not in flower.
PINGPRIM*31	<i>Pinguicula primuliflora</i>	primrose-flowered butterwort	G3G4	S3	N	SE	SE	2006-04-10	FNAI NC recorded as seepage stream.	Observed 1-10 plants in flower/fruit.



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PINGPRIM*32	<i>Pinguicula primuliflora</i>	primrose-flowered butterwort	G3G4	S3	N	SE	2006-08-10	FNAI NC recorded as wet prairie.	Observed 11-50 plants in leaf grassy opening, boggy.
PINGPRIM*33	<i>Pinguicula primuliflora</i>	primrose-flowered butterwort	G3G4	S3	N	SE	2006-04-04	FNAI NC recorded as baygall.	~10 plants total in three dumps in flower/fruit
PINGPRIM*34	<i>Pinguicula primuliflora</i>	primrose-flowered butterwort	G3G4	S3	N	SE	2006-04-10	FNAI NC recorded as seepage slope.	Observed 1-10 plants in flower/bud.
PINGPRIM*38	<i>Pinguicula primuliflora</i>	primrose-flowered butterwort	G3G4	S3	N	SE	2018-08-01	Seepage slope and edge of seepage stream.	100 plants in 3 distinct areas, observed in small patches
PINGPRIM*41	<i>Pinguicula primuliflora</i>	primrose-flowered butterwort	G3G4	S3	N	SE	2021-03-23	Butterworts occurring on small mounds of organic debris and root balls in otherwise mucky baygall. Associated groundcover plants include small sedges, Sphagnum sp., and Oronotium aquaticum.	Several hundred plants spread along Ates Creek and in nearby mucky baygall.
PITUMELA*19	<i>Pituophis melanoleucus</i>	Pinesnake	G4	S3	PS	ST	1978	No general description given	1978: DOR seen by Paul Moler (PNDMOL01FLUS).
PITUMELA*40	<i>Pituophis melanoleucus</i>	Pinesnake	G4	S3	PS	ST	2022-04	DEGRADED SANDHILL, VAST RECENT CLEARCUT ON THE W SIDE OF ROAD; OPEN, MATURE, SPARSE SLASH PINE TO THE EAST.	Species observed 5 times in area, once in 1990 and four times since 2014.
PITUMELA*75	<i>Pituophis melanoleucus</i>	Pinesnake	G4	S3	PS	ST	2024-04	Blackwater River State Forest, an ecosystem dominated by upland pine forest (A02ENG02FLUS). 2013: Young, natural regeneration longleaf pine (U24FWC02FLUS).	This species has been observed many times across 45 years throughout state forest and surrounding landscape.
PLATOLAV*7	<i>Platanthera clavellata</i>	little club-spur orchid	G5	S1	N	SE	1993-06-27	1993-06-27: Infrequent in moist loamy, shaded soil with Malaxis unifolia and Lilium iridolae under Cyrilla racemifolia. Chamaecyparis thyoides, and Ilex sp. bordering Long Branch (S93ANDFSFLUS).	1993-06-27: Infrequent (S93ANDFSFLUS).



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PLATCLAV*9	<i>Platanthera clavellata</i>	little club-spur orchid	G5	S1	N	SE			2006-08-11	2006-08-11: Floodplain swamp. Associated rare species: <i>Juncus gymnocarpus</i> , <i>Platanthera ciliaris</i> . Other associates: <i>Woodwardia areolata</i> , <i>Lyonia lucida</i> , <i>Nyssa sylvatica</i> var. <i>biflora</i> , <i>Pinus elliptica</i> , <i>Magnolia virginiana</i> , <i>Acer rubrum</i> (FNDSCH01ALUS).	2006-08-11: Observed two fruiting plants in area measuring less than one square meter (FNDSCH01ALUS).
PLATINTE*15	<i>Platanthera integra</i>	yellow fringeless orchid	G3G4	S2	N	SE			1990-08-25	LOWEST, WETTEST PART OF AN OPEN SEEPAGE SLOPE. RESTRICTED TO A SATURATED, DEEP SPHAGNUM SUBSTRATE.	17 INDIVIDUALS OBSERVED IN FLOWER.
PLATINTE*16	<i>Platanthera integra</i>	yellow fringeless orchid	G3G4	S2	N	SE			1991-07-30	SEEPAGE SLOPE.	4 PLANTS.
PLATINTE*17	<i>Platanthera integra</i>	yellow fringeless orchid	G3G4	S2	N	SE			2020-08-29	PINUS PALUSTRIS/PINUS ELLIOTTII MIXED FLATWOODS AND PINUS PALUSTRIS/ARISTIDA STRICTA SANDHILL COMMUNITIES GRADING DOWN SLOPE INTO LARGE SEEPAGE SLOPE COMMUNITY THAT FURTHER GRADES ABRUPTLY INTO BAYGALL COMMUNITY WITH PINUS PALUSTRIS, ARISTIDA STRICTA, SERENOA REPENS, POLYGALA CRUCIATA, RHEXIA ALIFANUS, AND SCUTELLARIA INCANA.	2013-08-29: 3 plants, 1 in flower and 2 just past flowering, observed at 2 points. 1997: None observed at site north/east of creek where 8 individuals were seen in 1991. At site just south of creek, 88 plants were seen in 1991 and none in 2008. 2020-08-29: 2 flowering plants observed.
PLATINTE*18	<i>Platanthera integra</i>	yellow fringeless orchid	G3G4	S2	N	SE			1991-07-30	EXTENSIVE AND PARTICULARLY WELL DEVELOPED SEEPAGE SLOPE COMMUNITY THAT IS ADJACENT TO SELECT-CUT SANDHILL WITH PINUS PALUSTRIS/ARISTIDA STRICTA AND BAYGALL RUNNING WESTWARD AT BOTTOM SLOPE OF SANDHILL. THIS COMMUNITY IS RATHER DIVERSE BUT IS IN NEED OF A BURN TO KEEP INVADING SHRUBS DOWN.	AT LEAST 100 FLOWERING INDIVIDUALS NOTED ALONG MID-SLOPE BETWEEN SANDHILL AND SEEPAGE SLOPE COMMUNITIES.



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PLATINTE*19	<i>Platanthera integra</i>	yellow fringeless orchid	G3G4	S2	N	SE	2008-08-07	2008-08-07: Gas line right of way (U08VAR01FLUS). 2008-08-05: Burned but needs more fire (U08JEN04FLUS). 1991-07-29: ecotone between Pinus palustris/Aristida stricta/Quercus laevis sandhill community and highly disturbed seepage slope community. Seepage slope damaged by fire break being cut (?bulldozed?) through its center. Heavy growth of Cliftonia monophylla and Ilex glabra (seepage slope side and sandhill side of ecotone, respectively) as well as Clethra alnifolia invading disturbed seepage slope (UNDHIL02FLUS).	See individual sources for individual point data. 2008-08-07: 2 plants (U08VAR01FLUS). 2008-08-05: No plants found (U08JEN04FLUS). 1991-07-29: 28 healthy individuals seen in ecotone between sandhill community and highly disturbed seepage slope community (UNDHIL02FLUS).
PLATINTE*21	<i>Platanthera integra</i>	yellow fringeless orchid	G3G4	S2	N	SE	1991-07-30	SMALL SEEPAGE SLOPE ADJACENT TO WELL-DEVELOPED PINUS PALUSTRIS/QUERCUS LAEVIS/DIOSPYRUS VIRGINIANA SANDHILL COMMUNITY. AREA BEING HEAVILY INVADED BY ILEX GLABRA AND CLETHRA ALNIFOLIA FROM SANDHILL BORDER AND CLIFTONIA MONOPHYLLA FROM BAY GALL BORDER.	ONLY 5 PLANTS SEEN, MOSTLY IN ECOTONE BETWEEN SANDHILL AND SEEPAGE SLOPE.
PLATINTE*22	<i>Platanthera integra</i>	yellow fringeless orchid	G3G4	S2	N	SE	1991-07-30	DENSE BAYGALL DOMINATED BY CLIFTONIA MONOPHYLLA, PERSEA PALUSTRIS, CYRILLA RACEMIFLORA, YOUNG LIRIODENDRON TULIPIFERA, WITH AN OCCASIONAL CHAMAECYPARIS THYOIDES, AND PINUS ELLIOTTI (?) AND NYSSA SYLVATICA.	ONLY 4 INDIVIDUALS SEEN ON LOWER (BAYGALL SIDE) SLOPE OF SANDHILL.
PLATINTE*44	<i>Platanthera integra</i>	yellow fringeless orchid	G3G4	S2	N	SE	2008-08-06	2008-08-06: In gasoline right of way seepage area, needing more fire with woody encroachment (U08JEN04FLUS).	2008-08-06: At least 1 plant here in full bloom (U08JEN04FLUS).



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PLATINTE*45	<i>Platanthera integra</i>	yellow fringeless orchid	G3G4	S2	N	SE	Seepage slope and seepage bog.	At Reedy Creek, two plants were observed in 2006 and one flowering plant was photographed in 2017.
PLESANTH*18	<i>Plestiodon anthracinus</i>	Coal Skink	G5	S3	N	N	Blackwater River State Forest, an ecosystem dominated by upland pine forest. 1999 observations were in herbaceous portion of seepage bog that drains into Bull Pen Branch, a tributary of the Blackwater River (A02ENG02FLUS).	Based on 8 captures at drift fence in 1999 (A02ENG02FLUS), presumably a large population.
PLESANTH*19	<i>Plestiodon anthracinus</i>	Coal Skink	G5	S3	N	N	Blackwater River State Forest, an ecosystem dominated by upland pine forest. 1999 observations were in herbaceous and shrub portions of seepage bog that drains into Reedy Creek, a tributary of the Yellow River (A02ENG02FLUS).	Based on 8 captures at 2 drift fences in 1999 (A02ENG02FLUS), presumably a large population.
PLESANTH*20	<i>Plestiodon anthracinus</i>	Coal Skink	G5	S3	N	N	Sand-bottomed, second order portion of Garner Creek downstream of head, bordered by a broad, sphagnum-dominated, mucky area (A08ENG01FLUS).	Species present based on trapped animal; no further data. Specific data are in source features and Additional Topics.
POLYGRAC*2	<i>Polyphylla gracilis</i>	Slender Polyphyllan Scarab Beetle	G2G3	S2	N	N	Near sandhill habitat	One specimen collected at 15W blacklight and photographed (U18FNA02FLUS).
PROGALAC*23	<i>Progomphus alachuensis</i>	Tawny Sanddragon	G3	S3	N	N	1952-10-21: No description given (U09DEP01FLUS).	1952-10-21: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
PROGBELL*4	<i>Progomphus belli</i>	Belle's Sanddragon	G3	S3	N	N	2007-05-08: No description given (U09DEP01FLUS).	2007-05-08: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
PSEUCENT*2	<i>Pseudion centralis</i>	White Sand-river Mayfly	G5	S2S3	N	N	2005-02-15: No description given (U09DEP01FLUS).	2005-02-15: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).



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PSEUCONC*4	<i>Pseudemys concinna concinna</i>	Eastern River Cooter	G5T5	S3	N	N	1996-04-10	Blackwater River is a blackwater river system with blackwater and seepage tributaries; high white sand bars at some bends may offer nesting habitat. Much of system runs through conservation lands, so there is little streamside development except at lower end.	Limited data confirm presence at multiple localities.
PSEUCONC*5	<i>Pseudemys concinna concinna</i>	Eastern River Cooter	G5T5	S3	N	N	2011-11-11	The Yellow-Shoal River system is a medium-sized river system with alluvial and blackwater characteristics. Much of the adjacent landscape is on Eglin Air Force Base, which limits future development.	Known from multiple records (from 1986-2011) and sites spanning much of Yellow River system. Specific data are in source features and Additional Topics.
PTERWELA*4	<i>Pteronotropis welaka</i>	Bluenose Shiner	G3	S3S4	N	ST	1992-05-30	Seepage stream flowing south to Yellow River; upper end impounded below subdivision.	92-05-30: 123 individuals collected (U99FLE01FLUS). 100 SPECIMENS COLLECTED BY YERGER ET AL. (FSU 7123) RANGING IN STANDARD LENGTH FROM 23-45 MM ON 22 JUN 1961. 3 SPECIMENS COLLECTED (WF 1629) ON 24 APR 1976.
PTOMGEOM*10	<i>Ptomaphagus geomys</i>	Elongate Pocket Gopher Ptomaphagus Beetle	G2G3	S1S2	N	N	1998-12-20	1998-12-20: No information given (U06SKE01FLUS).	1998-12-20: One specimen was collected on 1998-12-20, most likely in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01PEC01FLUS).
PTOMGEOM*14	<i>Ptomaphagus geomys</i>	Elongate Pocket Gopher Ptomaphagus Beetle	G2G3	S1S2	N	N	1999-03-01 -- 1999-04-10	1999-04-10: No information given (U06SKE01FLUS).	1999-04-10: Nineteen specimens were collected from 1998-12-19 to 1999-04-10, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01PEC01FLUS).
PTOMGEOM*18	<i>Ptomaphagus geomys</i>	Elongate Pocket Gopher Ptomaphagus Beetle	G2G3	S1S2	N	N	1998-12-20 -- 1999-01-02	1999-01-02: No information given (U06SKE01FLUS).	1999-01-02: One specimen was collected from 1998-12-20 to 1999-01-02, most likely in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01PEC01FLUS).
PTOMGEOM*6	<i>Ptomaphagus geomys</i>	Elongate Pocket Gopher Ptomaphagus Beetle	G2G3	S1S2	N	N	1998-12-05 -- 1998-12-20	1998-12-20: No information given (U06SKE01FLUS).	1998-12-20: Three specimens were collected from 1998-12-05 to 1998-12-20, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01PEC01FLUS).



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PTOMGEOM*7	<i>Ptomaphagus geomys</i>	Elongate Pocket Gopher <i>Ptomaphagus Beete</i>	G2G3	S1S2	N	N	1999-03-01 -- 1999-04-10 (U06SKE01FLUS)	1999-04-10: Six specimens were collected from 1998-12-06 to 1999-04-10, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01PEC01FLUS).
PTOMGEOM*9	<i>Ptomaphagus geomys</i>	Elongate Pocket Gopher <i>Ptomaphagus Beete</i>	G2G3	S1S2	N	N	1998-12-20 -- 1999-01-02 (U06SKE01FLUS)	1999-01-02: One specimen was collected from 1998-12-20 to 1999-01-02, most likely in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01PEC01FLUS).
PTOMSCHW*37	<i>Ptomaphagus schwarzi</i>	Schwarz' Pocket Gopher <i>Ptomaphagus Beete</i>	G3	S3	N	N	1998-12-19 -- 1999-01-03 (U06SKE01FLUS)	1999-01-03: Ten specimens were collected from 1997-12-28 to 1999-01-03, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01PEC01FLUS).
PTOMSCHW*38	<i>Ptomaphagus schwarzi</i>	Schwarz' Pocket Gopher <i>Ptomaphagus Beete</i>	G3	S3	N	N	1999-03-01 -- 1999-04-10 (U06SKE01FLUS)	1999-04-10: Five specimens were collected from 1998-12-06 to 1999-04-10, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01PEC01FLUS).
PTOMSCHW*41	<i>Ptomaphagus schwarzi</i>	Schwarz' Pocket Gopher <i>Ptomaphagus Beete</i>	G3	S3	N	N	1998-12-20 -- 1999-01-02 (U06SKE01FLUS)	1999-01-02: Three specimens were collected from 1998-12-06 to 1999-01-02, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01PEC01FLUS).
PTOMSCHW*46	<i>Ptomaphagus schwarzi</i>	Schwarz' Pocket Gopher <i>Ptomaphagus Beete</i>	G3	S3	N	N	1998-12-19 -- 1999-01-03 (U06SKE01FLUS)	1999-01-03: Five specimens were collected from 1998-12-19 to 1999-01-03, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01PEC01FLUS).
PUSTSUC*2	<i>Pustulosa succissa</i>	Purple Pigtoe	G3G4	SNR	N	N	2025	Nearly a half century of observations document population in much of Yellow River mainstem and some tributaries and side channels (U25FWC03FLUS). Specific data, references, and sites are in individual source features.
QUERARKA*168	<i>Quercus arkansana</i>	Arkansas oak	G3	S3	N	ST	2006-04-10	Observed 1-10 plants in leaf.
QUERARKA*183	<i>Quercus arkansana</i>	Arkansas oak	G3	S3	N	ST	1922-04-11	A specimen was collected at the head of Lighter Knot Creek in 1922 (P22MCO01FLUS).



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QUERDURA*2	<i>Quercus durandii</i> var. <i>durandii</i>	bastard oak	G4G5T4	S1S2	N	N	1915-04-16	None given.
RHEXPARG*23	<i>Rhexia parviflora</i>	small-flowered meadowbeauty	G2G3	S2	UR	SE	1994-07-09	Depression Marsh dominated by <i>Eriocaulon</i> decangulare and compressum - many other grasses, forbs, and sedges. <i>Ilex myrtifolia</i> circles pond. Pond is shallow and ephemeral. Similar looking <i>Rhexia mariana</i> also common here as is <i>Rhexia virginiana</i> .
RHEXPARG*36	<i>Rhexia parviflora</i>	small-flowered meadowbeauty	G2G3	S2	UR	SE	2003-07-16	2003-07-16: occurrence on site (S02SCHFSFLUS)
RHEXPARG*4	<i>Rhexia parviflora</i>	small-flowered meadowbeauty	G2G3	S2	UR	SE	1956-07-20	Frequent. Flowering specimen (FSU #29214) collected.
RHEXPARG*46	<i>Rhexia parviflora</i>	small-flowered meadowbeauty	G2G3	S2	UR	SE	2006-05-03	Observed 51-100 plants in flower/bud scattered in wet prairie edge of small gum swamp, some plants extending into wooded dome.
RHEXPARG*47	<i>Rhexia parviflora</i>	small-flowered meadowbeauty	G2G3	S2	UR	SE	2018-08-01	2018: 51-100 plants
RHEXPARG*52	<i>Rhexia parviflora</i>	small-flowered meadowbeauty	G2G3	S2	UR	SE	2018-06-08	Flowering plant photographed on inaturalist (U20INA02FLUS)
RHODAUST*47	<i>Rhododendron austrinum</i>	Florida flame azalea	G3	S3	N	SE	1994-03-14	Few small plants.
RHODAUST*6	<i>Rhododendron austrinum</i>	Florida flame azalea	G3	S3	N	SE	ZZ	NO POPULATION ESTIMATE--"SCATTERED" (PNDFRA02).
RHODAUST*73	<i>Rhododendron austrinum</i>	Florida flame azalea	G3	S3	N	SE	2008-04-30	2008-04-30: 2-10 plants in flower/bud (F09JAC01FLUS).



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RHODAUST*74	<i>Rhododendron austrinum</i>	Florida flame azalea	G3	S3	N	SE	2008-04-30 2008-04-30: floodplain forest with light ORV trail disturbance (F09AC01FLUS).	2008-04-30: 2-10 plants in flower/bud (F09AC01FLUS).
RHODAUST*77	<i>Rhododendron austrinum</i>	Florida flame azalea	G3	S3	N	SE	2006-04-05: Edge of baygall along small stream (F06FNA12FLUS).	2006-04-05: Observed two plants in flower/bud within 1 to 10-square-meter area (F06FNA12FLUS).
RHYNCRIN*1	<i>Rhynchospora crinipes</i>	hairy-peduncled beaksedge	G3	S3	N	SE	2014-08-08 SHELING BANKS ALONG STREAM. ASSOCIATED SPP ARE CHAMAECYPARIS THYOIDES, KALMIA LATIFOLIA, RHYNCHOSPORA INEXPANSA, SCIRPUS ETUBERULATUS	Scattered population along river in 1987; 300-325 culms counted in 2014.
RHYNCRIN*10	<i>Rhynchospora crinipes</i>	hairy-peduncled beaksedge	G3	S3	N	SE	2015-08-03 R. crinipes essentially occurs along the margins of Metts Creek, a seepage stream generally bounded by a luxuriant growth of Cliftonia monophylla, Nyssa biflora, Chamaecyparis thyoideis, Magnolia virginiana and a thick tangle of shrubs.	Up to 100 culms observed in 2015 and in 1994, plants were observed quite frequently (no estimation of numbers made) along margin of Metts Creek. A few clumps were observed near the middle of the stream.
RHYNCRIN*20	<i>Rhynchospora crinipes</i>	hairy-peduncled beaksedge	G3	S3	N	SE	2015-08-03 Sandy-peaty banks of spring fed stream. Soils - Bibb-Kinston (Typic Fluvaquents) (S89ORZ01FLUS)	Reported as present in 1989 and 1993 (S89ORZ01FLUS, S93KRA04FLUS). In 2015, 250-300 culms estimated (U17SCH02FLUS). In July/August 2021, no plants were found (U21SMI03FLUS).
RHYNCRIN*22	<i>Rhynchospora crinipes</i>	hairy-peduncled beaksedge	G3	S3	N	SE	2021-09-28 Sandy bank of creek a few meters from water.	Specimen collected N of Red Rock Rd. in 2013. A 2021 survey between Indian Gap Rd. and Red Rock Rd. estimated several hundred culms and collected 579 seeds (U21SMI03FLUS).
RHYNCRIN*23	<i>Rhynchospora crinipes</i>	hairy-peduncled beaksedge	G3	S3	N	SE	1989-08-05 sandy banks of Sweetwater Creek.	Observed.
RHYNCRIN*26	<i>Rhynchospora crinipes</i>	hairy-peduncled beaksedge	G3	S3	N	SE	1993-09-19 Sandy-gravelly seep banks along stream.	No abundance given
RHYNCRIN*27	<i>Rhynchospora crinipes</i>	hairy-peduncled beaksedge	G3	S3	N	SE	1990-06-29 along wet marshy border of spring-fed Big Coldwater Creek with Sagittaria latifolia	Frequent
RHYNCRIN*28	<i>Rhynchospora crinipes</i>	hairy-peduncled beaksedge	G3	S3	N	SE	1990-07-23 Blackwater River	Along Blackwater River.



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RHYNCRIN*29	<i>Rhynchospora crinipes</i>	hairy-peduncled beaksedge	G3	S3	N	SE	2021-09-25	Garnier Creek 98 seeds collected at 3 points. No estimates on plant numbers.
RHYNCRIN*3	<i>Rhynchospora crinipes</i>	hairy-peduncled beaksedge	G3	S3	N	SE	1987-07-11	BLACKWATER STREAM. species frequent and observed in fruit; collected on canoe trip
RHYNCRIN*4	<i>Rhynchospora crinipes</i>	hairy-peduncled beaksedge	G3	S3	N	SE	2023-06-06	2014: west side of creek on nonsandy, more steep, clayey bank on outside bend of creek; underneath Atlantic White Cedar and Titi. 1987: along left (east) bank of East Fork of Big Coldwater Creek 2023: Cut bank of Blackwater R.; blackwater stream with light disturbance from natural causes; Chamaecyparis thyoides, Pinus elliotii, Cyrilla racemiflora, Hypericum nitidum, Bacopa caroliniana
RHYNCRIN*8	<i>Rhynchospora crinipes</i>	hairy-peduncled beaksedge	G3	S3	N	SE	2015-08-04	Streamside Chamaecyparis thyoides/Titi thicket along Seepage Stream. In 2015, 50-60 culms counted. In 1993, several clumps observed in fruit.



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RIVELAKE-50	River floodplain lake		G4	S2	N	N	2004	Grimes Lake is a placid body of water bounded by a vast complex of bottomland forest and floodplain swamp.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1995-06-23) (U05FNA02FLUS). Grimes Lake is a long narrow body of water well hidden amidst an extensive complex of floodplain swamp and bottomland forest. Floodplain swamp appears to bound the majority of the lake. Characteristic species of this community are diamond-leaved oak (Quercus laurifolia), bald cypress (Taxodium distichum), black gum (Nyssa biflora), water tupelo (Nyssa aquatica) and red maple (Acer rubrum), stiff dogwood (Cornus foemina), dahoon holly (Ilex cassine) and serviceberry holly (Ilex amelanchier). Covering a significantly smaller portion of the lake's border is bottomland forest which is primarily composed of spruce pine (Pinus glabra), southern magnolia (Magnolia grandiflora), live oak (Quercus virginiana), water oak (Quercus nigra) and in the shrub layer, sweet pinxter azalea (Rhododendron canescens) and blueberries (Vaccinium corymbosum and V> elliotii).
SAGIAUST-5	Sagittaria australis	longbeak arrowhead	G4	S2	N	N	2018-09-22	None given.	One flowering plant photographed at the impounded section of Bear Creek in 2018 (U24INA02FLUS).



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SANDHILL*176	Sandhill		G3	S2	N	N	2004	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1996-10-29) (U05FNA02FLUS). 1996-10-29: Sandhill with older mature longleaf pine (Pinus palustris) in canopy and subcanopy; tall shrub layer has longleaf pine and turkey oak (Quercus laevis); the turkey oak is not too dense in the tall shrub strata, but thicker in the short shrub layer; additional short shrubs that occur are sand live oak (Quercus geminata), sand holly (Ilex ambigua), huckleberry (Gaylussacia dumosa), and gopher apple (Licania michauxii); large patches of gopher apple and short shrubs of sand live oak (Quercus geminata) occur as solid strands in some areas; the herbaceous layer is predominantly grass dominated and includes the native grasses - little bluestem (Schizachyrium scoparium), lopsided Indiangrass (Sorghastrum secundum), arrowfeather (Aristida purpurens), and pineywoods dropseed (Sporobolus junceus); the forb diversity was much lower than the grasses and include: wireweed (Polygonella gracilis), buckwheat (Eriogonum tomentosum), and summer farewell (Dalea pinnata) (PNDHER03FLUS, PNDERO01FLUS).



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SANDHILL*178	Sandhill		G3	S2	N	N	1998-10-24	DRY LONGLEAF-OAK-GRASS UPLAND FLAT	UPLAND FLAT WITH CANOPY OF LONGLEAF PINE (PINUS PALUSTRIS), UNDERSTORY OF SCATTERED DECIDUOUS OAKS (QUERCUS FALCATA, Q. MARGARETTA, Q. LAEVIS, Q. INCANA) AND DIVERSE HERBACEOUS GROUND LAYER INCLUDING OVER 20 SPECIES OF GRASSES (SPOROBOLUS JUNCCEUS, SORGHASTRUM NUTANS, SCHIZACHYRIUM SCOPARIUM, S. TENERUM). OTHER SHRUBS INCLUDE: MYRTICA CERIFERA AND VACCINIUM STAMINEUM. HERBS INCLUDE: RHYNCHOSIA CYSTIOIDES, HELIANTHUS RADULA, PLUS THE BRACKEN FERN, PTERIDIUM AQUILINUM. TOTAL OF 90 SPECIES FOUND IN THE PLOT.
SANDHILL*19	Sandhill		G3	S2	N	N	2004	1983: poor soil with little reddish (high iron) rocks and sand (P83FAU01FLUS).	2004: Update to last obs date was based on interpretation of aerial photography (previous value was) (U05FNA02FLUS). 1983: small longleaf pines, wiregrass (P83FAU01FLUS).



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SANDHILL*194	Sandhill		G3	S2	N	N	2004		1995-07-11: This element occurrence is surrounded by xeric sandhill uplands with some slash pine and longleaf pine plantations; the area mapped contains a lot of old growth longleaf pine; area is bounded by Wolf Creek and Bear Creek both which originate in nearby steepheads (PNDNOR03FLUS).	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1997-01-07) (U05FNA02FLUS). 1997-01-07: North side of ERR 604W in the vicinity of Wolf Creek; Dense and diverse ground cover--includes many composite and legume species as well as wiregrass; contains relatively high basal area of mature <i>Pinus palustris</i> (possibly some old growth); recent removal of hardwood midstory (PNDRO02FLUS). 1995-07-11: Sandhill dominated by old growth longleaf pine (<i>Pinus palustris</i>) with many RCW cavity trees and little apparent mechanical disturbance from past logging. Sub-canopy and tall shrub layer is dominated by turkey oak (<i>Quercus laevis</i>) which in places is thick but is generally semi-open and patchy; Dwarf huckleberry (<i>Gaylussacia dumosa</i>), gopher apples (<i>Licania michauxii</i>) and glaucous blueberry (<i>Vaccinium darrowii</i>) are the most abundant short shrub. All three are somewhat patchy with many areas dominated by one or two of the three; Bracken fern (<i>Pteridium aquilinum</i>) is the most abundant ground cover herbaceous plant. In some areas just burned it is especially thick, having resprouted; silver bluestem (<i>Andropogon ternatus</i>), little bluestem (<i>Schizachyrium scoparium</i>), and lopsided Indian grass (<i>Sorghastrum secundatum</i>) are common grasses though not abundant due to lack of fire (presumably). 10 other species of grasses were found. Pine barren pea (<i>Rhynchostia cylindroides</i>) is a fairly common forb (PNDNOR03FLUS).



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SANDHILL*227	Sandhill		G3	S2	N	N	1996-08-12	Two larger and one small sandhill parcels separated by cleared area planted in Paspalum notatum (Bahia grass). Sandhills are surrounded by sand pine plantation to the east, south and west. Blackwater River State Forest land is to the north (sandhill).
SANDHILL*229	Sandhill		G3	S2	N	N	2004	Sandhill which is bound to the west by Range B-6, to the north by the Yellow River, to the east by Metts Creek and to the south by more sandhill. 1996-08-12: Canopy of Pinus palustris (10%). Midstory of Quercus laevis (20%). Tall shrub layer dominated by Quercus laevis; Quercus margareta and Quercus incana are occasional. Short shrub coverage also dominated by Quercus laevis (20%). Licania michauxii also is abundant (10%). Herb coverage is 50% dominated by Aristida and Pteridium. No weed problems other than Quercus laevis and Pteridium (PNDHIP01FLUS, PNDPRI03FLUS). 2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1996-10-22) (U05FNA02FLUS). 1996-10-22: A sandhill community of multi-age longleaf pine (Pinus palustris) with mostly older mature pines represented in the canopy; turkey oak (Quercus laevis) is present from the subcanopy to the short shrub strata; the tall and short shrub strata has in addition to the above mentioned trees: sand-post oak (Quercus margareta), bluejack oak (Quercus incana), persimmon (Diospyros virginiana), sand live oak (Quercus geminata), and gopher apple (Licania michauxii); all of the woody strata had a coverage of 25% or less which permitted the herbaceous layer to be present; grasses represented most of the ground cover and include little bluestem (Schizachyrium scoparium), pinewoods dropseed (Sporobolus junceus), lopsided Indian grass (Sorghastrum secundum), and broomsedge (Andropogon virginicus); forbs were not real abundant - perhaps due to deep pine needles; the most common forbs were: wireweed (Polygonella gracilis), pine barren pea (Rhynchosia cytisoides) and blazing star (Liatris elegans); broken fern (Pteridium aquilinum) was pretty common (PNDHER03FLUS).



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SANDHILL*230	Sandhill		G3	S2	N	N	2004
							1996-10-29: Sandhill is bordered to the north by baygall and a large expanse of the Yellow River floodplain. East and west of the sandhill, oak-encroached areas of sandhill interrupt other linear strips of sandhill. ERR 211 also breaks up a larger expanse of sandhill on the south boundary (PNDHER03FLUS).
							2004: Update to last obs date was based on interpretation of aerial photography (U05FNA02FLUS). 1996-10-29: Sandhill on a rolling plain that slopes to the west into the wetlands of Crane Branch and further west - the Yellow River; older mature longleaf pine (<i>Pinus palustris</i>) are present mostly in the canopy, but old growth are scattered throughout. Longleaf pine occur in all of the different strata: turkey oak and sand live oak (<i>Quercus laevis</i> and <i>Quercus geminata</i>) occur from thinly to thickly in the tall and short shrub layers; the short shrub layer has also: huckleberry (<i>Gaylussacia dumosa</i>), saw palmetto (<i>Serenoa repens</i>), and gopher apple (<i>Licania michauxii</i>); the ground floor is thick with arrowweed (<i>Aristida purpurens</i>), little bluestem (<i>Schizachyrium scoparium</i>), pinewoods dropseed (<i>Sporobolus junceus</i>), lopsided Indiangrass (<i>Sorghastrum secundum</i>), and broomsedge (<i>Andropogon virginicus</i>); forbs are also relatively abundant and include wireweed (<i>Polygonella gracilis</i>), buckwheat (<i>Eriogonum tomentosum</i>) and pine barren pea (<i>Rhynchosia cytisoides</i>) (PNDHER03FLUS, PNDCHRO01FLUS).



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SANDHILL*231	Sandhill		G3	S2	N	N	2004	
							The Yellow River and its extensive system of floodplain and baygall communities border the northernmost portion of this sandhill community. Crane Branch forms a western border and Milligan Creek meets the eastern edge. Pine plantations occur southwest of site.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1996-11-06) (U05FNA02FLUS). 1996-11-06: Sandhill of mostly older mature longleaf pine (Pinus palustris), with old growth scattered throughout site; understory is composed of a sparse occurrence of turkey oak (Quercus laevis), and sand live oak (Quercus geminata); the short shrub layer is slightly thicker with turkey oak, sand live oak, huckleberry (Gaylussacia dumosa) and weeping haw (Crataegus laciniatae); the herb strata is mostly dominated by native grasses and include: little bluestem (Schizachyrium scoparium), slender bluestem (Schizachyrium tenerum), pinewoods dropseed (Sporobolus junceus), arrowfeather (Aristida purpurescens), and lopsided Indiangrass (Sorghastrum secundum); other native, but weedy grass species seen were broomsedge (Andropogon virginicus); forbs are also abundant and include: wireweed (Polygonella gracilis), lupin (Lupinus diffusus), honeycomb heads (Baldinia angustifolia) and sweet goldenrod (Solidago odora) (PNDHER03FLUS).
SARRGULF*109	Sarracenia rubra ssp. gulfensis	Gulf Coast redflower pitcherplant	33G4T2T2	S2S3	UR	ST	2008-08-06	2008-08-06: In gasoline right of way seepage area, needing more fire with woody encroachment (U08JEN04FLUS). 1993-06-24: CA. 150 CLUMPS PRIMARILY ON THE EXISTING ROW AND ADJACENT TO THE EXISTING ROW ON THE N SIDE.



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SARRGULF*136	<i>Sarracenia rubra ssp. gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T†	S2S3	UR	ST	1996-10-03: Seepage stream is ca. 30 ft. wide near ERR 211 bridge; the thin baygall canopy (dominated by Cliftonia monophylla) allows diverse shrub and herbaceous strata (PNDSC03FLUS). 1993-08-20 and 1994-03-13: [Shaded streamside Chamaecyparis thyoides Titi thicket (Cliftonia, Cyrtilla, Nyssa, Myrica) along Seepage Stream (PNDRC001FLUS).]	1996-10-03: More than 100 plants growing along edges of seepage stream beneath thin baygall canopy, typically growing in clumps at the base of trees in shallow water; the population extends for 0.25 mi. north and south of ERR 211 (PNDSC03FLUS). 1994-08-20: [Several clumps observed by R. Eilers (PNDRC001FLUS).] 1994-03-13: Small population; S. rubra on this stream not as extensive as on neighboring streams (PNDAND001FLUS).
SARRGULF*145	<i>Sarracenia rubra ssp. gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T†	S2S3	UR	ST	2023-06-28: Seepage slope, wet prairie, powerline R.O.W.	At Reedy Creek, plants have been documented multiple times from 1994-2023. In 2008, over 255 plants were estimated (U08JEN04FLUS). In 2023, 20-25 plants were estimated (F23FNA03FLUS).
SARRGULF*147	<i>Sarracenia rubra ssp. gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T†	S2S3	UR	ST	1994-03-13: Titi thicket (Cliftonia/Cyrtilla) with much Viburnum nudum, lesser numbers Myrica cerifera, M. heterophylla, M. inodora, Magnolia virginiana, Nyssa, Lyonia with considerable Oronotum and Sphagnum [upstream from road is beaver pond-weedy-little interest].	Plants widely scattered - in good condition.
SARRGULF*15	<i>Sarracenia rubra ssp. gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T†	S2S3	UR	ST	1997-05-01: Seepage slope	Plants first observed at two sites in 1997. A 2008 visit to one site did not find this species.
SARRGULF*154	<i>Sarracenia rubra ssp. gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T†	S2S3	UR	ST	2006-08-11: Seepage slope, baygall and mesic flatwoods.	2006: observed twice: 50-110 plants in leaf or flower/fruit in one location, 1-10 plants in flower/fruit in other location 1997: 100+ plants in seepage slope. 1994: species observed
SARRGULF*156	<i>Sarracenia rubra ssp. gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T†	S2S3	UR	ST	2023-04-25: Baygall along Metts Creek, a seepage stream.	Along Metts Creek, dozens of plants reported in the 1990s, at least 185 plants observed in 2010, and 317 plants observed in 2020, and several flowering clumps photographed in 2023.



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SARRGULF*157	<i>Sarracenia rubra</i> ssp. <i>gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T?	S2S3	UR	ST	1997-04-30 Small seepage area: pitcher plants patchy in wettest areas; intergrading with slightly drier matrix of wiregrass and muhly.	1997-04-30: 100+ plants in small (50 X 5 m) seepage area. In flower (PNDBLA06FLUS).
SARRGULF*17	<i>Sarracenia rubra</i> ssp. <i>gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T?	S2S3	UR	ST	2019-05-23 none given	Species observed in 3 location in 2019. Observed 9 times from 1992 to 2019.
SARRGULF*228	<i>Sarracenia rubra</i> ssp. <i>gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T?	S2S3	UR	ST	2006-04-11 FNAI NC recorded as seepage slope.	Observed 1-10 plants in leaf.
SARRGULF*229	<i>Sarracenia rubra</i> ssp. <i>gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T?	S2S3	UR	ST	2006-04-11 FNAI NC recorded as wet prairie.	Observed 1-10 plants in flower/bud.
SARRGULF*23	<i>Sarracenia rubra</i> ssp. <i>gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T?	S2S3	UR	ST	2019-08-11 none given	species observed
SARRGULF*230	<i>Sarracenia rubra</i> ssp. <i>gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T?	S2S3	UR	ST	2006-04-13 FNAI NC recorded as seepage slope. Ilex glabra, Arundinaria gigantea, Sarracenia flava, Erigeron vernus, Osmunda regalis, Pityopsis oligantha, Chaptalia tomentosa	Observed 1-10 plants in flower/bud.
SARRGULF*26	<i>Sarracenia rubra</i> ssp. <i>gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T?	S2S3	UR	ST	2006-05-04 Seepage slope (F13FNA03FLUS)	101-1000 plants in flower/fruit in 2006.
SARRGULF*28	<i>Sarracenia rubra</i> ssp. <i>gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T?	S2S3	UR	ST	1992-07-30 With Lillium iridollae in wet peaty soil of semi-shade of mixed woodland bordering Yellow River. S92AND08FLUS	species observed in 1992 S92AND08FLUS
SARRGULF*3	<i>Sarracenia rubra</i> ssp. <i>gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T?	S2S3	UR	ST	1984-05-17 1984-05-17: IN SEEPAGE AREAS ON N (S-FACING) SLOPE OF RIVER. (SEE MAP ATTACHED).	1989-2000: In extensive searches Erik Johnson, Harold Mitchell and Don Younker failed to relocate S. rubra (PNDJOH04FLUS; U04MCP01FLUS). 1989-04-24: JOHN PALIS LOOKED AT AREA INDICATED ON MAP AND COULD NOT FIND ANY SARRACENIAS NOR ANY LIKELY HABITAT FOR IT IN AREA. 1984-05-17: NO POPULATION ESTIMATE, BUT "GOOD POPULATION" (PNDFRA02).
SARRGULF*43	<i>Sarracenia rubra</i> ssp. <i>gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T?	S2S3	UR	ST	2023-06-28 Seepage slope in in utility corridor.	10-15 stems estimated in a thorough survey; in leaf.



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SARRGULF*5	<i>Sarracenia rubra</i> ssp. <i>gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T?	S2S3	UR	ST	1989-02-25	BANK OF SAND-BOTTOMED SPRING-RUN STREAM FLOWING THROUGH YOUGH SAND AND SLASH PINE PLANTATION (TREES AVERAGE 10 FEET TALL)	1 PLANT OBSERVED GROWING ON THE W. BANK OF GARNIER CREEK WITH PINGUICULA PUMILA. SARRACENIA NOT IN FLOWER. ID BASED UPON LEAVES (CONFIRMED BY DEBORAH WHITE).
SARRGULF*65	<i>Sarracenia rubra</i> ssp. <i>gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T?	S2S3	UR	ST	2009-04-09	2009-04-09: Large, well-burned seepage slope (U10JEN01FLUS). 1997-05-01: Seepage slope (see CPR000000.073) (PNDBLA06FLUS).	2009-04-09: 50 plants, some flowering. Some individuals hybridized with S. leucophylla (U10JEN01FLUS). 1997-05-01: <i>Sarracenia rubra</i> occasional in ca 5 acres of seepage slopes included within a 20-acre open grassy bowl-shaped site (PNDBLA06FLUS).
SARRGULF*74	<i>Sarracenia rubra</i> ssp. <i>gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T?	S2S3	UR	ST	1992-08-14	BAYGALL VEGETATED WITH CHAMAECYPARIS THYOIDES, MAGNOLIA VIRGINIANA, LIRIODENDRON TULIPIFERA, NYSSA SYLVATICA VAR. BIFLORA, PINUS ELLIOTTII, CLIFTONIA MONOPHYLLA, LYONIA LUCIDA, RHODODENDRON SERRULATUM, ILEX CORIACEA, MYRICA HETEROPHYLLA AND ALNUS SERRULATA.	SEVERAL PLANTS OBSERVED.
SARRGULF*75	<i>Sarracenia rubra</i> ssp. <i>gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T?	S2S3	UR	ST	2019-08-11	Baygall and seepage slope	Plants observed in discrete several areas along Garner Creek from 1992 to 2018. In 2018, 72 clumps in one area and over 10 clumps in another. In 2019, many clumps in vicinity.
SARRGULF*78	<i>Sarracenia rubra</i> ssp. <i>gulfensis</i>	Gulf Coast redflower pitcherplant	33G4T2T?	S2S3	UR	ST	1992-08-20	TITI-GUM THICKET ALONG STREAM. SATURATED PEAT. ASSOCIATED SPECIES: ERIOCAULON, ORONTIUM, LUDWIGIA PILOSA IN ACER, CLIFTONIA, CYRILLA, ILEX, CORIACEA, NYSSA SYLVATICA, VIBURNUM NUDUM.	BETWEEN 11 AND 50 PLANTS FOUND. MARGINAL VIGOR. 80% IN LEAF, 10% WITH IMMATURE FRUIT, 10% WITH MATURE FRUIT. MUCH GOOD HABITAT DOWNSTREAM-NOT EXPLORED.
SARRWHER*7	<i>Sarracenia alabamensis</i> ssp. <i>wherryi</i>	Wherry's redflower pitcherplant	G3T1?	S1	UR	ST	1992	None given.	In 1992, 1000 clumps were documented in a 10-acre area near the eastern border of Blackwater River State Forest.



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SARRWHER*8	<i>Sarracenia alabamensis</i> <i>ssp. wherryi</i>	Wherry's redflower pitcherplant	G3T1?	S1	UR	ST	1992	None given.	In 1992, 75 clumps were documented in a 0.1-acre area southeast of Blackwater River State Forest.
SCABBAKE*10	<i>Scabrostomus bakeri</i>	Baker's Pocket Gopher Beetle	G2G3	S2	N	N	1998-12-20	1998-12-20: No information given (U06SKE01FLUS).	1998-12-20: Two specimens were collected on 1998-12-20, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS).
SCABBAKE*11	<i>Scabrostomus bakeri</i>	Baker's Pocket Gopher Beetle	G2G3	S2	N	N	1998-12-20	1998-12-20: No information given (U06SKE01FLUS).	1998-12-20: One specimen was collected on 1998-12-20, most likely in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01SKE02FLUS).
SCABBAKE*2	<i>Scabrostomus bakeri</i>	Baker's Pocket Gopher Beetle	G2G3	S2	N	N	1998-12-02 -- 1998-12-20	1998-12-20: No information given (U06SKE01FLUS).	1998-12-20: Six specimens were collected from 1997-12-28 to 1998-12-20, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS).
SCABBAKE*3	<i>Scabrostomus bakeri</i>	Baker's Pocket Gopher Beetle	G2G3	S2	N	N	1999-03-01 -- 1999-04-10	1999-04-10: No information given (U06SKE01FLUS).	1999-04-10: Two specimens were collected from 1998-12-06 to 1999-04-10, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS).
SCABBAKE*4	<i>Scabrostomus bakeri</i>	Baker's Pocket Gopher Beetle	G2G3	S2	N	N	1998-12-20 -- 1999-01-02	1999-01-02: No information given (U06SKE01FLUS).	1999-01-02: One specimen was collected from 1998-12-20 to 1999-01-02, most likely in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01SKE02FLUS).
SCABBAKE*7	<i>Scabrostomus bakeri</i>	Baker's Pocket Gopher Beetle	G2G3	S2	N	N	1998-12-20 -- 1999-01-02	1999-01-02: No information given (U06SKE01FLUS).	1999-01-02: One specimen was collected from 1998-12-20 to 1999-01-02, most likely in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01SKE02FLUS).
SCABBAKE*8	<i>Scabrostomus bakeri</i>	Baker's Pocket Gopher Beetle	G2G3	S2	N	N	1998-12-20 -- 1999-01-02	1999-01-02: No information given (U06SKE01FLUS).	1999-01-02: One specimen was collected from 1998-12-20 to 1999-01-02, most likely in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01SKE02FLUS).



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SCABBAKE*9	<i>Scabrostomus bakeri</i>	Baker's Pocket Gopher Beetle	G2G3	S2	N	1998-12-19 -- 1999-01-03	1999-01-03: No information given (U06SKE01FLUS).	1999-01-03: Two specimens were collected from 1998-12-19 to 1999-01-03, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS).
SCABTANY*12	<i>Scabrostomus tanytarsus</i>	Long-Clawed Pocket Gopher Aphodius Beetle	G2G3	S2S3	N	1998-12-19 -- 1999-01-03	1999-01-03: No information given (U06SKE01FLUS).	1999-01-03: A total of 41 specimens were collected from 1997-12-28 to 1999-01-03, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
SCABTANY*13	<i>Scabrostomus tanytarsus</i>	Long-Clawed Pocket Gopher Aphodius Beetle	G2G3	S2S3	N	1998-12-06 -- 1998-12-20	1998-12-20: No information given (U06SKE01FLUS).	1998-12-20: Two specimens were collected from 1998-12-06 to 1998-12-20, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
SCABTANY*14	<i>Scabrostomus tanytarsus</i>	Long-Clawed Pocket Gopher Aphodius Beetle	G2G3	S2S3	N	1998-12-20 -- 1999-01-02	1999-01-02: No information given (U06SKE01FLUS).	1999-01-02: One specimen was collected from 1998-12-20 to 1999-01-02, most likely in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
SCABTANY*17	<i>Scabrostomus tanytarsus</i>	Long-Clawed Pocket Gopher Aphodius Beetle	G2G3	S2S3	N	1998-12-20 -- 1999-01-02	1999-01-02: No information given (U06SKE01FLUS).	1999-01-02: Four specimens were collected from 1998-12-20 to 1999-01-02, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
SCABTANY*18	<i>Scabrostomus tanytarsus</i>	Long-Clawed Pocket Gopher Aphodius Beetle	G2G3	S2S3	N	1999-01-03 -- 1999-01-18	1999-01-18: No information given (U06SKE01FLUS).	1999-01-18: Three specimens were collected from 1998-12-19 to 1999-01-18, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
SCABTANY*19	<i>Scabrostomus tanytarsus</i>	Long-Clawed Pocket Gopher Aphodius Beetle	G2G3	S2S3	N	1999-01-03 -- 1999-01-18	1999-01-18: No information given (U06SKE01FLUS).	1999-01-18: Two specimens were collected from 1998-12-19 to 1999-01-18, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).



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SCABTANY*20	<i>Scabrostromus tanytarsus</i>	Long-Clawed Pocket Gopher Aphodius Beetle	G2G3	S2S3	N	N	1998-12-20 (U06SKE01FLUS)	1998-12-20: One specimen was collected on 1998-12-20, most likely in a malt and dung-baited pitfall trap in a pocket gopher burrow (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
SCABTANY*21	<i>Scabrostromus tanytarsus</i>	Long-Clawed Pocket Gopher Aphodius Beetle	G2G3	S2S3	N	N	1999-03-01 -- 1999-04-10 (U06SKE01FLUS)	1999-04-10: A total of 21 specimens were collected from 1998-12-19 to 1999-04-10, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
SCABTANY*22	<i>Scabrostromus tanytarsus</i>	Long-Clawed Pocket Gopher Aphodius Beetle	G2G3	S2S3	N	N	1999-01-03 -- 1999-01-18 (U06SKE01FLUS)	1999-01-18: Five specimens were collected from 1999-01-03 to 1999-01-18, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS, A91SKE01FLUS).
SCHWAMER*4	<i>Schwalbea americana</i>	chaffseed	G2	S1	E	FE	2013-06-04	Observed a total of 24 plants, 7 of those were flowering or just post flowering. All within a very small area. Some herbivory seen on a few of the plants.
SCHWAMER*5	<i>Schwalbea americana</i>	chaffseed	G2	S1	E	FE	2020-09-03	In May 2018, Approximately 364 total plants, mostly vegetative with some in flower and one beginning to fruit. In September 2020, seeds collected from 84 individuals throughout population (except extreme eastern point), population had been recently burned.
SCIUNIGE*191	<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N	2010-06-21	One nest documented. Adult had been seen in the vicinity with all black head, neck, front legs / blond nose and ears



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SCIUNIGE*227	<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	2008-04-10	2008-04-10: Upland Pine (F08FNA10FLUS).	2008-04-10: Two squirrels observed in separate locations in upland pine (F08FNA10FLUS).
SCIUNIGE*228	<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	2008-04-10	2008-04-10: Upland Pine (F08FNA10FLUS).	2008-04-10: One individual observed (F08FNA10FLUS).
SCIUNIGE*249	<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	2008-04-10	No general description recorded.	species observed
SCIUNIGE*252	<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	2008-04-10	None recorded	One individual seen
SCIUNIGE*291	<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	2023-05-06	Upland pine and sandhill surrounding a fish hatchery.	An adult was photographed in 2023 (U23INA13FLUS).
SCIUNIGE*399	<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	2010-06-21	Sandhill.	At OLF Harold, one adult was observed in 2010 (U19SUR01FLUS).
SCRUFAT*166	Scrubby flatwoods		G2	S2?	N	1991-07-30	DEGRADED SEEPAGE SLOPE (INVADED BY ILEX CORIACEA, I. GLABRA, AND CLETHRA ALNIFOLIA) ADJACENT TO AND BORDERING BAYGALL DOWNSLOPE FROM SANDHILL COMMUNITY. STILL CONTAINS A HIGH DIVERSITY OF SEEPAGE SLOPE SPECIES INCLUDING SARRACENIA SPP., DROSER A SPP., RHYNCHOSPORA SPP., XYRIS SPP., ETC.	2010: Prior to the 2010 natural community reclassification effort this EO had been known as Seepage slope EO number 164 (see U10FNA07FLUS for updated community descriptions).



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SEPSLOP*105	Seepage slope		G2	S2	N	N	2006-05-03: Shrub invaded seepage slope with pitcher plants common, species include Cliftonia monophylla, Ilex coriacea, Rhynchospora sp., Eriocaulon decangulare, Lachnanthes caroliniana, Sarracenia leucophylla, Sarracenia flava, Sphagnum sp., Hypericum brachyphyllum, Ilex glabra, Lophiola sp., and Aristida stricta var. beyrichiana (F06FNA12FLUS). 1997-04-30: Steep slope begins abruptly where ground appears to "slump." Ground is saturated with water pooling in deepest areas. Sarracenia leucophylla is abundant with Drosera capillaris and tracyi showing in more open patches. Herb layer is dominated by Pilea tenuifolia with wiregrass also common. Grasses are in dense hummocks. Shrubs are tall and consist mainly of Myrica inodora and Ilex glabra. Gaylussacia mosieri is also abundant (PNDCHA05FLUS).
SEPSLOP*145	Seepage slope		G2	S2	N	N	1994: SLOPE AND SURROUNDING SANDHILL APPEAR HEALTHY (PNDPR03). 1997 (PNDJOH01): Hundreds of pitcher plants about equally divided between Sarracenia leucophylla and s. flava. Primarily herbaceous bog with few clumps of dwarfed longleaf pines and shrubs. Shrubs show burnt stems to 2.5 ft tall. Myrica heterophylla has 2-ft sprouts from old burnt stems 4 ft tall. Dominant species is wiregrass (Aristida stricta) with Eriocaulon compressum and Drosera tracyi scattered throughout. Sarracenia psittacina more common in soggy portions where wiregrass less dense. Sphagnum is common in lower portion near stream. Other species include: Polygala lutea, Rhexia alifanua, Muhlenbergia sp., Drosera brevifolia, Xyris baldwiniana, Eleocharis tuberculosa, Eriocaulon texense, Helenium brevifolium.



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SEEPSLOP*155	Seepage slope		G2	S2	N	N	1991-07-30 WIREGRASS, SEEPAge SLOPE; TITI,	SLOPE HAS SARRACENIA LEUCOPHYLLA, PINGUICULA LUTEA, DROSER A CAPILLARIS, D. TRACYI, POLYGALA LUTEA, DICHROMINA, No EO data given
SEEPSLOP*156	Seepage slope		G2	S2	N	N	1989-04-16 A SMALL SLOPING SARRACENIA LEUCOPHYLLA BOG, PRIMARILY HERBACEOUS VEGETATION NEAR THE ROAD (FEW SCATTERED PINUS PALUSTRIS AND P. ELLIOTII) GRADING INTO A THICKET OF WOODY VEGETATION (PRIMARILY PERSEA), DROSER A TRACYI AND HELENIUM BREVIFOLIUM AMID THE SARRACENIA.	
SEEPSLOP*157	Seepage slope		G2	S2	N	N	2004 HILLSIDE SEEPAGE BOG; SLASH PINE ON ADJACENT UPLANDS; ASSOCIATES-ILEX GLABRA, MYRCEA HETEROPHYLLA, SARRACENIA FLAVA, LILIUM CATESBAEI, PMLIL1A080, SEE DATA SHEET.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1990-08-24) (U05FNA02FLUS).
SEEPSLOP*158	Seepage slope		G2	S2	N	N	1997-04-30 seepage slope, surrounded by upland pine forest and baygall (PNDCHA05FLUS).	1997-04-30: severely shrub encroached seepage slope with scattered wet patches with seepage slope species, e.g. Sarracenia leucophylla. Primarily, too densely packed with grasses (Aristida stricta and Andropogon sp) and Ilex glabra to allow for typical seepage slope diversity (PNDCHA05FLUS). 1991-07-31: seepage slope with Sarracenia flava (very large size). S. leucophylla, S. purpurea, Polygala lutea, Platanthera lutea, P. integra, Drosera tracyi, D. capillaris (PNDTAY01FLUS, PNDOST01FLUS); 1983-pre. no data given (PNDFAU01FLUS; PNDLAW01FLUS).



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SEEPSLOP*16	Seepage slope		G2	S2	N	N	1997-04-18	No general description given
SEEPSLOP*161	Seepage slope		G2	S2	N	N	2004	1997: Community grades gradually upslope to upland pine forest and abruptly downslope to baygall. 1991: Diverse seepage slope with at least two species of Sarracenia (S. flava, S. psitticina), numerous spp. of Rhynchospora and Xyris, Drosera capillaris, Liliium iridolae, Rhexia alifanus, Scleria hirtella, Polygala ramosa and P. cruciata, Drosera filiformis, Ludwigia sp., Eriocaulon decangulare, and more. 2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1997-04-30) (U05FNA02FLUS). 1997: Very large (1/2 mi X 250 ft) pristine seepage slope - only wettest area along creek has a narrow band of pitcher plants (Sarracenia flava), but remaining area is also a seepage slope with saturated soil and gentle slope. Area has not been burned in a while. Judging from the dense thatch of grass litter that is shading other forbs. Because of this not much was flowering at time of survey - but a good diversity of plants here. Abundant grasses include Aristida beyrichiana, Ctenium aromaticum, and Andropogon sp intermixed with shrubs: Ilex glabra, Myrica heterophylla, Gaylussacia mosieri. Other species present: Dichromena latifolia, Arundinaria gigantea, Sphagnum sp., Dicranthellum sp., Helianthus heterophylla, Eupatorium rotundifolium, Lobelia brevifolia. 1991: Beautiful, rich (i.e., diverse) seepage slope community between sandhill and mixed flatwoods to the west, north, and east, and bordering dense baygall community (UNDHIL02FLUS).



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SEEPSLOP*162	Seepage slope		G2 S2 N N 2006-05-04	2006-05-04: Slope grades uphill to upland pine forest and downhill to seepage stream with bordering baygall (F06FNA12FLUS). 1991-07-30: EXTENSIVE AND PARTICULARLY WELL DEVELOPED SEEPAGE SLOPE COMMUNITY THAT IS ADJACENT TO SELECT-CUT SANDHILL WITH PINUS PALUSTRIS/ARISTIDA STRICTA AND BAYGALL RUNNING WESTWARD AT BOTTOM SLOPE OF SANDHILL. THIS COMMUNITY IS RATHER DIVERSE BUT IS IN NEED OF A BURN TO KEEP INVADING SHRUBS DOWN (UNDHIL02FLUS).	2006-05-04: Seepage slope with pitcher plants; species include Pinus elliotii/Pinus elliotii/Cyrilla racemiflora, Ilex glabra/Sarracenia flava, Sarracenia psittacina, Eriocaulon compressum, Lophiola aurea, and Hypericum brachyphyllum (F06FNA12FLUS). 1991-07-30: EXTENSIVE AREA OF SEEPAGE SLOPE COMMUNITY ADJACENT TO CUTOVER (ALBEIT SELECTIVE CUTTING) SANDHILL COMMUNITY (UNDHIL02FLUS).
SEEPSLOP*163	Seepage slope		G2 S2 N N 2004	1997: Grades to upland pine forest and baygall (PNDBLA06FLUS). 1991: A massive seepage slope adjacent to a park-like stand of mixed Pinus palustris/Pinus elliotii that had been selectively harvested in past 20 years. Numerous seepage slope species, very rich and very diverse flora. (UNDHIL02FLUS).	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1997-05-01) (U06FNA02FLUS). 1997: This site has potential to be one of the largest and finest seepage slopes in the BRSF. It is a 500 X 1000 ft swale dominated by grasses, sedges and shrubs with Sarracenia flava, rubra, and leucophylla scattered throughout. Shrub patches made up of Myrica heterophylla, Hypericum sp., and Magnolia virginiana. The seep has saturated soil with standing water in central portion and lies in a broad flat area with gently sloping upland pine forest on three sides (PNDBLA06FLUS).



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SEEPSLOP*178	Seepage slope		G2	S2	N	N	2004	RELATIVELY OPEN SEEPAGE SLOPE INVADDED BY PINUS ELLIOTTII, MAGNOLIA VIRGINIANA, CLIFTONIA MONOPHYLLA AND ILEX CORIACEA DUE TO FIRE SUPPRESSION. COMMON HERBACEOUS VEGETATION INCLUDES: ARISTIDA STRICTA; ARUNDINARIA GIGANTEA, RHYNCHOSPORA, XYRIS, DROSER A TRACYII, SARRACENIA FLAVA, S. LEUCOPHYLLA, LACHNOCAULON ANCEPS, ERIOCAULON, RHEXIA LUTEA, R. ALIFANUS, POLYGALA LUTEA, LYCOPODIUM, DICHROMENA LATIFOLIA, ASCLEPIAS CONVIVENS, OXYPOLIS, AND LOPHIOLA AMERICANA.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1992-06-15) (U05FNA02FLUS). UNBURNED SEEPAGE SLOPE BETWEEN BEDDED, YOUNG PINUS ELLIOTTII PLANTATION AND BAYGALL.
SEEPSLOP*179	Seepage slope		G2	S2	N	N	1992-06-15	UNBURNED SEEPAGE SLOPE IS BEING INVADDED BY CLIFTONIA MONOPHYLLA, PINUS ELLIOTTII, AND MAGNOLIA VIRGINIANA. OTHER COMMON SPECIES INCLUDE: ARISTIDA STRICTA, SMILAX LAURIFOLIA, RHYNCHOSPORA, LACHNOCAULON ANCEPS, ERIOCAULON, XYRIS, RHEXIA LUTEA, ASCLEPIAS CONVIVENS AND SARRACENIA LEUCOPHYLLA.	UNBURNED SEEPAGE SLOPE BETWEEN BEDDED, YOUNG PINUS ELLIOTTII PLANTATION AND BAYGALL/BASIN SWAMP.
SEEPSLOP*189	Seepage slope		G2	S2	N	N	1994-04-17	Open slope cleared through longleaf pine flatwoods for gas pipeline.	Grassy seepage area sloping to Turkey Creek. Principal species include: Aristida stricta, Ctenium aromaticum, Zigadenus densus, Sarracenia flava, S. purpurea, S. psittacina and hybrids between them.
SEEPSLOP*192	Seepage slope		G2	S2	N	N	1994-07-16	No general description given	Roadside seepage slope surrounded by disturbed sandhill, S. leucophylla, S. flava, S. purpurea, bogbuttons, A. stricta, etc.



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SEEPSLOP*193	Seepage slope		G2	S2	N	1994-07-16	Seepage Slope disturbed by silviculture and Hydrology disturbance (Forest Roads).	Slope covered mostly with Ilex spp.
SEEPSLOP*196	Seepage slope		G2	S2	N	2006-04-10	2006-04-10: slope grades uphill to upland pine forest and downhill to floodplain forest (F06FNA12FLUS).	2006-04-10: Seepage slope with pitcher plants being invaded with baygall; species include Pinus palustris, Ilex coriacea, Ilex glabra, Sarracenia leucophylla, Sarracenia psittacina, and Rhynchospora sp. (F06FNA12FLUS). 1994-10-11: Seepage slope dominated by wiregrass and a multitude of grasses and forbs (see attached field report form) (PNDJEN02FLUS).
SEEPSLOP*28	Seepage slope		G2	S2	N	1997-04-30	Seepage slope.	Steepish west-facing slope with hundreds of Sarracenia flava in southern portion and some S. leucophylla in northern part - extensive patches of hybrids between the two present. Area is ca 300 to 400 square meters in size. Ground squooshy underfoot and crawdad chimneys present. Dominant species is wiregrass with scattered patches of low gallberry shrubs. Associated species include: Eriocaulon cf. texense, Smilax laurifolia, Zizadenus cf. glaberrimus, Gaylussacia mosieri. No sign of burning in past year.
SEEPSLOP*30	Seepage slope		G2	S2	N	1997-04-30	Seepage slope in distinct concavity in slope of hillside - fire in surrounding upland pine forest missed portions of the seepage slope.	Steep southeast and gentler west-facing slopes with herbaceous bog portions of which were burned within the previous month (flowers of Sarracenia flava were burned). Dominant herbaceous cover may be either wiregrass or a species of Rhynchospora - only burned tufts present. Other common species include Eriocaulon compressum, Sarracenia psittacina, Drosera tracyi, Sarracenia leucophylla, Chaptalia tomentosa, Helenium vernale, Sphagnum sp., Lycopodium appressum, Aristida cf. palustris, plus scattered dwarfed specimens of the shrubs, Myrica heterophylla and Ilex glabra. Ground wet and squooshy to walk on - water ankle deep.



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SEEPSLOP*31	Seepage slope		G2	S2	N	N	1997-04-30	Half-moon-shaped bog on west-facing slope.
SEEPSLOP*32	Seepage slope		G2	S2	N	N	1997-04-30	Seepage slope on flat to very gentle slope adjacent to intermittent creek.
SEEPSLOP*33	Seepage slope		G2	S2	N	N	1997-04-30	Small west-facing hillside seep on slope above a beaver pond. Surrounding hillside appears to have burned previous year judging from the 2-ft-tall resprouts of Ilex glabra.
SEEPSLOP*390	Seepage slope		G2	S2	N	N	2006-04-11	2006-04-11: Degraded seepage slope invaded by baygall, but still supporting pitcher plants; species include Ilex glabra, Ilex cassine, Acer rubrum, A. undulatum, Centella asiatica, Sarracenia rubra, Sarracenia flava, and Baldinia sp. (F06FNA12FLUS).
SEEPSLOP*391	Seepage slope		G2	S2	N	N	2006-04-10	2006-04-10: Slopes uphill to upland pine forest and downhill to seepage stream bordered by baygall (F06FNA12FLUS).



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SEEPSLOP*392	Seepage slope		G2	S2	N	N	2006-04-13: Slope grades upward to upland pine forest and down to seepage stream bordered by baygall (F06FNA12FLUS).	2006-04-13: Seepage slope with pitcher plants; species include Pinus palustris, thick Ilex glabra, Eriocaulon decangulare, Sarracenia flava, Carex sp., and Sphagnum sp. (F06FNA12FLUS).
SEEPSLOP*393	Seepage slope		G2	S2	N	N	2006-04-13: Slope grades upward to upland pine forest and down to seepage stream bordered with baygall (F06FNA12FLUS).	2006-04-13: Seepage slope with pitcher plants; slope with Ilex glabra, Magnolia virginiana, Smilax laurifolia, Aristida stricta, and Sarracenia flava (F06FNA12FLUS).
SEEPSLOP*394	Seepage slope		G2	S2	N	N	2006-04-12: Slope grades upward to upland pine forest and down to seepage stream with baygall community(F06FNA12FLUS).	2006-04-12: seepage slope with pitcher plants; species include Helenium pinnatifidum, Sarracenia flava, Aristida stricta, Erigeron vernus, and Arundinaria gigantea (F06FNA12FLUS).
SEEPSLOP*396	Seepage slope		G2	S2	N	N	2006-04-13: Pitcher plants in small area within dry open slope; slope grades uphill to upland pine forest and downhill to seepage stream bordered by baygall (F06FNA12FLUS).	2006-04-13: Small area of pitcher plants in a large open expanse of dense wiregrass with little canopy cover; species include Aristida stricta var. beyrichiana, Zigadenus glaberrimus, Sarracenia flava, Gaylussacia mosieri, Arundinaria gigantea, Helenium pinnatifidum, Dichanthelium sp., Osmunda cinnamomea, Lachnocaulon sp., and Sphagnum sp. (F06FNA12FLUS).
SEEPSLOP*397	Seepage slope		G2	S2	N	N	2006-04-12: Slope grades uphill to upland pine forest and downhill to seepage stream bordered with baygall (F06FNA12FLUS).	2006-04-12: Seepage slope with pitcher plants; species include Ilex glabra, Aristida stricta var. beyrichiana, Sarracenia flava, Smilax laurifolia, Myrica carolinensis, Hypericum brachyphyllum, Gaylussacia mosieri, Ilex coriacea, Lachnocaulon sp., Helenium pinnatifidum, Sarracenia leucophylla (F06FNA12FLUS).
SEEPSLOP*398	Seepage slope		G2	S2	N	N	2006-04-13: Slope grades uphill to upland pine forest and downhill to seepage stream bordered by baygall (F06FNA12FLUS).	2006-04-13: Seepage slope with pitcher plants; overgrown with shrubs; species include Ilex glabra, Smilax laurifolia, Aristida stricta var. beyrichiana, Rhynchospora sp., Arundinaria gigantea, Myrica carolinensis, Eriocaulon decangulare, Gaylussacia mosieri, Sarracenia flava, Pinus palustris, Pinguicula pumila, and Otenium aromaticum (F06FNA12FLUS).



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SEEPSLOP*399	Seepage slope		G2	S2	N	N	2006-04-12: Slope grades uphill to upland pine forest and downhill to seepage stream bordered by baygall (F06FNA12FLUS).	2006-04-12: Very open seepage slope with pitcher plants; soil moist but not boggy; needs burn to suppress woody encroachment; species include Pinus palustris (very few), Ilex glabra, Aristida stricta var. beyrichiana, Ctenium aromaticum, Sarracenia rosea, Hypericum fasciculatum, Myrica carolinensis, and Cliftonia monophylla (F06FNA12FLUS).
SEEPSLOP*400	Seepage slope		G2	S2	N	N	2006-04-10: Slope grades uphill to upland pine forest and downhill to seepage stream bordered by baygall (F06FNA12FLUS).	2006-04-10: Tit-invaded, saturated, large slope; near baygall becomes more like wet flatwoods (not as inundated); species include Pinus palustris, Ilex coriacea, Myrica carolinensis, Cliftonia monophylla, Ilex glabra, Magnolia virginiana, Aristida stricta var. beyrichiana, Rhynchospora sp., Drosera tracyi, Sarracenia leucophylla, Helinium pinnatifidum, Chaptalia tomentosa, Arundinaria gigantea, Balduina uniflora, Gaylussacia mosieri, and Calopogon tuberosus (F06FNA12FLUS).
SEEPSLOP*401	Seepage slope		G2	S2	N	N	2006-05-04: Slope grades uphill to upland pine forest and downhill to seepage stream (F06FNA12FLUS).	2006-05-04: Seepage slope with pitcher plants on both sides of seepage stream; species include Liriodendron tulipifera, Pinus elliotii, Magnolia virginiana, Sarracenia flava, Sarracenia leucophylla, Sarracenia psittacina, Stenanthium densum, Calopogon tuberosus, Calopogon pallidus, Drosera brevifolia, Eriocaulon compressum, Lophiola aurea, and Rhynchospora sp. (F06FNA12FLUS).
SEEPSLOP*402	Seepage slope		G2	S2	N	N	2006-05-04: Slope grades uphill to upland pine forest and downhill to seepage stream bordered with baygall (F06FNA12FLUS).	2006-05-04: One smaller and one large seepage slope, both with pitcher plants; species include Pinus elliotii, Nyssa sylvatica var. biflora, Magnolia virginiana, Liriodendron tulipifera, Sarracenia flava, Sarracenia rosea, Sarracenia psittacina, Calopogon tuberosus, Rhynchospora latifolia, Oxypolis sp., Rhexia allaniana, Osmunda regalis, Sarracenia leucophylla, Rhexia lutea, Aristida stricta var. beyrichiana, Pinguicula sp., Drosera brevifolia, Calopogon pallidus, Lophiola aurea, and Hypericum sp. (F06FNA12FLUS).



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SEEPSLOP*403	Seepage slope		G2	S2	N	N	2006-05-04: Slope grades uphill to upland pine forest and downhill to seepage stream bordered by baygall (F06FNA12FLUS).	2006-05-04: Ca. 4 acre seepage slope with pitcher plants, recently burned. Species include Pinus elliotii, Sarracenia flava, Asclepias michauxii, Pityopsis oligantha, Stenanthium densum, Drosera tracyi, Calopogon tuberosus, Rhexia lutea, and Aristida stricta var. beyrichiana (F06FNA12FLUS).
SEEPSLOP*404	Seepage slope		G2	S2	N	N	2006-05-01: Slope grades uphill to upland pine forest and downhill to seepage stream bordered by baygall (F06FNA12FLUS).	2006-05-01: Seepage slope with pitcher plants; species include Pinus palustris, Pinus elliotii, Magnolia virginiana, Ilex glabra, Sarracenia leucophylla, Sarracenia flava, Sarracenia psittacina, Drosera capillaris, Drosera tracyi, Lophiola aurea, Rhynchospora latifolia, Rhexia allifanus, Eriocaulon compressum, and Sphagnum sp. (F06FNA12FLUS).
SEEPSLOP*405	Seepage slope		G2	S2	N	N	2006-05-02: Slope grades uphill to upland pine forest and downhill to seepage stream bordered with baygall (F06FNA12FLUS).	2006-05-02: Seepage slope with pitcher plants; species include Pinus palustris, Sarracenia flava, Sarracenia leucophylla, Calopogon pallidus, Aristida stricta var. beyrichiana, Arundinaria gigantea, Stenanthium densum, Rhynchospora latifolia, Drosera tracyi, and Rhexia allifanus (F06FNA12FLUS).
SEEPSLOP*406	Seepage slope		G2	S2	N	N	2006-05-02: Slope grades uphill to upland pine forest and downhill to lake (F06FNA12FLUS).	2006-05-02: Seepage slope with pitcher plants; two GPS points within the same historical seepage slope area; recent burn; species include Pinus elliotii, Pinus palustris, Ilex glabra, Sarracenia flava, Sarracenia leucophylla, Lophiola aurea, Sarracenia psittacina, Drosera tracyi, Ctenium aromaticum, Sarracenia flava + Sarracenia leucophylla hybrids present; 3-5 acres of Sarracenia mostly at the base of the hill (F06FNA12FLUS).
SEEPSLOP*407	Seepage slope		G2	S2	N	N	2006-05-02: Slope grades uphill to upland pine forest and sandhill, and downhill to seepage stream bordered by baygall (F06FNA12FLUS).	2006-05-02: Seepage slope with pitcher plants; species include Pinus palustris, Pinus elliotii, Sarracenia leucophylla, Pogonia ophioglossoides, Lophiola aurea, Arundinaria gigantea, Drosera tracyi, Calopogon tuberosus, and Osmunda cinnamomea (F06FNA12FLUS).



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SEEPSLOP*408	Seepage slope		G2	S2	N	N	2004	MID-SLOPE QUAKING SAPRIC MUCK, SEEPAGE HERB-BOG ALONG TRIBUTARY TO MIDDLE CREEK, IN FREQUENTLY BURNED, FIRE-MAINTAINED SAVANNA WITH INTACT GROUND COVER TO FACILITATE FIRE ACROSS THE LANDSCAPE.	2010: Prior to the 2010 natural community reclassification effort this EO had been known as Bog EO number 4 (see U10FNA01FLUS for updated community descriptions). 2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1989-09-20) (U05FNA02FLUS). THIS IS ONE OF THE MOST UNSTABLE QUAKING SEEPAGE BOG KNOWN TO ORZELL IN FLORIDA. SOFT UNSABLE, SPRING, SPONGY, PEATY SUBSTRATE OF QUAKING VEGETATION MATS AND SEEP SPRINGS RUNS WITHIN THE BOG. OLIGOTROPHIC TELLURIC SEEPAGE. 31 PLANT TAXA RECORDED FROM SITE ON 9-20-89 INCLUDING 3 SPECIES OF SARRACENIA (LEUCOPHYLLA, PSITTACINA, FLAVA), AND 5 FNAI LISTED PLANTS. DOMINANT SPECIES OF THIS HABITAT OFTEN INCLUDE THE EARLY SUMMER FLOWERING RHYNCHOSPORA STENOPHYLLA AND THE FALL FLOWERING R. MACRA.
SEEPSLOP*58	Seepage slope		G2	S2	N	N	1997-04-30	Seepage slope with soil saturated at surface. Patchy gallery - no evidence of fire suppression.	1997-04-30: About a 50-acre seepage area on a very steep slope, with yellow pitcher plants from top to bottom on north side and white-topped pitcher plants on south side. Wiregrass is dominant with high diversity of other forbs. Soil saturated at surface. Other abundant species present include: Arundinaria gigantea, Dicanthellum sp. Xyris sp., Sarracenia peltata, Ctenium aromaticum, Eriocaulon decangulare, and Hypericum brachyphyllum. Occasional species include: Drosera tracyi, Dichromena latifolia. Shrubs present were Ilex glabra and Cyrilla racemiflora (PNDBLA06FLUS).



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SEEPSLOP*69	Seepage slope		G2	S2	N	N	2004	Seepage slope on broad gently sloping meadows dissected by narrow, shallow depressions. Soil saturated at surface. It has been some time since fire judging by the height of the Myrica heterophylla (1.5 m). Damage (ruts) by salvage loggers in surrounding upland pine forest following Hurricane Opal tree blowdown.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1997-05-01) (U05FNA02FLUS). 1997: The seepage area is very patchy with numerous small seeps, grassy meadows, and ravines with baygall vegetation. Difficult to tell limits of EO from dark aerial (FDOT aerial #4035-02-38 OKAL). Upper slopes are mostly grass-dominated; lower slopes are 60% shrubs: Ilex glabra and Gaylussacia mosieri. Species in seep include: Sarracenia leucophylla, S. flava, S. rubra, S. psittacina, Myrica heterophylla, Arundinaria gigantea, Drosera tracyi, Polygala lutea, Andropogon glomeratus, Pinguicula primuliflora, Rhexia alpiniana (PNDBLA06FLUS).	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1997-05-01) (U05FNA02FLUS). 1997: The seepage area is very patchy with numerous small seeps, grassy meadows, and ravines with baygall vegetation. Difficult to tell limits of EO from dark aerial (FDOT aerial #4035-02-38 OKAL). Upper slopes are mostly grass-dominated; lower slopes are 60% shrubs: Ilex glabra and Gaylussacia mosieri. Species in seep include: Sarracenia leucophylla, S. flava, S. rubra, S. psittacina, Myrica heterophylla, Arundinaria gigantea, Drosera tracyi, Polygala lutea, Andropogon glomeratus, Pinguicula primuliflora, Rhexia alpiniana (PNDBLA06FLUS).
SEEPSLOP*63	Seepage slope		G2	S2	N	N	1999-08-06	1999-08-06: NARROW FRINGE OF GRASSY SEEPAGE AREA AT BASE OF SLOPE BEFORE BAYGALL - FORMS "Y" AT POWERLINE (PNDJ0H01FLUS).	1999-08-06: LOOKED GOOD ON AERIAL BUT GROUND CHECK SHOWED DOMINATED BY RHYNCHOSPORA CHAPMANII INSTEAD OF WIREGRASS. STEEP SLOPE FROM SANDHILL DOWN TO BAYHEAD. SARRACENIA RUBRA PATCHES ON SLOPE ON WEST END OF SEEPAGE AREA NEAREST FR86. OTHER SPECIES INCLUDE: ZIGADENUS GLABERRIMUS, LOPHIOLA AMERICANA, SARRACENIA FLAVA, PANICUM NUDICAULE (?), AND ARUNDINARIA GIGANTEA. SHRUBBY PATCHES DOMINATED BY ILEX GLABA, ILEX CORIACEA AND HYPERICUM BRACHYPHYLLUM. SEEMS TO BE RECENTLY BURNED FROM SIZE OF RE-SPROUTING SHRUBS - MAYBE LAST YEAR? (PNDJ0H01FLUS).	1999-08-06: LOOKED GOOD ON AERIAL BUT GROUND CHECK SHOWED DOMINATED BY RHYNCHOSPORA CHAPMANII INSTEAD OF WIREGRASS. STEEP SLOPE FROM SANDHILL DOWN TO BAYHEAD. SARRACENIA RUBRA PATCHES ON SLOPE ON WEST END OF SEEPAGE AREA NEAREST FR86. OTHER SPECIES INCLUDE: ZIGADENUS GLABERRIMUS, LOPHIOLA AMERICANA, SARRACENIA FLAVA, PANICUM NUDICAULE (?), AND ARUNDINARIA GIGANTEA. SHRUBBY PATCHES DOMINATED BY ILEX GLABA, ILEX CORIACEA AND HYPERICUM BRACHYPHYLLUM. SEEMS TO BE RECENTLY BURNED FROM SIZE OF RE-SPROUTING SHRUBS - MAYBE LAST YEAR? (PNDJ0H01FLUS).



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SEEPSLOP*65	Seepage slope		G2	S2	N	N	1997-04-30	Seepage slope in concavity of hillside covered by upland pine forest.	Small (<50m2) bog in sharp concavity in west-facing hillside. Squooshy underfoot. Mostly white-topped pitcher plant present. Well intermixed with 2.5 ft tall shrubs of Myrica heterophylla and Ilex glabra. Some Arundinaria tecta but mostly wiregrass as matrix. Where wiregrass least dense S. psittacina is common along with Zigadenus cf. glaberrimus (vegetative). Drosera tracyi, Sphagnum sp., Drosera brevifolia, Lycopodium sp., Pinguicula caerulea, Smilax laurifolia.
SEEPSLOP*66	Seepage slope		G2	S2	N	N	1997-04-18	Seepage slope in concavity in hillside covered by upland pine forest.	Small seep on east-facing slope just burned this year (still smoking in places). Very open herbaceous stand with much bare soil showing. Soil squooshy underfoot. Sarracenia flava burned when in flower. Other species identifiable include: Sarracenia psittacina, Lycopodium sp., Eriocaulon compressum, Sabatia cf. macrophylla, Helenium sp.
SEEPSLOP*67	Seepage slope		G2	S2	N	N	1997-04-18	Small seep in concavity in hillside covered by upland pine forest (longleaf pine, wiregrass, Muhlenbergia sp).	Small seep on north-facing slope. Open herbaceous stand with fairly dense grassy clumps of either Rhynchospora sp. or Aristida beyrichiana (can't tell which). Soil squooshy underfoot. Few pitchers of Sarracenia leucophylla - more dead pitchers from last year. Other common species are Gaylussacia mosieri, Eriocaulon cf. compressum, Drosera capillaris, Sphagnum sp., Eriocaulon cf. texense, Helenium brevifolium, Zigadenus cf. glaberrimus (vegetative), Pinguicula plantifolia - rare. Few shrubby clumps of Magnolia virginiana with Smilax laurifolia but otherwise mostly herbaceous. Myrica heterophylla becomes denser around edges. No sign of fire.



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SEEPSLOP*68	Seepage slope		G2	S2	N	N	1997-04-18	Small seep in concavity in hillside covered by upland pine forest (longleaf pine, wiregrass, Muhlenbergia sp).	Open herbaceous squooshy bog in concavity in hillside with Aristida beyrichiana, and several clumps of Sarracenia flava and S. leucophylla. Other species include: Drosera tracyi, Gaylussacia mosieri, Eriocaulon compressum, Helenium brevifolium, Hypericum cf. brachyphyllum, Aristida cf. palustris and Myrica heterophylla on edges.
SEEPSLOP*69	Seepage slope		G2	S2	N	N	1997-04-18	Broad grassy relatively dry area on hillside with much galberry admixed. Only a few wetter spots have pitcher plants.	Most of area that appears light-colored on aerial is dense wiregrass with about 30% cover of galberry (Ilex glabra). One area is covered by a dense stand of cane (Arundinaria gigantea). Only a few spots are squooshy underfoot and these have Sarracenia flava plus other associates, including Drosera tracyi, Gaylussacia mosieri, few clumps of Sarracenia leucophylla, plus Ilex glabra and Cawdada chimneys.
SEEPSLOP*70	Seepage slope		G2	S2	N	N	1997-04-30	Small grassy seepage areas separated by with clumps of shrubs.	Area not squooshy underfoot, only moist at surface. Slope very gentle. Small bog ca 125 m2 in area with wiregrass as dominant, scattered plants of Gaylussacia mosieri, Zizadenus cf. glaberrimus, Myrica heterophylla, Eriocaulon cf. compressum, Helianthus heterophylla, Drosera tracyi, Sarracenia psittacina, and Polygala lutea.
SEEPSLOP*71	Seepage slope		G2	S2	N	N	1997-04-30	Seepage slope on gentle slope - recently burned	Burned this season before pitcher plant flowered. All pitcher plants dead (hard to tell if S. leucophylla or S. flava - scattered clumps totalling ca 50 plants). Wiregrass beginning to regenerate. Soil squooshy underfoot. Other species present include Zizadenus cf. glaberrimus, Helianthus heterophyllus, Eriocaulon cf. compressum, scattered small clumps of Ilex glabra, Sarracenia psittacina and Drosera tracyi not visible in bare soil areas where they would be expected.



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SEEPSLOP*72	Seepage slope		G2	S2	N	N	1997-04-30	No general description given	Very recently burned and not much vegetation yet regenerated. Steep slope near top of hill abruptly changes to a gentler slope where seeps is. Soil moist but not squooshy underfoot. Sarracenia leucophylla concentrated near top of slope and S. flava lower down. Some hybrids seen in unburned patch. Wiregrass and broad-bladed grass (Ctenium aromaticum?) re-sprouting. Other species in unburned patch: Ctenium aromaticum, Aristida beyrichiana, Drosera tracyi, Gaylussacia mosieri, Sarracenia psittacina, Polygala lutea, Lycopodium appresum, plus a single patch of Myrica inodora with Ilex glabra.
SEEPSLOP*73	Seepage slope		G2	S2	N	N	1998-10-26	Wiregrass becomes abruptly denser outside of seepage areas which have saturated soil at surface. Probably burned 6-7 months earlier (based on lack of litter and stocking of young longleaf line seedlings in surrounding upland pine forest). Higher portions of the open wiregrass areas are occupied by bracken fern, Gaylussacia mosieri, Osmunda cinnamomea, Cornus foemina, Quercus falcata, and Pinus palustris. Similar seeps are found for about a mile along the east side of SFR57 extending south to its junction with SFR 50.	1998-06-13 and 10-26: Bowl Bog supports at least 110 species making it one of the top 20 bogs in the East Gulf Coastal Plain for diversity (U98SOR03FLUS). 1997-05-01: Bowl-shaped, undulating seepage area with no distinct aspect. Covers about 20 acres with 5 of those occupied by pitcher plants. Upper slope completely herbaceous; lower slope with 80% shrub cover. Sarracenia leucophylla and S. flava are abundant; S. rubra is occasional and S. psittacina frequent. Other species include: Drosera capillaris, Drosera tracyi, Zigadenus sp., Dichromena latifolia, Myrica heterophylla, Calopogon tuberosus, Lophiola aurea, Rhexia allifanus (PNDBLA06FLUS).



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SEEPSLOP75	Seepage slope	G2	S2	N	N					1997-04-29	SEEPAGE SLOPE SURROUNDED BY UPLAND PINE FOREST AND BAYGALL	1997-04-29: THE WETTEST PORTION OF THE SEEPAGE SLOPE IS HALF-MOON SHAPED AND DEFINED BY AN INCREASE IN PTERIDIUM AQUILINUM AND ILEX GLABRA. TOPOGRAPHY IS SLIGHTLY HIGHER. LONGLEAF PINE ARE SCATTERED, <20% OF CANOPY COVER. THE WETTEST AREA IS CENTRAL DRAW, WITH SPHAGNUM AND VISIBLE SEEPAGE NEAR BASE OF SLOPE. GROUND COVER IS DOMINATED BY ARISTIDA STRICTA AND ANDROPOGON SP. IN THICK HUMMOCKS. SARRACENIA LEUCOPHYLLA WAS COMMON. ~100 CLUMPS AND MANY WERE FLOWERING (PNDCHA05FLUS).
SEEPSLOP78	Seepage slope	G2	S2	N	N					2006-04-12	1997-05-01: SEEPAGE SLOPE SURROUNDED BY DISTURBED UPLAND PINE FOREST AND GRADING DOWN SLOPE INTO BAYGALL (PNDCHA05FLUS).	2006-04-12: Species include Pinus palustris, Ilex coriacea, Cliftonia monophylla, Ilex glabra, Sarracenia leucophylla, Sarracenia flava, Aristida stricta var. beyrichiana (F06FNA12FLUS). 1997-05-01: GOOD QUALITY SEEPAGE SLOPE THAT CONTAINS HUNDREDS OF WHITE-TOP PITCHER PLANT CLUMPS AND IS DOMINATED BY THE HERBS ARISTIDA STRICTA AND ANDROPOGON SP. ILEX GLABRA IS THE DOMINANT SHRUB, WITH HYPERICUM GALIODES ALSO COMMON. SLOPE HAS BEEN A GREAT DEAL OF DISTURBANCE AND BEEN A VICTIM OF FIRE SUPPRESSION (PNDCHA05FLUS).
SEEPSLOP80	Seepage slope	G2	S2	N	N					1997-04-30	Small patches of seepage slope vegetation along N side of creek - smaller one 20 X 5 m, larger 100 X 15 m. Recent fire burned through smaller area but not larger which is overtopped by titi (Cyrtilla racemiflora) to ca 1 to 1.5 m tall. Upslope is beautiful wiregrass meadow which is wet but not "squishy" underfoot.	Seep is narrow band at base of grassy slope - soil wet but not squishy. 100+ Sarracenia rubra plants were flowering. Shrubs made up 70% cover including Ilex coriacea, Magnolia virginiana, Myrica cerifera, and M. heterophylla. Forbs in seep include: Rhexia alifanua, Lycopodium sp., Eriocaulon compressum, Drosera capillaris, Sarracenia psittacina, Helenium vernale, Eriogon verna, Drosera tracyi, Eriocaulon texense, Muhlenbergia expansa, and Dichromena latifolia.



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SEEPSLOP*81	Seepage slope		G2	S2	N	N	1997-04-30 Small seepage area: pitcher plants patchy in wettest areas, intergrading with slightly drier matrix of wiregrass and mulny.	1997-04-30: Very small patches of pitcher plants, plus their wet-soil associates, intergrading with wiregrass and mulny grass seepage. Pitcher plant area forms narrow band approximately 50 m long and 5+m wide. Appears to be frequently burned judging from diverse herb layer and fire scars on trees. Twenty per cent shrub cover including Myrica heterophylla, Cliftonia monophylla, Clethra alnifolia, Ilex glabra and Gaylussacia mosieri. Dominant herbs include: Aristida beyrichiana, Muhlenbergia expansa, Eriocaulon compressum, Helianthus heterophylla, and Dicranthellum sp. Other herbs were Sarracenia flava, Sarracenia rubra, (100+ plants), Drosera tracyi, Erigeron vernus, Liatris sp., Polygala lutea (PNDBLA06FLUS).
SEEPSLOP*82	Seepage slope		G2	S2	N	N	1997-04-30 long narrow seepage slope in two bands parallel to creek. Bordered by baygall on downslope side and upland pine forest on upslope side.	1997-04-30: Long narrow seep along a creek slope with the lower 2/3 of seep band fire-suppressed judging from the 3m tall shrubs of Cliftonia that are invading it. Sphagnum sp. is abundant and there was standing water at time of survey. Herbaceous dominants include Aristida beyrichiana, Ctenium aromaticum, Eriocaulon compressum, and Dicranthellum sp. Other herbaceous species: Sarracenia leucophylla, S. purpurea, Muhlenbergia expansa, Lycopodium sp., Liatris sp., Erigeron vernus. Shrubs are in two height classes: >3m tall on lower slope and <0.5 m tall on upper - presumably due to fire moving downslope and going out. Shrub species include Ilex coriacea, Gaylussacia mosieri, and Cliftonia monophylla. Area highly disturbed by vehicle ruts - both parallel and perpendicular to slope (PNDBLA06FLUS)



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SEEPSLOP*83	Seepage slope	G2	S2	N	N	N	N	1997-05-01	Seepage slope that grades into upland pine forest, dominated by Pinus palustris and Ilex glabra (PNDCHA05FLUS).	1997-05-01: Broad, gently sloping, seepage slope. Slope is dominated by Ilex glabra, Myrica heterophylla, Aristida stricta, Andropogon sp., and Sarracenia flava. Wiregrass and other grass species are dense and hummocky. Herbaceous diversity is lower than other sites seen in this area. Scattered longleaf pine occurs in canopy. Old east-west skid trail bisects site, and some stumps are present (PNDCHA05FLUS).
SEEPSLOP*86	Seepage slope	G2	S2	N	N	N	N	2006-04-13	2006-04-13: Seepage slope bordered to north by upland pine forest and to south by seepage stream enlarged by beaver dam (F06FNA12FLUS).	2006-04-13: Seepage slope with pitcher plants on north side of creek with beaver dam; species include Ilex glabra, Aristida stricta, and Sarracenia flava (F06FNA12FLUS).
SEEPSLOP*89	Seepage slope	G2	S2	N	N	N	N	1997-04-30	1997-04-30: SEEPAGE SLOPE SURROUNDED BY UPLAND PINE FOREST AND BAYGALL (PNDCHA05FLUS).	1997-04-30: LARGE WET SLOPE BUT SO HEAVILY SHRUB ENCROACHED THAT SEEPAGE SLOPE SPECIES ARE EVIDENT ONLY IN THE WETTEST AREAS; SARRACENIA LEUCOPHYLLA IS SCATTERED THROUGHOUT BUT FEW ARE FLOWERING; WIREGRASS IS IN DENSE HUMMOCKS. SOME SLASH PINES 3-4 METERS TALL. 70% OF SLOPE IS DOMINATED BY SHRUBS, MAINLY ILEX GLABRA AND MYRICA NODOSA (PNDCHA05FLUS).



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SEEPSLOP*94	Seepage slope		G2	S2	N	N	2004	Extensive pristine seepage area with large populations of pitcher plants.
SEEPSLOP*95	Seepage slope		G2	S2	N	N	1997-04-30	Open grassy west-facing seep on gentle slope with soil saturated at surface. 1997-04-30: Wet meadow dominated by wiregrass on west-facing slope. Yellow (Sarracenia flava) and white-topped (S. leucophylla) pitchers occur in patches. Less than 25% cover of low shrubs (Gaylussacia mosieri, Ilex glabra, and Hypericum cf. brachyphyllum) and widely scattered longleaf pines. Other grasses include Ctenium aromaticum and Arundinaria gigantea. Other forbs present include Scleria baldwinii, Lycopodium compressum, Eriocaulon compressum, Helianthus heterophyllus, and Helenium vernale (PNDBLA06FLUS).
SEEPSLOP*96	Seepage slope		G2	S2	N	N	2004	Open grassy east-facing seep on gentle slope with soil saturated at surface. Grades to baygall at lower end and upland pine forest at higher. Thick wiregrass indicates some fire suppression. 2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1997-04-30) (U05FNA02FLUS). 1997-04-30: Open grassy seep dominated by wiregrass and toothache grass (Ctenium aromaticum). Shrubs are common but low in stature and include Ilex glabra, Gaylussacia mosieri, and Myrica heterophylla. Longleaf and slash pines are invading around edge (PNDBLA06FLUS).



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SEEPSLOP*97	Seepage slope	G2	S2	N	N	N	1997-05-01	1997-05-01: Seepage slope grading upslope into upland pine forest dominated by Pinus palustris, and downslope into baygall (PNDCHA05FLUS).	1997-05-01: Broad gently sloping seepage slope dominated by Ilex glabra, Myrica heterophylla, Aristida stricta and Andropogon sp. Several clumps of Sarraenia flava were also noted. Wiregrass and other grass species were dense and hummocky. Herbaceous diversity is lower than other sites in this area. Scattered longleaf pine occurs in canopy. Stumps were present (PNDCHA05FLUS).
SEEPSLOP*17	Seepage stream	G3	S2	N	N	N	2004	PARTIAL CANOPY OF CHAMAECYPARIS THYOIDES, ACER RUBRUM, LIQUIDAMBER, STYRACIFLUA, MAGNOLIA, GRANDIFLORA, QUERCUS LAURIFOLIA, TAXODIUM ASC., ILEX MYRTIFOLIA IN UNDERSTORY.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1983-11-13). (U05FNA02FLUS). LIGHTLY TANNIN-STAINED WATER TO CA 3 M DEEP (LOW WATER SEASON); SWIFT FLOW, FED BY NUMEROUS SEEPAGE STREAM TRIBUTARIES; WIDTH CA 5 M; SUBSTRATE COARSE WITH SOME GRAVEL; FILAMENTOUS GREEN ALGAE SCATTERED ALONG BOTTOM.
SEEPSLOP*20	Seepage stream	G3	S2	N	N	N	2004	INTERMITTENT STREAM AT THE BASE OF AN OPEN SEEPAGE SLOPE IN AN UPLAND PINE FOREST.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1990-08-25). (U05FNA02FLUS). SMALL INTERMITTENT STREAM WITH SHRUB-LINED BANKS (PREDOMINANTLY CLIFTONIA MONOPHYLLA).
SEEPSLOP*32	Seepage stream	G3	S2	N	N	N	1996-08-12	Seepage stream within baygall within sandhill.	1996-08-12: Small, clear running seepage stream originating on site in baygall (PNDPRI03FLUS).



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SEEPSTRE-37	Seepage stream		G3	S2	N	N	2004	Stream originates in, and flows through, deep sandy soils of xeric sandhills within Eglin AFB. It flows northwest to join the Yellow River. The water is clear and flows with a steady current. 2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1996-10-03) (U05FNA02FLUS). 1996-10-03: Small seepage stream about 2.5 miles long from its headwaters to its end at the Yellow River floodplain. Wolf Creek is a small, shallow, northward flowing seepage stream approximately 3 miles long from its headwaters to its end in the Yellow River floodplain. This narrow stream is characterized by a steady flow of clear water over a white sand bottom; for most of its length, Wolf Creek cuts through sandhill uplands that are regularly burned right up to the edges of the stream; a band of baygall (no wider than the stream) completely covers the creek corridor and is dominated by buckwheat (Cliftonia monophylla) and the less common Atlantic white cedar (Chamaecyparis thyoides), sweetbay (Magnolia virginiana), and black gum (Nyssa biflora); the shrub and herbaceous strata are generally sparse; this typifies the area at ERR 604W, where the channel is about 10-20' (rarely 30') wide, 1-2' deep, and lacks herbaceous vegetation; for its last half mile, the canopy thins out as the floodplain broadens to about 30'; near the ERR 211 bridge, the diverse herbaceous strata includes the rare plants spoonleaf sundew (Drosera intermedia), parhandle lily (Lilium iridolae), spoonflower (Peltandra sagittifolia), and sweet pitcher plant (Sarracenia rubra); other dominant herbs are glaucous sedge (Carex glaucescens), three-sided sedge (Dulichium arundinaceum), and hatpins (Eriocaulon decangulare); the numerous shrubs commonly include shiny fetterbush (Lyonia lucida), odorless wax myrtle (Myrica nodosa), and possum haw (Viburnum nudum); a small amount of sedimentation is occurring at the ERR 211 crossing due to erosion from the clay road (PNDSCH03FLUS).



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SELOSANT*2	<i>Selenodan santarosae</i>	Santa Rosa Cebrionid Beetle	G1	S1	N	N	1974-06-14: No description given (B99GAL01FLUS).	1974-06-14: One specimen was collected (B99GAL01FLUS).
SELOSANT*3	<i>Selenodan santarosae</i>	Santa Rosa Cebrionid Beetle	G1	S1	N	N	1972-06-09: No description given (B99GAL01FLUS).	1972-06-09: Seven specimens were collected using a blacklight. There is another record from 1974-06-15 for "4.5 mi. NW Hol" that may or may not be this locality (B99GAL01FLUS).
SIDETHOR*3	<i>Sideroxylon thornei</i>	Thorne's buckthorn	G3	S1	N	SE	1994-08-01: High quality floodplain swamp; large trees, thin understory, murky waters; plants occur beneath a canopy of Taxodium distichum with Fraxinus caroliniana and Ilex verticillata. A spectacular display of Clematis crispa observed climbing over nearby vegetation (PNDSCH05FLUS).	1994-08-01: Few shrubs observed in standing water (abnormally high due to heavy rain associated with Tropical Storm Alberto) at eastern end of Grimes Lake; flowers and immature fruit abundant on shrubs. Reproductive potential appears good (PNDSCH05FLUS).
SIPHRUN*1	<i>Siphonoplecton brunneum</i>	A Mayfly	G1G2	S1S2	N	N	2001-11-27: No description given (U09DEP01FLUS).	2001-11-27: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
SOMACALV*3	<i>Somaiochlora calverti</i>	Calvert's Emerald	G3	S2S3	UR	N	1977-08-07: None given	1 male specimen collected (U20DON01FLUS)
SPARMICC*2	<i>Sparbarus miccosukee</i>	Miccosukee Mayfly	G1G2	S1S2	N	N	1977 pre stream.	Type locality for <i>S. miccosukee</i> . Documented by 1 collection from before 1977, but no reason to doubt that it is still extant.
SPIRFLO*13	<i>Spiranthes floridana</i>	Florida ladies'-tresses	G1	S1	N	N	2021-04-23: None given.	One flowering plant photographed near Eadie Cotton Rd. at Blackwater River State Forest (U23INA03FLUS).
STENFLO*133	<i>Stenacron floridense</i>	A Mayfly	G3G4	S3S4	N	N	1977-05-04: No description given (U09DEP01FLUS).	1977-05-04: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
STENFLO*134	<i>Stenacron floridense</i>	A Mayfly	G3G4	S3S4	N	N	1993-02-16: No description given (U09DEP01FLUS).	1993-02-16: Staff from the Florida Department of Environmental Protection collected this species on this date and on the following dates: 1979-02-01, 1978-08-15 (U09DEP01FLUS).
STENFLO*146	<i>Stenacron floridense</i>	A Mayfly	G3G4	S3S4	N	N	1998-07-15: No description given (U09DEP01FLUS).	1998-07-15: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).



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STYLTOWN*1	<i>Stylurus townesi</i>	Bronze Clubtail	G3	S2	N	N	2020-08-08	There are an estimated 25 miles of suitable habitat in and along the banks of Juniper Creek and Blackwater River for this species (U07DAI03FLUS).	This occurrence has existed at this site since at least 1975. In 2001, an estimated 2000+ individuals were seen. Sightings have continued through 2020.
SYMPDEVE*9	<i>Symphotrichum concolor</i> var. <i>devestitum</i>	Gulf Coast Silvery Aster	G5T2	S2	N	N	1978-10-24	none given	Reproductive/flowering specimen collected.
TALLCORN*6	<i>Tallaperia cornelia</i>	Southeastern Roachfly	G4	S1	N	N	1993-06-23	1993-06-23: No description given (U09DEP01FLUS).	1993-06-23: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
TAMISTRI*12	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	1989 pre	MIXED PINE-HARDWOOD FOREST(?).	1 CHIPMUNK OBSERVED BY R. CARR (GFC) "SEVERAL YEARS AGO".
TAMISTRI*16	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	1995-09	Edge of cotton field; inholding within Blackwater River State Forest.	1995-09: One individual observed at edge of cotton field (PNDCHR01).
TAMISTRI*17	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	1987-11-06	Upland Mixed Forest.	1987-11-06: J.A. Gore, GFC, observed 1 chipmunk calling and feeding.
TAMISTRI*27	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least two observed (U22WIN01FLUS).
TAMISTRI*3	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	1987-11-06	MIXED PINE-HARDWOOD FOREST; MATURE; DECIDUOUS FOREST WITH UNDERSTORY OF YAUPOIN; DOG. TREE=QUESCUS HEMISPHERICA (NOW LAUREL OAK); SOME PINE/YAUPOIN, SOME QUERCUS/OTHER UNDERSTORY; ALONG YELLOW RIVER. POSSIBLY INCLUDES RAVINES AND EDGES OF FRESHWATER MARSHES ALONG YELLOW RIVER.	CHIPMUNKS OBSERVED AT SEVERAL LOCALITIES IN VICINITY BETWEEN 1959 AND 1987 BY VARIOUS OBSERVERS (SEE ATTACHED FOR SPECIFIC LOCALITIES). STEVENSON (A62STE01) ESTIMATED DOZENS IN CA. 2 SQ MI OF HABITAT. STEVENSON SAW SPECIMENS FROM 1959-1961, COLLECTED TWO (M.F.) ON 18 MAY 1961; PRESUMABLY HIBERNATE. EARLIEST AND LATEST ACTIVITY NOTED WERE 22 APR AND 5 DEC; CALLING MOST FREQUENTLY IN FALL.
TAMISTRI*30	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WIN01FLUS).
TAMISTRI*31	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least two observed (U22WIN01FLUS).
TAMISTRI*32	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WIN01FLUS).
TAMISTRI*33	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WIN01FLUS).
TAMISTRI*34	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WIN01FLUS).



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TAMISTRI*35	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WVN01FLUS).
TAMISTRI*36	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WVN01FLUS).
TAMISTRI*37	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WVN01FLUS).
TAMISTRI*40	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WVN01FLUS).
TAMISTRI*41	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WVN01FLUS).
TAMISTRI*42	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WVN01FLUS).
TAMISTRI*43	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WVN01FLUS).
TAMISTRI*44	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WVN01FLUS).
TAMISTRI*45	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WVN01FLUS).
TAMISTRI*46	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least two observed (U22WVN01FLUS).
TAMISTRI*47	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WVN01FLUS).
TAMISTRI*48	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least three observed (U22WVN01FLUS).
TAMISTRI*49	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least three observed (U22WVN01FLUS).
TAMISTRI*50	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WVN01FLUS).
TAMISTRI*55	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WVN01FLUS).
TAMISTRI*57	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WVN01FLUS).
TAMISTRI*58	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WVN01FLUS).
TAMISTRI*59	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WVN01FLUS).
TAMISTRI*60	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WVN01FLUS).
TAMISTRI*64	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WVN01FLUS).
TAMISTRI*65	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given.	At least one observed (U22WVN01FLUS).
TAMISTRI*7	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	1989-02	MIXED PINE-HARDWOOD FOREST (?).	1 CHIPMUNK OBSERVED BY R. CARR (GFC) T5N, R24W, SEC 28 (NO DATE); AND 1 CHIPMUNK OBSERVED BY F. MORELLO (GFC) T5N, R24W, SEC 33 IN FEB 1989.

FNAI ELEMENT OCCURRENCE REPORT on or near
Blackwater River State Forest



Map Label	Scientific Name	Common Name	Global State Rank	Federal State Rank	Status	Listing	Observation Date	Description	EO Comments
TAMISTR*8	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	1988-11-10	MIXED PINE-HARDWOOD FOREST.	1 CHIPMUNK OBSERVED BY R. CARR (GFC) 'SEVERAL YEARS AGO', AND 1 OBSERVED BY GORE 10 NOV 1988.
TAMISTR*92	<i>Tamias striatus</i>	Eastern Chipmunk	G5	S3	N	N	2013-01-01	None given	At least one observed.
TANTCORO*12	<i>Tantilla coronata</i>	Southeastern Crowned Snake	G5	S2S3	N	N	2019-02-23	None given. Aerial photograph shows 2019 site on residential lot but adjacent to forested land that extends along West Fork to Blackwater River State Forest downstream.	Based on 1 observation in 2019 (U21INA06FLUS). Potentially part of a large population in the greater area.
TANTCORO*3	<i>Tantilla coronata</i>	Southeastern Crowned Snake	G5	S2S3	N	N	2009-05-10	Blackwater River State Forest. 2021 aerial photograph shows pine uplands with spacious canopy.	Based on 2 specimens, but likely a very large population. Specific data in source features and Additional Topics.
TANTCORO*4	<i>Tantilla coronata</i>	Southeastern Crowned Snake	G5	S2S3	N	N	2008-07-05	Blackwater River State Forest, an ecosystem dominated by upland pine forest. 1999 observation was in shrub portion of seepage bog that drains into Reedy Creek, a tributary of the Yellow River (A02ENG02FLUS).	Based on 2 captures (A02ENG02FLUS, U21ENG06FLUS), though potentially a very large population.
TANTCORO*9	<i>Tantilla coronata</i>	Southeastern Crowned Snake	G5	S2S3	N	N	1999-08-28	None given. Aerial photograph shows as forested land in state park, surrounded by state forest.	Based on 1 observation in 1999 (U21INA06FLUS). Potentially a large population in area.
TOXOPOPI*2	<i>Toxolasma sp. 1</i>	Gulf Lilliput	G2	S2	N	N	2014 pre	Yellow River	Williams et al. (2014) depict at least 4 sites from which this occurrence has been documented in Florida.
UPLAPINE*1	Upland pine		G3	S2	N	N	2004	ON UPLANDS N AND S OF RIVER.	2010: Prior to the 2010 natural community reclassification effort this EO had been known as Upland pine forest EO number 1 (see U10FNA01FLUS for updated community descriptions). 2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1984) (U05FNA02FLUS). CALLED "HIGH PINELAND" BY DNR. CONSISTS OF LONGLEAF PINE, WIRE GRASS AND TURKEY OAK (U80FRA01).



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FNAI ELEMENT OCCURRENCE REPORT on or near Blackwater River State Forest



Map Label	Scientific Name	Common Name			Global State Federal Status Listing			Observation Date	Description	EO Comments
		Rank	State	Federal	Rank	State	Federal			
UPLAPINE*5	Upland pine				G3	S2	N	2004	POOR SOIL W/ LITTLE REDDISH (HIGH IRON) ROCKS and SAND. (SEE GEOLOGICAL FEATURE .064)	2010: Prior to the 2010 natural community reclassification effort this EO had been known as Sandhill EO number 18 (see U10FNA01FLUS for updated community descriptions). 2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1990-04-07) (U05FNA02FLUS). 50-60 YR SMALL LONGLEAF PINES > WIREGRASS.
URSUFLO*92	<i>Ursus americanus floridanus</i>	Florida Black Bear			G5T4	S4	N	2022-07-06	Part of range consists of a military installation (Eglin AFB) where segments have been cleared of vegetation for military use; large areas of sandhill and scattered swamps and linear seepage drainages (U05SIM01FLUS). Nokuse Plantation includes mosaic of habitats, including former sandhill heavily impacted by past timbering, now at least partly undergoing restoration. In addition to stream corridors, flatwoods, and potentially river floodplain (PNDARE01FLUS).	Overall this is a large, and possibly increasing, population. Within it are more localized breeding populations. Florida Fish and Wildlife Conservation Commission considers bears to be common or Abundant in much of area (U12FWC02FLUS, U05SIM01FLUS).
WET PRA*180	Wet prairie				G2	S2	N	1992-06-15	NARROW UNBURNED SEEPAGE SLOPE INVADDED BY CLIFTONIA MONOPHYLLA, CYRILLA RACEMIFLORA, AND HYPERICUM. OTHER VEGETATION INCLUDES: LOPHIOLA AMERICA, XYRIS, ARISTIDA STRICTA, LACHNANTHES CAROLINIANA, LACHNOCAULON ANCEPS, ERIOCAULON, DROSER, BREVIFOLIA, D. INTERMEDIA, AND SARRACENIA LEUCOPHYLLA.	2010: Prior to the 2010 natural community reclassification effort this EO had been known as Seepage slope EO number 180 (see U10FNA01FLUS for updated community descriptions). NARROW, UNBURNED SEEPAGE SLOPE IMMEDIATELY ADJACENT TO A BAYGALL AND A SMALL REMNANT MESIC FLATWOODS.



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FNAI ELEMENT OCCURRENCE REPORT on or near
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Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Listing	State Listing	Observation Date	Description	EO Comments
WET PRAI*23	Wet prairie		G2	S2	N	N	2004	ARISTIDA STRICTA-DOMINATED PRAIRIE ON RAINY SOIL. OTHER VEGETATION INCLUDES RHEXIA ALIFANUS, R. LUTEA, DICHROMENA LATIFOLIA, POLYGALA LUTEA, CHAPTALIA TOMENTOSA, LOPHIOLA AMERICANA, AND SARRACENIA PSITTACINA. DUE TO FIRE SUPPRESSION THE PRAIRIE SUPPORTS SCATTERED YOUNG PINUS ELIOTTII, P. PALUSTRIS, ILEX MYRTIFOLIA, MAGNOLIA VIRGINIANA AND ACER RUBRUM.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1992-06-14) (U05FNA02FLUS). ONE UNBURNED PRAIRIE THAT GRADES INTO A DOME SWAMP TO THE NORTH, MESIC FLATWOODS TO THE SOUTH, AND SLASH PINE PLANTATION TO THE WEST AND EAST.
WET PRAI*24	Wet prairie		G2	S2	N	N	1992-06-18	BEDDED PRAIRIE WITH LITTLE REMAINING ARISTIDA STRICTA. NATIVE VEGETATION REMAINING INCLUDES PINGICULA PLANIFOLIA, LACHNANTHES CAROLINIANA, DICHROMENA LATIFOLIA, PLANTANTHERA NIVEA, POLYGALA CYMOSEA, COREOPSIS NUDATA, LYCOPodium, ANDROPOGON, PANICUM, RHYNCHOSPORA, LOPHIOLA AMERICANA, DROSERA BREVIFOLIA, CENTELLA ASIATICA, RHEXIA ALIFANUS, AND WIDELY SCATTERED ILEX MYRTIFOLIA AND TAXODIUM ASCENDENS.	DEGRADED, BEDDED WET PRAIRIE ON EDGE OF CYPRESS DOME AND PINUS ELIOTTII PLANTATION (EX-FLATWOODS).



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Florida
Natural Areas
Inventory

FNAI ELEMENT OCCURRENCE REPORT on or near Blackwater River State Forest

FSU

Map Label	Scientific Name	Common Name	Global Rank	State Rank	State Listing	Observation Date	Description	EO Comments
WET PRAI*71	Wet prairie		G2	S2	N	N	2004	No general description given
ZORASAY*2	<i>Zoraena sayi</i>	Say's Spiketail	G3	S3	N	N	1987-04-12; 2021-03-22	Update to last obs date was based on interpretation of aerial photography (previous value was 1994-07-20) (U05FNA02FLUS). Very expansive, nearly treeless, wet prairie dominated by grasses and forbs. Pipewort, wiregrass, and yellow-eyed grass dominate. Many attractive flowering herbs such as Barbara's buttons, marsh pinks, and pitcher plants abound. There are a few scattered slash pines and pond cypress as well as gallberry and wax myrtle. A late season burn swept through this community last year. Species observed yearly from 1981-1987. Not found in 1988. One male collected in 2021.
							1987-04-12: Seepage bog bayhead; pitcher plants at head of spring from seepage along hillside. Pine trees nearby tree cover, bog area open and exposed to direct sunlight eventually forms small trickle stream with titi, wax myrtle (U87DA01FLUS).	

Exhibit N

Florida Fish and Wildlife Conservation Commission

Listed Species Occurrence Records



**Florida Fish
and Wildlife
Conservation
Commission**

Commissioners
Rodney Barreto
Chairman
Coral Gables

Steven Hudson
Vice Chairman
Fort Lauderdale

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Tampa

Gary Lester
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Albert Maury
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Roger Young
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Jessica Crawford
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32399-1600
Voice: 850-488-4676

Hearing/speech-impaired:
800-955-8771 (T)
800-955-8770 (V)

MyFWC.com

October 16, 2023

Emily Marsh
Florida Forest Service
3125 Conner Boulevard
Tallahassee, Florida 32399-1650
emily.marsh@fdacs.gov

Dear Ms. Marsh:

This letter is in response to your request for listed species occurrence records and critical habitats for the Blackwater River State Forest, located in Santa Rosa County. FWC staff conducted a geographic information system (GIS) analysis of the project area utilizing a variety of internal datasets. The analysis found that the project area contains:

Documented occurrences of and potential habitat for the following listed and managed species:

- Eastern indigo snake (*Drymarchon couperi*, Federally Threatened)
- Gopher tortoise (*Gopherus polyphemus*, State Threatened [ST])
- Red-cockaded woodpecker (*Picoides borealis*, Federally Endangered [FE])
- Reticulated flatwoods salamander (*Ambystoma bishopi*, FE)
- Florida pine snake (*Pituophis melanoleucus mugitus*, ST)
- Florida black bear (*Ursus americanus floridanus*)

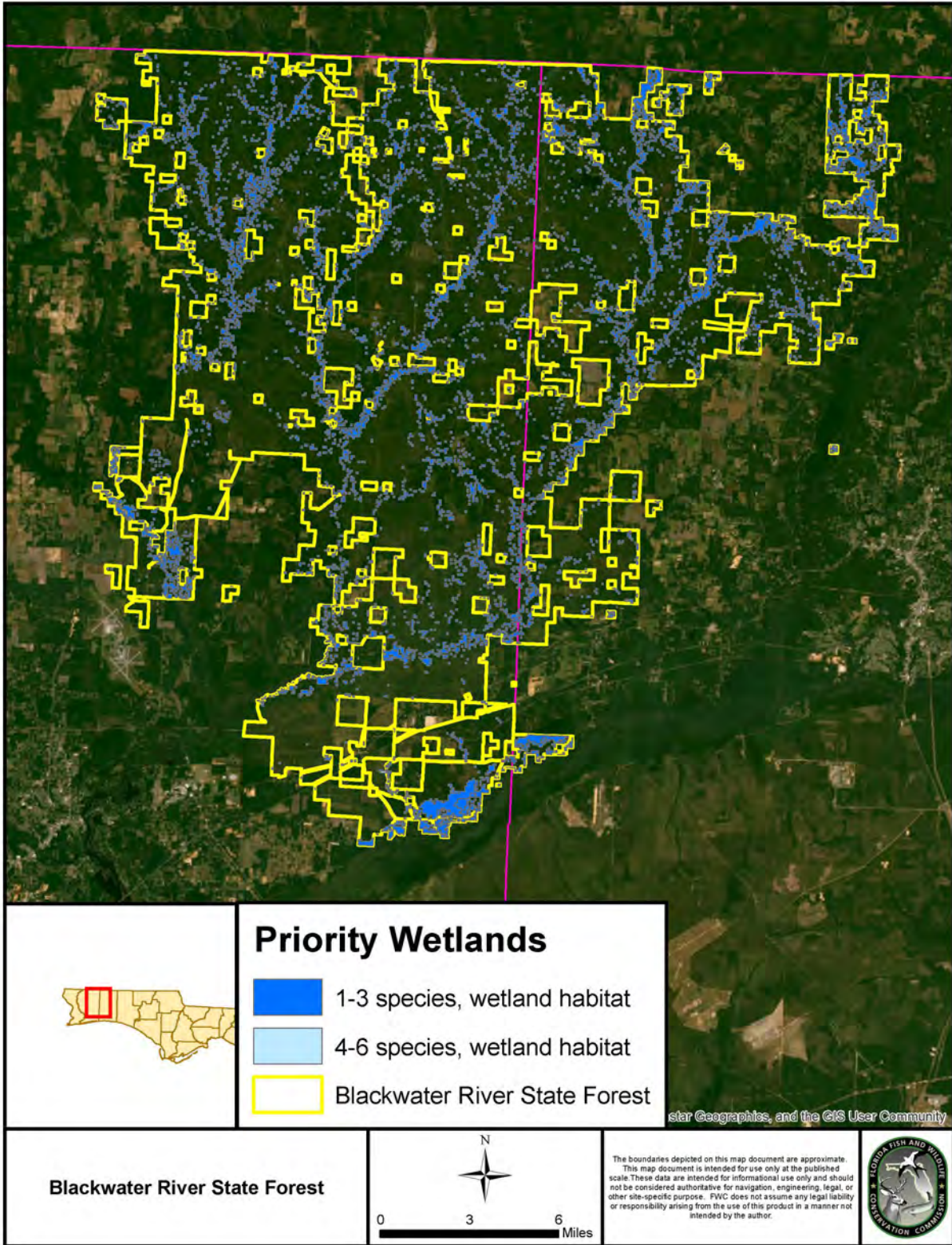
The wildlife occurrence data represents only species recorded by FWC staff and other affiliated researchers and the available databases do not necessarily contain records of all listed species that may occur in a given area. Therefore, the absence of a species in this list does not mean that species does not occur in the area. On-site surveys using appropriate methodologies are always the most reliable method to determine the potential presence of listed species and their habitat.

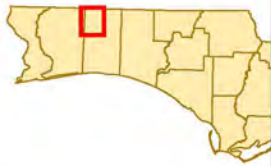
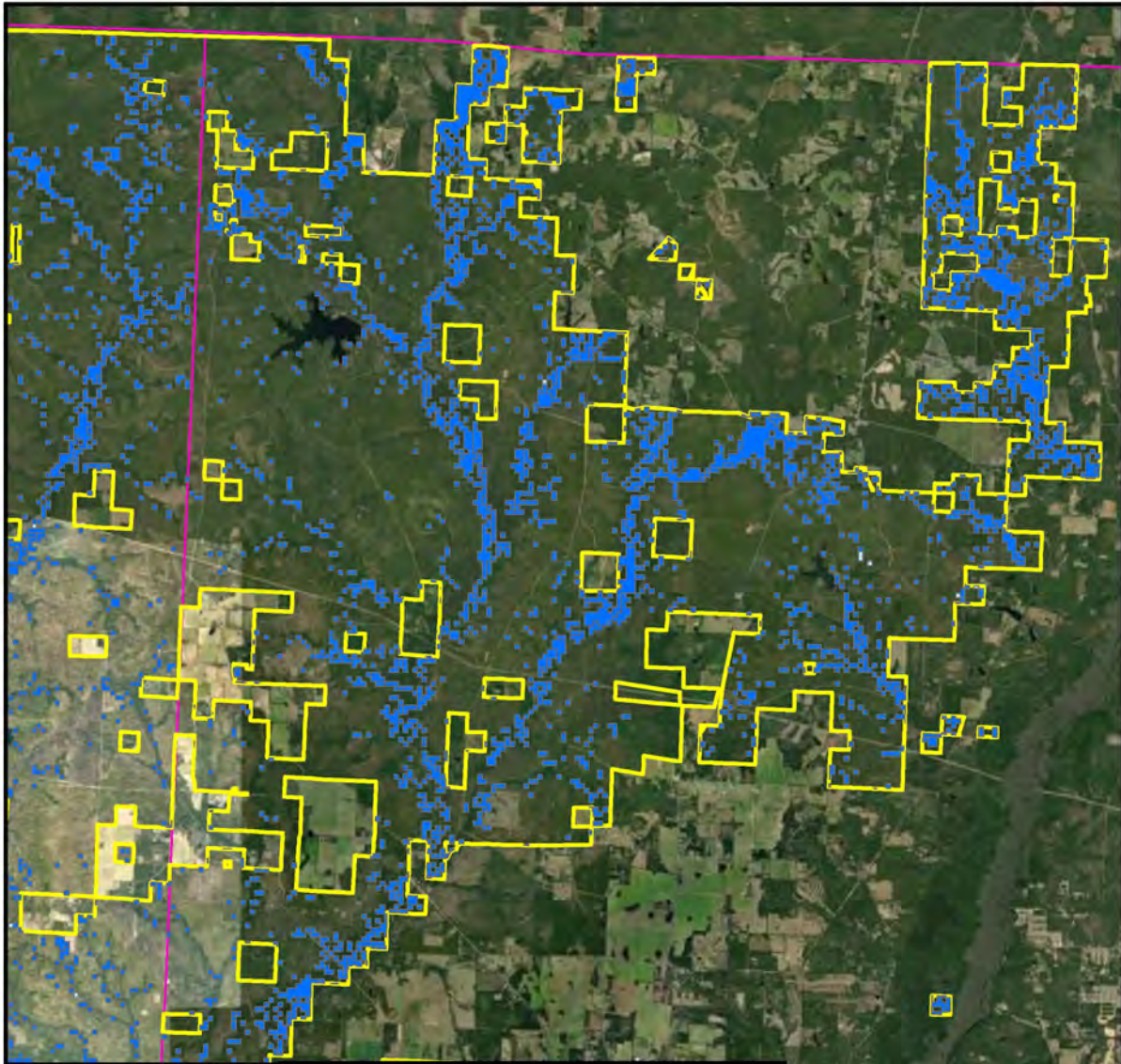
The enclosed maps are based on aggregated species models and include listed species Strategic Habitat Conservation Areas (SHCAs), species richness, and priority wetlands for listed species. These data highlight areas with enhanced value for multiple listed and managed species of wildlife.

For specific technical questions regarding the content of this letter, please contact Alex Flores at 850-488-8783 or by email at Alex.Flores@MyFWC.com. All other inquiries may be sent to ConservationPlanningServices@MyFWC.com.

Sincerely,

Laura DiGruttolo, Land Use Planning Supervisor
Office of Conservation Planning Services
Florida Fish and Wildlife Conservation Commission



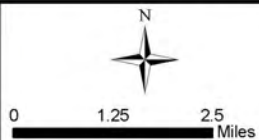


Priority Wetlands

- 1-3 species, wetland habitat
- 4-6 species, wetland habitat
- Blackwater River State Forest

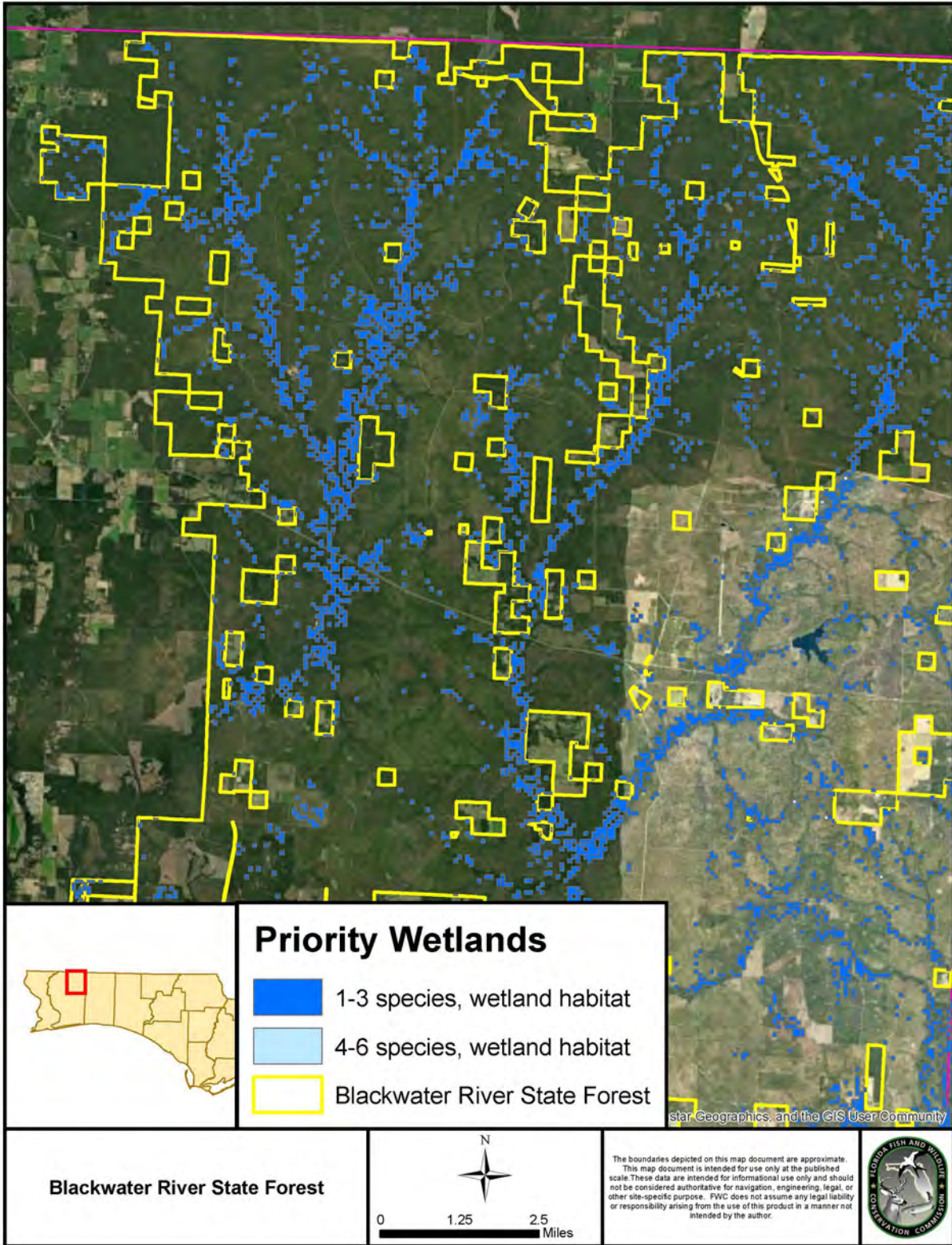
star Geographics, and the GIS User Community

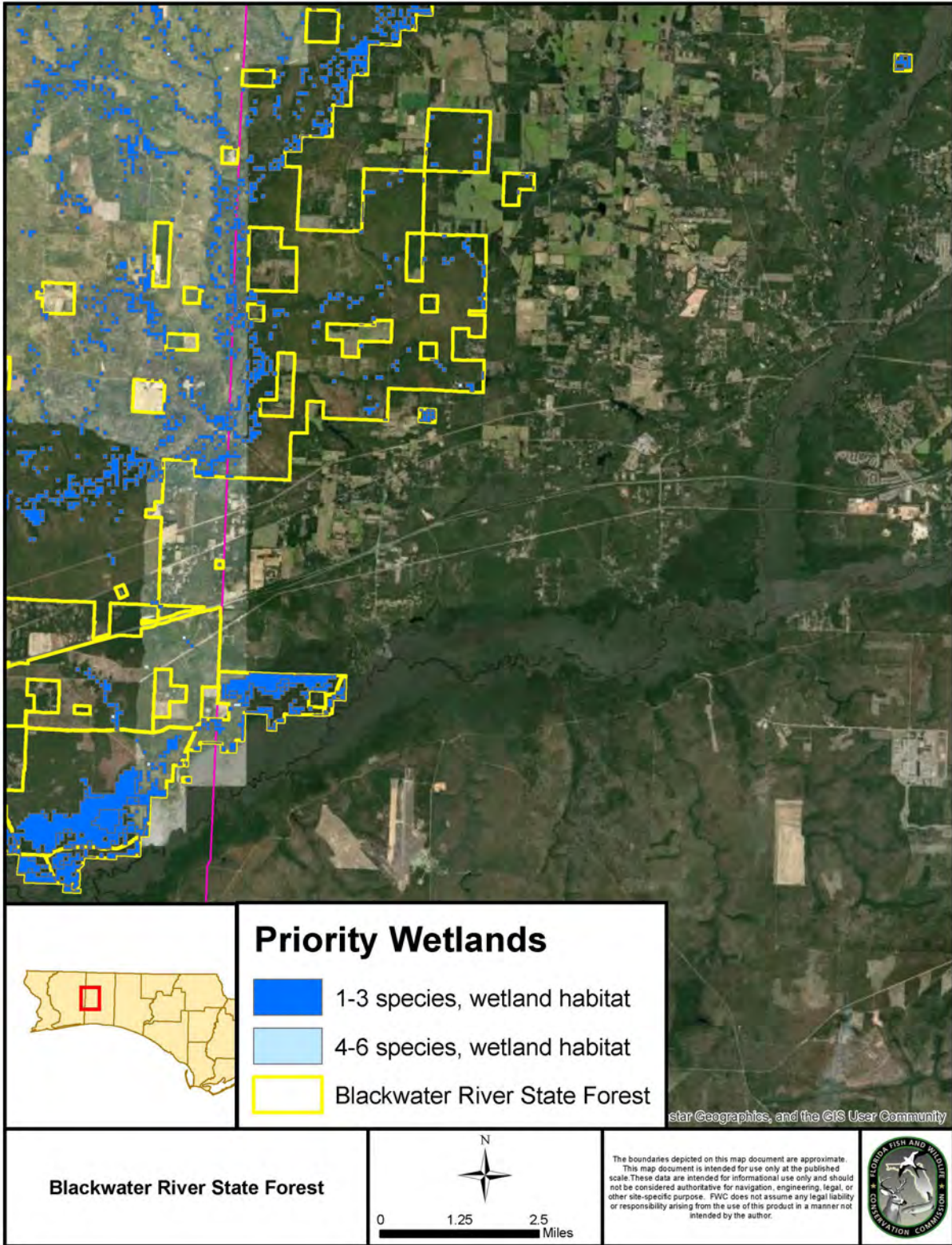
Blackwater River State Forest

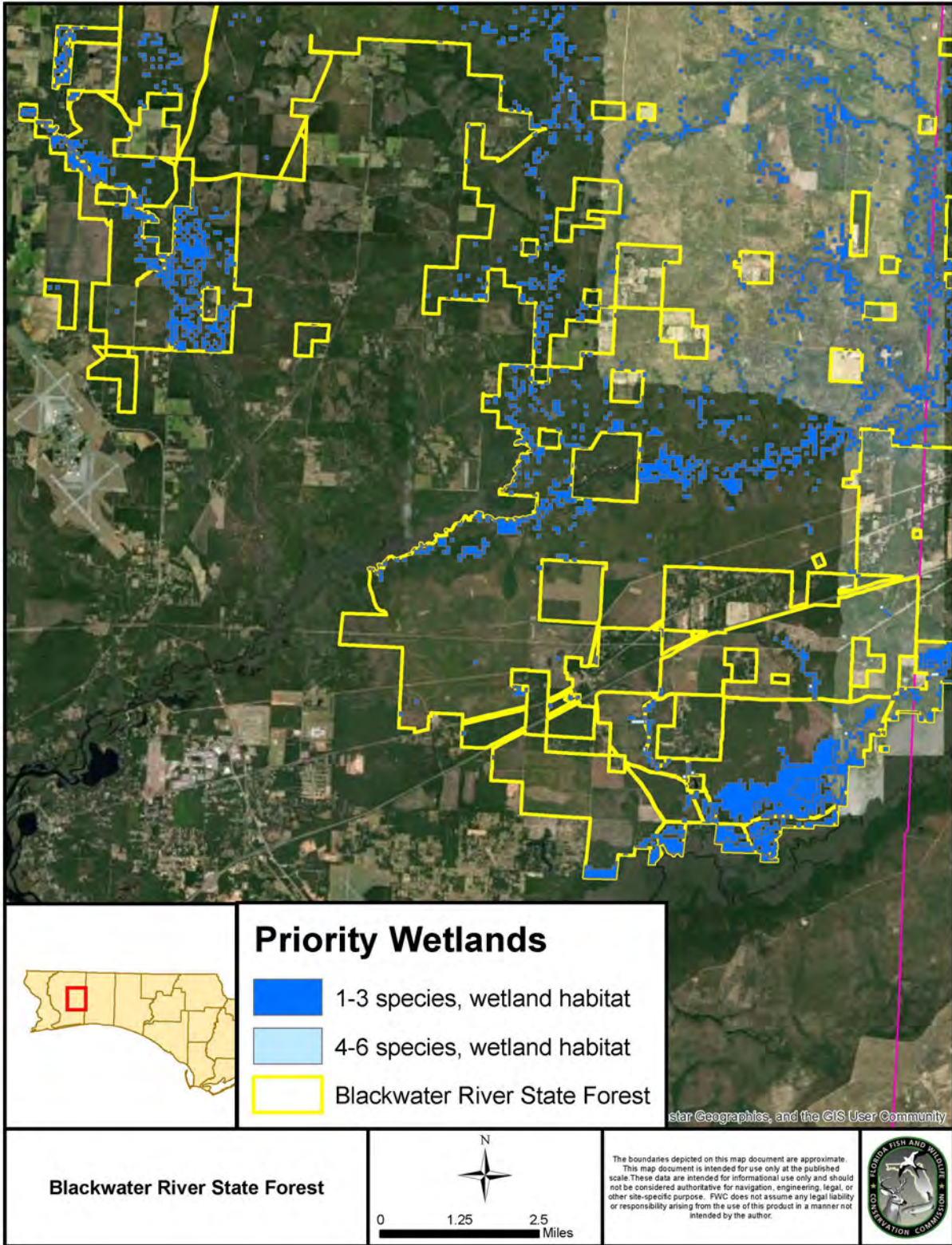


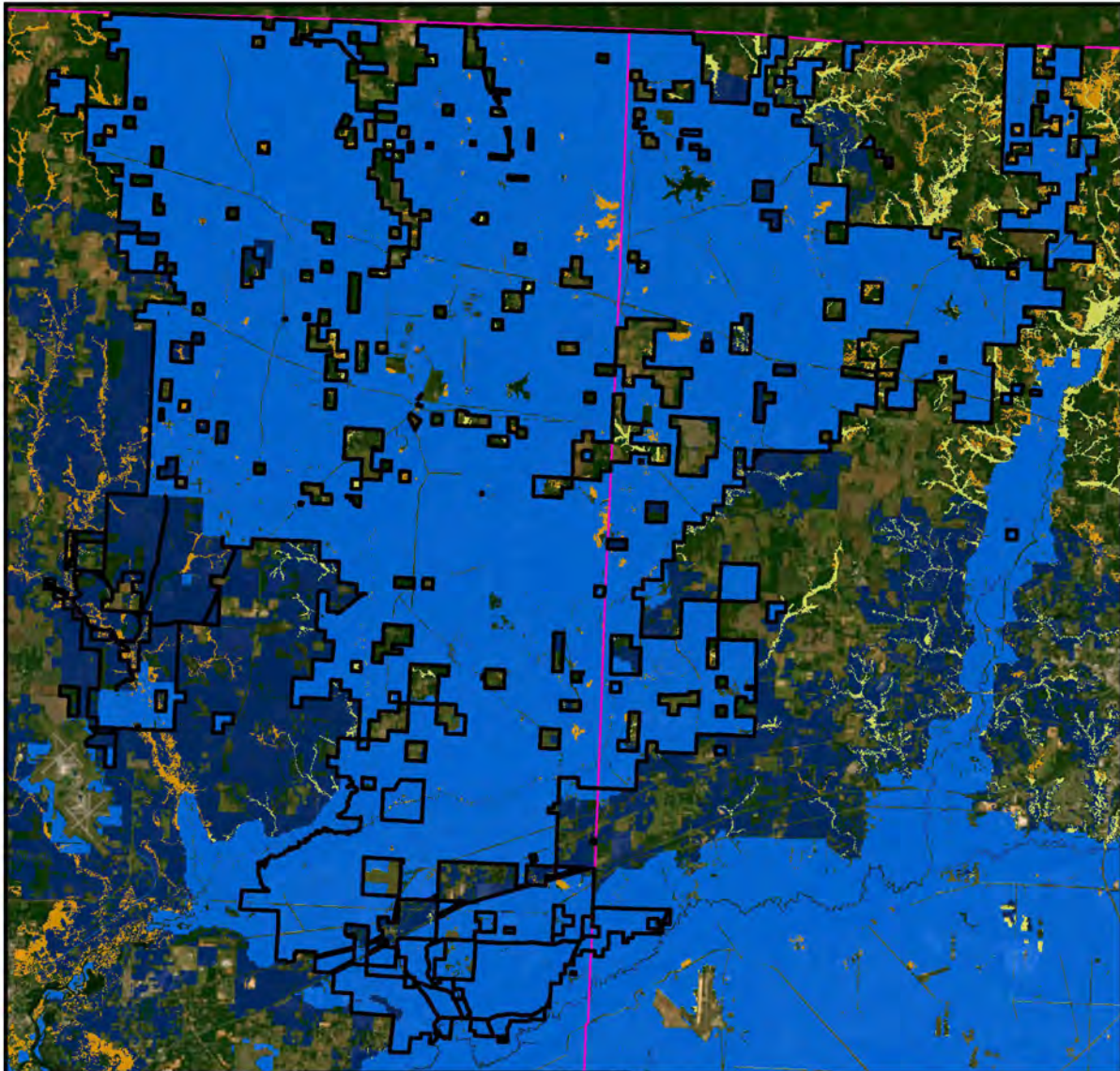
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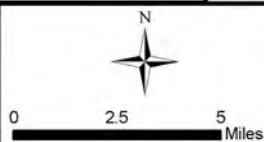


Prioritized SHCA's

- Blackwater River State Forest
- Priority 1
- Priority 2
- Priority 3
- Priority 4
- Priority 5

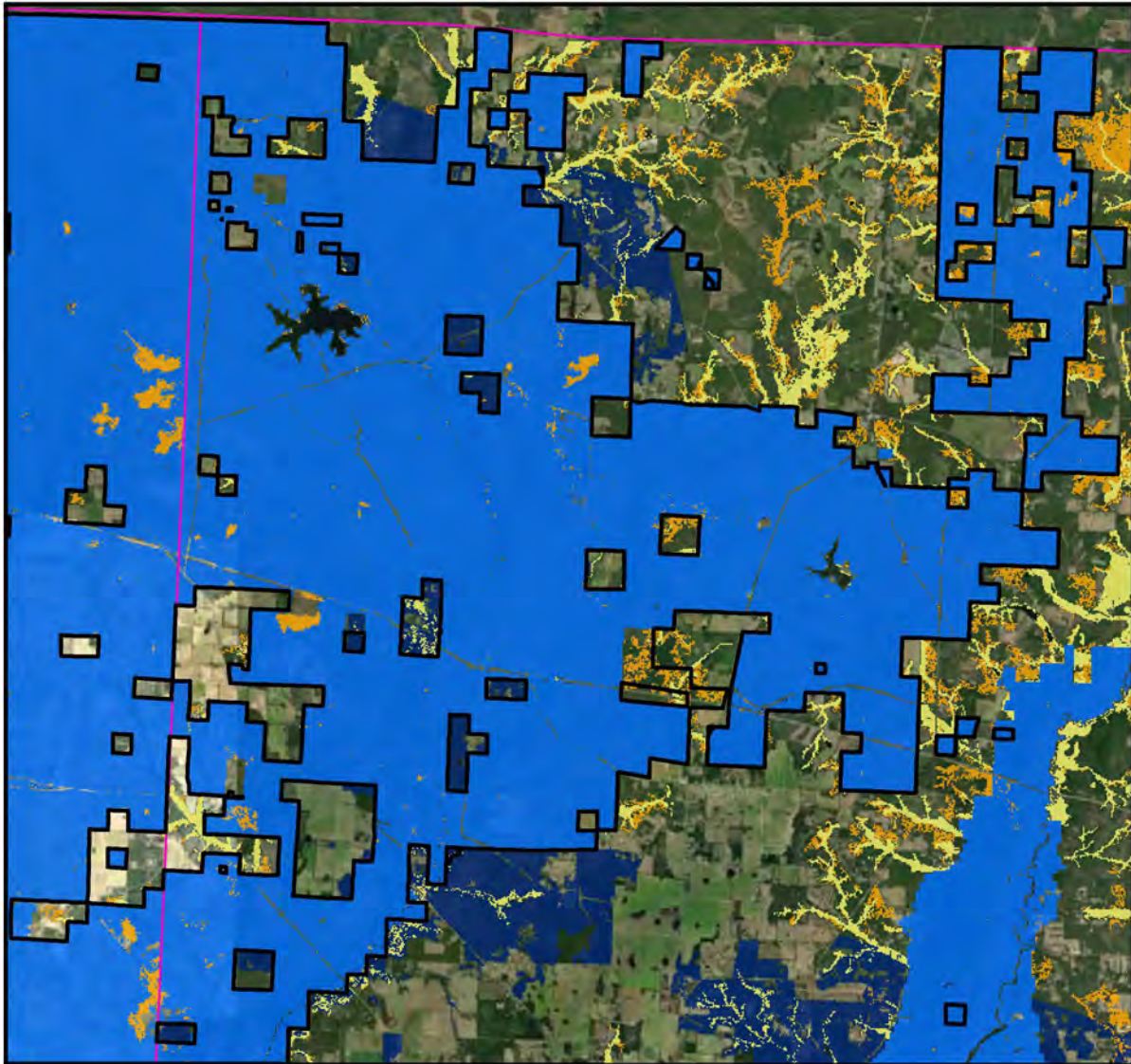
This composite map of prioritized SHCA highlight those areas in need of conservation for the benefit of listed and managed wildlife. The 5 classes of SHCA are based on a number of factors including known occurrence locations, estimated abundance, range, amount of habitat currently protected, perceived levels of threats towards the species, and ecological fragility. Priorities 1 and 2 are the highest value to a range of imperiled species.

Blackwater River State Forest



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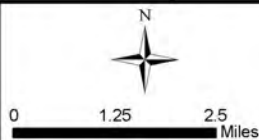


Prioritized SHCA's

- Blackwater River State Forest
- Priority 1
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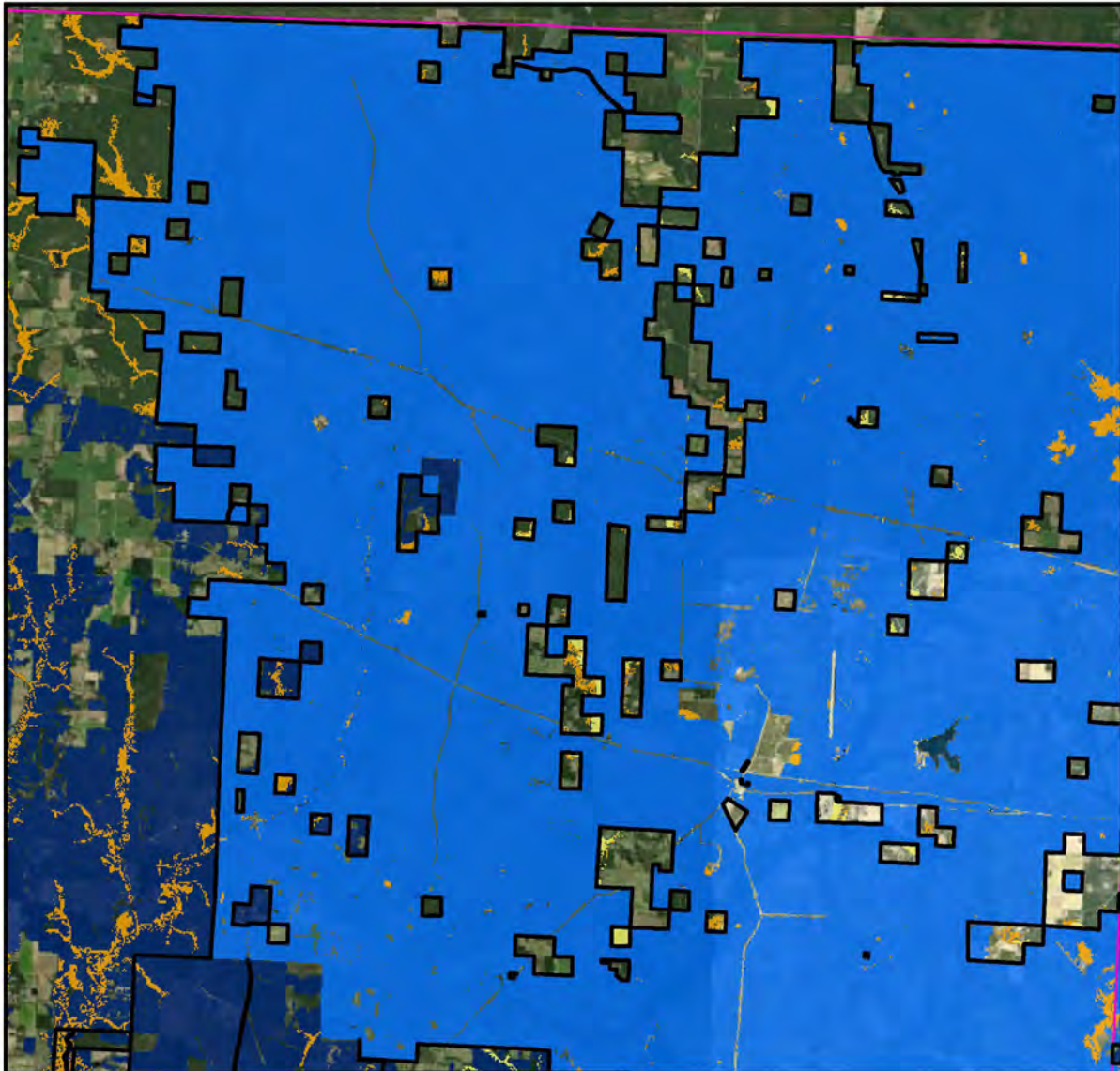
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Blackwater River State Forest



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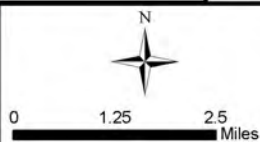


Prioritized SHCA's

- Blackwater River State Forest
- Priority 1
- Priority 2
- Priority 3
- Priority 4
- Priority 5

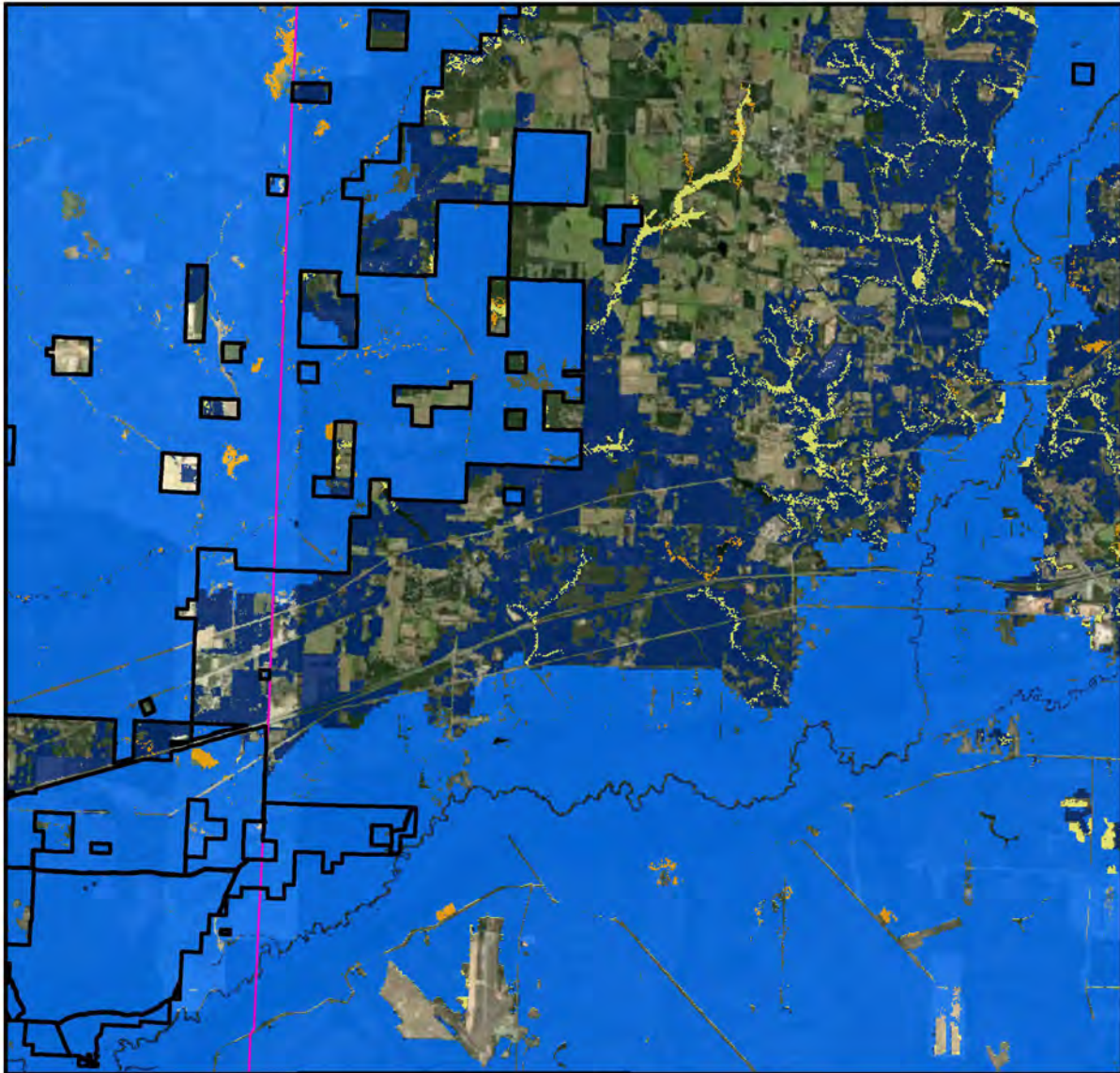
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Blackwater River State Forest



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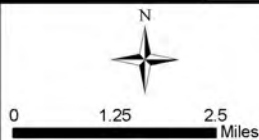


Prioritized SHCA's

- Blackwater River State Forest
- Priority 1
- Priority 2
- Priority 3
- Priority 4
- Priority 5

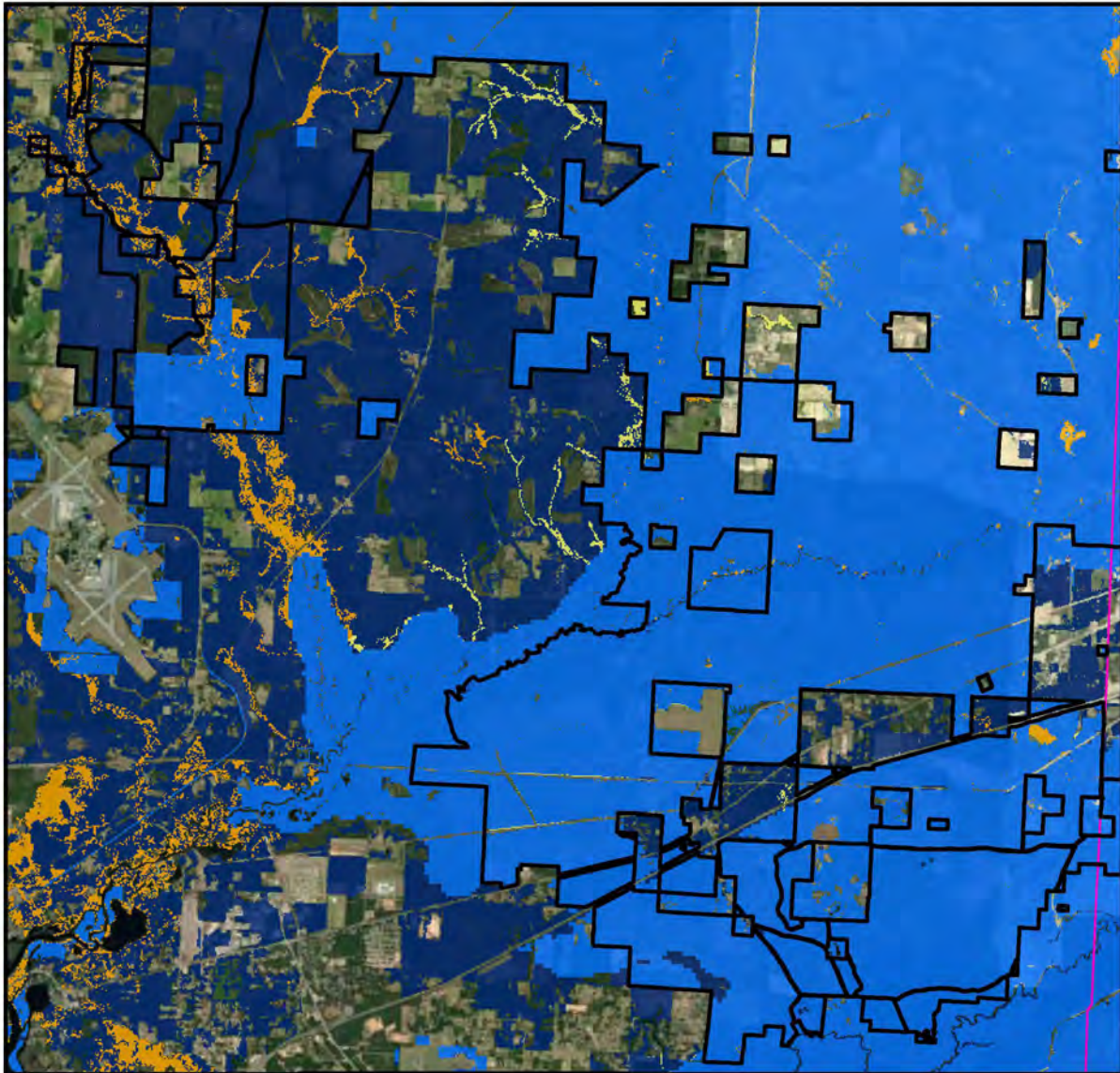
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Blackwater River State Forest



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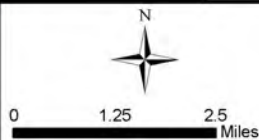


Prioritized SHCA's

- Blackwater River State Forest
- Priority 1
- Priority 2
- Priority 3
- Priority 4
- Priority 5

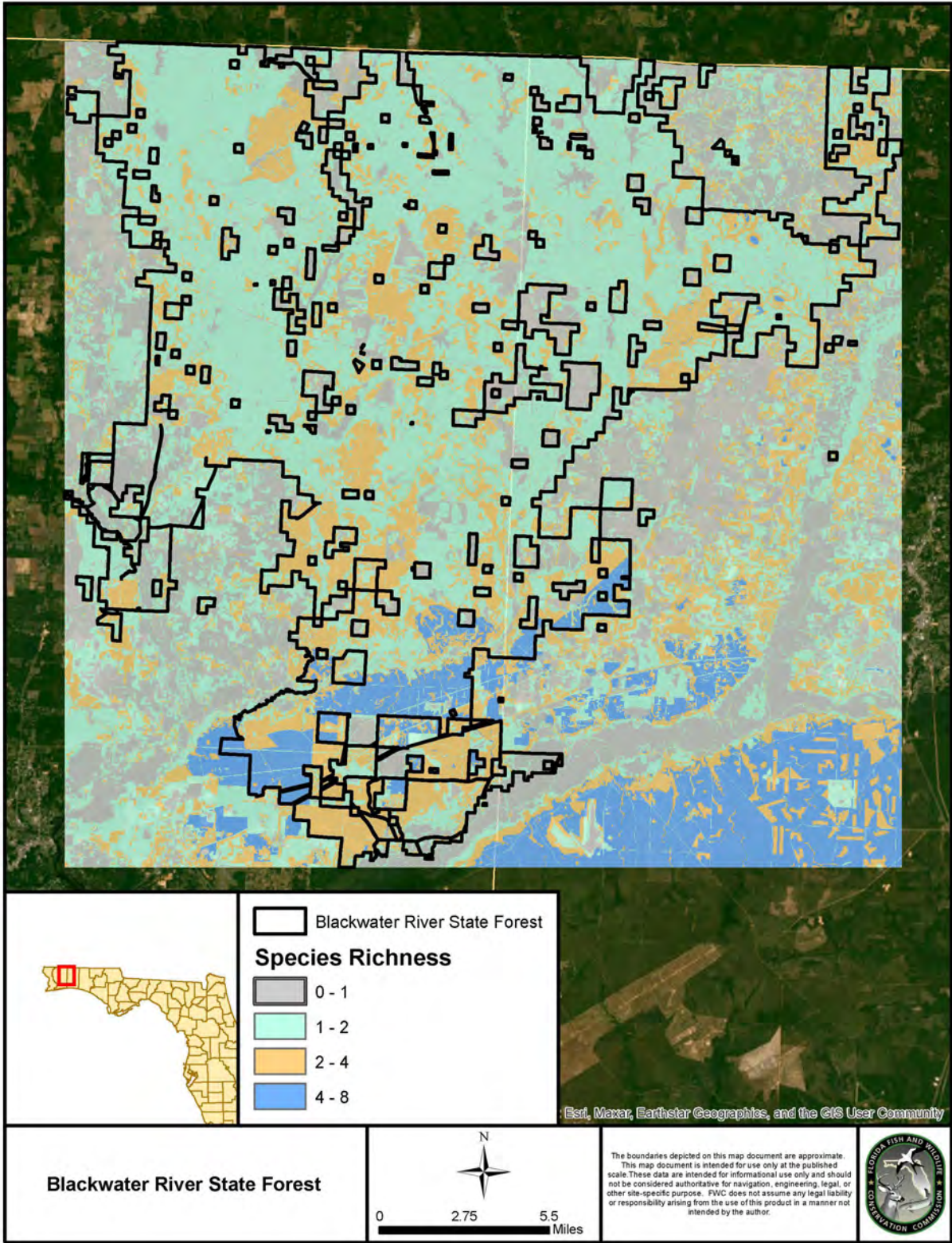
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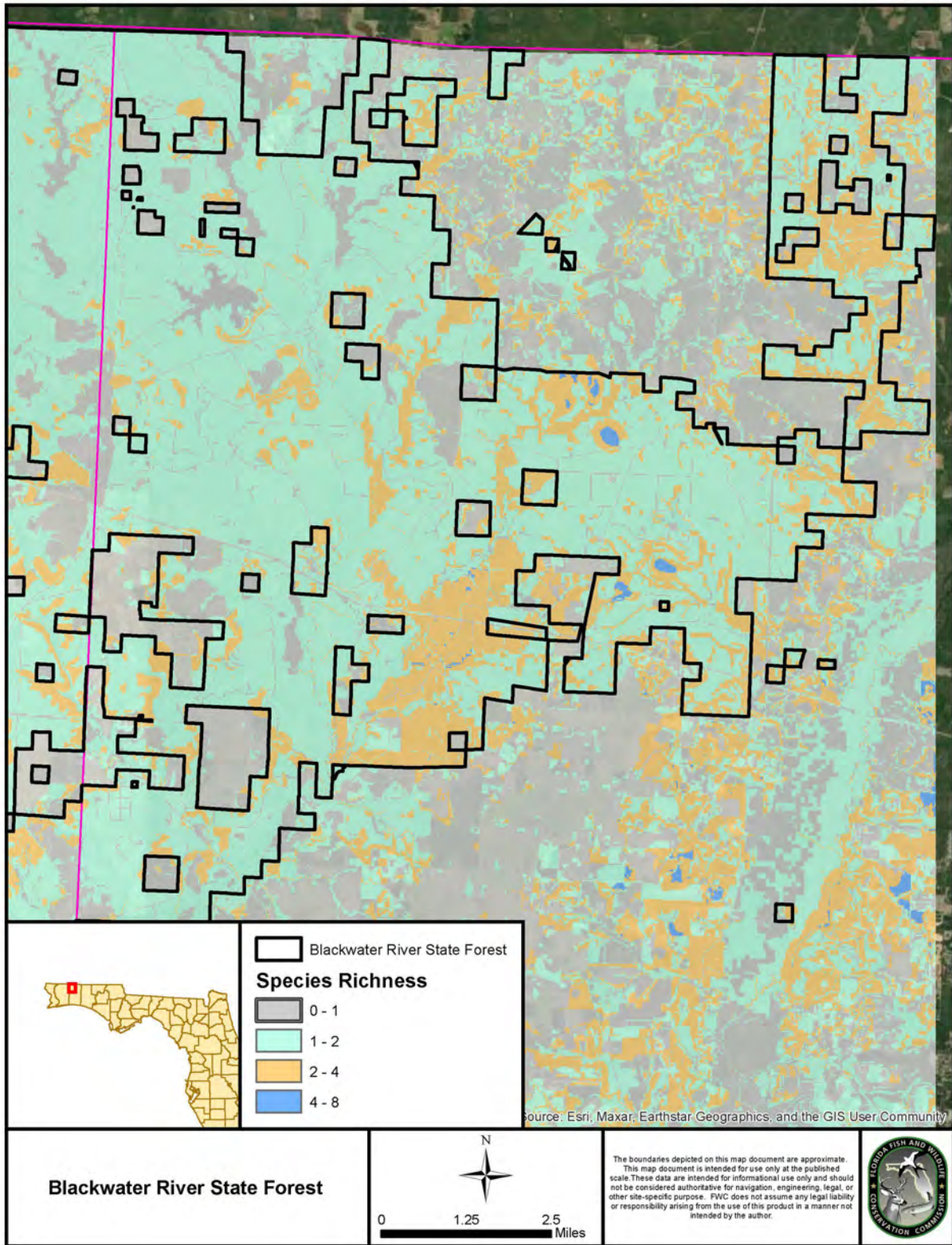
Blackwater River State Forest

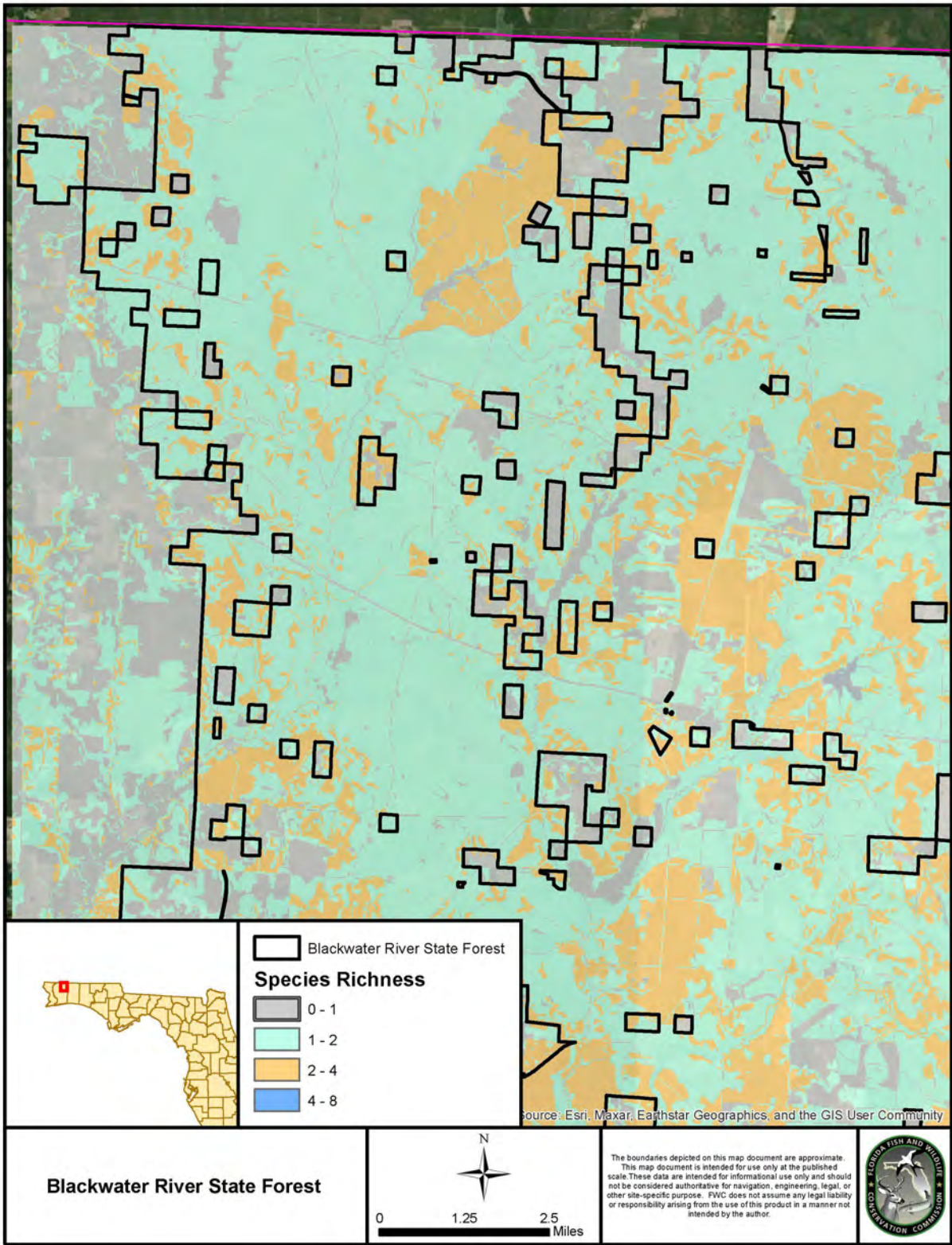


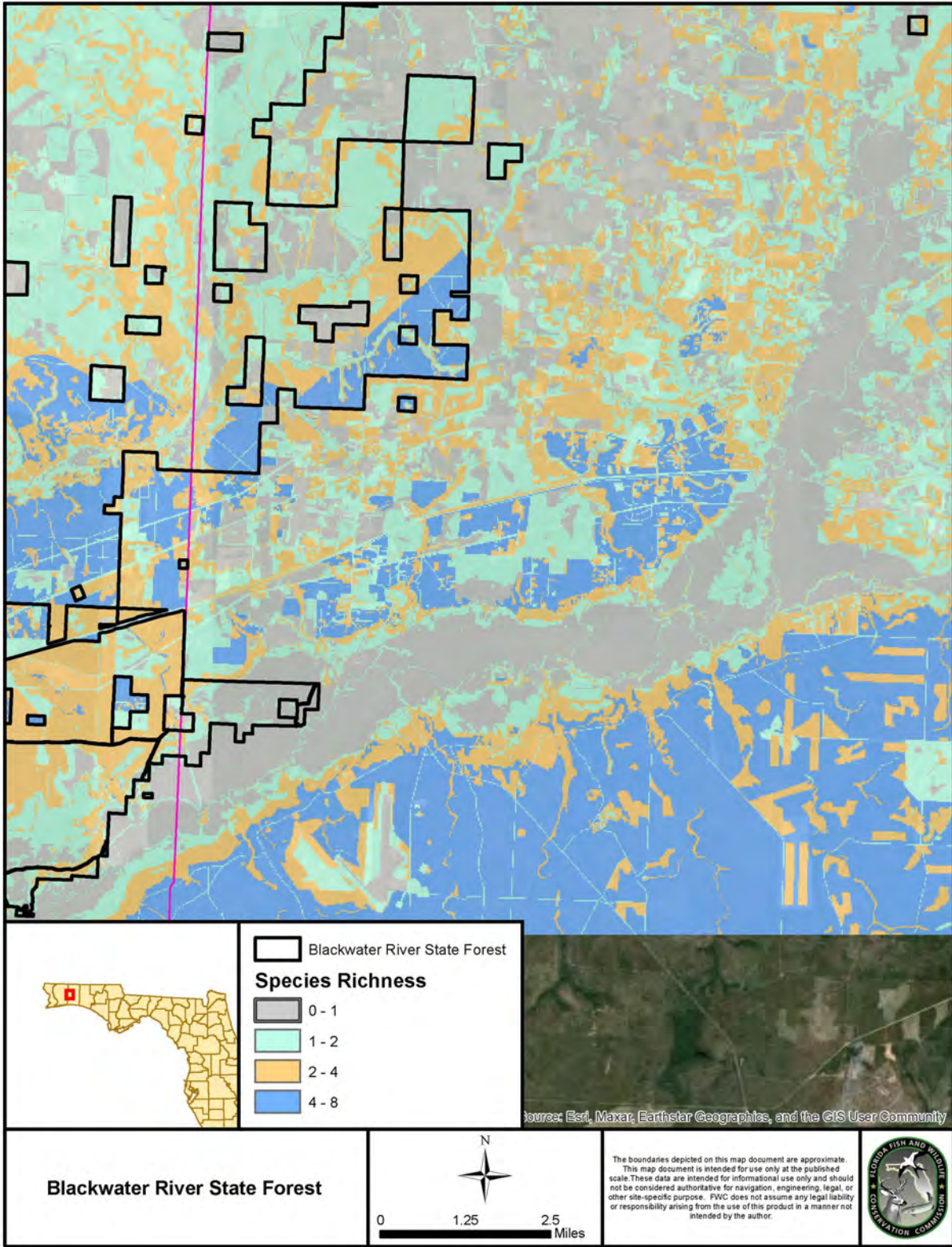
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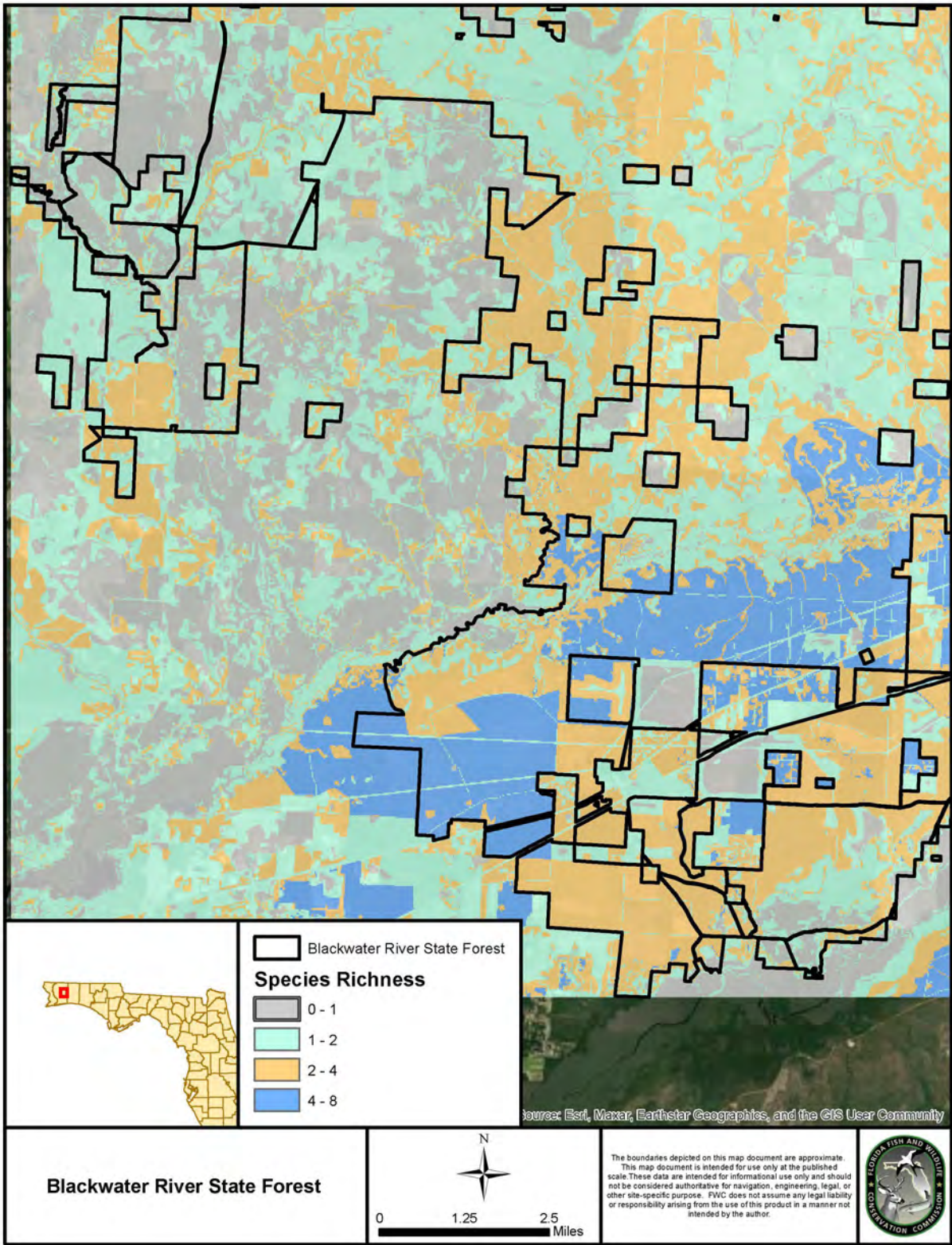


Exhibit O

Twelve-Year

Fire History

Blackwater River State Forest Burn Acres by Fiscal Year



Exhibit P

Invasive Species Map



Florida Forest Service

Blackwater River State Forest

Invasive Species Map

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

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Wetland Area boundaries courtesy of
the Florida Natural Areas Inventory
normally used in the Florida
Forest Service's Wetland Inventory

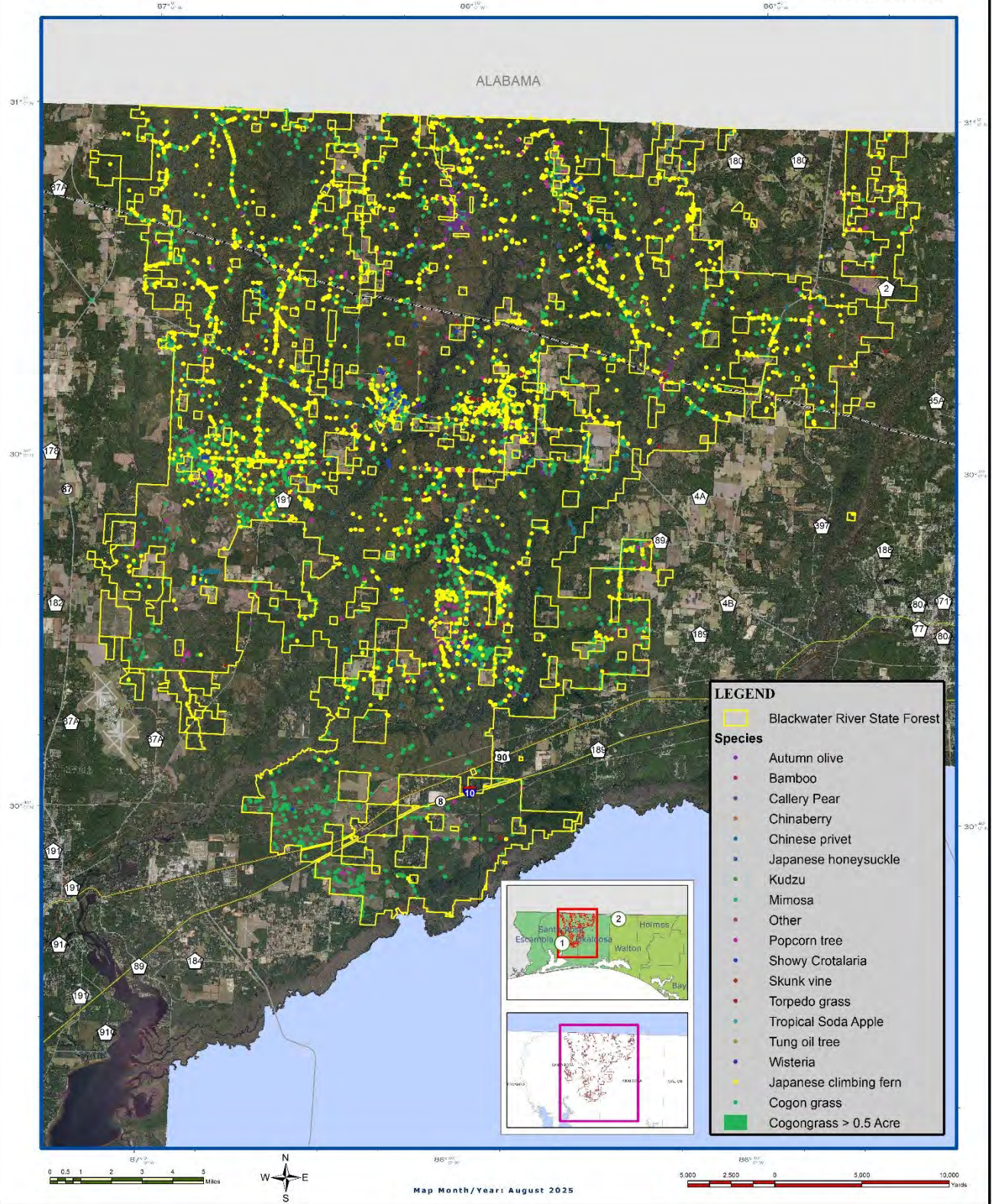


Exhibit Q

Current FNAI Natural Communities Map



Florida Forest Service

Blackwater River State Forest Current FNAI Natural Communities and Cover Types Map

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

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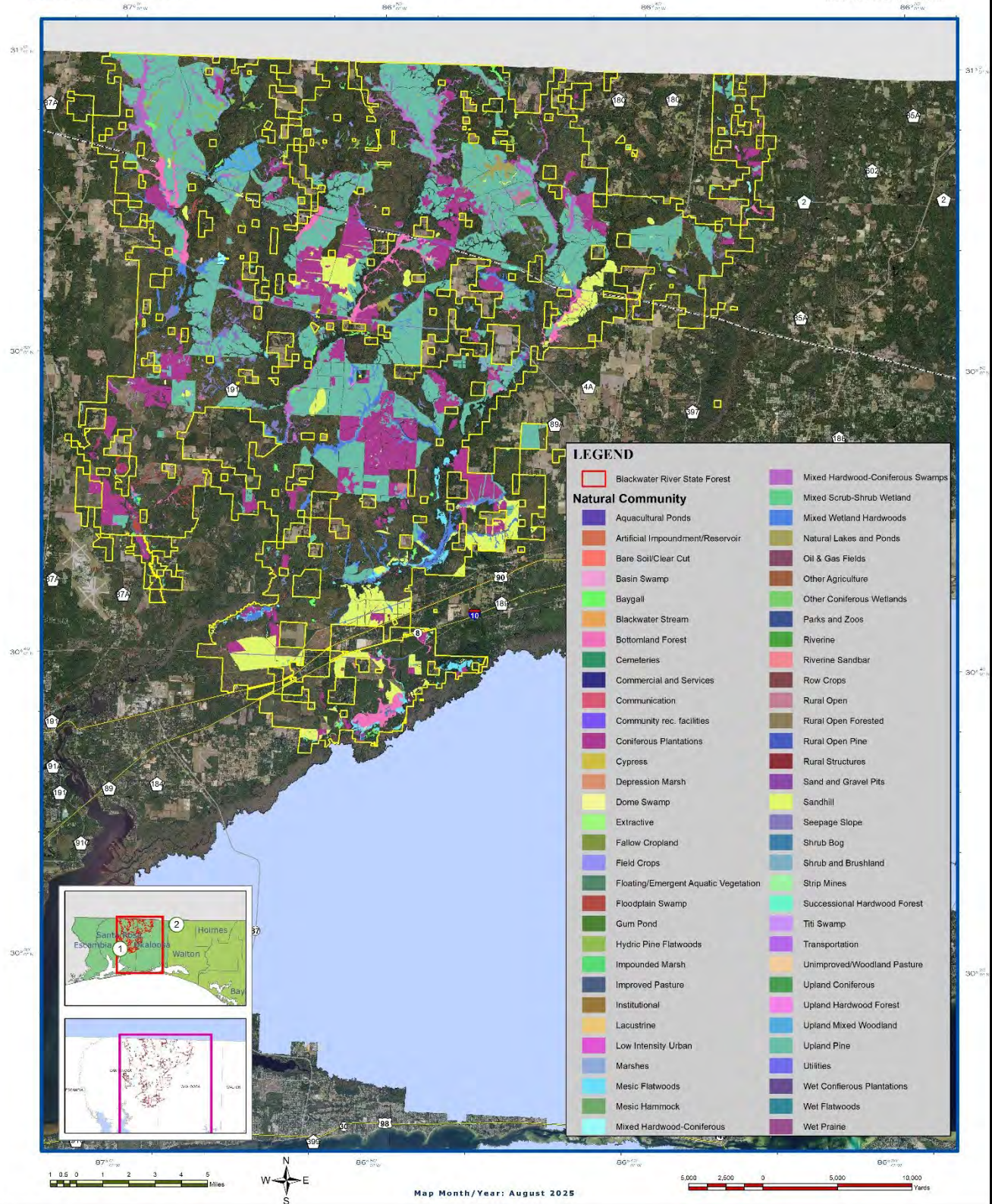


Exhibit R

Historic FNAI Natural Communities Map



Florida Forest Service

Blackwater River State Forest Historic FNAI Natural Communities and Cover Types Map

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

DISCLAIMER:
This map was created by the Florida Forest Service
from a variety of data sources including, but not limited to:
Aerial photography, ground truthing, and other data
provided by the Florida Department of Agriculture and
Forestry (FDAGR) and the Florida Department of
Transportation (FDOT). The Florida Forest Service
does not warrant the accuracy or completeness of the
information contained on this map.
Managed area boundaries courtesy of
the Florida Forest Service Inventory
Formally Used Database (FUDS)
from the US Army Corps of Engineers

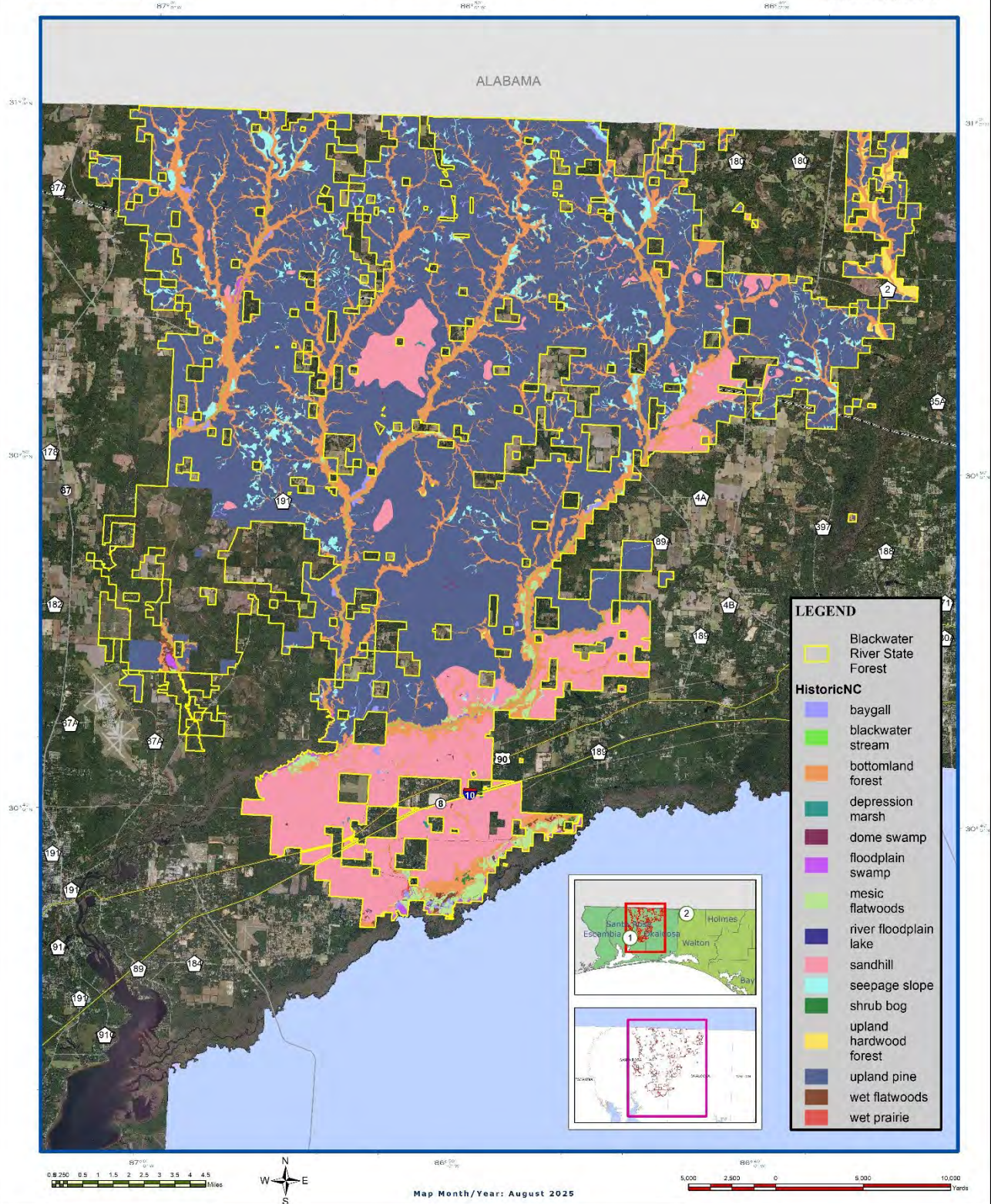


Exhibit S

Yellow River Ravines Management Prospectus

Yellow River Ravines - Group A/Full Fee

Yellow River Ravines

Santa Rosa and Okaloosa County

Group A

Full Fee

Purpose for State Acquisition

Public acquisition of this project would protect a high quality example of an imperiled natural community and threatened and endangered plant and animal species. Combined with the 194,668 acres of the Blackwater River State Forest, it will form a continuous corridor of public land from the Eglin Air Force Base through the Conecuh State Forest in Alabama. Acquisition of the project would meet Florida Forever goals of restoring natural habitat and ensuring biodiversity by restoring prescribed fire to areas that would benefit from it, and of increasing natural resource-based recreation by providing areas for camping, picnicking, nature appreciation, hiking and horseback riding. Acquisition of the Yellow River Ravines has also been endorsed by representatives of the U.S. Navy's Pensacola Naval Air Station. Naval officers said at the June 6, 2002 meeting of the Acquisition and Restoration Council that preserving undeveloped land around their satellite airfields would enhance military training by preventing encroachment on military reservations. 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

Florida Department of Agriculture and Consumer Services, Division of Forestry (DOF).

Yellow River Ravines FNAI Elements - July 2009	
Reticulated Flatwoods Salamander	G2/S2
Florida Black Bear	G5T2/S2
Swallow-tailed Kite	G5/S2
Panhandle Lily	G2/S2
Florida Bog Frog	G2/S2
White-top Pitcherplant	G3/S3
Hairy Wild Indigo	G3T3/S3
Florida Pine Snake	G4T3/S3
Alligator Snapping Turtle	G3G4/S3
Sweet Pitcherplant	G4/S3
Pine Barrens Treefrog	G4/S3
Eastern Diamondback Rattlesnake	G4/S3
12 rare species are associated with the project	

General Description

As originally proposed, this 16,652-acre project consisted of two parcels of land, one on the Yellow River about nine miles east of Milton, and the other being an "infill" parcel in the existing Blackwater River State Forest. The main parcel stretches from the Blackwater River State Forest south to the Yellow River. This project includes a mix of floodplain swamp and floodplain forest, sandhill, mesic flatwoods, wet prairie, dome swamp and seepage stream. About 1,061 acres would protect natural floodplain functions. Much of the floodplain in this project is second-growth forest. The project includes approximately 2,501 acres of functional wetlands and approximately 10,033 acres of land that would provide protection to the surface waters of the state. About 70 percent of the project was originally sandhill, but has been disturbed in the past by being used for silviculture.

Public Use

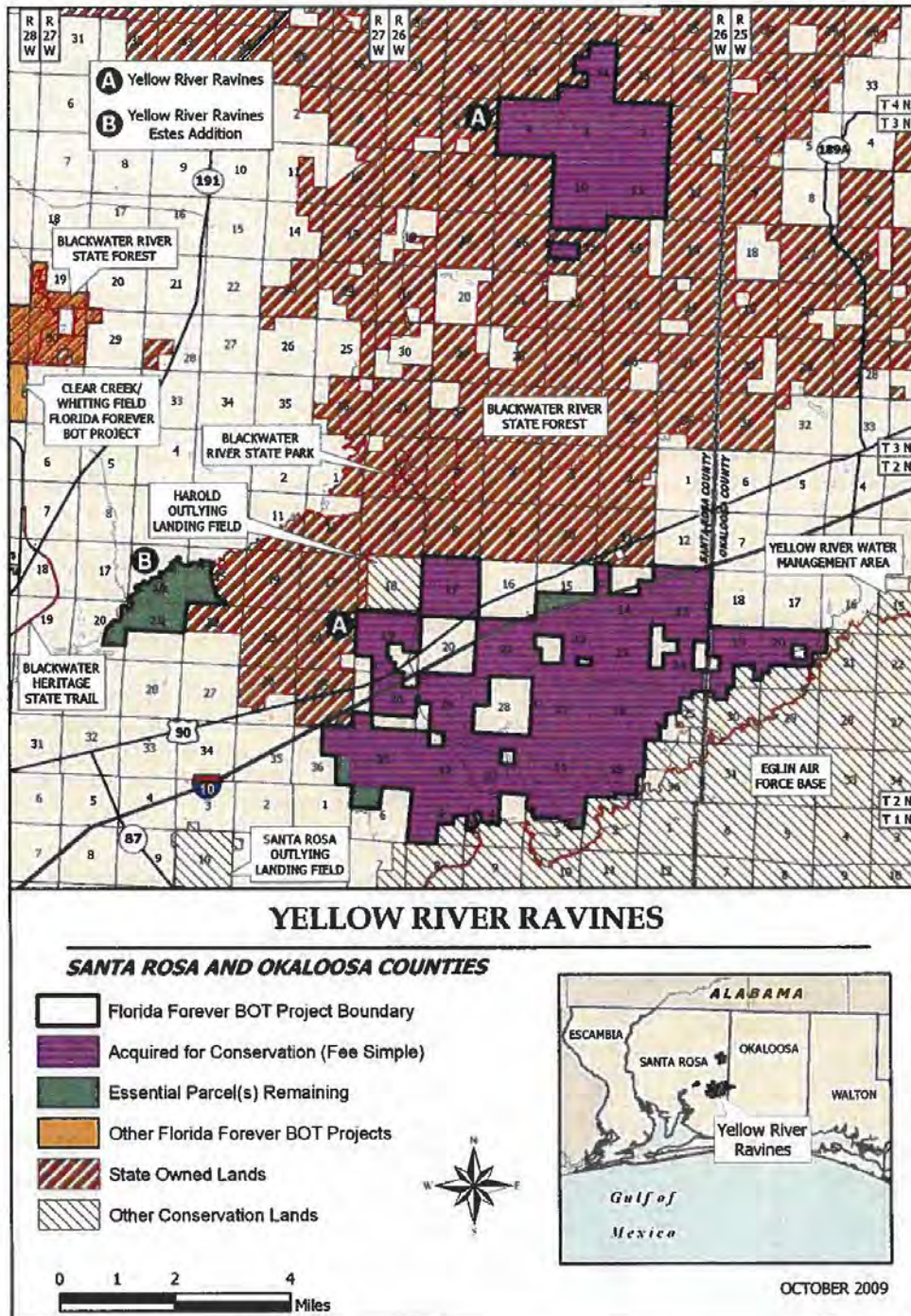
The DOF will promote recreation and environmental education in the natural environment. It is anticipated that interpretive and user services recreation facilities will be developed and the use of low-impact rustic facilities will be stressed.

Acquisition Planning

On June 6, 2002, the Acquisition & Restoration Council (ARC) added the Yellow River Ravines project to Group A of the Florida Forever (FF) 2002 Priority list. This fee-simple project, sponsored by the Nature Conservancy (TNC) and Division of Forestry (DOF), consisted of approximately 16,652 acres, five owners, and a 2001 taxable value of \$12,227,546.

Placed on list	2002
Project Area (acres)	17,626
Acres Acquired	15,209
At a Cost of	\$32,287,484
Acres Remaining	2,417
Estimated 2001 (tax assessed) Value of	\$1,687,429

Yellow River Ravines - Group A/Full Fee



Yellow River Ravines - Group A/Full Fee

The essential parcels were defined as those held by the International Paper Company.

On August 12, 2005, the ARC approved a fee-simple, 974-acre addition to the project boundary. It was sponsored by TNC and DOF, consisted of one owner, James Estes, and a 2004 taxable value of \$78,040. The parcels were defined as essential.

In October 2007, the BOT acquired 11,208 acres from The Nature Conservancy.

In August and November 2009, the Division of State Lands purchased 547 acres from The Nature Conservancy making this project approximately 92% complete. ARC voted in December 2009 to remove the project from the FF Priority List.

Coordination

The Nature Conservancy is an acquisition partner.

Management Policy Statement

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

Management Prospectus

Qualifications for State Designation

The majority of the acreage of this project consists of what appears to be disturbed sandhill, which has been converted to planted pines of various ages. This acreage has been estimated at 70% of the project, or 9,190 acres. Floodplain swamp represents the second largest land type, and occupies about 2,360 acres. There are lesser acreages of mesic flatwoods, baygalls, seepage streams, wet prairies, and dome swamps. The project's size and diversity makes it desirable for use and management as a state forest. Management by the Division of Forestry as a state forest is contingent upon acquiring fee simple title to the property.

Manager

The Florida Division of Forestry (DOF) of the Department of Agriculture and Consumer Services (DACS) is recommended to be the managing agency.

Conditions affecting intensity of management

Much of the project's plantable areas has been disturbed, and will require restoration efforts. There are approximately 1,200 acres of active timber sales

or areas previously harvested that have not been site prepared and planted. Over the next couple of years, these acres will be harvested and will not be replanted by the current landowner. This acreage will require some level of restoration activity. There is at least one linear facility that bisects the parcel, which will be an area of management concern for monitoring unauthorized uses and introduction of invasive exotic species. Additionally, water resource development projects, water supply development projects, stormwater management projects and any linear facilities are considered incompatible with this ecosystem and with the resource values of this project. The activities of Eglin Air Force base may restrict prescribed burning in this area. The level of management intensity and related management costs is expected to be initially high to obtain the necessary information and resources to restore and manage this system as a State Forest. Once this information is obtained and the resources are available, long-term management costs are expected to be moderate to maintain this area as a State Forest, as the Division of Forestry currently manages approximately 189,600 acres in this area.

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

Once the project area is acquired and assigned to the Division of Forestry, public access will be provided for low intensity outdoor recreation activities. The Division of Forestry proposes to manage the site as a part of Blackwater River State Forest, and the Blackwater Forestry Center personnel will carry out management activities and coordinate public access and use. The Division of Forestry will cooperate with and seek the assistance of other state agencies, local government entities and interested parties as appropriate.

Revenue-generating potential

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

Management costs and sources of revenue

It is anticipated that management funding will come from the CARL trust fund. Budget needs for interim management are estimated as follows:

SALARY (5 FTE)	\$164,000
EXPENSE	\$375,000
OPERATING CAPITAL OUTLAY	\$510,000
TOTAL	\$1,049,000

Exhibit T

Land Management Reviews

(2012, 2017 & 2021)

Name of Site: Blackwater River State Forest

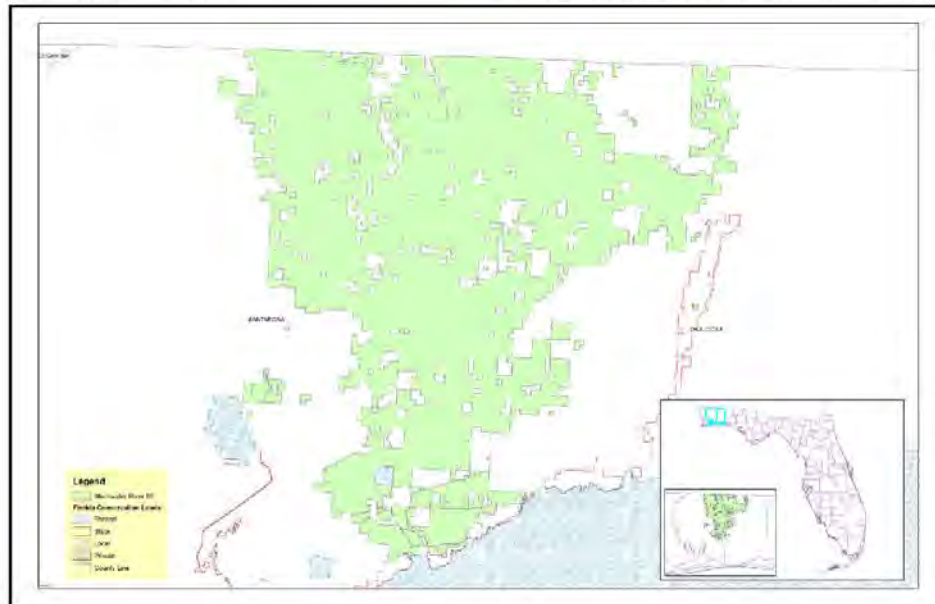
County: Santa Rosa County

Managed by: Department of Agriculture and Consumer Services
Florida Forest Service

Acres: 206,351 Acres

Review Date: 04/30/12

Management Plan Approval Date: 12/16/10



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	0.99	5.00
Listed Species	0.77	4.78
Natural Resource Survey	0.90	4.63
Cultural Resources	0.93	4.45
Prescribed Fire	1.00	4.86
Restoration	0.86	4.67
Exotic Species	0.93	4.68
Hydrology	0.79	4.86
Groundwater Monitoring	0.57	4.80
Surface Water Monitoring	0.69	4.27
Resource Protection	0.71	4.32
Adjacent Property Concerns	0.91	4.55
Public Access & Education	0.91	4.50
Management Resources	N/A	4.69
Managed Area Uses	1.00	N/A
Buildings, Equipment, Staff & Funding	N/A	3.36

Consensus Commendations to the Managing Agency

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

1. The team commends the FFS for the outstanding fire program at the forest, including the excellent working relationships with the military and surrounding landowners. (VOTE: 7+, 0-)



2. The team commends the FFS for their outstanding use of existing and recycled materials, and labor to very cost effectively maintain and replace bridges and equipment. (VOTE: 7+, 0-)



3. The team commends the FFS for their erosion and sedimentation control on the area's streams and creeks. (VOTE: 7+, 0-)



4. The team commends the FFS for the acquisition and restoration implementation of the Ates Pasture and Yellow River additions. (VOTE: 7+, 0-)



5. The team commends the FFS for the provision of separation of user groups by providing an off-highway vehicle use area. (VOTE: 7+, 0-)



6. The team commends the FFS for the red-cockaded woodpecker habitat management and population monitoring program at the forest. (VOTE: 7+, 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 the inclusion of Florida bog frog and reticulated flatwoods salamander management and monitoring at the forest. (VOTE: 7+, 0-)



Managing Agency Response: The Florida bog frog and reticulated flatwoods salamander has been added into the updated ten year management plan for habitat improvement and monitoring. p. 7, 26, 31

2. The team recommends that FFS focus the archaeological efforts on a plan which includes pre-development surveys, listing support of academic resources as necessary, and existing GIS databases. (VOTE: 7+, 0-)



Managing Agency Response: The Florida Forest Service has included this in its updated ten year management plan. See pages. 21, 22, 34, 35

3. The team recommends that funding levels for invasive exotic species control be restored and sustained to previous funding and staffing levels. (VOTE: 7+, 0-)



Managing Agency Response: Blackwater River State Forest staff will seek grants and other funding opportunities and work with the forest health section to fund the exotic species control program.

Field Review Checklist Findings

The following items received high scores on the review team checklist, indicating the management actions in the field exceeded expectations.

- Natural Communities, specifically upland pine forest, sandhill, upland mixed forest, slope forest, seepage slope, mesic flatwoods, floodplain swamp, depression marsh, spring-run stream blackwater stream, baygall and bottomland forest.
- Listed Species, specifically animal inventory, red cockaded woodpecker, gopher tortoise, reticulated flatwoods salamander and plant inventory.
- Natural Resources Survey, specifically sport fish or habitat monitoring, listed species or habitat monitoring, other non-game species or habitat monitoring, fire effects monitoring, other habitat management effects monitoring and invasive species survey/monitoring.
- Cultural Resources, specifically cultural resource survey, protection and preservation.
- Resource Management, Prescribed Fire, specifically area being burned (no. acres), frequency and quality.
- Restoration of Ruderal Areas, specifically sandhill restoration in Yellow River and plantation conversion to sandhill & upland.
- Forest Management, specifically, timber inventory, timber harvesting, reforestation/afforestation and site preparation.
- Non-Native, Invasive & Problem Species, specifically prevention and control of plants, animals and pests/pathogens.
- Hydrologic/Geologic Function, specifically roads/culverts, dams, reservoirs or other impoundments and stream sedimentation.
- Ground and Surface Water Monitoring, specifically water quality and control.
- Resource Protection, specifically boundary survey, gates/fencing, signage and law enforcement presence.
- Adjacent Property Concerns, specifically expanding development, military operation and inholdings/additions.
- Public Access & Education, specifically roads and parking.
- Environmental Education & Outreach, specifically wildlife, invasive species, habitat management activities and interpretive facilities, signs, recreational opportunities and management of visitor impacts.
- Management Resources, specifically waste disposal, sanitary facilities, buildings and equipment.

Items Requiring Improvement Actions 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 .5 score on average.). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The management plan must include responses to the checklist items identified below:

1. Discussion in the management plan regarding listed species, specifically reticulated flatwoods salamander. *Management discussion for the reticulated flatwoods salamander has been added to the updated ten year management plan. pages 8, 26, 31*
2. Discussion in the management plan regarding restoration of ruderal areas, specifically sandhill restoration in Yellow River. *Management discussion has been added in the updated ten year management plan concerning restoration of sand hill communities in the Yellow River Unit. page 7, and detailed in Sandhill Management Section, pages 48-50*
3. Discussion in the management plan regarding resource protection, specifically gates & fencing.

Management discussion has been added in the updated ten year management plan concerning gates and fencing. Pages 24 and 40.

PLAN REVIEW		1	2	3	4	5	6	7	AVERAGE
Natural Communities (I.A)									
Upland Pine Forest	I.A.1	1	1	1	1	1	1	1	1.00
Sandhill	I.A.2	1	1	1	1	1	1	1	1.00
Upland Mixed Forest	I.A.3	1	1	1	1	1	1	1	1.00
Slope Forest	I.A.4	1	1	1	1	1	1	1	1.00
Seepage Slope	I.A.5	1	1	1	1	1	1	1	1.00
Mesic Flatwoods	I.A.6	1	1	1	1	1	1	1	1.00
Floodplain Swamp	I.A.7	1	1	1	1	1	1	1	1.00
Depression Marsh	I.A.8	1	1	1	1	1	1	1	1.00
Spring-Run Stream	I.A.9	1	1	1	1	1	1	1	1.00
Blackwater Stream	I.A.10	1	1	1	1	1	1	1	1.00
Baygall	I.A.11	1	0	1	1	1	1	1	0.86
Bottomland Forest	I.A.12	1	1	1	1	1	1	1	1.00
Listed species:Protection & Preservation (I.B)									
Animal Inventory	I.B.1	1	1	1	1	1	1	1	1.00
Red Cockaded Woodpecker	I.B.1.a	1	1	1	1	1	1	1	1.00
Gopher Tortoise	I.B.1.b	1	1	1	1	1	0	1	0.86
Reticulated Flatwoods Salamander	I.B.1.d	0	0	0	0	0	0	0	0.00
Plant Inventory	I.B.2	1	1	1	1	1	1	1	1.00
Natural Resources Survey/Management Resources (I.C)									
Sport fish or habitat monitoring	I.C.1	1	1	1	1	1	0	1	0.86
Listed species or habitat monitoring	I.C.2	1	1	1	1	1	1	1	1.00
Other non-game species or habitat monitoring	I.C.3	1	1	1	1	1	0	1	0.86
Fire effects monitoring	I.C.4	1	1	1	1	1	1	1	1.00
Other habitat management effects monitoring	I.C.5	1	0	1	0	1	1	1	0.71
Invasive species survey / monitoring	I.C.6	1	1	1	1	1	1	1	1.00
Cultural Resources (Archeological & Historic sites) (II.A,II.B)									
Cultural Res. Survey	II.A	1	0	1	1	1	1	1	0.86
Protection and preservation	II.B	1	1	1	1	1	1	1	1.00
Resource Management, Prescribed Fire (III.A)									
Area Being Burned (no. acres)	III.A.1	1	1	1	1	1	1	1	1.00
Frequency	III.A.2	1	1	1	1	1	1	1	1.00
Quality	III.A.3	1	1	1	1	1	1	1	1.00
Restoration of Ruderal Areas (III.B)									

Sandhill Restoration in Yellow River	III.B.1	0	1	0	0	0	0	0	0.14
Plantation Conversion to Sandhill & Upland Pine	III.B.2	1	1	1	1	1	1	1	1.00
Forest Management (III.C)									
Timber Inventory	III.C.1	1	1	1	1	1	1	1	1.00
Timber Harvesting	III.C.2	1	1	1	1	1	1	1	1.00
Reforestation/Afforestation	III.C.3	1	1	1	1	1	1	1	1.00
Site Preparation	III.C.4	1	1	1	1	1	1	1	1.00
Non-Native, Invasive & Problem Species (III.E)									
Prevention									
prevention - plants	III.E.1.a	1	1	1	1	1	1	1	1.00
prevention - animals	III.E.1.b	1	1	1	1	1	1	1	1.00
prevention - pests/pathogens	III.E.1.c	1	1	1	1	1	0	1	0.86
Control									
control - plants	III.E.2.a	1	1	1	1	1	1	1	1.00
control - animals	III.E.2.b	1	1	1	1	1	0	1	0.86
control - pest/pathogens	III.E.2.c	1	1	1	1	1	0	1	0.86
Hydrologic/Geologic function Hydro-Alteration (III.F.1)									
Roads/culverts	III.F.1.a	1	1	1	1	1	1	1	1.00
Dams, Reservoirs or other impoundments	III.F.1.e	0	1	1	0	1	0	1	0.57
Stream Sedimentation	III.F.1.f	0	1	1	1	1	0	1	0.71
Ground Water Monitoring (III.F.2)									
Ground water quality	III.F.2.a	1	1	0	0	1	0	1	0.57
Ground water quantity	III.F.2.b	1	1	0	0	1	0	1	0.57
Surface Water Monitoring (III.F.3)									
Surface water quality	III.F.3.a	1	1	1	0	1	0	1	0.71
Surface water quantity	III.F.3.b	1	1	1	0	1	0	1	0.67
Resource Protection (III.G)									
Boundary survey	III.G.1	1	1	1	1	1	1	1	1.00
Gates & fencing	III.G.2	1	0	0	0	0	0	1	0.29
Signage	III.G.3	1	1	1	1	0	0	1	0.71
Law enforcement presence	III.G.4	1	0	1	1	1	1	1	0.86
Adjacent Property Concerns (III.H)									
Land Use									
Expanding development	III.H.1.a	1	1	1	1	1	1	1	1.00
Military Operation	III.H.1.b	0	1	0	0	1	1	1	0.57
Inholdings/additions	III.H.2	1	1	1	1	1	1	1	1.00
Discussion of Potential Surplus Land Determination	III.H.3	1	1	1	1	1	1	1	1.00
Surplus Lands Identified?	III.H.4	1	1	1	1	1	1	1	1.00
Public Access & Education									
Public Access									

Roads	IV.1.a	1	1	1	1	1	1	1	1.00
Parking	IV.1.b	1	1	1	1	1	1	1	1.00
Environmental Education & Outreach									
Wildlife	IV.2.a	1	1	1	1	1	0	1	0.86
Invasive Species	IV.2.b	1	1	1	1	1	0	1	0.86
Habitat Management Activities	IV.2.c	1	1	1	1	1	0	1	0.86
Interpretive facilities and signs	IV.3	1	1	1	1	1	0	1	0.86
Recreational Opportunities	IV.4	1	1	1	1	1	1	1	1.00
Management of Visitor Impacts	IV.5	1	1	1	1	1	0	1	0.86
Managed Area Uses									
Existing Uses									
Camping	VI.A.1	1	1	1	1	1	1	1	1.00
Picnicking	VI.A.2	1	1	1	1	1	1	1	1.00
Swimming	VI.A.3	1	1	1	1	1	1	1	1.00
Horseback Riding	VI.A.4	1	1	1	1	1	1	1	1.00
Hiking	VI.A.5	1	1	1	1	1	1	1	1.00
Bicycling	VI.A.6	1	1	1	1	1	1	1	1.00
Canoeing	VI.A.7	1	1	1	1	1	1	1	1.00
Birdwatching	VI.A.8	1	1	1	1	1	1	1	1.00
Hunting	VI.A.9	1	1	1	1	1	1	1	1.00
Proposed Uses									
Nature Based Recreational Opportunities	VI.B.1	1	1	1	1	0	1	1	0.86

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 2.5 score on average). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The management plan must include responses to the checklist items identified below:

1. Discussion of the deficiencies in management resources, specifically staff and funding, with documentation in the management plan.

Managing Agency Response:

The FFS Staff will pursue grants, mitigation funds, partnerships, and other outside funding to meet management goals. See page 4, 25, 40, 43.

FIELD REVIEW		1	2	3	4	5	6	7	AVERAGE
Natural Communities (I.A)									
Upland Pine Forest	I.A.1	5	5	5	5	5	5	5	5.00
Sandhill	I.A.2	5	5	5	5	5	5	5	5.00
Upland Mixed Forest	I.A.3	5	5	5	5	5	5	5	5.00
Slope Forest	I.A.4	5	5	5	5	5	5	5	5.00
Seepage Slope	I.A.5	5	5	5	5	5	5	5	5.00
Mesic Flatwoods	I.A.6	5	5	5	5	5	5	5	5.00

control - plants	III.E.2.a	4	5	5	4	5	5	5	4.71
control - animals	III.E.2.b	4	X	5	5	5	5	4	4.67
control - pest/pathogens	III.E.2.c	4	X	5	4	5	5	5	4.67
Hydrologic/Geologic function Hydro-Alteration (III.E.1)									
Roads/culverts	III.F.1.a	5	5	5	5	5	5	5	5.00
Dams, Reservoirs or other impoundments	III.F.1.e	4	5	5	5	5	5	4	4.71
Stream Sedimentation	III.F.1.f		5	5	4	5	5	4	4.67
Ground Water Monitoring (III.F.2)									
Ground water quality	III.F.2.a	5	X	X	5	5	5	4	4.80
Ground water quantity	III.F.2.b	5	X	X	5	5	5	4	4.80
Surface Water Monitoring (III.E.3)									
Surface water quality	III.F.3.a	3	X	4	5	5	5	4	4.33
Surface water quantity	III.F.3.b	3	X	4	X	5	5	4	4.20
Resource Protection (III.F)									
Boundary survey	III.G.1	5	3	5	4	5	5	4	4.43
Gates & fencing	III.G.2	5	X	X	5	5	5	5	5.00
Signage	III.G.3	4	5	5	5	5	5	5	4.86
Law enforcement presence	III.G.4	2	X	3	4	2	4	3	3.00
Adjacent Property Concerns (III.G)									
Land Use									
Expanding development	III.H.1.a	3	5	4	4	5	5	3	4.14
Military Operation	III.H.1.b	5	5	X	4	5	5	4	4.67
Inholdings/additions	III.H.2	4	5	5	5	5	5		4.63
Public Access & Education									
Public Access									
Roads	IV.1.a		5	5	5	5	5	4	4.83
Parking	IV.1.b		5	5	4	5	5	4	4.67
Environmental Education & Outreach									
Wildlife	IV.2.a	3	4	4	5	5	5	4	4.29
Invasive Species	IV.2.b	3	X	4	5	5	5	4	4.33
Habitat Management Activities	IV.2.c	3	4	4	4	5	5	4	4.14
Interpretive facilities and signs	IV.3	3	4	5	4	5	5	4	4.29
Recreational Opportunities	IV.4	5	4	5	5	5	5	5	4.86
Management of Visitor Impacts	IV.5	4	4	5	4	5	5	5	4.57
Management Resources									
Maintenance									
Waste disposal	V.1.a	4	5	5	5	5	5	4	4.71
Sanitary facilities	V.1.b	4	X	5	5	5	5	4	4.67
Infrastructure									
Buildings	V.2.a	5	4	5	5	5	5	4	4.71
Equipment	V.2.b	5	5	5	5	5	5	4	4.86
Staff	V.3	2	2	1	1	1	4	3	2.00
Funding	V.4	2	2	1	1	1	3	3	1.86

Forestry Forest Service Manager and Key Staff Present:

Ricky Jones, DOF Forester
Sonny Greene
Mike Hudson
Deamian Fischer
Craig Iverson
Tom Ledew
David Creamer
David Smith

APPENDIX:

The following comments represent individual comments, and may not represent the consensus of the land management review team.

I.A. Natural Communities

- Particularly good work was noticeable when runoff has been stopped or diverted.
- Yellow River includes sandhill where restoration not included above.
- Sandhill is currently under restoration approximately 50% of total sandhill.
- Sandhill does not include Yellow River Ravines.

I.B. Listed Species: Protection and Preservation

- As management plan states protection as preservation of one species will benefit all listed species.
- Make mgmt. recommendation to include Florida bog frog.
- Bog frog needs to be added to plan.

I.C. Natural Resources Survey/Management Resources

- Invasive species documentation (mapping) is ongoing & staff OPS are constantly on alert to reporting and treating occurrences.
- Add list of fish if mission from plan exhibits. Consider adding vegetative monitoring to plan-diversity, dominance, coverage.
- No list of fish in exhibit K as totaled in management plan.
- No fish species occurrences listed in plan. Recommendation to include UERP and monitoring protocols in mgmt. plan.
- Add UERP to the management plan as a habitat to be monitored.

II.A.B. Cultural Resources

- Forest personnel include trained staff. Protection cemeteries, seismic survey included archaeological data collection.
- This section is listed in management plan (Page 6) and referenced as Exhibit I.

III.A. Resource Management

- Graminoid cover compared to bracken fern dominated ground cover suggests less than optimal burning during growing season. Seems unavoidable given size of the area and the personnel that are available.
- Biomass being used as an alternative where fire may be problematic.
- Recommend emphasis on growing season burns on maintained longleaf pine stands.

III.B. Restoration

- Ecosystem restoration listed under management needs ad cost on page 20. Acquired after management plan was written.
- Restoration only mentioned in timber harvest & reforestation sections, There is no mention of ecosystem restoration including ground cover restoration if needed.
- Need to have a section in the management plan on restoration.

III.C. Forest Management

- Further year round does appear to result in overall safer fire conditions and minimize chance of dangerous fires. Other forest uses and products optimized with spacing burns throughout the year.
- Add afforestation to plan.

III.D. Non-native, Invasive & Problem Species

- To have training program for road maintenance crews. Hog hunting, trapping.
- Good narrative from Forestry staff concerning plants, animal and pest/pathogens for prevention. Good discussion concerning the control of plants, animals and pest/pathogens.
- Need more info on animals, and pests/pathogens in plan. Need more info on animals, and pests/pathogens in plan.

III.E. Hydrologic/Geologic Functions

- Significant improvement to stream sedimentation from road closings and improvements.
- Dams are recreational lakes are managed with FWC. Quantity is monitored by water management district. Quality is by DEP monitoring.

- Lakes/dams are mostly done with FWCC. Did not see any reference to ground water in the plan but there was discussion from Forestry staff.
- Ground water quality monitoring protocols should be included in plan.
- Need more info on dams. Need info in plan on both quality, and quantity.

III.F. Resource Protection

- Only special areas are fenced. Appropriate for state forest access by public/law enforcement presence. Very good law enforcement cooperation through other agencies. Law enforcement recent budget cuts in state have understandably resulted in hopefully temporary reduction.
- Need a mention in the plan about gates, and signage.

III.G. Adjacent Property Concerns

- UHV acquisition very good example of working to control adjacent development. A parcel has been identified.

IV. Public Access and Education

- Plus two small incidental access points on Yellow River. Not really applicable.

V. Infrastructure/ Management Resources

- Staff needed for vegetative quantitative monitoring of ground cover and listed plants. Staff needed to assist with gopher tortoise and listed animal species (e.g. flatwoods salamander) in addition to the ongoing RCW monitoring. Move staff in seed orchard & processing would allow for greater production and revenue. Current staff are doing an exemplary job and have many talents that allowed extraordinary level of recreation opportunities. As well as revenue generation. However, the forest could be better run with more staff. This lack of adequate staff numbers may result in increase in cover of invasive exotics & maintenance of roads & facilities into the near future.
- Very resourceful staff. Staff augmented by DOC inmates. Excellent cross training. CARL budget needs to be reestablished.
- Park Ranger inspects primitive camp sites on Mondays on a weekly basis.

2017 Land Management Review Team Report for Blackwater River State Forest

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1. Introduction

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

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

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

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

1.1. Property Reviewed in this Report

Name of Site: Blackwater River State Forest

Managed by: Department of Agriculture and Consumer Services, Florida Forest Service

Acres: 211,099 **County:** Okaloosa, Santa Rosa

Purpose(s) for Acquisition: Original property was granted to the State of Florida from the U.S. Government.

Acquisition Program(s): P2000, Florida Forever (subsequent additions)

Original Acquisition Date: November 1938

Area Reviewed: Entire Property

Last Management Plan Approval Date: December 18, 2013

Review Date: April 3, 2017

Agency Manager and Key Staff Present:

Eric Howell, David Smith, David Creamer, Daniel Hayes, Dom Marcanio, Craig Iversen, Roger Williams, Catherine Ingram, John Browne, Mike Hudson

Review Team Members Present (voting)

NWFWMD: Steve Brown

DRP-DEP: Michael Maples

FWC: Diana Pepe

DEP-NWD: Mark Gillman

Conservation Organization (Longleaf Alliance): Bob Wilken

FFS: Bill Korn

Private Land Manager (Resource Management Service): Shane Reeves

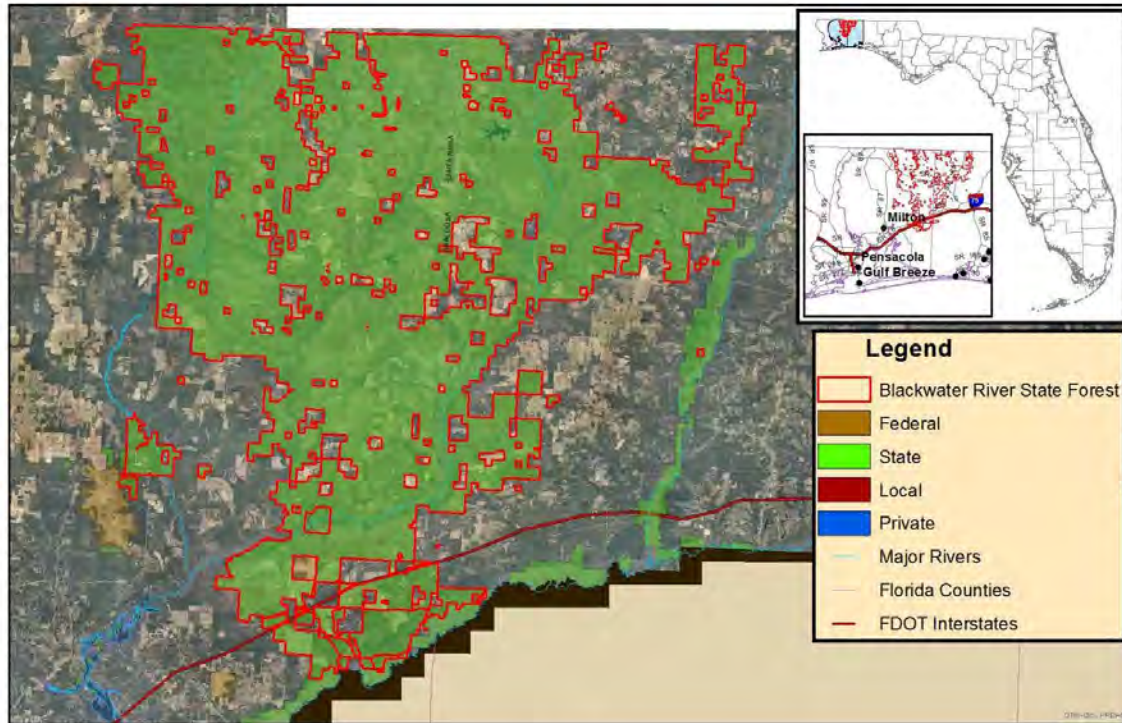
Local Gov't: None

Other Non-Team Members Present (attending)

Arie Larson, DEP/DSL

Barbara Almario, FWC

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 = 7, No = 0

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

Yes = 7, 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	4.46	4.39
Prescribed Fire / Habitat Restoration	4.62	4.25
Hydrology	4.52	4.06
Imperiled Species	4.72	4.27
Exotic / Invasive Species	4.67	4.45
Cultural Resources	4.86	4.43
Public Access / Education / Law Enforcement	4.46	4.18
Infrastructure / Equipment / Staffing	4.05	N/A
Color Code (See Appendix A for detail)		
Excellent	Above Average	Below Average
		Poor

1.3.1 Consensus Commendations for the Managing Agency

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

1. The team commends FFS for cooperating with FWC to restore critical habitat for listed species including the Florida bog frog, and reticulated flatwoods salamander. (7+, 0-)
2. The team commends FFS for continued outstanding efforts at sustaining a prescribed fire program that has consistently averaged well above 60,000 acres per year. In addition, FFS has increased the growing season component on BRSF to average approximately a third of the burns. (7+, 0-)
3. The team commends FFS for efforts to address cultural resource management responsibilities including increasing staff participation in ARM training and completing a very organized approach to site monitoring visits. (7+, 0-)
4. The team commends FFS for work to enhance RCW habitat and management of RCW clusters as well as the intensive monitoring efforts that have seen an increase from 87 to 108 breeding pairs within the last five years. (7+, 0-)
5. The team commends FFS for implementation of a dynamic program of timber harvests which has maintained desired stocking levels and assisted with achieving initial restoration objectives. (7+, 0-)
6. The team commends FFS for past and current efforts to pave or improve a vast network (800+ miles) of high-maintenance clay roads throughout the forest. These road improvements, along with upgrades to culverts (838), bridges (55), and use of low water crossings (148) have reduced sedimentation into streams and adjacent habitats and improved the visitor experience. (7+, 0-)

1.3.2. Consensus Recommendations to the Managing Agency

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

1. The team recommends that FFS continue to implement strategies for control of sand pine recruitment and hardwood regeneration associated with sandhill and upland pine restoration activities. (7+, 0-)

Managing Agency Response: The FFS will continue efforts to restore longleaf pine on upland and sandhill sites. Various measures of sand pine eradication are being implemented, such as prescribed burning and removal by cutting/girdling. The FFS has received and continues to apply for grant and cost-share money to eliminate the sand pine and reduce hardwood competition on these planted longleaf sites. We will plan for more aggressive and effective site prep methods in the future. Key personnel have recently attended training sessions regarding herbicide uses for site prep and pine release; we hope to use this knowledge to be more effective at restoration efforts. We will also continue to consult other agencies and organizations for effective treatments.

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 upland pine, alluvial forest, seepage slope, baygall, upland hardwood forest, blackwater stream, floodplain swamp, dome swamp, depression marsh, seepage stream, shrub bog, and wet prairie.
2. Listed species protection and preservation, specifically listed animals and plants in general, and specifically reticulated flatwoods salamander, red-cockaded woodpecker, bog frog, Southeastern American Kestrel, and gopher tortoise.
3. Natural resources survey/monitoring specifically sport fish or their habitat monitoring, listed species or their habitat monitoring, other non-game species or their habitat monitoring, fire effects monitoring, and invasive species monitoring.
4. Cultural resources, specifically cultural resource survey, and protection and preservation
5. Resource management (prescribed fire), specifically area being burned, frequency, and quality.
6. Restoration, specifically sandhill/upland pine (off-site pine removal, re-planting) and ground cover restoration.
7. Forest Management, specifically timber inventory/assessment, timber harvesting, reforestation/afforestation and site preparation.
8. Non-native, invasive, and problem species, specifically prevention and control of plants, animals and pest/pathogens.
9. Hydrologic/geologic function, specifically roads/culverts, and dams/reservoirs or other impoundments.

10. Ground water monitoring, specifically quality and quantity.
11. Surface water monitoring, specifically quality and quantity.
12. Resource protection, specifically boundary survey, gates and fencing, signage and law enforcement presence.
13. Adjacent property concerns, specifically inholdings/additions, discussions of potential surplus land determination and surplus lands identified.
14. Public access, specifically parking, roads and boat access.
15. Environmental education and outreach, specifically wildlife, invasive species, habitat management activities, interruptive facilities and signs, recreational opportunities and management of visitor impacts.
16. Management resources, specifically waste disposal, sanitary facilities, buildings and staff.

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:**

**** The review team scores did not identify items requiring improvement actions in the field. ****

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)										
Upland pine	I.A.1	4	5	5	5	5	5	5		4.86
Alluvial forest	I.A.2	4	5	5	5	4	5	5		4.71
Sandhill	I.A.3	4	3	3	4	5	3	3		3.57
Seepage slope	I.A.4		5	5	4	5	5	5		4.83
Baygall	I.A.5	4	5	5	5	5	5	5		4.86
Upland hardwood forest	I.A.6	4	4	4	4	5	4	4		4.14
Mesic flatwoods	I.A.7	3	2	3	3	5	4	2		3.14
Blackwater stream	I.A.8	5	5	5	5	5	5	5		5.00
Floodplain swamp	I.A.10	3	5	5	4	5	5	5		4.57
Dome swamp	I.A.11	4	5	5	4	5	5	5		4.71
Depression marsh	I.A.12	4	4	4	4	5	4	4		4.14
Seepage stream	I.A.13	4	5	5	5	5	5	5		4.86
Shrub Bog	I.A.14	4	4	4	4	5	4	4		4.14
Wet Flatwoods	I.A.15	3	3	3	3	5	3	3		3.29
Wet Prairie	I.A.16	4	4	4	3	5	4	4		4.00
Natural Communities Average Score										4.32
Listed species: Protection & Preservation (I.B)										
Animals	I.B.1	4	5	5	5	5		5		4.83

Reticulated flatwoods salamander	I.B.1.a	5	5	5	5	5	5	4		4.86
Red-cockaded woodpecker	I.B.1.b	5	5	5	5	5	5	5		5.00
Bog Frog	I.B.1.c	3	5	5	5	5	4	5		4.50
SE American Kestrel	I.B.1.d	3	5	5	5	5	4	4		4.33
Gopher Tortoise	I.B.1.e	3	5	5	5	5		5		4.60
Plants	I.B.2	4	5	5	5	5		4		4.60
Listed Species Average Score										4.67
Natural Resources Survey/Management Resources (I.C)										
Sport fish or their habitat monitoring	I.C.1	5	5	5	5	4	5	5		4.86
Listed species or their habitat monitoring	I.C.2	4	5	5	5	5	5	5		4.86
Other non-game species or their habitat monitoring	I.C.3	4	5	5	5	4	5	5		4.71
Fire effects monitoring	I.C.4	3	5	5	5	5	5	5		4.71
Other habitat management effects monitoring	I.C.5	3	5	5	4	4	4	5		4.29
Invasive species survey / monitoring	I.C.6	4	5	5	5	5	5	5		4.86
Cultural Resources (Archeological & Historic sites) (II.A, II.B)										
Cultural Res. Survey	II.A	4	5	5	5	5	5	5		4.86
Protection and preservation	II.B	4	5	5	5	5	5	5		4.86
Cultural Resources Average Score										4.86
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	5	5	5	5	5	5	5		5.00
Frequency	III.A.2	4	5	5	5	5	5	5		4.86
Quality	III.A.3	5	5	5	5	5	5	5		5.00
Resource Management, Prescribed Fire Average Score										4.95
Restoration (III.B)										
Sandhill / upland pine (off-site pine removal, re-planting)	III.B.1	4	5	4	5	5	3	4		4.29
Groundcover restoration	III.B.2	3	5	5	5	5	4	3		4.29
Restoration Average Score										4.29
Forest Management (III.C)										
Timber Inventory / Assessment	III.C.1	4	5	5	5	5	4	5		4.71
Timber Harvesting	III.C.2	4	5	5	5	5	4	5		4.71
Reforestation/Afforestation	III.C.3	5	5	5	5	5	4	4		4.71
Site Preparation	III.C.4	4	5	4	5	5	3	4		4.29
Forest Management Average Score										4.61
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.D.1.a	4	5	5	5	5	5	4		4.71
prevention - animals	III.D.1.b	4	4	5	5	5	5	4		4.57
prevention - pests/pathogens	III.D.1.c	3	4	5	5	5	4	4		4.29
Control										
control - plants	III.D.2.a	5	5	5	5	5	5	5		5.00
control - animals	III.D.2.b	4	5	5	5	5	5	5		4.86
control - pest/pathogens	III.D.2.c	4	5	5	5	5	4	4		4.57
Non-Native, Invasive & Problem Species Average Score										4.67

Hydrologic/Geologic function Hydro-Alteration (III.E.1)										
Roads/culverts	III.E.1.a	4		5	5	5	5	5		4.83
Dams, Reservoirs, other impoundments	III.E.1.e	4	4	5	5	4	5	5		4.57
Hydrologic/Geologic function, Hydro-Alteration Average Score										4.70
Ground Water Monitoring (III.E.2)										
Ground water quality	III.E.2.a	4	4	5	5	5	5	3		4.43
Ground water quantity	III.E.2.b	4	4	5	5	5	5	3		4.43
Ground Water Monitoring Average Score										4.43
Surface Water Monitoring (III.E.3)										
Surface water quality	III.E.3.a	4	4	5	5	5	5	3		4.43
Surface water quantity	III.E.3.b	4	4	5	5	5	5	3		4.43
Surface Water Monitoring Average Score										4.43
Resource Protection (III.F)										
Boundary survey	III.F.1	4	5	4	4	5	4	3		4.14
Gates & fencing	III.F.2	4	5	5	5	4	5	4		4.57
Signage	III.F.3	4	5	4	5	4	4	4		4.29
Law enforcement presence	III.F.4	4	5	4	5	4	4	4		4.29
Resource Protection Average Score										4.32
Adjacent Property Concerns (III.G)										
Land Use										
Inholdings/additions	III.G.2	3	5	4	5	4	4	4		4.14
Discussion of Potential Surplus Land Determination	III.G.3	3	3	4	3	4	4	3		3.43
Surplus Lands Identifier	III.G.4	3	3	4	4	5	4	3		3.71
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Roads	IV.1.a	4	5	4	5	4	5	5		4.57
Parking	IV.1.b	4	5	5	5	5	5	4		4.71
Boat Access	IV.1.c	4	5	5	5	5	5	5		4.86
Environmental Education & Outreach										
Wildlife	IV.2.a	4	5	5	4	5	5	4		4.57
Invasive Species	IV.2.b	4	5	5	4	4	5	4		4.43
Habitat Management Activities	IV.2.c	4	5	5	4	4	5	4		4.43
Interpretive facilities and signs	IV.3	4	5	5	4	4	5	4		4.43
Recreational Opportunities	IV.4	4	5	5	5	4	5	5		4.71
Management of Visitor Impacts	IV.5	4	5	5	5	4	5	5		4.71
Public Access & Education Average Score										4.60
Management Resources (V.1, V.2, V.3, V.4)										
Maintenance										
Waste disposal	V.1.a	4	4	5	4	5	5	4		4.43
Sanitary facilities	V.1.b	4	4	5	4	5	5	3		4.29
Infrastructure										
Buildings	V.2.a	4	4	5	4	5	4	4		4.29
Equipment	V.2.b	4	4	3	3	5	4	3		3.71
Staff	V.3	3	4	5	3	5	4	4		4.00
Funding	V.4	3	3	4	3	5	4	3		3.57

Listed Species Average Score										4.27
Natural Resources Survey/Management Resources (I.C)										
Sport fish or their habitat monitoring	I.C.1	4	4	5	3	4	4	4		4.00
Listed species or their habitat monitoring	I.C.2	4	5	5	3	5	4	4		4.29
Other non-game species or their habitat monitoring	I.C.3	4	5	5	4	4	4	3		4.14
Fire effects monitoring	I.C.4	3	5	5	4	5	4	3		4.14
Other habitat management effects monitoring	I.C.5	4	5	5	4	4	4	3		4.14
Invasive species survey / monitoring	I.C.6	4	5	5	5	5	5	3		4.57
Cultural Resources (Archeological & Historic sites) (II.A, II.B)										
Cultural Res. Survey	II.A	4	4	5	4	5	5	4		4.43
Protection and preservation	II.B	4	4	5	4	5	5	4		4.43
Cultural Resources Average Score										4.43
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	4	5	5	4	5	5	3		4.43
Frequency	III.A.2	4	5	5	4	5	5	3		4.43
Quality	III.A.3	4	5	5	4	5	5	3		4.43
Resource Management, Prescribed Fire Average Score										4.43
Restoration (III.B)										
Sandhill / upland pine (off-site pine removal, re-planting)	III.B.1	4	4	5	4	5	5	2		4.14
Groundcover restoration	III.B.2	4	4	5	4	5	4	2		4.00
Restoration Average Score										4.07
Forest Management (III.C)										
Timber Inventory / Assessment	III.C.1	4	4	5	5	5	5	3		4.43
Timber Harvesting	III.C.2	4	4	5	5	5	5	3		4.43
Reforestation/Afforestation	III.C.3	4	4	5	5	5	5	3		4.43
Site Preparation	III.C.4	4	4	5	5	5	3	3		4.14
Forest Management Average Score										4.36
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.D.1.a	4	5	5	5	5	5	3		4.57
prevention - animals	III.D.1.b	4	4	5	5	5	5	3		4.43
prevention - pests/pathogens	III.D.1.c	4	4	5	5	5	3	3		4.14
Control										
control - plants	III.D.2.a	4	5	5	5	5	5	4		4.71
control - animals	III.D.2.b	4	4	5	5	5	5	4		4.57
control - pest/pathogens	III.D.2.c	4	4	5	5	5	4	3		4.29
										4.45
Hydrologic/Geologic function, Hydro-Alteration (III.E.1)										
Roads/culverts	III.E.1.a	4		5	4	5	4	4		4.33
Dams, Reservoirs, other impoundments	III.E.1.e	4		5	4	4	4	4		4.17
Hydrologic/Geologic function, Hydro-Alteration Average Score										4.25
Ground Water Monitoring (III.E.2)										
Ground water quality	III.E.2.a	4	4	5	4	4	4	3		4.00
Ground water quantity	III.E.2.b	4	4	5	4	4	4	3		4.00

Ground Water Monitoring Average Score										4.00
Surface Water Monitoring (III.E.3)										
Surface water quality	III.E.3.a	4	4	5	4	4	4	2		3.86
Surface water quantity	III.E.3.b	4	4	5	4	4	4	3		4.00
Surface Water Monitoring Average Score										3.93
Resource Protection (III.F)										
Boundary survey	III.F.1	4	4	5	4	4	3	3		3.86
Gates & fencing	III.F.2	4	4	5	4	4	3	3		3.86
Signage	III.F.3	4	4	5	4	5	4	3		4.14
Law enforcement presence	III.F.4	4	4	5	4	5	4	3		4.14
Resource Protection Average Score										4.00
Adjacent Property Concerns (III.G)										
Land Use										
Inholdings/additions	III.G.2	3	3	5	4	4	4	4		3.86
Discussion of Potential Surplus Land Determination	III.G.3	3	3	5	3	4	4	3		3.57
Surplus Lands Identified?	III.G.4	3	3	5	4	5	4	3		3.86
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Roads	IV.1.a	4	5	5	4	4	5	3		4.29
Parking	IV.1.b	4	5	5	4	5	5	3		4.43
Boat Access	IV.1.c	4	4	5	4	4	5	3		4.14
Public Education										
Wildlife	IV.2.a	4	5	5	4	4	5	3		4.29
Invasive Species	IV.2.b	4	4	5	4	5	5	3		4.29
Habitat Management Activities	IV.2.c	4	5	5	4	5	5	3		4.43
Interpretive facilities and signs	IV.3	4	4	5	4	4	5	3		4.14
Recreational Opportunities	IV.4	4	5	5	5	5	5	4		4.71
Management of Visitor Impacts	IV.5	4	5	5	5	5	5	3		4.57
Public Access & Education Average Score										4.37
Managed Area Uses (VI.A, VI.B)										
Existing Uses										
Camping	VI.A.1	4	5	5	5	5	5	5		4.86
picnicking	VI.A.2	4	5	5	5	5	5	5		4.86
Boating / paddling	VI.A.3	4	5	5	5	5	5	5		4.86
fishing	VI.A.4	4	5	5	5	4	5	5		4.71
hiking	VI.A.5	4	5	5	5	5	5	5		4.86
biking	VI.A.6	4	5	4	5	4	5	4		4.43
Nature study	VI.A.7	3	5	5	5	5	5	5		4.71
Equestrian	VI.A.8	4	5	4	5	4	5	4		4.43
Bird-dog trials	VI.A.9	4	5	4	5	4	5	4		4.43
Hunting	VI.A.10	4	5	4	5	4	5	5		4.57
OHV Trail Riding Area										
OHV Trail Riding Area	VI.B.1	4	5	5	5	5	4	4		4.57

Color Code:

Excellent

Above Average

Below Average

Poor

Missing Vote

Insufficient Information

See Appendix A for detail

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*

2021 Land Management Review Team Report for Blackwater River State Forest

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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 cases where the managed areas exceed 1,000 acres in size, such a review must be scheduled at least every five years. In conducting this review, a statutorily constructed review team “shall evaluate the extent to which the existing management plan provides sufficient protection to threatened or endangered species, unique or important natural or physical features, geological or hydrological functions or archaeological features. The review shall also evaluate the extent to which the land is being managed for the purposes for which it was acquired and the degree to which actual management practices, including public access, are in compliance with the adopted management plan.”

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

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

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

Property Reviewed in this Report

Name of Site: Blackwater River State Forest

Managed by: Department of Agriculture and Consumer Services, Florida Forest Service

Acres: 210,463

County: Okaloosa, Santa Rosa

Purpose(s) for Acquisition: Original property was granted to the State of Florida from the U.S. Government.

Acquisition Program(s): Florida Forever

Original Acquisition Date: 11/1/38

Area Reviewed: Entire Property

Last Management Plan Approval Date: 12/18/13

Review Date: 12/8/21

Agency Manager and Key Staff:

- Mike Hudson, Manager
- Eric Howell, Resource Administrator
- Courtney Stotts
- David Creamer
- Craig Iverson
- Michael Baker

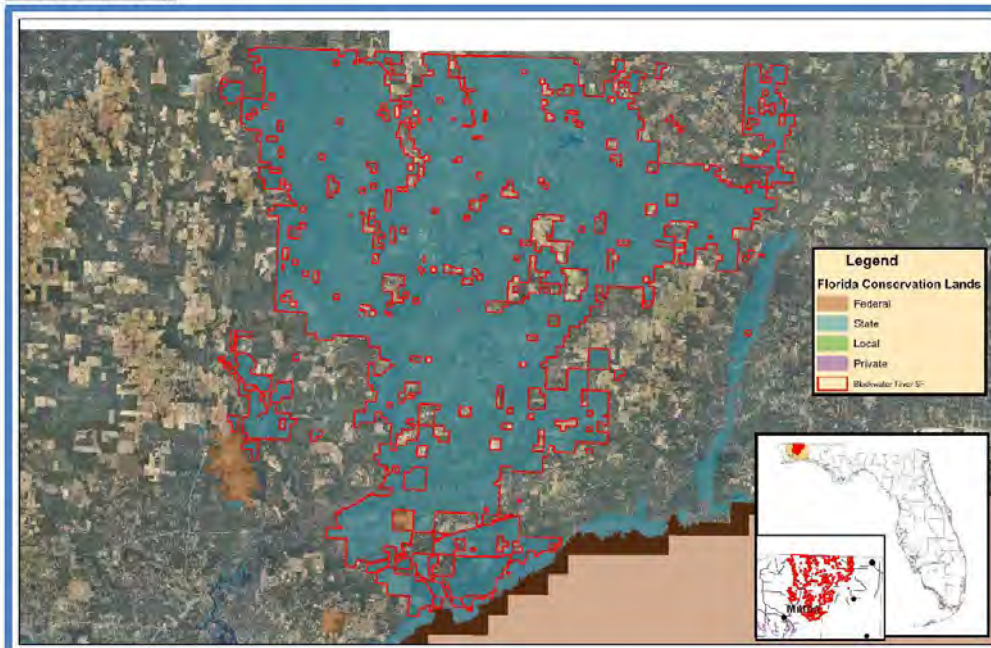
Review Team Members (voting)

- Aimee Wolters, DRP District
- Local Gov't., None
- Barbara Almario, FWC
- Mark Gillman, DEP District
- Jason Love, FFS
- Aaron Waits, NFWFMD
- Lilly Anderson Messec, Conservation Org.
- Vernon Compton, Private Land Manager

Non-Team Members (attending)

- Keith Singleton, DEP/DSL
- James Parker, DEP/DSL
- Monica Hardin, DEP

Property Map



Overview of Land Management Review Results

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

Yes = 7, No = 0

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

Yes = 7, 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	4.67	4.90
Prescribed Fire / Habitat Restoration	4.51	4.79
Hydrology	4.74	4.49
Imperiled Species	4.89	4.61
Exotic / Invasive Species	4.44	4.31
Cultural Resources	4.42	4.35
Public Access / Education / Law Enforcement	4.48	4.54
Infrastructure / Equipment / Staffing	4.28	N/A

Color Code (See Appendix A for detail)

Excellent	Meets Average	Below Average	Poor
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Consensus Commendations for the Managing Agency

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

1. The team commends the Florida Forest Service (FFS) on their significant accomplishment in red-cockaded woodpecker and Florida bog frog recovery efforts. (7+, 0-)
2. The team commends FFS for their prescribed fire, invasive species control and forest restoration actions that have either kept the natural communities in, or moved them toward, maintenance condition. (7+, 0-)
3. The team commends FFS for the excellent multiple public access across the forest, including well-managed roads and bridges, trails and dispersed recreation, and developed recreation sites. (7+, 0-)

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. Public use and demands on the forest are increasing as well as critical lands being added, so the team recommends that FFS request additional staffing resources and funding needed to meet these demands. (7+, 0-)

Managing Agency Response: The Florida Forest Service balances staffing, vehicles, equipment, and funding needs on a statewide basis within the large state forest system. Additional staffing resources and funding will be considered and requested in the legislative budget request if feasible.

Field Review Details

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 upland pine, bottomland forest, sandhill, seepage slope, baygall, blackwater stream, floodplain swamp, dome swamp, depression marsh, seepage stream, shrub bog, and wet flatwoods.
2. Listed species, listed animal and plant species in general, and specifically reticulated flatwoods salamander, red-cockaded woodpecker, bog frog, and Southeastern American kestrel.
3. Natural resources survey/monitoring resources; specifically sport fish or their habitat monitoring, listed species or their habitat monitoring, other non-game species or their habitat monitoring, fire effects monitoring, other habitat management effects monitoring, and invasive species survey and monitoring.
4. Cultural resources, specifically cultural resource survey, and protection and preservation.
5. Prescribed fire, specifically area being burned, frequency and quality.
6. Restoration, specifically sandhill/upland pine (off-site pine removal, re-planting).
7. Forest management, specifically timber inventory, timber harvesting, reforestation/afforestation and site preparation.
8. Non-native, invasive, and problem species, specifically prevention and control of plants, animals, and pests/pathogens.
9. Hydro-alteration, specifically roads and culverts, and dams/reservoirs or other impoundments.
10. Ground water monitoring, specifically quality and quantity.
11. Surface water monitoring, specifically quality and quantity.
12. Resource protection, specifically gates and fencing, signage and law enforcement presence.
13. Adjacent property concerns, specifically inholdings and additions.
14. Public access, specifically parking, roads and boat access.
15. Environmental education and outreach, specifically wildlife, invasive species, habitat management activities, interpretive facilities and signs, recreational opportunities, and management of visitor impacts.
16. Management resources, specifically waste disposal, sanitary facilities, and buildings.

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:

The review team scores did not identify items requiring improvement actions in the field.

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)										
Upland pine	I.A.1	5	5	5	5	5				5.00
Bottomland forest	I.A.2	5	5	5	5	5	4			4.83
Sandhill	I.A.3	4	5	4	4	4	4			4.17
Seepage slope	I.A.4	5	4	5	5	5	5			4.83
Baygall	I.A.5	5	5	5	5	5	5			5.00
Upland hardwood forest	I.A.6	3	5	3	4	3	3			3.50
Mesic flatwoods	I.A.7	4	4	4	4	3	3			3.67
Blackwater stream	I.A.8	5	5	5	5	5	4			4.83
Floodplain swamp	I.A.9	5	5	5	5	5	5			5.00
Dome swamp	I.A.10	5	5	5	5	5	3			4.67
Depression marsh	I.A.11	4	4	4	4	4	4			4.00
Seepage stream	I.A.12	5	5	5	5	5	5			5.00
Shrub bog	I.A.13	5	5	5	5	5	5			5.00
Wet flatwoods	I.A.14	3	5	4	4	5	3			4.00
Wet prairie	I.A.15	3	3	4	4	4	3			3.50
Natural Communities Average Score										4.47
Listed species: Protection & Preservation (I.B)										
Animals	I.B.1	5	5		5	5	5			5.00
Reticulated flatwoods salamander	I.B.1.a	5	4	3	5	5	4			4.33
Red-cockaded woodpecker	I.B.1.b	5	5	5	5	5	5			5.00
Bog frog	I.B.1.c	5	5	5	5	5	5			5.00
Southeastern American kestrel	I.B.1.d	5	5	5	5	5	5			5.00
Plants	I.B.2	5	5	5		5	5			5.00
Listed Species Average Score										4.89
Natural Resources Survey/Management Resources (I.C)										
Sport fish or their habitat monitoring	I.C.1	5	5	5	5	5	5			5.00
Listed species or their habitat monitoring	I.C.2	5	5	5	5	5	4			4.83
Other non-game species or their habitat monitoring	I.C.3	5	5	5	5	5	5			5.00
Fire effects monitoring	I.C.4	5	5	5	5	5	5			5.00
Other habitat management effects monitoring	I.C.5	5	5	5	5	5	5			5.00
Invasive species survey / monitoring	I.C.6	5	5	5	5	5	5			5.00
Cultural Resources (Archeological & Historic sites) (II.A, II.B)										
Cultural Res. Survey	II.A	5	5	4	5	5	4			4.67
Protection and preservation	II.B	4	5	3	5	5	3			4.17
Cultural Resources Average Score										4.42
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	5	5	5	5	5	5			5.00
Frequency	III.A.2	5	5	5	5	5	5			5.00

Quality	III.A.3	5	5	5	5	4	5			4.83
Resource Management, Prescribed Fire Average Score										4.94
Restoration (III.B)										
Sandhill / upland pine (off-site pine removal, re-planting)	III.B.1	4	5	4	5	5	5			4.67
Groundcover restoration	III.B.2	3	3	5	4	3	3			3.50
Restoration Average Score										4.08
Forest Management (III.C)										
Timber Inventory	III.C.1	5	5	5	5	5	5			5.00
Timber Harvesting	III.C.2	5	5	5	5	5	4			4.83
Reforestation/Afforestation	III.C.3	5	5	4	5	5	5			4.83
Site Preparation	III.C.4	5	5	5	5	4	5			4.83
Forest Management Average Score										4.88
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.D.1.a	5	5	5	5	5	5			5.00
prevention - animals	III.D.1.b	4	5	5	3	4	4			4.17
prevention - pests/pathogens	III.D.1.c	5	5	4	3	4	4			4.17
Control										
control - plants	III.D.2.a	5	5	5	5	5	5			5.00
control - animals	III.D.2.b	4	5	5	3	5	3			4.17
control - pests/pathogens	III.D.2.c	5	5	4	3	3	5			4.17
Non-Native, Invasive & Problem Species Average Score										4.44
Hydrologic/Geologic function Hydro-Alteration (III.E.1)										
Roads/culverts	III.E.1.a	5	4	5	5	5	4			4.67
Dams, Reservoirs or other impoundments	III.E.1.e	5		4	5	5	5			4.80
Hydrologic/Geologic function, Hydro-Alteration Average Score										4.73
Ground Water Monitoring (III.E.2)										
Ground water quality	III.E.2.a	5	5	5	5	5	5			5.00
Ground water quantity	III.E.2.b	5	5	5	5	5	5			5.00
Ground Water Monitoring Average Score										5.00
Surface Water Monitoring (III.E.3)										
Surface water quality	III.E.3.a	5	4	5	5	5	4			4.67
Surface water quantity	III.E.3.b	5	4	5	5	3	4			4.33
Surface Water Monitoring Average Score										4.50
Resource Protection (III.F)										
Boundary survey	III.F.1	4	4	4	4	4	3			3.83
Gates & fencing	III.F.2	5	4	5	4	5	4			4.50
Signage	III.F.3	4	4	4	5	5	4			4.33
Law enforcement presence	III.F.4	4	3	5	5	5	3			4.17
Resource Protection Average Score										4.21
Adjacent Property Concerns (III.G)										
Land Use										
Inholdings/additions	III.G.2	4	4	4	5	3	5			4.17

Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)											
Public Access											
Roads	IV.1.a	5	5	5	5	5	4				4.83
Parking	IV.1.b	4	5	5	5	5	5				4.83
Boat Access	IV.1.c	5	5	5	5	5	5				5.00
Environmental Education & Outreach											
Wildlife	IV.2.a	4	5	4	5	4	5				4.50
Invasive Species	IV.2.b	4	5	4	5	5	5				4.67
Habitat Management Activities	IV.2.c	4	5	5	5	4	5				4.67
Interpretive facilities and signs	IV.3	5	5	4	5	5	5				4.83
Recreational Opportunities	IV.4	5	5	5	5	5	4				4.83
Management of Visitor Impacts	IV.5	5	5	5	5	5	3				4.67
Public Access & Education Average Score											4.76
Management Resources (V.1, V.2, V.3, V.4)											
Maintenance											
Waste disposal	V.1.a	5	5	5	5	4	5				4.83
Sanitary facilities	V.1.b	5	5	5	5	5	5				5.00
Infrastructure											
Buildings	V.2.a	5	5	4	4	3	5				4.33
Equipment	V.2.b	4	5	4	4	3	3				3.83
Staff	V.3	4	4	4	4	3	4				3.83
Funding	V.4	4	4	5	4	3	3				3.83
Management Resources Average Score											4.28
Color Code:											
Excellent		Above Average		Below Average		Poor		See Appendix A for detail			
		Missing Vote		Insufficient Information							

Land Management Plan Review Details

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:

The review team scores did not identify items requiring improvements in the management plan.

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)										
Upland pine	I.A.1	5	5	5	5	5	5			5.00
Bottomland forest	I.A.2	5	5	5	5	5	5			5.00
Sandhill	I.A.3	5	5	5	5	5	5			5.00
Seepage slope	I.A.4	5	5	5	5	5	5			5.00
Baygall	I.A.5	5	5	5	5	5	5			5.00
Upland hardwood forest	I.A.6	5	5	4	5	5	5			4.83
Mesic flatwoods	I.A.7	5	5	5	5	5	5			5.00
Blackwater stream	I.A.8	5	5	5	5	5	5			5.00
Floodplain swamp	I.A.9	5	5	5	5	5	5			5.00
Dome swamp	I.A.10	5	5	5	5	5	5			5.00
Depression marsh	I.A.11	5	5	5	5	5	5			5.00
Seepage stream	I.A.12	5	5	5	5	5	5			5.00
Shrub bog	I.A.13	2	5	5	4	5	5			4.33
Wet flatwoods	I.A.14	2	5	5	5	4	5			4.33
Wet prairie	I.A.15	2	5	5	4	4	5			4.17
Natural Communities Average Score										4.84
Listed species: Protection & Preservation (I.B)										
Animals	I.B.1	5	5		5	5	5			5.00
Reticulated flatwoods salamander	I.B.1.a	5	5	4	5	3	4			4.33
Red-cockaded woodpecker	I.B.1.b	5	5	5	5	5	5			5.00
Bog frog	I.B.1.c	4	5	5	5	2	5			4.33
Southeastern American kestrel	I.B.1.d	4	5	4	5	2	5			4.17
Plants	I.B.2	5	5	5		4	5			4.80
Listed Species Average Score										4.61
Natural Resources Survey/Management Resources (I.C)										
Sport fish or their habitat monitoring	I.C.1	5	5	5	4	3	5			4.50
Listed species or their habitat monitoring	I.C.2	5	5	5	5	5	5			5.00
Other non-game species or their habitat monitoring	I.C.3	5	5	5	5	4	5			4.83
Fire effects monitoring	I.C.4	5	5	5	5	5	5			5.00
Other habitat management effects monitoring	I.C.5	5	5	5	5	4	5			4.83
Invasive species survey / monitoring	I.C.6	5	5	5	5	5	5			5.00
Cultural Resources (Archeological & Historic sites) (II.A, II.B)										
Cultural Res. Survey	II.A	4	5	5	5	5	3			4.50
Protection and preservation	II.B	4	5	3	5	5	3			4.17
Cultural Resources Average Score										4.33
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	5	5	5	5	5	5			5.00
Frequency	III.A.2	5	5	5	5	5	5			5.00
Quality	III.A.3	5	5	5	5	5	5			5.00
Resource Management, Prescribed Fire Average Score										5.00
Restoration (III.B)										
Sandhill / upland pine (off-site pine removal, re-planting)	III.B.1	4	5	5	5	5	5			4.83

Groundcover restoration	III.B.2	3	4	4	5	5	5			4.33
Restoration Average Score										4.58
Forest Management (III.C)										
Timber Inventory	III.C.1	5	5	5	5	5	5			5.00
Timber Harvesting	III.C.2	5	5	5	5	5	5			5.00
Reforestation/Afforestation	III.C.3	5	5	4	5	5	5			4.83
Site Preparation	III.C.4	5	5	5	5	5	5			5.00
Forest Management Average Score										4.96
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.D.1.a	5	4	4	5	5	5			4.67
prevention - animals	III.D.1.b	4	4	4	3	4	5			4.00
prevention - pests/pathogens	III.D.1.c	4	4	4	3	5	4			4.00
Control										
control - plants	III.D.2.a	5	4	5	5	5	5			4.83
control - animals	III.D.2.b	4	4	5	3	5	4			4.17
control - pests/pathogens	III.D.2.c	4	4	4	3	5	5			4.17
Non-Native, Invasive & Problem Species Average Score										4.31
Hydrologic/Geologic function, Hydro-Alteration (III.E.1)										
Roads/culverts	III.E.1.a	5	4	3	4	5	5			4.33
Dams, Reservoirs or other impoundments	III.E.1.e	5		3	5	5	5			4.60
Hydrologic/Geologic function, Hydro-Alteration Average Score										4.47
Ground Water Monitoring (III.E.2)										
Ground water quality	III.E.2.a	4	5	5	5	4	5			4.67
Ground water quantity	III.E.2.b	4	5	5	5	4	5			4.67
Ground Water Monitoring Average Score										4.67
Surface Water Monitoring (III.E.3)										
Surface water quality	III.E.3.a	4	4	5	3	5	5			4.33
Surface water quantity	III.E.3.b	4	4	5	3	5	5			4.33
Surface Water Monitoring Average Score										4.33
Resource Protection (III.F)										
Boundary survey	III.F.1	5	4	5	4	5	5			4.67
Gates & fencing	III.F.2	5	4	3	4	5	5			4.33
Signage	III.F.3	5	4	3	5	5	5			4.50
Law enforcement presence	III.F.4	4	4	5	5	5	4			4.50
Resource Protection Average Score										4.50
Adjacent Property Concerns (III.G)										
Land Use										
Inholdings/additions	III.G.2	5	4	5	4	5	5			4.67
Discussion of Potential Surplus Land Determination	III.G.3	4	2	4	3	4	5			3.67
Surplus Lands Identified?	III.G.4	5	5	5	5	5	5			5.00
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										

Roads	IV.1.a	5	4	5	5	5	5			4.83
Parking	IV.1.b	5	4	5	5	5	5			4.83
Boat Access	IV.1.c	5	4	5	5	5	5			4.83
Environmental Education & Outreach										
Wildlife	IV.2.a	4	4	5	4	3	5			4.17
Invasive Species	IV.2.b	4	4	5	4	4	5			4.33
Habitat Management Activities	IV.2.c	4	4	5	4	5	5			4.50
Interpretive facilities and signs	IV.3	5	4	3	4	5	5			4.33
Recreational Opportunities	IV.4	5	4	5	4	5	5			4.67
Management of Visitor Impacts	IV.5	5	4	5	4	5	5			4.67
Public Access & Education Average Score										4.57
Managed Area Uses (VI.A, VI.B)										
Existing Uses										
Camping	VI.A.1	5	5	5	5	5	5			5.00
picnicking	VI.A.2	5	5	5	5	5	5			5.00
Boating / paddling	VI.A.3	5	5	5	5	5	5			5.00
fishing	VI.A.4	5	5	5	5	5	5			5.00
hiking	VI.A.5	5	5	5	5	5	5			5.00
biking	VI.A.6	5	5	4	5	5	5			4.83
Nature study	VI.A.7	5	5	5	5	5	5			5.00
Equestrian	VI.A.8	4	5	3	5	5	5			4.50
Bird-dog trials	VI.A.9	4	5	3	5	5	5			4.50
Hunting	VI.A.10	5	5	5	5	5	5			5.00
Proposed Uses										
OHV Trail Riding Area	VI.B.1	5	5	3	3	5	5			4.33

Color Code:

Excellent

Above
Average

Below
Average

Poor

Missing
Vote

Insufficient
Information

See
Appendix A
for detail

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 Plans

(Okaloosa and Santa Rosa Counties)

FLORIDA FOREST SERVICE
(850) 681-5800



THE CONNER BUILDING
3125 CONNER BOULEVARD
TALLAHASSEE, FLORIDA 32399-1650

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
COMMISSIONER WILTON SIMPSON

December 17, 2025

Ms. Kristen Shell, Growth Management Director
Okaloosa County Growth Management Department
1250 N Eglin Parkway, Suite 301
Shalimar, FL 32579
(850) 651-7180

RE: Blackwater River State Forest 10-Year Land Management Plan

Dear Ms. Shell,

Greetings from the Florida Forest Service (FFS). Attached is a copy of the Ten-Year Land Management Plan and Exhibits for Blackwater River State Forest, prepared in accordance with F.S. 253.034. Please review the draft plan at your earliest convenience and reply as to whether the plan is consistent with Okaloosa County's Comprehensive Plan.

Please address all correspondence concerning the Management Plan on official letterhead to the above mailing address or via e-mail. I can be reached by telephone at (850) 681-5889 or by email at Emily.Marsh@fdacs.gov if you have any questions.

Thank you for assisting us in managing Blackwater River State Forest resources through a stewardship ethic to ensure they are available for future generations.

Sincerely,

Emily Marsh
State Lands Management Planner
Forest Management Bureau
Florida Forest Service



SANTA ROSA COUNTY PLANNING AND ZONING

SHAWN WARD, AICP
Planning and Zoning Director

Development Services | 6051 Old Bagdad Hwy. Ste. 202 | Milton, Florida 32583
Office: 850.981-7075 | Fax: 850.983.1874 | www.santarosa.fl.gov

Emily Marsh
State Lands Management Planner
Florida Forest Service
Florida Department of Agriculture and Consumer Services
The Conner Building
3125 Conner Boulevard
Tallahassee, Florida 32399-1650

Re: Blackwater River State Forest Draft Land Management Plan

Dear Ms. Marsh,

This office has been notified that the Florida Department of Agriculture and Consumer Services is requesting Santa Rosa County's support for the above referenced plan, along with a formal statement regarding the project's consistency with Santa Rosa County's Comprehensive Plan.

Please be advised that Santa Rosa County's Comprehensive Plan has received approval from the Florida Department of Commerce and is currently in effect.

After a review by this office, it has been determined that the Blackwater River State Forest Draft Land Management Plan is consistent with the goals, objectives, and policies of Santa Rosa County's Comprehensive Plan. Accordingly, Santa Rosa County offers its support.

Should you have any questions or require additional information, please do not hesitate to contact me at (850) 981-7082 or via email at Shawnw@santarosa.fl.gov.

Sincerely,

Shawn Ward, AICP
Planning and Zoning Director
Santa Rosa County Development Services Center
[6051 Old Bagdad Hwy, Suite 202 | Milton, Florida 32583](#)
P: [850.981.7082](tel:850.981.7082) | C: [850.776.4488](tel:850.776.4488) | F: [850.983.9874](tel:850.983.9874)

Exhibit V

State Forest Management Plan Advisory Group Summary

Management Plan Advisory Group Public Hearing
Blackwater River State Forest
10-Year Land Management Plan

December 2, 2025

1:30 P.M.

Meeting Minutes

MPAG Members Present:

- | | |
|------------------|---|
| • Mike Hudson | Blackwater Forestry Center Manager, Florida Forest Service (FFS) |
| • Daniel Wesley | Regional Lands – West Supervisor, Northwest Florida Water Management District |
| • Matt Smith | OPS Biologist Scientist II, Florida Fish and Wildlife Commission |
| • Jason Tritt | Conservation Engineering Technician III, Santa Rosa County Soil and Water Conservation District |
| • Vernon Compton | GCPEP Director, The Longleaf Alliance |
| • Steve Shell | Local Property Owner |
| • Rhett Rowell | Santa Rosa County Commissioner |
| • Sherri Cox | Okaloosa County Commissioner |

MPAG Members Not Present:

- | | |
|-------------|----------------------|
| • John King | Local Property Owner |
|-------------|----------------------|

FFS Staff:

- | | |
|-------------------|--|
| • Alan Davis | Land Planning Coordinator |
| • Brian Camposano | Forest Management Assistant Bureau Chief |
| • Eric Howell | Forestry Resource Administrator |
| • David Creamer | Recreation Administrator |
| • Emily Marsh | Land Management Planner |

Guests:

- Carmen Lundy
- Kyle Holley
- Erica Husted
- Medora Mullins
- Sara Baldwin
- Candace Christie
- Rob Fenwick
- Cindy Sheldon
- John Shoemaker
- Tammy Dorlay
- Jacob Nall
- Nathan Bunting
- Walter Mullins
- Elaine Matthews
- Art Matthews
- Robert & Rebecca Anderson
- Brad Wick

- Zach Whalen

Public Meeting Start Time: 1:30 P.M.

- Land Planning Coordinator, Alan Davis (FFS) opened the meeting by introducing himself and explained the purpose and statutory framework for the Blackwater River State Forest 10-Year Land Management Plan process. He explained that the Plan is not an annual work plan or detailed operational plan but provides general and conceptual guidance for management of Blackwater River State Forest (BRSF) for the next 10-year period.
- Mr. Davis confirmed compliance with the Florida Sunshine Law advising MPAG members to not discuss the draft outside of the public meetings. He stated that the meetings are open to the public, recorded, and minutes taken.
- Mr. Davis stated that both MPAG meetings are open to the public and proper notice was given. The meetings were advertised in the Santa Rosa Press Gazette and the Crestview Bulletin on October 23, 2025; Florida Administrative Register, FFS webpage, as well as posted at the kiosks in the Blackwater Forestry Center. The meetings were announced at the Okaloosa County Commissioners meeting on October 7, 2025, and the Santa Rosa County Commissioners meeting on October 9, 2025. He noted that the draft plan goes through various approvals before and after the MPAG meetings but that the FFS Director is granted final authority on changes to the draft plan. He described the two (2) meetings: The first meeting is informational and provides opportunity for public comment; the 9:00 a.m. Workshop meeting on December 3, 2025, provides opportunity for the MPAG members to discuss the public input and to share their personal comments on the draft plan. The public is welcome to attend the Workshop, but participation is limited to MPAG members.
- Mr. Davis then requested MPAG Member introductions and attendance was taken.
- Mr. Davis asked if there were any questions at this time.
- Mr. Davis then introduced Forestry Resource Administrator, Eric Howell, who presented a PowerPoint presentation of the 10-Year Plan. Mr. Davis asked if there were any clarifying questions regarding the presentation.
- Mr. Davis asked if there were any questions. No questions followed.
- Mr. Davis announced there were four (4) public speaker comment forms and invited the individuals to come up and speak when their names are called out.
- Ms. Mullins stated that she is a member of the Northwest Florida Back Country Horsemen. She then stated that she lives on the state forest and that she also has some comments from other people in the horse group. The first comment stated that they appreciate what FFS does regarding the horse trails and maintaining the forest, but the group would like to see promotion of the existing horse trails and also to add some more going south from the field trial area to the new land. Ms. Mullens then stated that the group would like to explore some of that forest area.
- Ms. Mullins stated that another user would like more cell towers on the forest. Ms. Mullins then inquired if FFS has approached different cell companies, providers, or if they need to approach FFS to put up a cell tower, because there are a lot of no service areas in the forest.
- Ms. Mullins stated that another comment was that it would be appreciated if FFS put in all meetings and brochures, online platforms, etc. for recreation users that come into the forest and enjoy various types of recreation, that they should not remove any survey ribbons or other markers that were placed in the forest, especially along the horse trails. She explained that, a lot of the times, the markers are there for a specific activity that is going to be temporary and will come down later. She then stated that they are not marking hunting territory and that they have hunters who move their markers. She continued to state that any kind of markers, plus FFS, especially in the Ecology Unit, they put ribbons out there to mark certain types of invasive vegetation and such that they want to keep track of. Ms. Mullins firmly concluded that for those who are here for Bruce to pass the word: "Don't take down ribbons or move them, or any other kind of

markers, unless it is your group that put them up.” A member of the hunting community retorted to not scare off his water fowl.

- Ms. Baldwin stated that she is a member of the North American Trail Ride Conference that has been hosting competitive events out of Coldwater Campground for the past ten years. She stated that this includes trail rides and Persons and Pines Ride. She stated that another member, Cindy, hosted another event at BRSF called the Blackwater Boogies. She continued to state that this is also a significant destination throughout the country and the east for their rugged, non-competitive trail rider members who want to recreationally camp, relax, visit with buddies, and meet up with people and ride. Ms. Baldwin stated that she cannot express enough the significance of that because BRSF has a valuable history. She then stated that when she manages her events, she tries to educate her riders about the significance of the longleaf ecosystem.
- Ms. Baldwin then switched over to cell towers and stated that she works with private forest landowners and have found that cell tower leases to be very lucrative. She stated that the companies will pay to have those towers there and that do improve safety for forest workers, riders, hunters, and any forest user and could be an income stream for the forest. She then stated that she also talks about sustainable trails because is a Forester herself and how maintaining forest sustainability can lighten the footprint on environmental impact. She gave a current example of on BRSF, there is a “Sustaining Mud” warning sign and has been a knee-deep, to a tall horse, standing water place on the Red-Yellow Trail which impacts water quality and people’s rides. She then stated that if she had a map then she could show where the area is. Ms. Baldwin continued to state that she knows someone who was thrown off their horse down there and it is issues like that that come up.
- Ms. Baldwin stated that when it comes to trail maintenance, working with volunteer groups, like the Back Country Horsemen, having stakeholders and their input and work is invaluable. She then cautioned that working with one group exclusively can lead to a climate of territoriality and possessiveness. Ms. Baldwin exemplified a state park that has a volunteer squatter who is the head of their Back Country Chapter, and he is very territorial with his trails and not very welcoming and accommodating for other users. Ms. Baldwin concluded by stating thank you.
- Ms. Lawrence stated that they have a new Northwest Back Country Horsemen chapter, and they are very excited to work with FFS. She then stated that FFS has very limited resources and do an amazing job. Ms. Lawrence stated that Coldwater itself is a premier destination in the southeast to trail riders and it is because of FFS’s hard work and efforts. She then thanked FFS. Ms. Lawrence stated that there are a couple of suggestions that they would like to put forth. First, Ms. Lawrence stated that the group has talked to FFS a little bit about dispersed trailer parking areas in some remote areas, but not the Coldwater site. She continued to state that the pull-in truck and trailers, and day ride areas have some trails there to meet with people are the areas of focus. She stated that they do not need much as they probably will not stay overnight and they are not intensive with facilities. Ms. Lawrence then requested a little place to park so that her brakes do not get stuck and have trails marked and they are good to go; easy to please. She reiterated that she would like to see this at other places on the forest. Ms. Lawrence then stated that the forest is so big and so diverse. She stated that the group loves Coldwater but would love to see other areas as well.
- Ms. Lawrence stated that they would love to see great recognition for the stagecoach roads that were utilized in the 19th and 20th centuries. She stated that she did not even know about this until recently, but there is a several hundred year history of horses in this area, and they would like to preserve that and let the public know about that. She concluded by stating that it is a historic thing for them.
- Ms. Lawrence stated that they would like to ask that close roads be used for horseback riding and hiking. She continued to state that the group would like to help maintain some of the areas that are closed (firebreaks) and work with FFS.
- Ms. Lawrence stated that the new Coldwater fencing is amazing and thanked FFS, and then stated that it will be beautiful. She then stated that the only issue they foresee is to preserve how good it looks. She continued to state that when horseback riders tack up their horses, they throw the saddles on the fence and tie their horse to the fence. Ms. Lawrence stated that that fence will not tolerate that. She requested

FFS to install stations that they can tie their horses to lead poles, kind of like what is already out there but more of them. She continued to state that they can maintain the pretty fence and perimeter.

- Ms. Lawrence stated that there have been issues where equestrians cannot go and camp because the sites are taken up by non-equestrians. She stated that there are so many other places for those people to camp and then acknowledged that FFS has to do a balance. She then inquired if FFS can keep the peak riding season, which is from October through April, as horse-related only or pre-dominantly horse-related, or at least the areas next to the stabling facilities to horse owners only. Ms. Lawrence continued to state that kids who are not animal friendly, and not know what they are doing, come into the area. She then stated that one of the kids ended up in her stall with her horse, but her husband saw it. She stated that they had some issues there but not horse people.
- Ms. Lawrence stated that there are three (3) gates on the property that they would like to upgrade to self-closing gates, maybe with a ballast that closes it so that the horse area stays secure. She stressed that it is especially important at night, in case a horse gets loose, that it does not get run off into the wilderness and is in a contained area.
- Ms. Lawrence stated that the area where they load and unload has become a problem. She stated that it is a two-function area for loading, unloading and parking for trailers that people are dropping and not using. She stated that if FFS can separate the unused trailer parking from the loading and unloading, that would really help a lot.
- Ms. Lawrence inquired about doubling of the open pass by cutting the front ones in half to accommodate more turnout areas. She stated that horse people love to turn their horses out and see them buck and play. She stated that she believes they all enjoy that but need to see more paddocks available if that is comfortable for the turnout time, and the space is there, it just needs to be divided. She concluded by stating that equestrians want to help enhance FFS and for FFS staff to let the group know what they can do to help.
- Mr. Holley stated that some of his thoughts are questions, and he is unsure if this was a two-way exchange for the benefit for the MPAG Committee or if this is just comments. He then stated that the nature of his questions are about the progress made over the last ten years. He continued to state that the plan he is looking at is from 10 years ago. Mr. Holley then inquired if he is able to ask some of those questions during this particular time. Mr. Davis explained that the whole purpose of this meeting is public input and that FFS can answer questions, but we will see what the questions are. Mr. Holley stated ok, and that he does not think these questions are too hard and may be helpful to some of the newer MPAG Committee members and would be certainly helpful to himself. He then introduced himself to the entire group and that he works for the County's Grants Department. Mr. Holley then turned to the equestrian group and stated that they are focused on increasing the cell service on the forest and in partnership with the state forest, but that is as far as we can go right now until FFS works on some of its own internal policies. He then stated that he is very aware of the cell signal issue and is very happy to hear the equestrians' need and expressed that he will try to help them with that.
- Mr. Holley stated that he is looking at an area in the old plan that states "Developing Additional Public Access and Recreation Opportunities" and then stated that he has been appointed by the Commission of Tourism Development Council for this county for 12 years. He then stated that he does not currently serve but inquired about recognizing the increased cost for maintenance across the whole forest. He inquired if there is or has there been discussion about encouraging the private market to increase points of access adjacent to the state forest. He then stated that he is also an adjacent landowner and would like to hear more about that, if he could. He reinquired if there is encouragement on that. Mr. Davis stated that there are designated entry points and invited Mr. Camposano to elaborate. Mr. Camposano inquired Mr. Holley if he is inquiring about adding or potentially adding designated points that come off of a private landowner's property on to the forest for personal access. Mr. Holley stated not for personal access but for commercial applications where some adjacent trailheads or development adjacent to the state forest, where people will go in. Mr. Camposano exemplified another state forest in the Chipola district where FFS did exactly what Mr. Holley is referring to. Mr. Camposano stated that a developer was developing on 30A

right up against Point Washington State Forest. The developer stated that they have money and a blank check and inquired if they could create a trailhead. Mr. Camposano explained that the developer paid for the entire trailhead, including materials and FFS built the trailhead. He then stated that because it was a vacation rental community along 30A, each year they buy an annual pass for each room so that guests have access to the state forest without having to pay a Day Use Fee of \$2. Mr. Camposano stated to Mr. Holley that yes, it can be done, but, maybe it is something to think about identifying for BRSF. Mr. Davis stated that the private entity granted the state legal access so the public can legally go through their property to the trailhead. Mr. Holley stated yes and then inquired if the improvements were on the private landowner's property or the state forest. Mr. Camposano stated that it was on the state forest, but access had to be given by the private landowner, and they did pay for all of it. Mr. Holley stated that there is an example of it. Mr. Davis stated that the process is documented, instrumented, and then legal access is granted. Mr. Camposano added that FFS needs to get approval from DEP and they are not going to grant anything unless there is legal access. Mr. Holley agreed. Ms. Baldwin stated that there are a lot of examples of private campgrounds adjoining public lands, that a little bit of research and joint access and easements. She then stated that that might be more research that Mr. Holley wants to do, but there is a lot of examples out there. Mr. Davis stated that something like this is situational so if there is a situation, individually, then FFS will look at it. Mr. Holley agreed and continued to state that someone could have an isolated area that is not necessarily desirable but could have something along the border consistent with reducing fire risk along borders or maintaining it along borders. He then stated that if private industries were to help with that then that would reduce FFS's cost, which could be a benefit. Mr. Camposano added that in his previous example, there was an active trail system that almost abutted that private property. Therefore, the only additional landscape feature that FFS had to create was a small spur trail that connected that trail to the main trailhead. Mr. Camposano explained that especially for a highly densely populated area where you have a lot of tourism, FFS does want people to access the forest the right way and stay on designated trails, which helps. Mr. Holley appreciated Mr. Camposano's comments and stated that the area he is referring to is a small spur connected to the National Florida Scenic Hiking Trail would certainly apply and expressed how happy he is about that.

- Mr. Holley stated that in the plan from 10 years ago, he was excited to hear about OHV park being created and developed, but there were not necessarily any revenue generating numbers. He inquired if the OHV park met or is meeting expectations. Mr. Davis stated that he does not handle the revenue for that. Mr. Camposano inquired Mr. Creamer's thoughts on the matter. Mr. Creamer stated that it is not a huge revenue generator for BRSF. However, it is unique because it is very safe and not a lot of people on the trails. He continued to explain that people who go there really enjoy it. He then stated that it is unusual from some other forests that may have OHV areas. The trail is one directional and very safe; you can go out there and have a great time. Mr. Creamer concluded by stating that the OHV park is not a huge revenue generator for BRSF, but they do generate a decent amount of money and about 450 annual passes BRSF sells a year. He continued to state that a lot of people get day passes, and that there are a lot more day passes than annual passes sold. Mr. Holley stated that that sounds nice and stressed that he does not mean for his question to suggest discontinuing the OHV park. He then stated that promoting it in an isolated area could be helpful, and that they were very engaged 10 years ago and he had not heard of the results, but glad that FFS was able to pull forward with it and sounds like it has been a success. Mr. Creamer agreed that it is a success and added that no one has ever been life flighted out of BRSF. He continued to state that they have had ambulances go in there before, minor accidents, collarbone broken or an arm has happened, but nothing life threatening so far. Mr. Creamer concluded by stating that they are proud of that. Mr. Holley agreed and stated that he will keep moving quickly if he can. He then stated that he noticed that in some of the references to Blackwater River as an Outstanding Florida Waterway, there are a couple of tributaries that do not meet the standard, with Coldwater being one of those. He then inquired if groundwater testing across the state forest is near the gully restoration occurred, if we have seen improvements to water quality yet. Mr. Holley continued to state that that is a little recent and believes the county partner with NRCS did a big gully restoration on there and inquired if water quality testing is

reflecting any improvement. Mr. Holley then inquired who does water quality testing on the state forest as referenced in the plan. Mr. Howell stated that it would be the water management district. Mr. Holley stated that he will direct that question to the water management district. He then stated that it is interesting when you spend millions of dollars on a gully restoration project on these highly erodible soils that FFS identified in these sandhill environments, that it would be nice for people to see that we accomplished something besides spending a lot of money. He then stated that he thinks we should all be very sensitive to the erodible soils all up and down both sides of the rivers because it is an incredible thing. Mr. Holley concluded by thanking everyone for their time.

- Mr. Davis closed the meeting.

Public Meeting End Time: 2:17 P.M.

Management Plan Advisory Group Workshop
Blackwater River State Forest
10-Year Land Management Plan
December 3, 2025
9:00 A.M.
Meeting Minutes

MPAG Members Present:

- | | |
|-------------------------|---|
| • Mike Hudson | Blackwater Forestry Center Manager, Florida Forest Service (FFS) |
| • Daniel Wesley | Regional Lands – West Supervisor, Northwest Florida Water Management |
| • Matt Smith | OPS Biologist Scientist II, Florida Fish and Wildlife Commission |
| • Jason Tritt | Conservation Engineering Technician III, Santa Rosa County Soil and Water |
| • Conservation District | |
| • Vernon Compton | GCPEP Director, The Longleaf Alliance |
| • Steve Shell | Local Property Owner |
| • Rhett Rowell | Santa Rosa County Commissioner |
| • Sherri Cox | Okaloosa County Commissioner |

MPAG Members Not Present:

- | | |
|-------------|----------------------|
| • John King | Local Property Owner |
|-------------|----------------------|

FFS Staff:

- | | |
|-------------------|--|
| • Alan Davis | Land Planning Coordinator |
| • Brian Camposano | Forest Management Assistant Bureau Chief |
| • Eric Howell | Forestry Resource Administrator |
| • Daniel Hayes | Forestry Maintenance Administrator |
| • David Creamer | Recreation Administrator |
| • Emily Marsh | Land Management Planner |

Guests:

- Nathan Bunting
- Medora Mullins
- Erica Husted

Workshop Meeting Start Time: 9:00 A.M.

- Land Planning Coordinator, Alan Davis introduced himself and opened the BRSF MPAG Workshop. He reminded the MPAG members of the Florida Sunshine law and that the purpose of the workshop is to review and discuss the draft and that any edits made to the draft would be presented to the FFS Director for approval. He noted that minutes will be recorded and emailed to the MPAG members and will be approved via negative response review. MPAG member appointment will terminate when the final draft is submitted to the Acquisition Restoration Council. Forestry Resource Administrator Eric Howell was available to make proposed changes to the draft during the page-by-page review.
- Mr. Davis asked the advisory group to elect an MPAG chairperson. Mike Hudson was elected to serve as chairperson.

- Mr. Davis inquired if any of the advisory group members had comments regarding statements made by the public during the public hearing. None followed.
- Mr. Davis stated that they received submitted comments and he will go over just for the members to think about it, to make changes to it, as they go page by page to avoid going back and forth throughout the plan. Mr. Davis read off Carmen Lundy's comment about retaining forest on BRSF and the installation of hiking and horse trails while avoiding the construction of paved or graveled roads.
- Mr. Davis read off Candace Christie's comment regarding the desire for more horse trails, parking and access.
- Mr. Davis read off Elaine Matthew's comment regarding the risk of motorcycles on horse and hiking trails.
- Mr. Davis read off Donna Baringtine's comment regarding the incompatibility of horses and motorcycles sharing trail use and signage directing the different type of roads and locations.
- Mr. Davis read off John Shoemaker's comment regarding his concern about the shared use of trail systems between equestrians and motorized bicycles, inquiring about the separation of the two activities with separate facilities and spaces for both user groups.
- Mr. Davis read off North Florida Back Country Horsemen, and explained that these are their talking points, and although they spoke yesterday, they did submit written comments as well. He then proceeded to read off the notes echoing their sentiments and concerns from the public meeting on the previous day.
- Mr. Davis reiterated to the group to think about those comments as they go page by page, even though a lot of what was addressed pertains to the Recreation Section. Mr. Davis began going through page by page.
- Page 7: Mr. Compton stated that regarding Objective 5, where it reads "Treatments should be geared to both releasing longleaf pine for maximum sunlight and reduction of shade to live, native groundcover," he expressed his appreciation of the connection of the native, natural communities, groundcover and how to best protect that throughout this plan. He then stated that he has a note about establishing best management practices for groundcover protection and sustainability because it is key to other parts of the FFS's mission; particularly regarding prescribed fire. Mr. Compton then stated that fire is the driver of the longleaf ecosystem, and it is the pine needles and overstory pine that is part of that fuel, but the groundcover is a critical part of it. Mr. Compton continued to state that one of the things that he has learned over the decade of working with other partners is the sensitivity of groundcover to any type of soil disturbance and he knows that FFS recognizes that. Mr. Compton then stressed that putting this into the plan would be important. Mr. Davis stated that there is a Best Management Practices (BMPs) portion of the plan, and he does not know if what Mr. Compton is speaking of is already addressed in it and that there is a prescribed fire that goes into detail as well. Mr. Compton stated that he does not know exactly the best place to put it, but has it noted throughout the plan, because some of these things are repetitive. Mr. Compton suggested to place it in a better location but, he knows that FFS gets it and that it is in the plan, but his concern is related to transferring that information to contractors. He then explained that any contracts for work on the forest, the most difficult part for him, is making sure that they are understanding that any user of the forest or contractor has that same understanding of how to best protect and continue groundcover. Mr. Davis inquired Mr. Camposano about language within the timber sale contracts and noted that contractors have to follow silviculture BMPs and such. Mr. Camposano agreed but stated that it does not speak to groundcover so much. He inquired Mr. Compton that the plan speaks for itself regarding groundcover and maintenance being covered in the plan. Mr. Camposano then stated that people can see with their own eyes if you care about the forest but want to ensure that work done by third parties is also protecting the way a logger would have to follow BMPs as they are cutting timber down. Mr. Compton agreed and stated that it is just that it is a matter of developing something that is to provide to contractors as part of the contract, or it is a BMP establishment. Mr. Compton explained that as you get more and more entries into a forest where contractual work, with a lot of the groundcover being sensitive to any type of disturbance; some, like wiregrass, after five (5) passes over the same place, it is not there anymore. He continued to state that it is skid trails and everything. He then stated that no one wants it to go away but more and more entry points, entries over time, you will end up losing components of the groundcover that do not come back quickly. Mr. Compton stated that he believes that in long term plans, it is important to know how to do it and how do it better and acknowledged that FFS knows this. Mr. Camposano stated that when a contractor comes out to BRSF to do work, FFS does not provide a copy of the land management plan, rather there is a contract to follow with any stipulations have

to be in that. He continued to state that when FFS has timber sales there is obviously going to be some degree of impact, but to choosing a location for your logging decks and your skid trails and things like that, we are going to try to focus those toward disturbed areas if possible. He then stated that if BRSF staff were to have a contractor come out to a pristine area, they will need to put a clause into the contract stressing the protection of groundcover from a third party. Mr. Camposano stated that he thinks the plan does, for the most part, cover groundcover protection with what FFS wants to do as an agency pretty well. He then stated that if there was a standardized set of groundcover BMPs developed, then we would put something like that in the exhibits. Mr. Camposano then stated that he believes what Mr. Compton wants to do is best handled through contractual services agreement with the vendor. He continued to state that no matter who it is, there are consequences for damaging groundcover beyond a certain degree. Mr. Compton agreed. Mr. Howell added that on their timber sale contracts, they do require them to have their equipment washed and cleaned before they arrive; that way they are not spreading cogongrass, climbing fern, or any of the bad invasive. He then stated that if the contractors rut in some areas that are starting to rut, FFS will stop them immediately and have them fill in the ruts or if any damage is discovered. Mr. Compton agreed and stated that those are all very valid points. He then turned to Mr. Camposano and stated that, to his point about the contractual part of it, it is mentioned in the plan about the sensitivity of seepage slopes and pitcher plant bogs, which BRSF has some of the best in the world. He then stated that to Eric's point about contractors, and FFS has a great section on hydrological restoration, but all of those things, if contractors do that, it is not so easy to fix it. Mr. Camposano agreed. Mr. Compton continued to state that they change the hydrology, and if they are trying to fix something, they remove even more groundcover and that they do not understand the importance of groundcover. He then acknowledged that he is getting deep into the weeds but those are the points that he is trying to make: more and more entries into the state forest is like a death by a thousand cuts. Mr. Camposano stated that he understands completely. Mr. Hudson added that with the Sustainable Forestry Initiative (SFI) program, FFS is evaluated by an independent evaluation system on a two-year basis and they can randomly pick whatever timber cut they want to see, recreation, and fire side of things and BRSF is evaluated on that. He then stated that his people have to go through BMP training and know what to look for on a regular basis. Mr. Hudson stated that he and his staff are out there monitoring, and if they see that they are not doing it, it is put to a stop immediately. Mr. Compton stated yes and that he gets that. He then stated that he is not trying to come down on FFS, but looking at how to do better with contractors. Mr. Davis inquired Mr. Compton if what Mr. Camposano, Mr. Hudson and Mr. Howell stated previously is sufficient or if there is a proposed change. He then stated that with all of these things said, everyone knows what FFS does and looks for and inquired if there needs to be a change to something within the plan. Mr. Compton stated that to Mr. Camposano's point that if there is a BMP that ultimately is developed for groundcover, that maybe that could be added. Mr. Camposano stated that that would be adopted for sure. He then stated that if Mr. Compton want to add a sentence to reinforce this concept, there is a place in the plan right before the Natural Communities section that talks about contractors and how we use contractors. He continued to state that adding a sentence there saying "Extra caution must be used by contractors" or something like that. He then noted that he knows he is jumping forward and suggested to remember when we get to page 68 to add something in there about contractors using caution while moving equipment and avoid as much groundcover disturbance as possible.

- Mr. Camposano then stated to Mr. Hudson's point about SFI that the biggest thing SFI is looking at is if BRSF is sustainable and ecological and biological diversity, and what FFS does with it is a huge part of SFI and BRSF blows that out of the water. Mr. Compton agreed. Mr. Davis inquired Mr. Compton if he wants to reassess when the group reached page 67 or page 68. Mr. Compton stated that it is in there in multiple place, so he is good. Mr. Davis inquired of anything else on page 7.
- Mr. Compton stated that objective 2 on goal 2 really hits on the point of a lot of public comments related to this and he also received some comments from people who could not attend due to work. He stated that their comments have to do with evaluating the potential for additional public access and recreation areas, more trail development. Mr. Compton stated that BRSF has done a great job with all different types of trails, but particularly when new lands are bought such as the Yellow Ravines and the Juniper Creek being protected, meeting the multiple-use requirement was a part of the management of these acquisitions. He stated that he

wanted to use this opportunity with the public comment and some other requests related to it, to look at this for Wolfe Creek Forest: how can those needs for additional trails be incorporated to Wolfe Creek Forest. Mr. Davis stated that there is a section in the plan, Proposed Recreation, and it will also be looked at there because that is where the change will occur. Mr. Camposano stated that that objective exist, and the group could put something into the Recreation if desired. Mr. Davis agreed.

- Mr. Tritt stated that he has a change for Public Access and Recreational Opportunities as well. He then stated that he gets a lot of questions regarding deficient piers. Mr. Hudson stated that they are managed by FWC, not FFS. Mr. Tritt stated that was what he thought. Mr. Hudson continued to state that the lakes are actually FWC's and FWC has not had funding to address the piers. He then stated that because it was in such a state of disrepair, they took it down because it was not safe. Mr. Tritt stated ok. Mr. Hudson stated that they did build a great one over at North Karick and FWC did a beautiful job about 5 years ago. He then stated that he hopes that FWC will be able to do more of that in the future. Mr. Smith stated that he could look into that but did unfortunately acknowledge the lack of funding. He then stated that there needs to be the right amount of pressure in the right place, but it is still something that FWC can look into. Mr. Hudson stated that that is something that they get dinged on the recreation evaluations by the public. Mr. Smith agreed. Mr. Hudson explained that it is because the public thinks BRSF staff manages the lakes and they do not. He stated that there is a lot of grass coming into Bear Lake which upsets a lot of people, and it is upsetting for BRSF too. Commissioner Cox inquired if it would be helpful if she reached out to Representative Boyles to have him visit. She then stated that she grew up by Yellow River, but not by choice. She continued to state that she loves the nature out there and Mr. Boyles and her have a pretty good camaraderie walking into his seat as County Commissioner. She stated that he loves the nature and trails and suggested that with Representative Boyles sponsorship, progress could be made. She then inquired if that would be a benefit to BRSF. Mr. Hudson stated that if they want to talk to FWC, they can, but it is not FFS's responsibility to pursue. Commissioner Cox then inquired if there is something they could point out that FWC is not necessarily fighting for that could make a difference. Mr. Hudson stated that it would be great for BRSF if they were maintained to a higher degree and had efficient piers. He then acknowledged that BRSF gets a lot of comments on it quite often. Commissioner Cox stated ok. Mr. Davis inquired of any changes on the page.
- Page 11: Mr. Compton stated that on objective 2, which may be covered later in the plan, but he wanted to bring this up quickly because they received public comment on it too. Mr. Davis inquired if he is referring to Goal 7, objective 2. Mr. Compton confirmed that is what he is referring to and stated that BRSF has done a great job with road management overall and also identification of what is legal and what is not. He then stated that what he found was to be most helpful, along with the marking system was the map created years and years ago. He then inquired if FFS can update the map to include the new properties and get a new addition of it. Mr. Hudson agreed and stated that that has been discussed and to be worked on because there have been a lot of acquisitions. Mr. Compton added that it goes back to the comment of helping people understand what is legal and what is not, and the map does the best job in showcasing that. He continued to state that it shows what roads people can be on and anything else you are not supposed to be on. Mr. Creamer stated that Mr. Compton made a good point and that in the new map BRSF has for the public, Wolfe Creek is in there but not updated with the new roads that are open; it just has that block of new land in there with very little restricted stuff on Wolfe Creek. He concluded by stating that while the map needs updating to does reflect the new lands purchased. Mr. Compton stated ok. Mr. Davis confirmed with Mr. Compton that no change was needed.
- Page 17: Commissioner Rowell stated he had a change to make then inquired how often the timber harvests occur. Mr. Hudson explained that BRSF has ongoing harvests most of the time. Mr. Howell stated that the forest sells about 4 to 5 timber harvests a year with an average of about 2,000 acres harvested. He then stated that they try to do accommodations. He then stated that some of BRSF's offsite pines are sand pines and the intent is to clearcut some of that every year, clearcut some of the loblolly pine plantations every year, and generally do a couple of sales in longleaf pine thinning. He continued to state that BRSF does a lot of regeneration thinning and natural regeneration and will also have a sale or two to cut some of the bigger timber. Mr. Howell concluded by stating that BRSF tries to have 4 or 5 sales a year across diverse and different types of cuts. Commissioner Rowell inquired if they harvest about 2,000 acres a year. Mr. Howell stated yes and is

about around 45,000 to 50,000 tons harvested a year reaching about 1 million dollars in revenue. Mr. Hudson stated that it depends on what the market is doing. He exemplified that if it was a bad hurricane season and they needed poles, then BRSF will do a pole sale. He added that if the market is up then BRSF wants to take advantage of that and make the most revenue they can for the state. Mr. Davis stated that he wanted to add one thing under Revenue Producing Activities. He then stated that there was a lot of mention from multiple public members about the carrier revenue and cell towers (i.e. Verizon, AT&T, etc.). He suggested that that might be something the group could do and insert language within that current section as a potential revenue source so that FFS can look further into it. He then stated that this is something that FFS is trying to look more into and gauge throughout the state; so, putting that in here, especially with the safety factor, and the public did want to see something said about it. Mr. Davis inquired the group if they wanted to add a comment regarding language or another bullet regarding tower revenue. Mr. Shell suggested that language should be tailored to investigate the possibility of that revenue source, and obviously BRSF does not want to commit to it because there are a lot of factors that go into that. He then stated that if the language alludes to investigating the revenue source, then it would protect FFS's ability for moving forward with investigations. Commissioner Cox corrected and stated feasibility. Mr. Shell stated yes. Mr. Davis stated that there is a Statute that gives FFS the authority to put towers for revenue on state lands. The authority is there, it is just the idea and engagement of that, and it starts with the land management plan. Mr. Shell stated that that makes good sense. Mr. Davis requested Mr. Howell to add a bullet about the revenue sharing with cell carriers. Mr. Howell inquired where that would go. Mr. Davis stated as a bullet point under section four to look further into as a recreation source for the state forest. Mr. Shell inquired about asking a follow up question regarding the timber sales. He continued to inquire if anything we do within the forest, does that revenue come back to BRSF. Mr. Davis stated goes into the Incidental Trust and explained that it is a slush fund so FFS can request for spending authority Legislative Budget Request (LBR) for BRSF and for improvements of things, but it is not tied to a specific state forest. He continued to state that it is money we can use for BRSF if we request it that way. Mr. Shell stated that there is a connection FFS can make with the request. Mr. Davis agreed and reiterated that it is money for FFS and the Incidental Trust, so it is money for the Forest Service. Mr. Hudson joked that people can always donate to The Friends of Florida Blackwater River State Forest. Mr. Davis agreed and stated that that revenue with go directly back to BRSF. Mr. Hudson echoed Mr. Davis's sentiments. Mr. Davis inquired Mr. Howell to add in a comment about adding in a sentence regarding cell towers as a possible revenue source. He then inquired of the group if they agree to those changes.

- Page 20: Mr. Shell requested to go back to the page with the list of buildings. Mr. Davis stated yes. Mr. Shell turned to Mr. Howell and inquired if he remembered their previous conversation regarding the church on Krul Lake Road and 4th. He then inquired if the church belongs to BRSF or FFS. Mr. Hudson stated that it would not be listed as one of their buildings, even though it sits on BRSF property. He then explained that, years ago the forest agreed to allow the church to be placed there and that the stipulation was that if they were to leave, it would be removed. Mr. Hudson concluded that they did not. He then stated that a pastor contacted him last week with interest in opening the church with a congregation. Mr. Hudson inquired Mr. Davis if the pastor has contacted him yet. Mr. Davis stated not yet. Mr. Hudson continued to explain that kind of request would be handled through Mr. Davis's section to determine if they are legitimate and viable, then it would work. He then stated that technically the building is Blackwater's but has not been listed as one of their own buildings because the title is still under previous owner's name. Mr. Shell inquired if there were other buildings on BRSF that are not within the current list. Mr. Hudson stated that the Baptist Church was but has since been corrected. He explained that they did a 2:1 land swap where BRSF received 10 acres. Mr. Davis agreed and added that they gave BRSF 10 acres and FFS gave them two (2) acres and it was there for decades, and it was not a structure that FFS could just take off. Rather it would have to be demolished and hauled away. He then explained that the land was related to the Bankhead Jones Farm Tenant Act. It was a federal reversion and deed, so it has to be used for public purposes, so they had to sign off on it too. He then stated that once approved, FFS took the two (2) acres and conveyed it to a private individual of the church and then they gave FFS 10 of their private acres. Mr. Davis concluded by stating that there was a net conservation benefit of eight (8) acres. Mr. Shell stated that that is not a major situation. Mr. Davis stated no that it is rarely done, but to clear it up, that is the

cleanest way to do it. Mr. Hudson stated that at one point, the old volunteer fire department building, which is actually the old post office, and it is the red building that looks rough out front. He continued to state that he spoke with his maintenance guy, Mr. Hayes, and they are going to do some repairs to it to make it look better and more serviceable, but he is not aware of any others. Mr. Shell stated that is ok and he was just wanting to make sure that FFS was not missing any major components of their homes. Mr. Davis inquired if there was anything else on page 20.

- Page 23: Mr. Compton stated that under the Alternate Uses Considered section, there is a list of uses determined as incompatible. He then stated that another use that may be considered incompatible on the north side of BRSF is inground carbon storage; so, there is a lot of discussion occurring about that. He then suggested adding a comment about that, not knowing whether that is positive or negative about it, but to investigate if there is potential negative impact on the state forest because of it. Mr. Davis asked the group if they should add language in there or to just note it. Mr. Compton stated that noting it will be fine.
- Mr. Compton then stated that under Additional Lands Needs, he understands that FFS already prioritizes inholdings and has done a great job of picking up those pieces when they can. He then stated that the other comment though, and he would like to see this added, is that there has been strong support for the Florida Wildlife Corridor in the State of Florida about funding, leadership by the FFS and FDACS toward closing those gaps. He continued to state that he would like that to be a part of the additional land needs, because there are some rather large gaps in the Florida Wildlife Corridor; some adjacent to BRSF and some just outside that are just outside of BRSF's acquisition map. He then stated that he does not know who would take the lead role but would love to see that corridor completed in this area surrounding BRSF. Mr. Davis stated that his section handles all acquisitions, and they do prioritize inholdings and filling in gaps, and anything that eliminates management boundary. He continued to state that anything that makes management more efficient is a priority, and corridors are as well. Mr. Davis concluded by stating that they are always actively pursuing acquisitions that help them manage their boundary more effectively, or to create those corridors and connections. He further stated that that is something FFS is already doing and pursuing every day, and that because not all parcels make sense to manage, so it is mainly situational. Commissioner Rowell stated that, on the farm side of things, he expressed that he is a big proponent of conservation easements on the farm side, and Commissioner Simpson's and Trust for Public Land's goals. He continued to state that FFS is essentially selling their development rights as an individual, but not obviously on the forest side of things. He then stated that he met with Commissioner a few months ago and thought it was very interesting that they stack the benefits for a farmer over someone who rents land for a farmer, that if it is a wildlife corridor next to a state park or military base, they get extra points. He also shared this new information with Mr. Compton. Commissioner Rowell continued to state that part of it is to educate the public on that side. He then stated that anything that Santa Rosa County can do to in terms to helping to border and opportunities for adjacent landowners to help stack points and then referenced back to Mr. Compton's point about wildlife corridors, trails and if counties are involved. Commissioner Rowell then stated that there is no change needed and acknowledged that he is talking about individual transfer development rights, which is something FFS does not do, but is interesting how it all interlocks with how people are able to stack the different benefits. He then stressed again that there is no change and continued to state that the similarities are unique regarding the 109,000 acres of adjacent land to BRSF. Commissioner Cox added that this may be something that they can help champion at the county level. Mr. Davis stated yes and then stated that the Rural and Family Lands Program is getting a lot of money for conservation. Commissioner Rowell stated that none of that comes into his area. Mr. Davis explained that landowners also have to educate themselves and apply for the funding. Commissioner Rowell stated he finally has three (3) or four (4) landowners that have a really good chance and that the row crop is going mostly toward citrus and cattle, because that is where there the strongest lobby groups are and what is being lobbied in the panhandle with row crop as Class I soil. He then stated that he was going down a rabbit hole, apologized and reiterated his point about the similarities and stacking of points. Mr. Davis said that it plays an important role. Commissioner Cox stated that FPL is helping to educate farmers right now and then stated who would have thought that FPL would become an asset to FFS, but it looks like, eventually, it will be that way. She further stated that FPL is pushing to educate the landowner... Mr. Davis

interjected and explained that this is a sidebar conversation and if they would like to contact him, they are free to do so. He then explained that the Forest Legacy Program (FLP) is timber oriented but is also fee and less-than-fee so it can be a conservation easement as well. Mr. Davis continued to state that there are options there and for the group to not hesitate to reach out to him. Mr. Rowell inquired about the name of the program. Mr. Davis answered Forest Legacy Program (FLP). He then stated that there are tons of options to be used to help educate the landowners on the topic (i.e. NRCS, IPP, etc.). Mr. Compton stated that the reason he put this in here was because it is a long term plan and we are not all in that place permanently. Mr. Camposano inquired Mr. Compton if he has a proposed change. Mr. Compton stated yes and that it is just adding a sentence in regarding the wildlife corridor. Mr. Davis clarified if he meant acquisitions within the wildlife corridor. Mr. Compton stated yes. Mr. Camposano directed Mr. Howell to add something directly into the plan alluding to such.

- Page 25: Mr. Smith inquired if the comments that Ms. Almario sent are already on there or if he should bring those to the front, because she had a comment on top of page 25 where it talks about FWC. Mr. Howell stated that he turned the comments in to Ms. Marsh but that the group will go over them. Mr. Howell then inquired Ms. Marsh if she made the changes the previous night. Ms. Marsh explained that the current track changes reflected to the group is updated stock language regarding new law enforcement policies on our state forests, and such stock language is to be carried over into all open and active draft plans. She then stated that there will be a couple of other places in the plan that have additional stock language updates. Mr. Davis stated that Mr. Smith has the hardcopy now so we can make the changes needed. Mr. Smith agreed and stated that Ms. Almario wanted to change the wording in that section where FWC assumes law enforcement authority. Mr. Camposano reiterated that FFS has previously made changes to what she has probably commented on. He continued to explain that, because FFS had to make a change, because FFS now has all of their AGLAW officers out there, and they are now our primary source of law enforcement. However, this does not eliminate FWC's law enforcement since they do all of the wildlife laws and cooperative BPLs with hunting and such. He then stated that this is brand new stock language and if there is anything we need to change on that, we can, depending on what the comment is. Mr. Smith stated no, it was not that. He directed the group to the section that he was referring to. Ms. Marsh inquired if they were at the right section. Mr. Smith stated no and redirected to the section in reference and requested to add to the sentence by stating "...employs a small staff of biologists and technicians other wildlife management activities. An FWC member inquired who is employing them. Mr. Smith answered that it is FWC. Commissioner Cox inquired that it does not say FWC. Mr. Camposano explained how it used to say that FWC assumes law enforcement responsibilities, but they now only enforce hunting and regulations on the state forest. He then stated that they will fix the first sentence later since it reads funny since this section is about all of the things they do cooperatively. He then suggested to cut out the rest of that sentence except for where it reads "...with input from FFS...". Group agreed and then directed Mr. Howell where to make the change.
- Page 26: Mr. Hudson stated to remember that direct support organizations for the Friends of Florida State Forests if they would like to donate to BRSF, specifically the Friends of Florida State Forests, Blackwater. Mr. Camposano stated that it is a nice pitch. Commissioner Cox joked about adding in an item regarding a broad PIO statement. Mr. Hudson joked back that the language can be changed to reflect donating to all Florida State Forests.
- Mr. Smith stated that he has one more change at the top of page 26. He then apologized and corrected himself because he meant page 36.
- Page 34: Mr. Compton stated that maybe this is the best place to add the groundcover item that he previously brought up and proceeded to read off his comment. He acknowledged that FFS is already doing this but since this is a plan, and does not know where to best put it, but he had groundcover protection sustainment as the main priority; because it is a part of most of these natural communities. Mr. Camposano stated that we are into the Natural Resources section at this point. Mr. Davis and Mr. Howell agreed. Mr. Davis read off the section that he feels it would be appropriate to make a groundcover statement. He then inquired if that is the area where Mr. Compton's suggestion should go. Mr. Compton stated yes and that it could just read as "Management activities will be executed in a manner to minimize soil erosion; maintain, protect and enhance

hydrological resources and protect and sustain groundcover. Mr. Davis inquired of Mr. Camposano if he is ok with that. Mr. Camposano stated that he is not part of the MPAG Committee and directed the question to the MPAG group. The MPAG Committee agreed. Mr. Compton stated that the plan highlights how special BRSF is with the biodiversity that you find and most of that is within the groundcover.

- Commissioner Cox stated that she appreciates the acknowledgement of impacts by the group. She then stated that she would be completely remiss if...paused and then stated that she loves the woods, but as governing authorities and FFS's wisdom and input, if they were to say that the idea is crazy and FFS will prescribe burn all the groundcover and protect certain species, and then stated that she had zero (0) concessions. Commissioner Cox proceeded to state that she read the plan over twice because she represented Senator Evers, and so as a timber farmer and for Commissioner Cox, this was something that was really meaningful to spend her time on. She then stated that as a farmer they have to be leaning heavily on FFS's wisdom. Mr. Camposano clarified that if there was something that he knew would be absolutely of 0% chance of putting something crazy then we would have that conversation. Mr. Davis and Commissioner Cox agreed. Mr. Camposano stated that, statutorily, the group has to agree on any changes made, whether you are an expert or not because we need the outside perspectives too. Commissioner Cox agreed. Mr. Compton stated that, just for education, prescribed fire helps the ground cover; it really does. Mr. Davis inquired if everyone was good with the changes. The group agreed. Mr. Camposano stated that if there is a comma or an "and" that needs to come out, that they will take care of it.
- Page 35: Mr. Compton stated that, regarding unauthorized OHV use, which came up during public comment, to incorporate in that statement to say, "unauthorized OHV and vehicle use". He then stated that FFS has done a great job with delineating legal roads and blocking off places that are sensitive where vehicles should not be. He continued to state that BRSF is a big forest, and staff cannot be everywhere all at once and people will still end up in unauthorized areas. Mr. Howell inquired to confirm Mr. Compton wanted to include "unauthorized OHV and vehicles". Mr. Compton stated yes, and Mr. Howell incorporated the change.
- Mr. Compton then stated that on the resource section and the paragraph that talks about Blackwater, this was the only place throughout the entire document that he had a question regarding a statement in it. Mr. Compton proceeded to read off the section he is referring to. He then stated that it is correct that most of Blackwater River is truly protected by BRSF. However, to the point the Commissioner Rowell made, there are definitely some ag areas, which are highlighted here too, that could be protected through conservation easements to keep them as farms and to keep them from being developed into subdivisions, which will help the Blackwater River. Mr. Compton then stated that there are some areas just outside of the acquisition map area that are definitely not protected, which he believes could be modified a little bit. Mr. Hudson inquired if there was a statement to be added. Mr. Camposano inquired that that is just a statement of fact regarding that there are inholdings that are in private ownership. Mr. Compton stated that if you go up the Blackwater River and into Okaloosa County, there are quite a few. Mr. Camposano stated that it is not a true statement then. Mr. Compton stated that to him it is not, and anyone can correct him, but it is not a few small ones. He then stated that there are more and some of them a large ag pieces. He continued to state that if the section is centered on a statement about the Blackwater River and that is according to the forest...he then suggested for the language to read "presently..." and trailed off. Mr. Hudson suggested "Presently there are some private holdings..." and Mr. Compton agreed. Mr. Hudson inquired instead of only a few inholdings. Mr. Compton stated yes. Mr. Camposano inquired that Mr. Compton does not want to say "small", just "some inholdings..." and continued to state, "and a number of tributaries under private ownership that require protection." He then inquired Mr. Compton if that is what he is trying to say. Mr. Compton stated that it's going back to the point that Commissioner Rowell previously brought up. He continued to explain that the protection can be the conservation easement because a lot of these properties are ag lands, so to best protect the Blackwater River, is to make sure through fee simple or conservation easement those lands are protected in perpetuity. Mr. Camposano stated that this is the plan, and if they were part of the Rural and Family Lands, which was within FFS at one time...he then stated that unless the group wants to add a statement that would support your landowner's applications, and referencing the management plan, he does not know if this would directly tie to BRSF. Mr. Camposano explained that it is not BRSF buying the land to add in. Mr. Davis agreed and added that

the group has to look at this as BRSF. All of the adjacency and private landowners really has to do with their willingness to sell; whether that is simple fee or less-than fee. Mr. Compton stated that he understood. Commissioner Cox inquired Mr. Compton's name. Mr. Compton answered. Commissioner continued to state that she is very closely related to a landowner on the Blackwater River who is in declining health and would love to sit down with Mr. Compton and Commissioner Rowell to present this idea to him. She continued to state that she knows this was important to his father, who was superintendent for schools in Okaloosa County for 20 years and his brother was a senator, and very good friends with the Evers family. Commissioner Cox then stated that the landowner could be persuaded to go this way and to discuss outside of this room. Mr. Compton agreed and suggested a small change that Mr. Hudson noted earlier. Mr. Camposano stated that he does not disagree with Mr. Compton, but it is just that the meeting is regarding the purpose of this plan and what it's power is in protection of these other parcels. He continued to state that if FFS can pick them up and continue to add them to the forest or if the landowner wants to sell FFS a conservation easement then we can do that. Mr. Compton agreed and stated that is great.

- Page 36: Mr. Smith requested, under other managed areas section, to omit the word "River" from the Blackwater WMA title. Mr. Howell incorporated the change.
- Mr. Compton stated that within the Water Protection section, he would like a statement about water quality; tracing back, understanding the current condition. He continued to state that parts of the river are impaired under Section 303(D) of the Clean Water Act. Mr. Compton then stated that it is not FFS's responsibility but it's FDEP's. He concluded by suggesting to change language to reflect that FFS will continue to work with FDEP, because if it is impaired under Section 303(D), then there is a problem in the watershed, and we need to be able to trace it back and find out what is causing that. He stated that we cannot fix the problem if we do not know what it is. Mr. Howell suggested for the language to read "...has and will continue to work with FDEP." Mr. Compton stated that would be perfect. Mr. Davis stated that currently there is not an active BMAP so maybe that will change in the future. Mr. Compton stated that it would be great to have one. Mr. Davis stated yes but that is something that FDEP handles so it would be engaged by them.
- Page 37: Mr. Smith stated that there were some changes to wetland restoration and handed them to Mr. Howell for him to add into the plan. Mr. Camposano stated that the group will let Mr. Howell type it in and then the group can decide whether or not to keep it. Mr. Compton inquired what some of the comments were. Mr. Smith stated that they are in regards to wetland restoration habitat for the tiger salamanders and Florida bog frogs. Mr. Compton stated that he is glad that Mr. Smith brought those up. Mr. Howell stated that what Ms. Almario probably meant by nuisance vegetation is like on Garner Creek, where BRSF is doing the bog frog restoration, all of the natural regeneration of Atlantic white cedar as a nuisance. Mr. Smith stated that they are in the process of looking more into it. Mr. Camposano stated that he saw this when it was first taken out and was a focal point for the plan. Mr. Howell stated that it is now a mat of cedar regeneration instead of dense vegetation. Mr. Camposano then stated that no one said that restoration was easy. He then stated that he concurs with that statement and was thinking about just adding a comma towards the end as long as everyone else is good with it. Mr. Smith stated that the pond stuff that FWC is doing (i.e. black titi and myrtle leaf holly) is native but can become an issue when it is high tide.
- Mr. Compton stated that FFS already has it in here, but under Invasive Species Control, but for wetlands, and what is becoming more problematic across the state is the damage done by wild hogs in isolated wetlands, but in wetlands in general. He continued to state that hogs are already mentioned in the plan, and this is just another point on how to best or highlight because FFS did a great job mentioning all invasive issues, but hogs are doing more and more damage to the systems that FFS is investing money and on people to restore. Mr. Smith stated yes and that at the flatwoods salamander pond they were restoring, they installed an exclusion fence. He then stated that hog management is a tough issue in FWC with a lot of butting heads. However, Mr. Smith believes that it would be good to have wording there and that it is an issue to be looked at when it arises. Mr. Camposano inquired if it is mentioned under the Invasive Species section closer to the Natural Resource section of the plan. He then stated that he does not mind mentioning it here if the committee agrees but wanted to throw a bone and began to describe the different struggles agency-wide. He mentioned that it is not specific to BRSF, but right now they do not have a policy in place for FFS staff to trap and dispatch hogs

themselves. He then stated that he asked the Parks Service for their policy because the Florida Parks Service does have a policy on this since 2014. Mr. Camposano continued to state that he has pitched this to FFS leadership and while it is not a final no, leadership has to wrap their heads around the idea and even with our Second Amendment-friendly Commissioner Simpson. Our leadership would have to get their heads wrapped around taking a .22 and go shoot the trapped hogs and make sure we are checking all the boxes and not trying to push that route. Mr. Camposano stated that simultaneously, he contacted USDA for contracts for this, like at Joe Budd WMA. He continued to state that he is getting pushed by the Tallahassee Unit because if they are able to do that there then why can't they do it more broadly at Lake Talquin State Forest (LTSF). He then stated that the problem with those contracts can become very expensive. He alluded back to what he mentioned the previous day and stated that their contract is down to a very reasonable price but when discussing the price for Lake Wales Ridge State Forest (LWRSF), they were quoting him around \$100,000 a year and with limited tax-payers dollars we have to be careful with what we are doing. Mr. Camposano acknowledged that hunting and trapping have not helped. He concluded by stating that this is something that FFS is very much something they have to work through some issues and figure out how to best get there. He added that he will try to run this rabbit with Joe Budd when he gets back from his leave that starts tomorrow. Mr. Camposano continued to state that FFS has to do something about it and that there is a lot of public pressure coming from various corners. He then stated that people have eyes and understand what hog damage looks like and if they are not seeing any true efforts put into place, that is a hard pill to swallow for the agency. He continued to state that it is a harder pill to swallow when you have limited options and expenses or involve something that the agency has not done before. Mr. Compton agreed and stated that it is not easy and no easy way around it, but does think in the forest or other places, and foreign crops are being damaged by the hogs. He concluded that between the forest and ag areas, it has been an increasing problem. He stated that he understood what Mr. Camposano stated and suggested highlighting the area in the plan that Mr. Camposano was referring to. Mr. Camposano stated that he hopes it is already in there, but the group can check that, because it talks about invasive plants and should mention hog control. Mr. Compton stated that it does, and it even mentions the other control measures. Mr. Davis stated that the group will cross that bridge when they get there. Mr. Camposano stated that he just wanted to let Mr. Compton know that because... Mr. Howell interjected and inquired if an update is needed. Mr. Davis stated no and that they will add to the statement that is addressed later on in the plan.

- Page 40: Mr. Camposano inquired Mr. Smith of the comments that were addressed earlier. Mr. Smith stated that there are some changes to general text in a couple of spots. Mr. Camposano stated that he will keep a look out.
- Page 45: Mr. Camposano stated that there is a change to be made under Other Game and Wildlife section, specifically where it talks about other notable wildlife and noted grammatical and Florida bog frog scientific name changes. Mr. Howell inquired if they wanted to say "Reticulated" in the heading for the Salamander. Mr. Compton stated yes. Mr. Howell made change and subsection now reads as, "Reticulated Flatwoods Salamander". Mr. Davis inquired the group if they agreed to the changes. The MPAG Committee agreed. Mr. Davis inquired of anything else on page 45.
- Mr. Compton stated that regarding the flatwoods salamander, it is a good review that they just had because it is a restoration area, especially when it comes to hog management. He continued to state how much the hogs have torn up a lot of the wiregrass and wetland and is the only place he knows of that had hogs on BRSF. Mr. Compton then stated that growing season fire will also be very important to restoration of that wetland and will help with recovery the fastest. Mr. Howell joked and stated that they learned that Garner Landing Road does not have the "I", but Garnier Creek does have the "I". Mr. Camposano stated that that sounds right. Mr. Davis agreed. Mr. Camposano then inquired if there were any changes. Mr. Compton stated that because that area has extensive hog damage and is the only known location on the state forest, to especially use growing season prescribed fire in that wetland area, since FFS will be conducting seasonal burns anyway. He continued to explain that this would help recover what was severely damaged by the hogs. He then inquired if the group would like to add that statement and then said to that the FFS are probably already looking at that anyway. Mr. Camposano stated that that is the general idea as FFS moves through burns. He continued to state that even if

that means they get some things during the summer or through lightning season versus the dormant season, FFS wants to do that one as soon as possible. He then stated that, as an agency, they cannot just burn through ephemeral wetlands; rather, FFS has to time it correctly and take water levels into consideration. Mr. Camposano explained that if there is a field unit that is capable of doing this, then it would be the BRSF staff. He stressed that BRSF burns more than anyone you have per year. Mr. Camposano stated that the group has put into more places of the plan enough language to talk about growing versus dormant season burning and added that he does not want to get cornered into having to do something during a particular time because the plan says so. He concluded by stating that it is something that FFS is always looking at and push forward with it if possible. Mr. Compton stated that he gets it, but that BRSF was specifically calling out very rare species, and it is only listed in one place and that is the only reason he is suggesting a change. Mr. Smith acknowledged to Mr. Compton to continued, positive working relationship between FWC and FFS. He then stated that the last burn was in March, which was not ideal, but the pines were dry anyway and burned through well. He continued to state that they are trying to keep that focus in mind that what they can get burned during growing season, whether it is dry, and keep promoting that really good vegetation that is in there that the hogs have been destroying, but they have been excluded now. Mr. Camposano added that because FWC has skin in the game, they are going to help keep that reminder to do that during the right time of the year; be it April or May, whatever is most ideal for when fuels are low and there is just enough water.

- Mr. Smith stated that he does not know if there is a place for this in the plan but suggested doing basin burns at certain times. He then stated that FWC has been able to pull that off before. Mr. Hudson stated that that is what BRSF is planning to do anyways.
- Mr. Shell inquired if they needed to add "Reticulated" into the subheading title. Mr. Howell incorporated addition.
- Mr. Camposano instructed Mr. Howell where to go next on the page as he had another change. He requested the scientific name of the Florida bog frog to reflect *Lithobates*. Additionally, he stated that a section of language needs to be typed in under the Gopher Tortoise section. Mr. Camposano continued to state that he likes what is added there because it is specific to BRSF and gopher tortoises. Mr. Davis inquired the group if they want to keep moving through the plan and come back to this section or wait for Mr. Howell to type it out. Mr. Camposano suggested that he will read the comment to the group and ensure that the comment gets added to the draft later after the meeting concludes. Mr. Camposano proceeded to read off FWC's comment. He then requested Mr. Howell to type in a comment on the draft for the FWC comment to be added in later.
- Page 48: Mr. Smith inquired if, under the Mineral Resources where it reads "protective wells", should actually be "productive wells" or if there is such a thing as protective wells. Mr. Compton stated that it should be "productive". Mr. Camposano stated that if the group was to pick up the current version of the plan, he believes the same language will be in there because that has been carried forward since it is a historic type of thing.
- Page 54: Mr. Creamer stated that under the first paragraph under Hurricane Lake Recreation Area, a change needs to be made. Mr. Howell and Mr. Camposano both agreed that the numbers were off. Mr. Creamer redirected Mr. Howell to the paragraph in question and stated that there should be five (5) restrooms and showers. Mr. Howell inquired if they were electric or non-electric. Mr. Creamer stated that they are non-electric, however, there are four (4) restrooms with showers and one (1) restroom without showers in the last sentence of the second paragraph. Mr. Howell updated the draft.
- Page 55: Mr. Compton read off a portion of text on page 55 under the Canoe Launch Sites subsection and underscored the importance of that statement as BRSF is very much loved for its canoe routes and working with liveries, and the people that get on the river and manage the large, wooded material. Mr. Compton expressed his gratitude for BRSF having those natural areas at the very northern part of those systems. He said that this is just a note but that these systems normally have up to 45% large woody material that is a part of understory habitat health of the systems and is a scientific fact about how important those are. He continued to state that FFS would be impacted is when they have big rain events and they have all of this stuff backed up to a bridge and they are wondering what to do with it. He continued to state whether or not it is taken out or left to contractors for extraction of all woody material because it is easier for people to float down the river if there is nothing in it. He then stated that those practices kill the aquatic and estuarine habitat. He concluded by stating

that BRSF is either going to have a healthy watershed with all the woody material retained or they will not. Mr. Compton then stated that FFS is doing the right thing, but it is a contractor issue, mostly, and maybe when they experience a big disturbance like a big rain event. He then inquired BRSF staff what happens when they are asked repeatedly to take all of this this out. Mr. Hudson stated that if some debris drifted or something that applied to the bridge, BRSF staff will remove portions of it themselves and use it to block roads that are illegal roads, and so kinds of things, and leave it on the forest. He then stressed that it is not destroyed or burned. Mr. Hudson proceeded to state that he does not know if they ever hired a contractor to remove any debris. He stated that there have been times when there was debris blocking a vendor's launch site, they might cut it into smaller pieces to let it move down stream but does not have anyone come out to remove that. Mr. Compton stated that he was talking about vendors. Mr. Creamer stated that there is already language currently in place about permitting vendors annually and suggested putting in language that details only by removing a certain amount of that tree for someone to safely get through. Mr. Compton agreed. Mr. Camposano inquired that Mr. Compton is referring to a tree falling into the river or near a launch and who is responsible for the removal of the tree (FFS or Vendor). Mr. Compton reiterated that it is not so much that FFS is doing, but more so what Mr. Creamer is talking about. Mr. Compton then stated that it is also an educational thing too at times and suggested FFS to provide some of that documentation. He continued to state that they are talking to all of the users, through those vendors. He continued to state that when they all understand that they all love the river too and makes them want to protect it too. However, they need to understand the role that that material plays. Mr. Camposano stated that, to his earlier point, FFS cannot permit themselves to remove vegetative material out of the middle of the navigable waterway due to Sovereign Submerged Lands. Mr. Davis explained how Sovereign Submerged Lands are not included into the lease and the only role that FFS would play into it would be access to a portion of the river for the contractor. However, the contractor would essentially be through the Division of State Lands, Sovereign Submerged Lands Section. Mr. Camposano stated that he has seen an example of that with a hurricane in northeast Florida and explained how the process unfolded. Mr. Davis reiterated that Sovereign Submerged Lands are not included into the lease as they are public wetlands, and that a navigable waterway would be dealt with through Division of State Lands and through FFS. He then stated that the only way for FFS to do that is obtain a contractor through DEP and inquired if that made sense. Mr. Compton stated he understood and that his concern rests more with the vendors. Mr. Camposano stated that FFS cannot permit them more than the area that is open from land to the water. Mr. Compton then stated that it would be good, like what Mr. Creamer stated, to educate the public when issuing the annual permits for canoes and tubes and kayaks; which would be a good time to for them to just understand. Mr. Tritt stated that even though people should take it upon themselves to educate. Mr. Compton agreed.

- Mr. Creamer inquired to add language explaining the materials' importance to the substrate and the fish colonies within the river and refer back to FDEP since FFS does not have the authority as far as removing anything out of the river. Mr. Camposano suggested putting up interpretive signage at launches that talks about the woody material in the water and just leave it at that because FFS cannot stop everybody from doing wrong. Mr. Compton stated that he believes that it would be important because a lot of people that love the system and love the river think the idea of a healthy the river is the need for it to be cleaned up. He continued to state that it is actually good for the river. Mr. Davis inquired about a change in the plan. Mr. Compton stated that working through Mr. Creamer and developing interpretive signage will suffice.
- Mr. Camposano and Mr. Smith discuss another upcoming change that Ms. Almario proposed.
- Page 58: Mr. Compton stated that the Planned Recreational Opportunities section might be best place to address the public comments about various types of trails installments. He then restated his earlier comment about using the 15,000 acres of Wolfe Creek Forest that has been added up over the years to try and investigate and work with the various trail groups to get some of that trail development that was requested during public comment. He then inquired of the group how to best incorporate that. Mr. Camposano stated that equestrian trails would need to be placed in that section since nothing specifically about Coldwater was previously mentioned. Mr. Davis advised adding another number specifically for Wolfe Creek Forest. Mr. Compton stated that he thinks it would be equestrian but all-trail, because some of the people that submitted comments that were not at the meeting are hikers and bicyclists. Mr. Camposano stated that without a developed idea or

thought of where the trails should go right now, what FFS should do is to create a third paragraph underneath that second one and add language about evaluating the feasibility of implementing new trails on Wolfe Creek Forest. He further stated that that will need to be developed out more, and a plan amendment will be later needed. He concluded that it is not that they do not want to do it, FFS just needs to identify the funding and time for it. Mr. Compton agreed and stated that it is perfectly good for it to be in there because it allows for the matter to be investigated and work with the various trail groups. He then stated that one of the things that was mentioned in the plan was that trail groups offer lots of volunteer help. He explained that some groups assist with maintenance and development because FFS does not have enough money to do all of this.

- He further stated that primitive Juniper Creek area was highlighted and offers more primitive-focused based recreation. Mr. Compton then suggested for Wolfe Creek Forest to have a portion dedicated to being a primitive-focused recreation year-round and would meet that multiple-use requirement. He further stated that it would also satisfy some of these requests that came in during public comment and others that Mr. Compton received emphasizing primitive-type recreation (i.e. trails, camping, etc.) and not developed. Mr. Camposano inquired if Mr. Compton meant limited infrastructure. Mr. Compton stated that is correct and repeated: no infrastructure. Mr. Camposano inquired that Mr. Compton does not want to see another Coldwater Campground out there. Mr. Compton stated that it is more of the backcountry, equestrian trail use with limited infrastructure, mainly just trail development. Mr. Howell stated that the only things found at the Red Rock Campground are a couple of picnic tables, a fire ring and a couple of grills. Mr. Camposano stated that if we are to insert language about that then we should do that here. Mr. Compton inquired about investigating that. Mr. Camposano and Mr. Hudson finalize language and request Mr. Howell to add in new text. Mr. Compton stated he liked that but to also consider something similar to what was done for the Juniper Creek Primitive area, which is a specific area that has almost no infrastructure but is for primitive recreation. Mr. Hudson stated that if they were to start putting infrastructure there, then they would almost be bound to start charging some sort of fee and they do not really want to do that. Mr. Compton stated correct. Mr. Camposano inquired of Mr. Compton if that meets what he wants and if that is ok. Then he inquired if Mr. Compton was ok with it then if the rest of the group was ok with the change. Mr. Compton stated that it would be primitive recreation activities/area and requested that to be evaluated. He continued to state that it is an area of focus for non-developed recreation. Mr. Camposano stated that he thinks primitive recreation captures that and that when he hears the term "primitive recreation" he thinks it as little to no infrastructure. Mr. Compton stated that it is about identifying an area for that and that is what the Juniper Creek area is. Mr. Camposano stated ok and that it is about evaluating all of Wolfe Creek and establishing an area, if it is feasible. Mr. Compton stated yes. Mr. Camposano stated that FFS has already covered that if everyone else is ok with that.
- Mr. Creamer inquired what Mr. Compton meant by Juniper Creek area and if he was referring to the huge area versus where that little campsite is. Mr. Compton stated right and to have something similar out on that 15,000 parcel to have little roads and infrastructure and only have primitive recreation.
- Page 66: Mr. Compton stated that this was the hog section that may already be efficient as is, and that it is a very good statement. He then then inquired of Mr. Camposano if "sufficient" and if it covers the need manage hogs. Mr. Camposano stated that this is stock language in all of FFS's land management plans and it will ne prevent them from doing anything, but it does not necessarily say that FFS is going to do anything beyond the permit that FWC issues to them annually. Mr. Camposano inquired if this is a true statement and then turned to Mr. Compton and stated that according to him it does not sound like it is. Mr. Compton stated that the hogs did occur in substantial numbers 10-15 years ago when he used to work there and had seen one of them. Mr. Smith agreed. Mr. Hudson and Mr. Smith both stated that Yellow River has a lot of hogs. Mr. Hudson then stated that they had a problem 12-13 years ago and trapped about 70 of them near the seed orchard, used that permit and eliminated them. He continued to state that they have not had an issue on the forest since then and that more landowners are picking them up more on game cameras. Mr. Hudson concluded by stating that he does think they are opportunistic and will be back, but this is a method that can work. Mr. Camposano stated that when it says that they are not listed in high numbers, or not a bad problem, he would not necessarily look into increasing efforts for control if there were another management plan that says that hogs do occur in frequent numbers on another state forest. He then stated that if they are increasing that is something to look

into. Mr. Compton expressed that they were in areas like the Hutton Unit, the Blackwater River and the Yellow River had pretty extensive damage. He then stressed that they are prolific breeders. Mr. Hudson stated that they are definitely down there and in the south and he is starting to hear more about them in his area, and on private game cameras, BRSF just has not yet found any spots on the forest side. Mr. Camposano suggested to add language reading "Feral hog populations on BRSF are steadily increasing at this time." He explained that that way, they are not saying that it is a catastrophic problem but not saying that it is not a problem either on BRSF. He then inquired if that was acceptable to the group. The MPAG Committee agreed. Mr. Camposano stated that with that change, FFS has the authority to do what they need to do to, it is just a matter of the funding and feasibility aspect of it.

- Page 68: Mr. Tritt stated that this is to address the issue about private contractors and clarified that someone wanted to talk about land contractors. Mr. Hudson inquired if the group wanted to add to bullet 8 for BMPs for private contractors, since that was something that was mentioned earlier. Mr. Compton agreed and stated that it is a good thing to do and understands that it will take some time to develop something like that. Mr. Camposano stated that this is almost about contractor types and did not think that this would be the place to put it. He explained that following a specific BMP for groundcover is not a specific type of contractor. Mr. Smith inquired if it is better to be stated in the actual Timber Harvest section of the plan. Mr. Davis stated that they did add language earlier in the plan. Mr. Compton stated that his note reads, "To require the use of contractors to achieve the needed marking." Mr. Howell stated that he is thinking about leaving it as it is. Mr. Hudson inquired if there was reasoning for the wording: "...to achieve the needed goals, with compliance to Best Management Practices (BMPs)."
- Mr. Smith inquired about going back to the page where American chaffseed is listed. Mr. Camposano then instructed Mr. Howell to go back to page 35 and stated that there is a whole heading about it. Mr. Smith clarified that he is referring to where it reads that it is found in only one (1) location. Mr. Camposano instructed Mr. Howell to keep scrolling. The group stopped on page 47. Mr. Camposano inquired if there was more than one location. Mr. Smith stated that the plant can be found in two (2) different locations. Mr. Camposano inquired if the rest of the sentence make sense if they change it to two (2) locations. Mr. Smith stated yes. Mr. Howell inserted the track changes to reflect that chaffseed can be found in two (2) different locations on the state forest.
- Mr. Davis inquired the group if there are any additional changes needed in the draft. Mr. Compton stated that one thing he wanted to bring up, because they did add it to the plan and that he is very supportive of it, is voicing his support for the cell phone towers due to the need, for safety and access to the state forest. He continued to state that he wanted to point out FFS's leadership, and how and where the towers are developed if they are on forest land. He then stated that BRSF is also known as one of the few places for dark sky; where folks can get away from the city lighting. Mr. Camposano stated that He then stated that BRSF is not a designated "Dark Sky" destination. Mr. Compton stated that it is noted by a lot of people, but does not have the official designation, but it is where people go. He continued to state that how towers are developed and built, and the lighting used all play a role. He continued to state that there are some particularly very scenic areas, even though the staff deals with that on recreation areas that border private property. Mr. Davis stated that that is definitely taken into account, but typically, the company has Funding Rings. He then explained that the carrier will install equipment with a tower within a 0.5 mile radius circle, but FFS chooses where within that circle the tower and equipment is installed. He then stated it is usually on a disturbed site off of the road where it is not near any development or can be seen by the public. He concluded by stating that it is usually within a 0.5 mile radius, but FFS has options within that radius, and they will take all of that into account as they develop each one of the sites, if that happen.
- Mr. Creamer stated that they have astronomy clubs that come out to the forest and are looking for the dark skies. He then stated that it is a good point to make about avoiding the construction of the towers near a recreation that would bother people. The group agreed. Mr. Compton stated that people are there for the aesthetics and night sky. Mr. Camposano stated that aesthetics plays a big part into SFI as well. He then stated that there needs to be logic in determining where those installments will take place. Mr. Tritt joked that if they do install towers, then hopefully they will be Verizon-based. Mr. Compton and Mr. Camposano agreed. Mr.

Hudson stated that those who have Verizon currently are out of luck with cell signal. Mr. Smith stated that that would be tough in certain places. Mr. Hudson agreed. Mr. Smith inquired Mr. Hudson if any of the carriers have reached out to him before. Mr. Hudson stated no and that explained where Verizon installed their latest tower. He continued to state that the rest of FFS uses Verizon, but BRSF is the only state forest to use AT&T as their cell phone carrier. Mr. Tritt inquired where the AT&T towers are located. Mr. Hudson stated that there is a tower right across from the BRSF office. Mr. Davis stated that the towers do collocate so Verizon could use the tower in time, but they will only activate it if there are users that need it. Mr. Smith stated that he was wondering if there would be a need for it. Mr. Davis continued to explain the feasibility of having a tower installed. Mr. Hudson stated that in regard to Mr. Holley, who was here yesterday, will need to work with Mr. Davis because the county is interested in putting one down at the OHV park, which would help the south end of the forest. Mr. Davis stated that if the carriers do not find the location to be lucrative for them, then the towers will not mean anything. Mr. Smith stated that maybe the carriers will think they can make money off of it.

- Commissioner Cox stated that there is some potential since the county does a lot of partnership funds and can work with state entities to partner up with and make that happen. Mr. Davis stated that it all depends on where the carrier is willing to go. Commissioner Cox agreed. Mr. Davis continued to state that they could put a tower anywhere, but that does not mean Verizon will pay for all of the equipment and go under a lease with FFS and pay FFS if they cannot make money off of it. Mr. Camposano added that FFS is a willing partner. Mr. Davis agreed and that the other half of the deciding factor is the carrier(s). Mr. Camposano inquired that FFS has statutory authority. Mr. Davis stated that FFS does under F.S. 589.011.
- He then inquired if there were any additional changes needed to the plan or to the exhibits. None followed.
- Mr. Davis asked each MPAG member to comment on the draft plan. Mr. Hudson stated that he feels great about the plan and that there are already a lot of what was expressed during the public comment, especially with the recreation section and equestrian activities, which is already incorporated into the plan. He continued to state that even though specifics are not addressed in the plan, many of these things were talked about during the previous day (i.e. the fencing and stables) and have been talked about outside of the plan. He then stated that things mentioned today, such as exploring the idea of more trails, can certainly be looked into. Mr. Hudson further stated that these are all items that will be discussed, looked at and be worked on with user groups. Mr. Hudson acknowledged how special of a place BRSF is and is something that the staff will do their best to continue to maintain and develop the state forest continuously. He then concluded that he is happy with the plan.
- Mr. Smith stated that the plan is very well written and gives enough room for improvements from a wildlife perspective. He then stated that Ms. Almario did not have a lot of comments to present.
- Mr. Wesley stated that the plan was well written for an overall comprehensive plan. He appreciated that FFS has separate plans for recreation and timber harvesting.
- Mr. Tritt stated that with the changes made, the plan is a good plan.
- Mr. Compton stated that the plan is outstanding and that BRSF has an excellent track record, as seen in their accomplishments report. He then stated that he had several comments throughout the plan that say, "well done" or "outstanding". He continued to state that it is a very well managed state forest and is also evidenced by this plan as well. He then stated that the additions he wanted to make were to make sure that those are covered and give opportunity for the local managers and FFS to continue those efforts moving forward when new people enter certain roles. Mr. Hudson stated that there definitely will be.
- Mr. Shell stated that he is a new comer with very little knowledge and expectations for the meeting. He then stated that he was very impressed with the plan and had no idea that this level of detail even existed. He continued to state that this plan is just the tip of the iceberg because of the other management plans underneath it that flesh it out. Mr. Shell reiterated that he is impressed and happy to be a part of it. Mr. Davis thanked Mr. Shell for being here.
- Commissioner Rowell stated that he came into this with limited knowledge as well and appreciates what FFS does. He continued to state that he enjoyed looking long-term and gives BRSF staff some room to strengthen stuff if needed, but not in a way where FFS would back themselves into a corner. He expressed how wise that

is and how appreciated that is. Commissioner Rowell continued to state that over 40% of Santa Rosa County is in conservation and most of that is BRSF. He then stated that his office is going to help with that conservation on the agricultural side but expressed that BRSF is a big reason as to why his county is so special. Commissioner Rowell concluded by stating his appreciation to serve of the MPAG Committee.

- Commissioner Cox stated that she loved the plan and read it twice. She stated that she has always fought for the farmers and that she was completely overwhelmed by the detail of the plan. She then stated that after reading the plan, she realized how little knowledge she had about forestry going into the MPAG. Commissioner Cox concluded by thanking the group and expressed her appreciation for being a part of the committee.
- Mr. Davis noted that the draft will be submitted to the Acquisition and Restoration Council for review. Consideration by the Council will likely occur at the April 2026, public meeting.
- Mr. Davis thanked everyone for their time and participation and adjourned the meeting.

Workshop Meeting End Time: 11:08 A.M.

Exhibit W

State Forest Summary Budget

	BLACKWATER RIVER STATE FOREST 2024-25 EXPENDITURES	Percentages Based on Total Dollar Amount of Expenditures	Assessed Needed Funding Based Upon LMUAC Resource Management
Resource Management	\$ 770,246	26.17%	\$ 2,795,327.85
Exotic Species Control	\$ 59,539	3.83%	\$ 408,517.52
Prescribed Burning	\$ 424,751	3.98%	\$ 424,751.42
Cultural Resources Management	\$ 3,207	0.21%	\$ 22,001.20
Timber Management	\$ 129,101	8.29%	\$ 885,815.50
Hydrological Management	\$ 8,079	0.52%	\$ 55,430.22
	\$ -		\$ -
OTHER RESOURCE MANAGEMENT	\$ 145,570	9.35%	\$ 998,811.98
Listed Species Management	\$ -		\$ -
Forest Pest and Disease	\$ -		\$ -
Plant Conservation Program	\$ -		\$ -
State Forest Research Projects	\$ -		\$ -
Boundary Surveys for State Forests	\$ -		\$ -
Other Activities Also Include:	\$ -		\$ -
Liaison Community Meetings / Boundary Line Maintenance / Forest Inventories and Various Other Activities / Wildfire Suppression on State Forests			
			\$ -
Administration	\$ -	7.78%	\$ -
Central Office Headquarters	\$ -		\$ -
District/Regions	\$ -	7.78%	\$ -
Units/Projects	\$ -		\$ -
	\$ -		\$ -
Support	\$ 507,393	32.60%	\$ 3,481,423.68
Land Management Planning	\$ 28,003	1.80%	\$ 192,136.74
Land Management Reviews	\$ 4,265	0.27%	\$ 29,263.74
Training/Staff Development	\$ 112,431	7.22%	\$ 771,430.60
Vehicle Purchase	\$ 5,915	0.38%	\$ 40,584.75
Vehicle Operations and Maintenance	\$ 261,269	16.79%	\$ 1,792,671.00
	\$ -		\$ -
OTHER SUPPORT	\$ 95,511	6.14%	\$ 655,336.86
State Forest Land Acquisition Support			\$ -
Other Support Activities Also Include:	\$ -		\$ -
Computer Maintenance / Radio Maintenance / Technical Support / Management of Apiary and Cattle Leases / State Forest Leases, Lease Amendments, Easements and Other Various Activities	\$ -		\$ -
			\$ -
Capital Improvements	\$ 293,988	18.89%	\$ 2,017,168.73
New Facility Construction	\$ 32,236	2.07%	\$ 221,186.87
Facility Maintenance	\$ 261,752	16.82%	\$ 1,795,981.86
			\$ -
Visitor Services/Recreation	\$ 226,791	14.57%	\$ 1,556,104.64
Information/Education	\$ 55,803	3.59%	\$ 382,885.05
Operations	\$ 170,989	10.99%	\$ 1,173,219.59
			\$ -
Law Enforcement	\$ -	0.00%	\$ -
Total	\$ 1,556,563.58	100.00%	\$10,680,196.58

Exhibit X

Arthropod Control Plans

(Okaloosa & Santa Rosa County Responses)



**OKALOOSA COUNTY PUBLIC
WORKS DEPARTMENT -
MOSQUITO CONTROL DIVISION**

BRIAN SHEPHEARD
Mosquito Control Supervisor
bshepherd@myokaloosa.com

84 Ready Avenue NW | Fort Walton Beach, Florida 32548

November 20, 2023

Eric Howell
3125 Conner Boulevard
Tallahassee, Florida 32399-1650

RE: Blackwater River State Forest Arthropod Control Plan

Mr. Howell,

In response to the Florida Department of Agriculture and Consumer Services letter dated October 23, 2023, the Okaloosa County Public Works Department, Mosquito Control Division has no plans to conduct mosquito control operations in the Blackwater River State Forest.

If the situation changes due to an unexpected increase in mosquito populations or a threat to residents such as the Zika virus, the Okaloosa County Public Works Department will contact the Florida Department of Agriculture and Consumer Services and Florida Forest Service to coordinate mosquito control services as needed.

If you have questions or require additional information, please contact me at your earliest convenience.

Sincerely,

Brian Shephard
Mosquito Control Supervisor
Okaloosa County Public Works Department
Tel: (850) 609-6170 Fax: (850) 651-7397
bshepherd@myokaloosa.com



**SANTA ROSA COUNTY
ENVIRONMENTAL DEPARTMENT**

MICHAEL W. SCHMIDT P.E., Environmental &
Public Works Director
michaels@santarosa.fl.gov

6051 Old Bagdad Highway, Suite 301 | Milton, Florida 32583

TANYA LINZY, Assistant Environmental Director
tanyal@santarosa.fl.gov

October 23, 2023

Eric Howell
3125 Conner Boulevard
Tallahassee, Florida 32399-1650

RE: Blackwater River State Forest Arthropod Control Plan

To Whom It May Concern,

In response to the Florida Department of Agriculture and Consumer Services letter dated October 23, 2023, the Santa Rosa County Environmental Department, Mosquito Control Division has no plans to conduct mosquito control operations in the Blackwater River State Forest.

If the situation changes due to an unexpected increase in mosquito populations or a threat to residents such as the Zika virus, the Santa Rosa County Environmental Department will contact the Florida Department of Agriculture and Consumer Services and Florida Forest Service to coordinate mosquito control services as needed.

If you have questions or require additional information, please contact me at your earliest convenience.

Sincerely,

Keith R. Hussey
Mosquito Control Director
6051 Old Bagdad Highway, Suite 301 | Milton, Florida 32583
P: 850.981.7135 | F: 850.981.7133

tt

Exhibit Y

Borrow Pits Map



Florida Forest Service

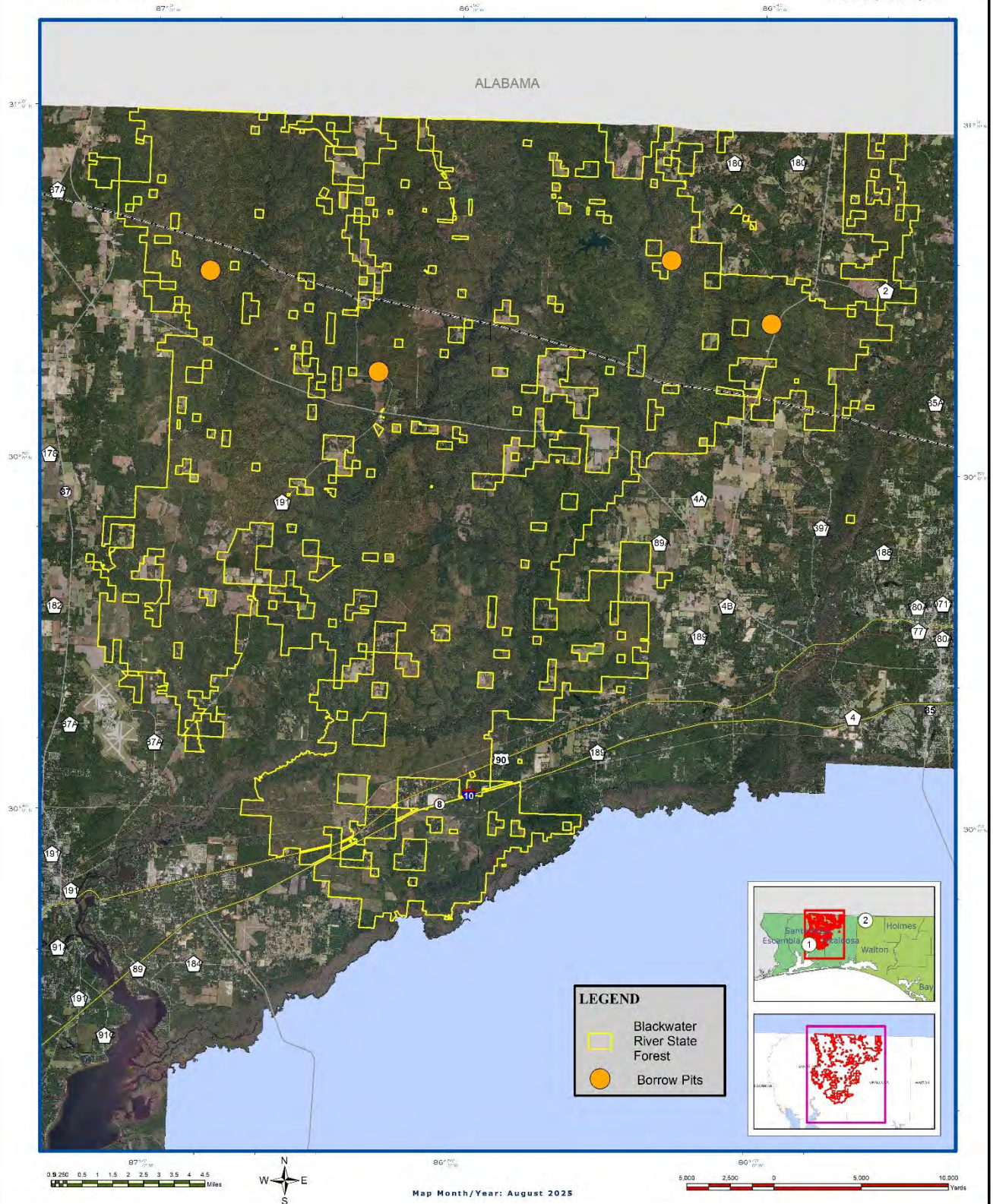
Blackwater River State Forest

Borrow Pits Map

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

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LEGEND

- Blackwater River State Forest
- Borrow Pits

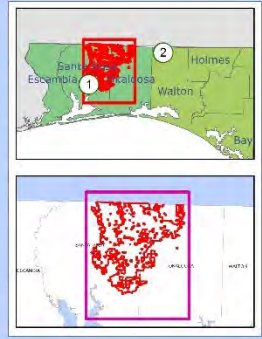


Exhibit Z

Pitcher Plant Bogs Map



Florida Forest Service

Blackwater River State Forest

Pitcher Plant Bog Map

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

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