

ETONIAH CREEK STATE FOREST

LAND MANAGEMENT PLAN

APRIL 2015

EXHIBITS

Exhibit A

Ten Year Management Accomplishment Summary

Etoniah Creek State Forest
10 Year Accomplishment Report

ACTIVITIES

Reforestation	Longleaf Pine	No.	869,800
		Acres	1,852
Seedling Survival Checks	Survival Checks	Acres	512
Timber Sales			
Preparation for next Fiscal Year	Marking DOF	Acres	729
	Sale Acreage to Cruise	Acres	695
Current Year Sales	Harvest	Acres	908
		Tons	33,514
Timber Stand Improvement (post-plant)	Herbicide Treatment		
	Broadcast	Acres	36
	Mechanical Treatments		
	Mowing	Acres	27
	Chainsaw Work	Acres	171
	Chopping	Acres	149
Timber Inventory	Inventory Update	Acres	8,414
	New Inventory	Acres	145
Site Preparation (Indicate treatment)	Prescribed Burning	Acres	687
	Single Drum Chopping	Acres	549
	Herbicide Treatment	Acres	911
	Release Treatment / Mechanical TSI	Acres	181
	Sand Pine Mechanical Removal (Chainsaw)	Acres	91
	Herbicide application	Acres	
Exotic Species Control (Indicate Species & Method)	Cogongrass / Arsenal & Roundup	# of Acres	2.75
	Mimosa / Garlon 4	# of Trees	8
	Wild Taro / control	# of Spots	
	Japanese Climbing Fern	# of Spots	6
	Japanese Climbing Fern	# of Acres	1
	Torpedo Grass / herbicide	# of Acres	5
	Torpedo Grass / herbicide	# of miles	6
	Chinese Tallow / herbicide	# of Acres	43
	Natal Grass / herbicide	# of Miles	25
	Tropical Soda Apple / herbicide	# of Stems	3
	Johnson Grass	# of Spots	1
	Camphor Tree	# of Trees	2
	Inventory of Exotic Plants in Sandhill Communities	Locations/Spots	15
Recreation	Use Permits and Day Use	No.	15,904
	Overnight - Primitive	No.	726
	Annual Entrance Pass	No.	11
	Privately sponsored event	No.	4
Fire	Wildfire	No.	11
	Wildfire	Acres	202
	Prescribed Burning	Acres	7,655

Roads & Bridges	Roads Maintained (includes primary, secondary tertiary and some service following hurricanes)	Miles	129
	Roads Graded	Miles	69
	Roads Rebuilt	Miles	8
	Culverts Installed	No.	12
	Road Signs Installed	No.	15
	Low W. Cross. Installed	No.	1
Boundary Maint.	Maintenance/Marking	Miles	75
	Programs/Tours	No.	13
I&E Activities	Radio - TV - Articles	No.	2
	School Outreach	No.	2
	Education and Research Projects	No.	15
Other Activities	Trail Maintenance Following Hurricanes	Miles	5
(Fill in Type)	Liaison Committee Meetings	No.	16
	Timber Sales	No.	1
	Inmate Projects	No.	2
	ILE Unit 25 Acquisitions	Acres	147
	Installation of Restroom at Primitive Camp Site	No.	2
	Single Drum Chopping (Scrub Jay Habitat)	Acres	24
	Sand Pine Christmas Tree Sale	Trees Sold	11
	2014 Iron Horse Endurance Run; 121 participants	No.	1

Exhibit B

Location Maps



Florida Forest Service

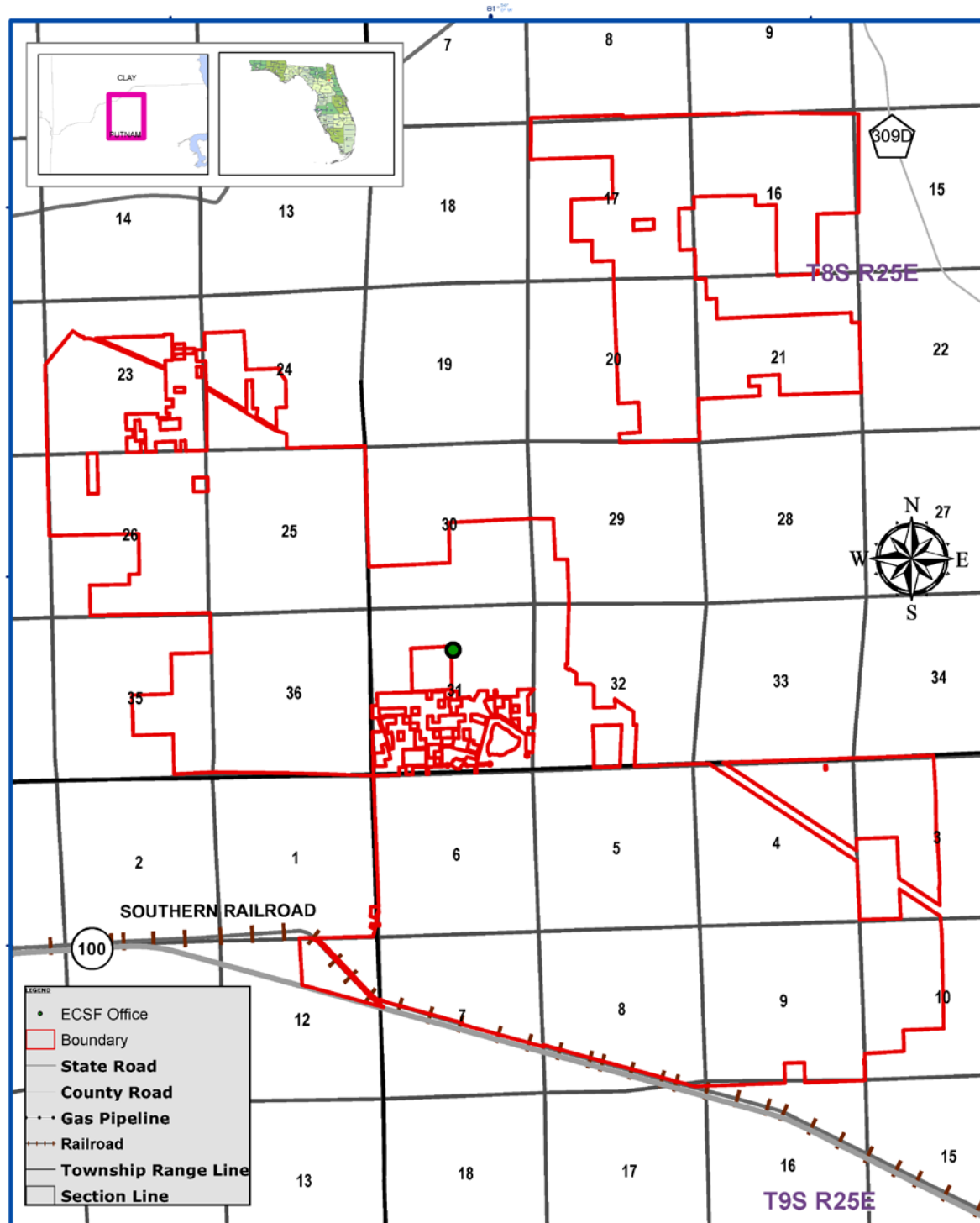
Etoniah Creek State Forest

STR Map

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

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- LEGEND
- ECSF Office
 - Boundary
 - State Road
 - County Road
 - • • Gas Pipeline
 - Railroad
 - Township Range Line
 - Section Line

0 0.25 0.5 1 1.5
Miles

Map Month/Year: July 2014

0 500 1,000 2,000 3,000
Feet



STR Map

Coordinate System: Florida Albers
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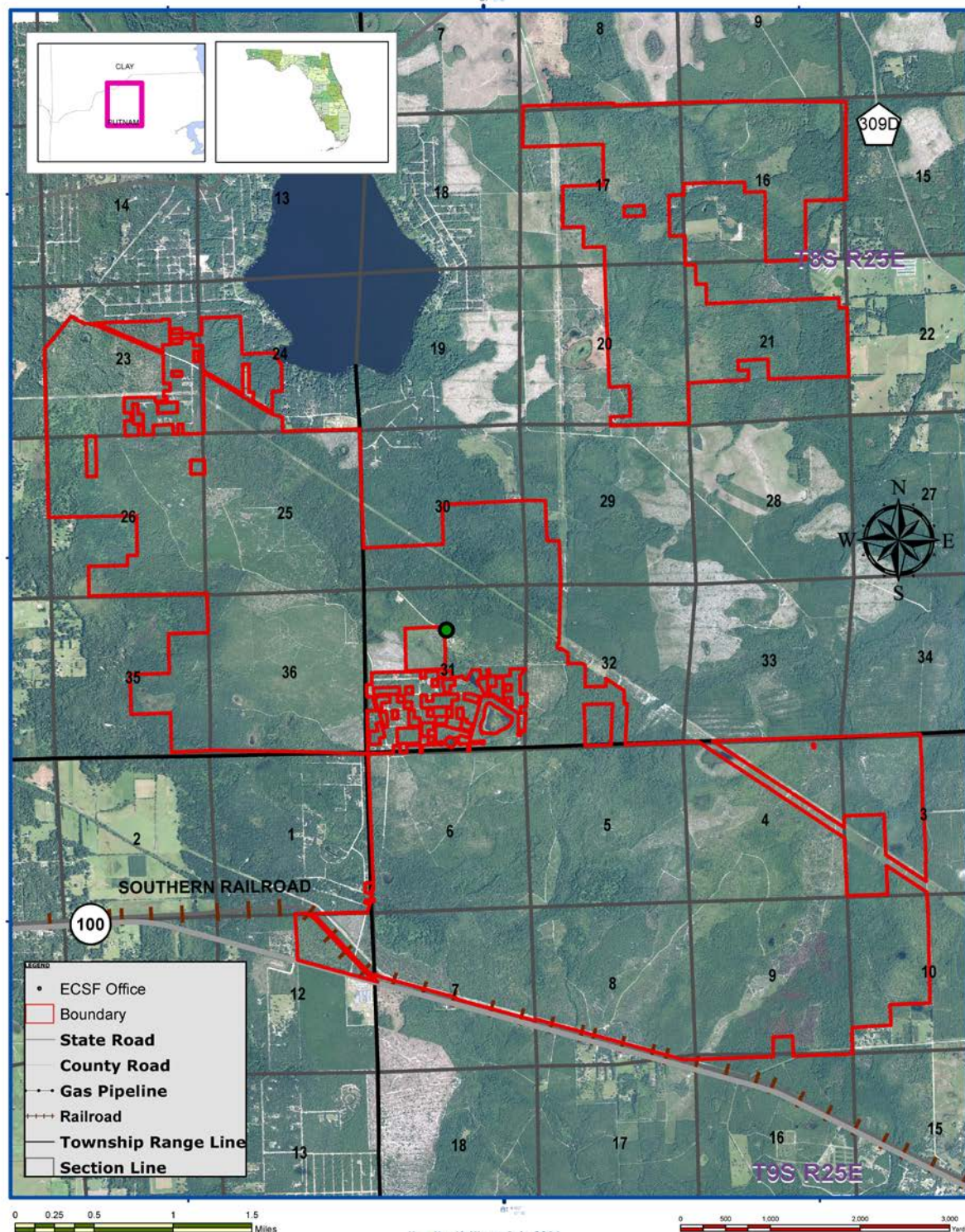


Exhibit C

Boundary Map



Florida Forest Service

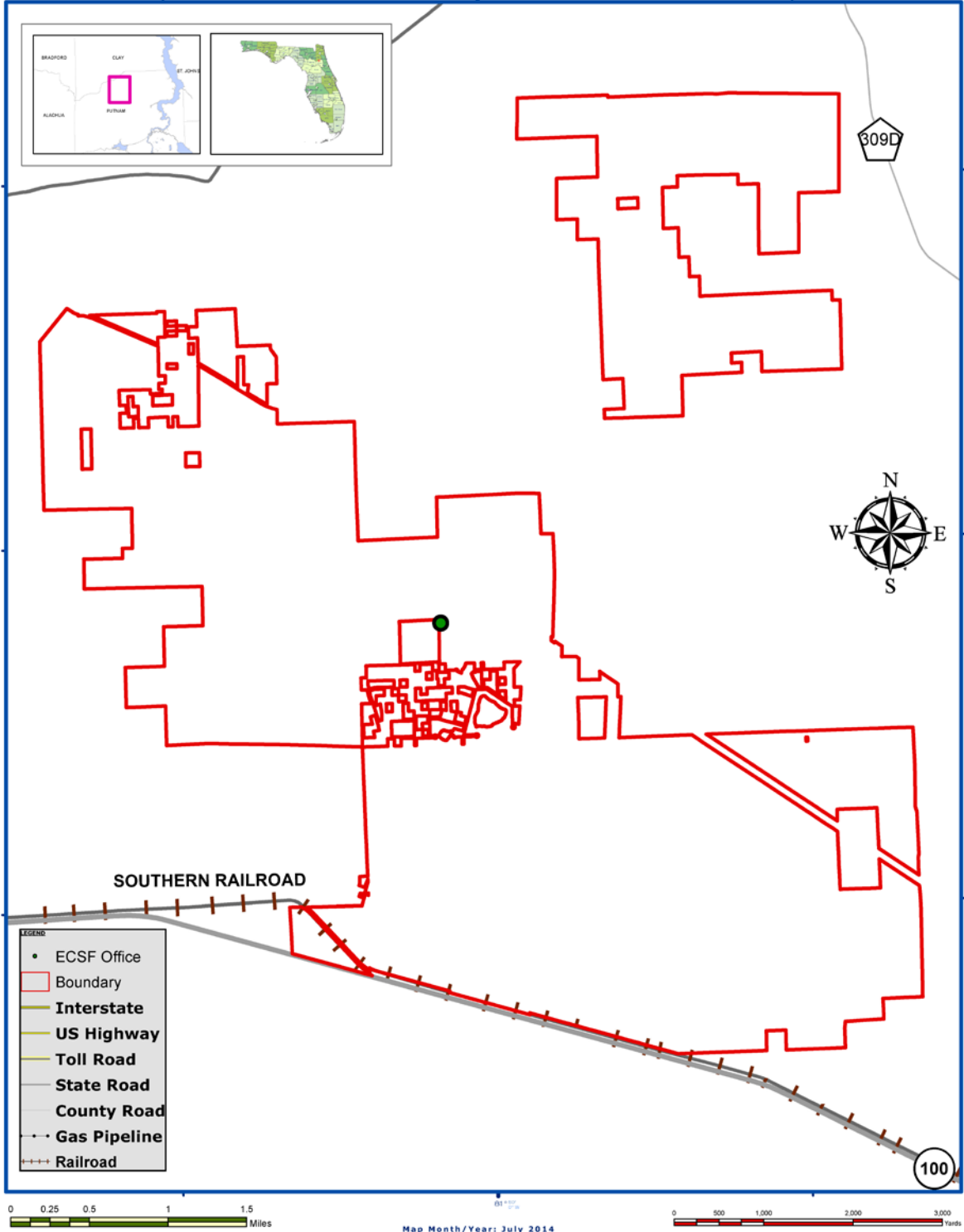
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Boundary Map

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Florida Forest Service

Etoniah Creek State Forest

Boundary Map

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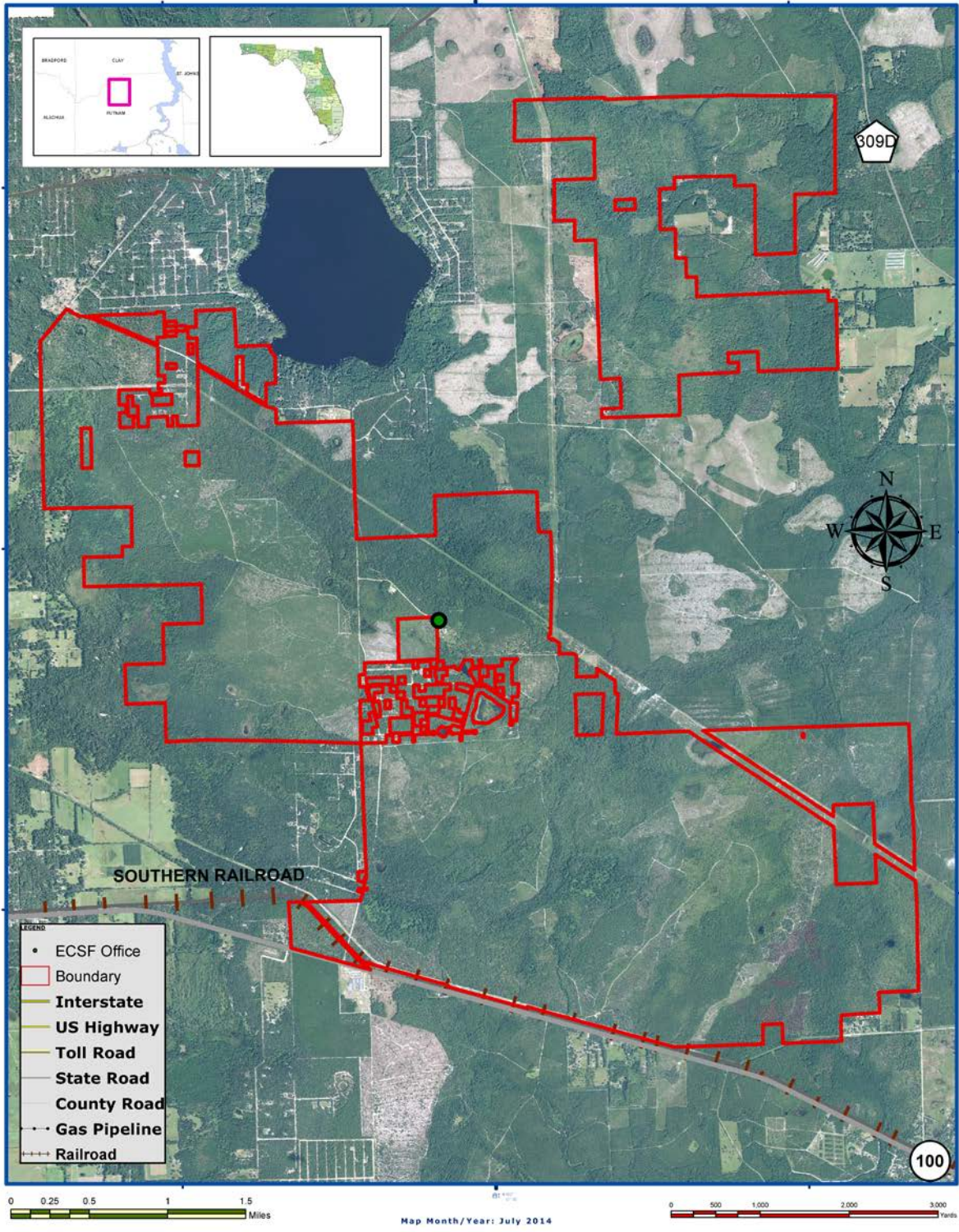


Exhibit D

Roads



Florida Forest Service

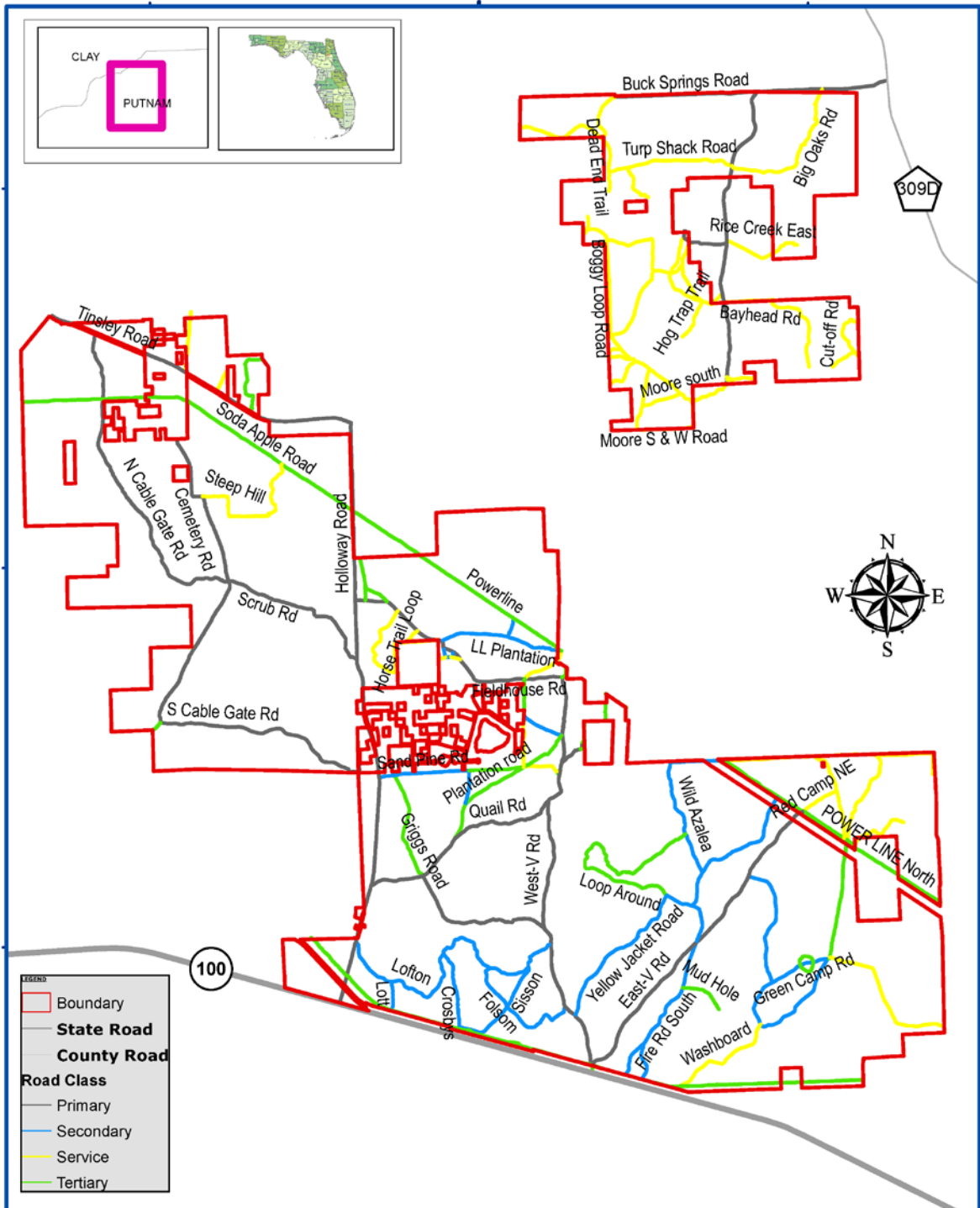
Etoniah Creek State Forest

Road Map

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Legend	
	Boundary
	State Road
	County Road
Road Class	
	Primary
	Secondary
	Service
	Tertiary



Map Month/Year: July 2014



Exhibit E

Recreation and Facilities



Florida Forest Service

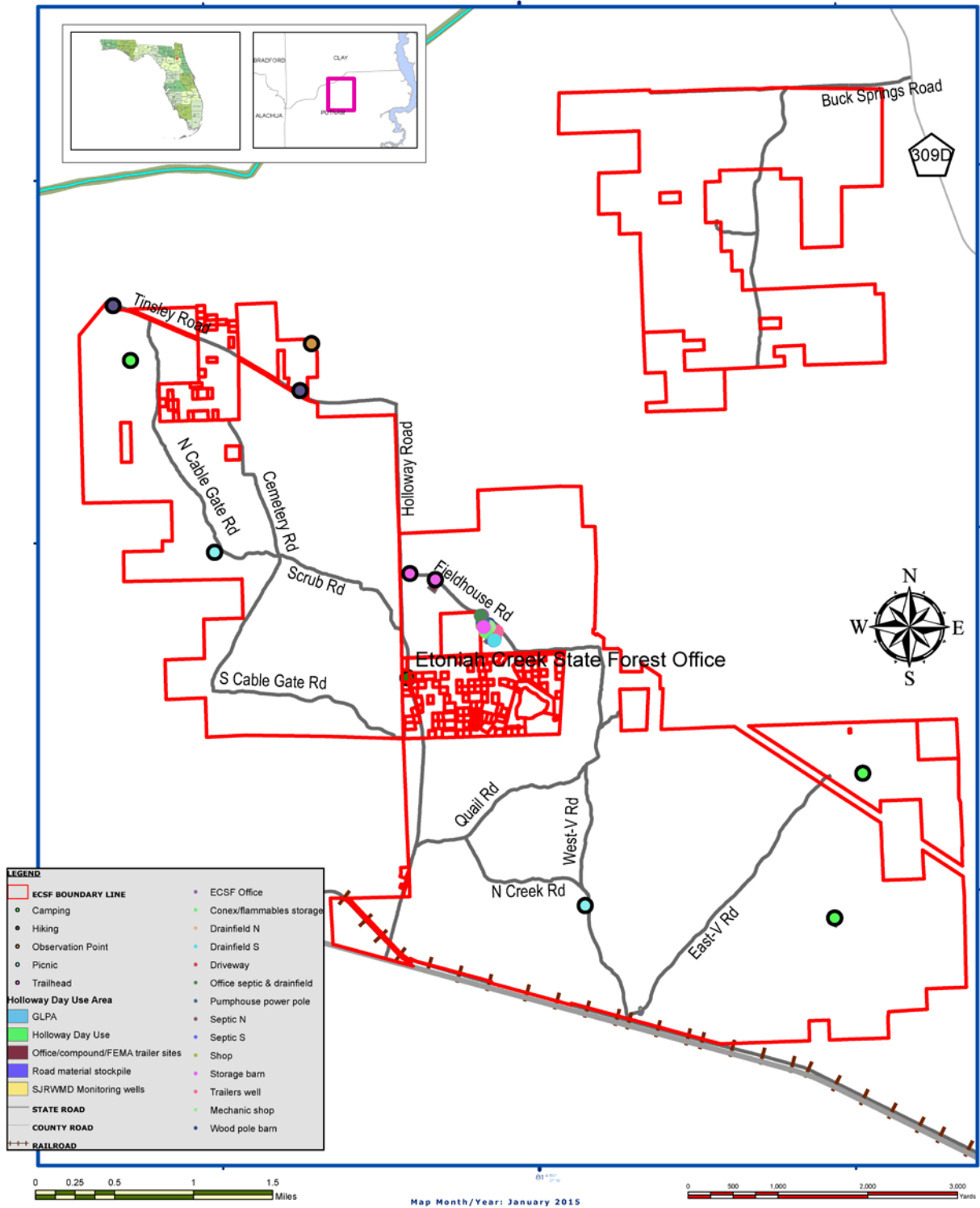
Etoniah Creek State Forest

Recreation & Facilities

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Florida Forest Service

Etoniah Creek State Forest

Main Office Facilities

Coordinate System: Florida Albers
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Exhibit F

Optimum Management Boundary Map



Florida Forest Service

Coordinate System: Florida Albers
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Etoniah Creek State Forest

Optimal Management Boundary

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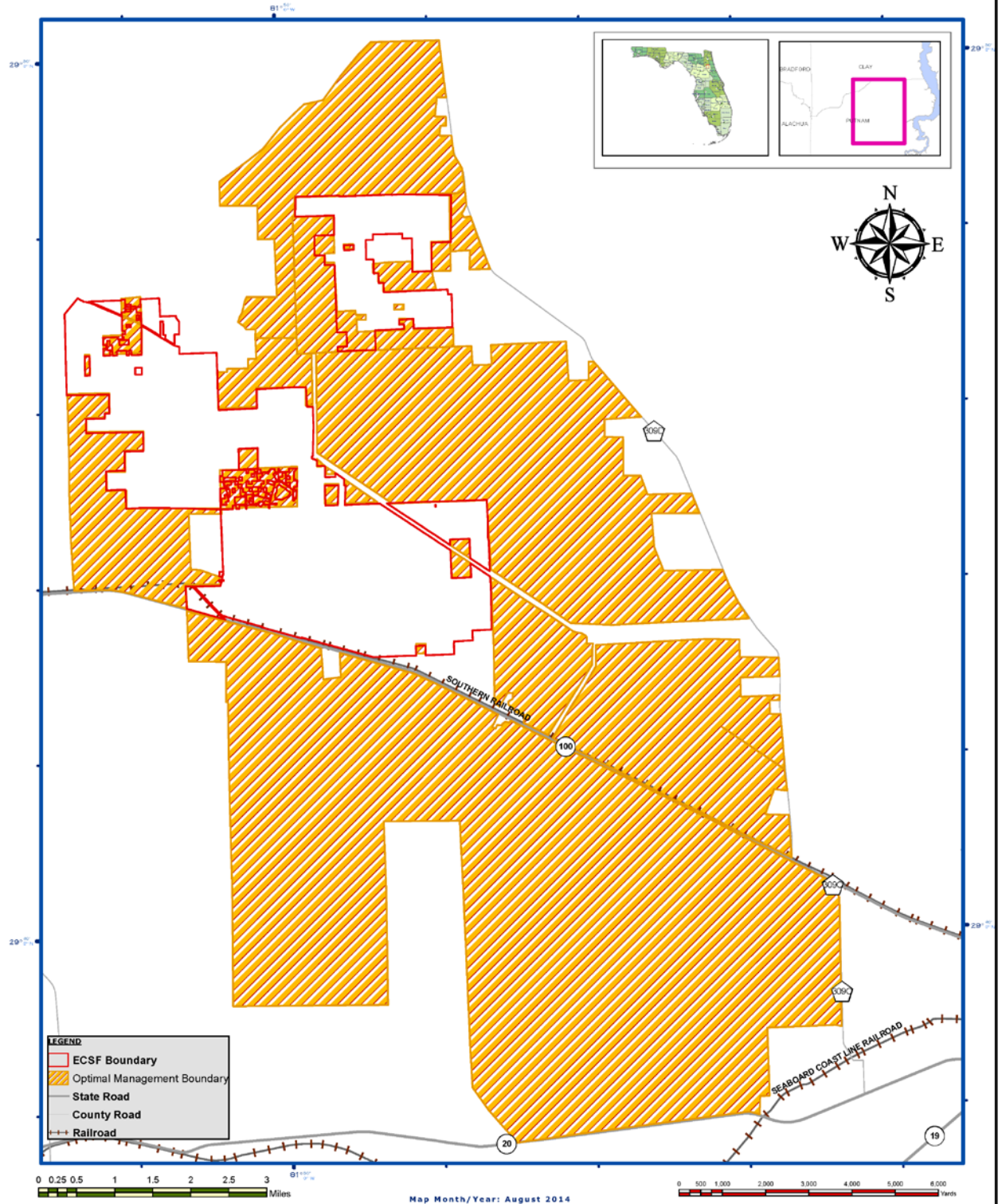


Exhibit G

Compliance with Local Comprehensive Plan

Exhibit H

Proximity to Significant Managed Lands



Florida Forest Service

Etoniah Creek State Forest

Managed Areas

Coordinate System: Florida Albers
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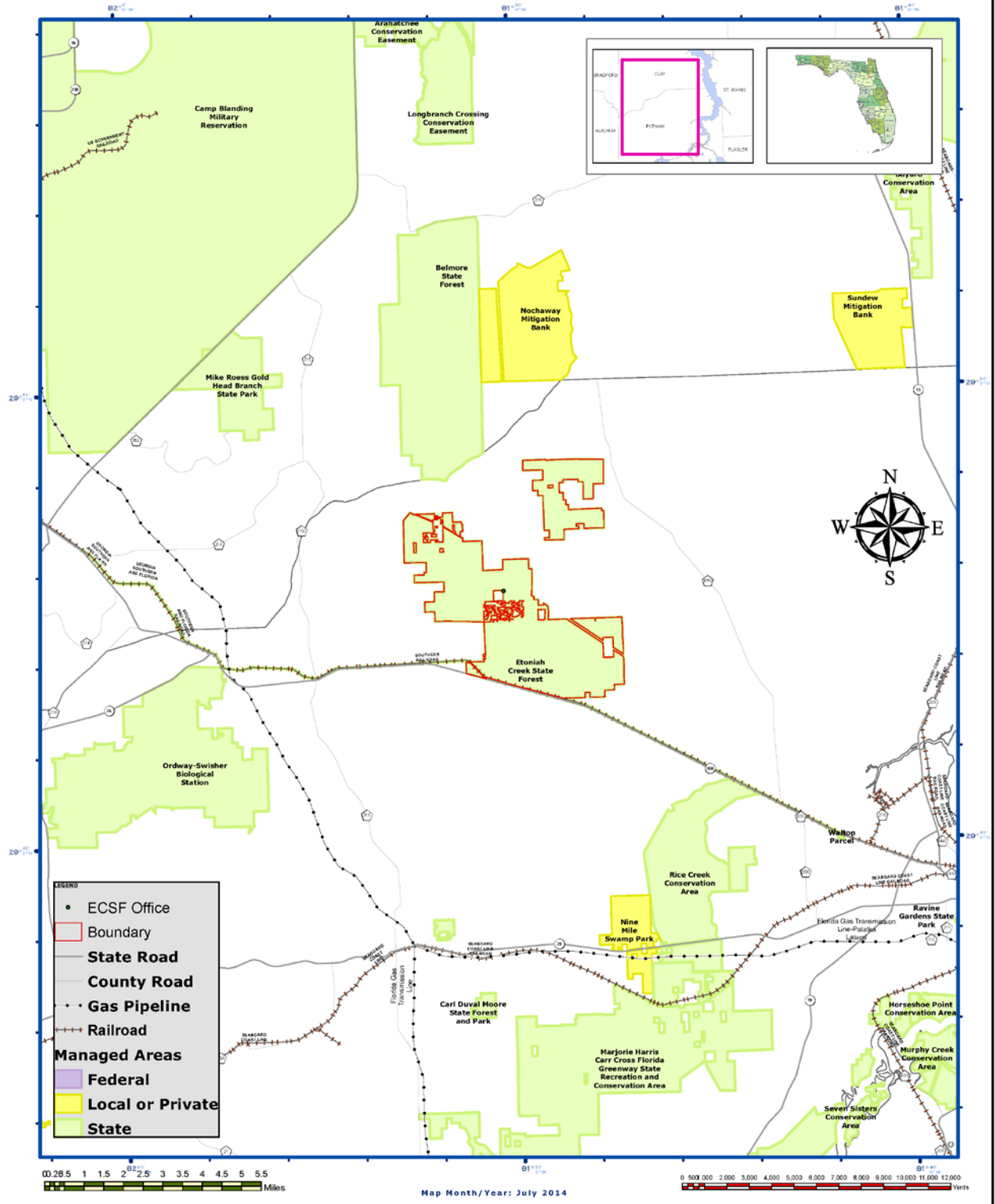


Exhibit I

Florida Forever Projects at ECSF



Florida Forest Service

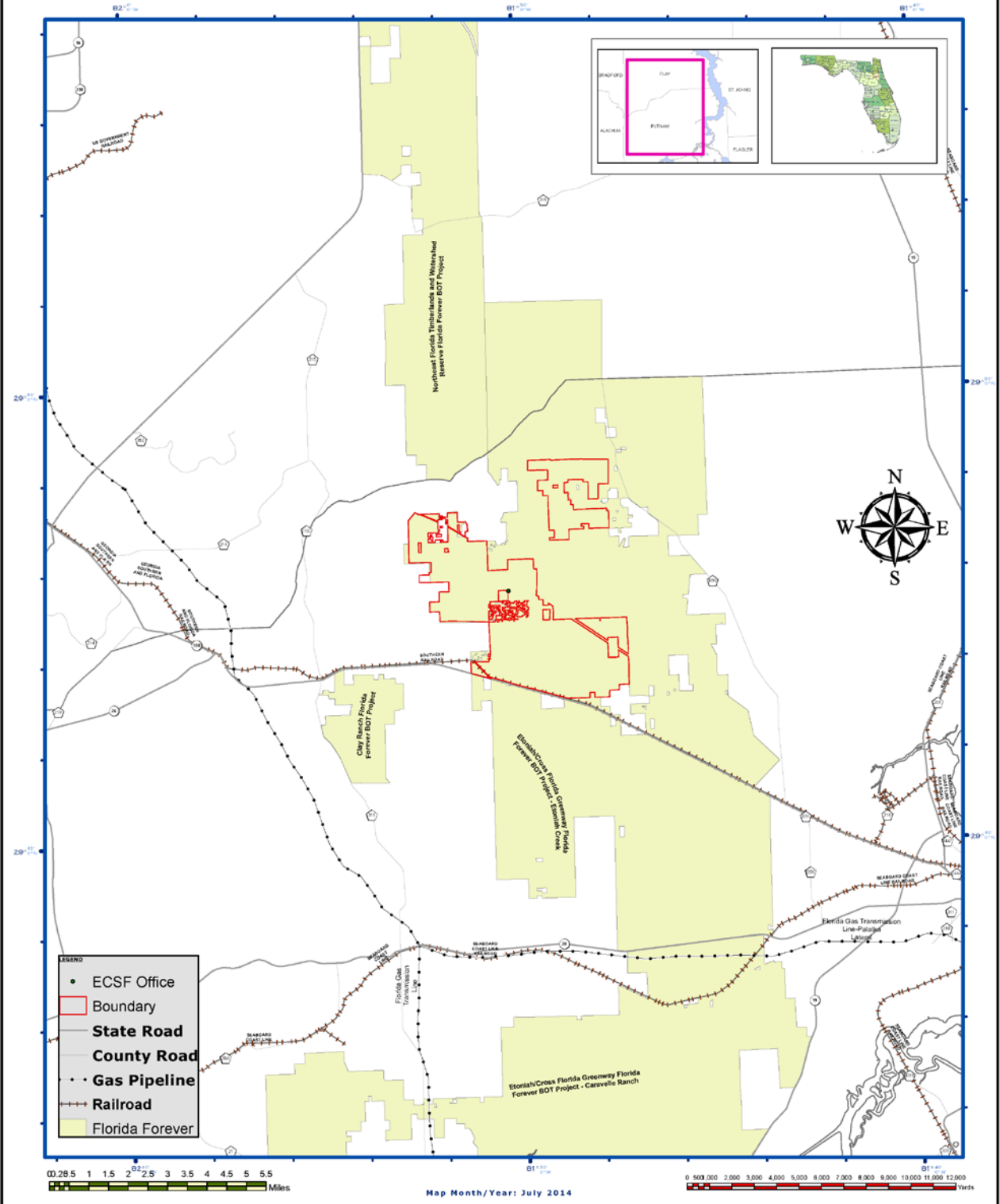
Coordinate System: Florida Albers
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Etoniah Creek State Forest

Florida Forever Projects

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Clay Ranch

Putnam County

Less-Than-Fee

Purpose for State Acquisition

Acquisition of a conservation easement over Clay Ranch would contribute to the goal of eventually attaining connections among the conservation lands in the region to create landscape-scale protection of the xeric uplands and associated wetlands characteristic of the Trail Ridge. It could also help to preserve and protect the healthy aquatic biota in lower reaches of Etoniah Creek.

Manager/Monitor

The property will continue to be managed by the landowner with restrictions imposed by a negotiated conservation easement. The Department of Environmental Protection's Office of Environmental Services (OES) will be responsible for monitoring compliance with the terms and conditions of the easement, unless otherwise noted.

General Description

Clay Ranch, approximately 2,380 acres in northwestern Putnam County, consists of a mix of forested uplands, scattered depression marshes and sandhill upland lakes, and areas - both uplands and wetlands - that have been converted to pasture and/or sod farm. Some remnant sandhill remains in the western half, although a large portion of the forested area has developed into xeric/mesic hammock. Clay Ranch is situated on the southeastern portion of Trail Ridge, a physiographic province dominated by rolling sandhills and dotted with sandhill upland lakes.

The tract has the characteristics needed to harbor imperiled species, and some imperiled species are

documented to occur there. The sandhill upland lakes and marsh natural communities that occur on the tract are mostly intact and fulfilling their natural function. Although much of the uplands are in commercial uses including sod farming, cattle grazing, hay production and silviculture, the majority is in a semi-natural condition and has good potential, with the reintroduction of fire, for providing quality habitat for many imperiled species in the future.

The proximity to other conservation lands in this region embellish the less-than-fee acquisition proposal. An added benefit is the potential to connect a corridor for the Florida black bear and provide a large tract of conservation land for watershed and wildlife protection. However, even with this acquisition, other tracts would need to be protected for the corridor to be complete. If a conservation easement were acquired on this site, perhaps other private landowners within the corridor would also consider their tracts for public acquisition.

Public Use

Since the Clay Ranch is being offered as a less-than-fee acquisition, public access is not being contemplated at this time. During the negotiations with the Clay family, some limited access for research or education may be possible to acquire.

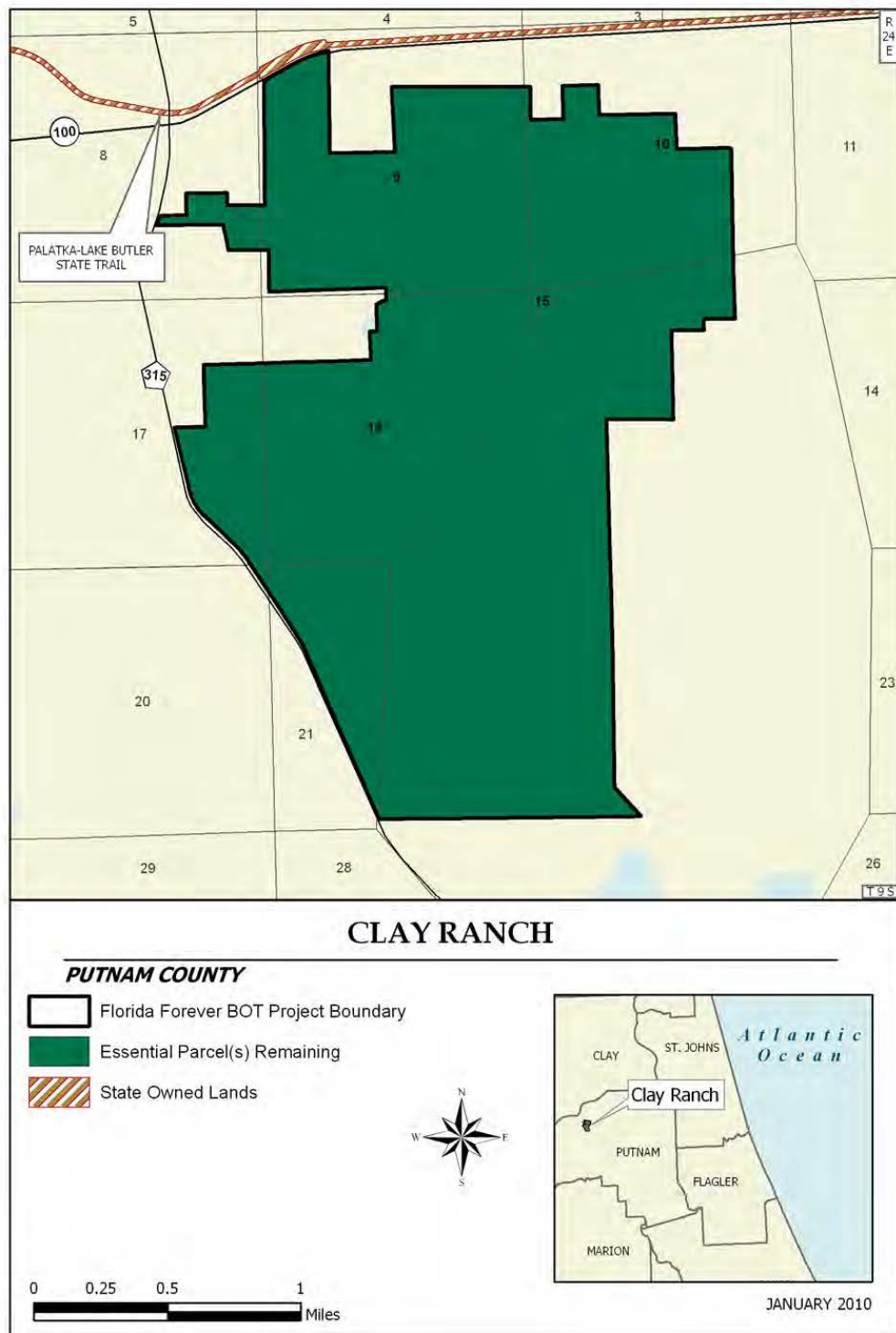
Acquisition Planning

On 6/9/2006, the Acquisition and Restoration Council (ARC) added the Clay Ranch project to Group A of the August 2006 Florida Forever Priority list. This less-than-fee acquisition, sponsored by The Nature Conservancy (TNC) and the Alachua Conservation

Clay Ranch FNAI Elements	
Florida Black Bear	G5T2/S2
Gopher Tortoise	G3/S3
Southeastern American Kestrel	G5T4/S3
3 rare species are associated with the project	

Placed on List	2006
Project Area (GIS acres)	2,460
Acres Acquired (GIS)	0
at a cost of	0
Acres Remaining (GIS)	2,460
with Estimated (Tax Assessed) Value of	\$1,634,125

Clay Ranch



Clay Ranch

Trust, consists of one landowner, the Clay Family, ±2,380 acres and a 2005 taxable value of \$1,634,125.

Coordination

No acquisition partnerships have been suggested at this time.

Management Policy Statement

As a conservation or less-than-fee interest, the project will be managed by the private landowner with restrictions. The purchase of the development rights, the prohibition of further conversion of existing natural areas and open space to more intensive uses, and limited public access will likely be the primary focus of the conservation easement.

Management Prospectus

Qualifications for state designation Protection of Clay Ranch would contribute to the goal of eventually attaining connections among the conservation lands in the region to create landscape-scale protection of the xeric uplands and associated wetlands characteristic of the Trail Ridge, as well as agricultural open space. TNC indicates that efforts are being made to secure some of this area that could provide a direct connection between Clay Ranch and Ordway-Swisher Preserve. Katharine

Ordway Preserve and Carl M. Swisher Memorial Nature Preserve (contiguous properties and both managed by the University of Florida) lay approximately 1.5 and 2.75 miles, respectively, west of the western boundary of Clay Ranch. The former Conservation and Recreation Lands (CARL) project, Putnam County Sandhills, abuts Ordway-Swisher Preserve on its eastern boundary and approaches to within approximately one mile of Clay Ranch. Etoniah Creek State Forest is located 1.75 miles northeast of the site. Camp Blanding Military Reservation, Mike Roess Gold Head Branch State Park, and Belmore State Forest are within 6 to 10 miles to the north and northwest of Clay Ranch.

Manager/Monitor The property will continue to be managed by the landowner with restrictions imposed by a negotiated conservation easement. OES will be responsible for monitoring compliance with the terms and conditions of the easement, unless otherwise noted. **Conditions affecting intensity of management** The acquisition of the Clay Ranch could help to preserve and protect the healthy aquatic biota in lower reaches of Etoniah Creek. While the natural communities on Clay Ranch are in need of restoration, the site still exhibits a nice transition from higher xeric uplands in the west to more mesic conditions to the east.

Updated 2/23/2012

Etoniah/Cross Florida Greenway

Clay, Putnam, Marion, Levy and
Citrus Counties

Critical Natural Lands

Purpose for State Acquisition

Though partially logged and planted in pine, the large expanse of flatwoods, sandhills, and scrub in central Putnam County, extending to the Cross-Florida Greenway along the Ocklawaha River, is important for the survival of many kinds of wildlife and plants. The Greenway itself is a unique strip of land for recreation and conservation that makes a cross-section of the peninsula from the Withlacoochee River to the St. Johns. The Etoniah/Cross Florida Greenway project will conserve the Putnam County land as well as fill in gaps in the Greenway; ensure that wildlife such as Florida black bear and scrub jays and plants such as the Etoniah rosemary will have areas in which to live; and provide recreation for the public ranging from long-distance hiking trails to fishing, camping, and hunting. This project may also help complete the Florida National Scenic Trail, a statewide non-motorized trail that crosses a number of Florida Forever project sites.

Manager

Florida Forest Service/FFS (formerly Division of Forestry/DOF), Florida Department of Agriculture and Consumer Services (Etoniah Creek tract) and Office of Greenways and Trails (OGT), Florida Department Environmental Protection (remaining tracts). FFS will monitor compliance with the terms of any less-than-fee purchase agreement.

General Description

The project consists of a large tract extending north from the Cross Florida Greenway to Clay County, and four smaller tracts designed to fill in gaps in state ownership along the Cross Florida Greenway. The original Etoniah/Cross Florida Greenway project is important for the survival of black bear in northeast Florida, includes many acres of pine plantation and cut-over flatwoods, but also high-quality sandhill, a unique white-cedar swamp along Deep Creek, and patches of sand pine scrub near Etoniah Creek that harbor at least a dozen rare species including fox squirrel, gopher tortoise, indigo and pine snakes, rare crayfish, and seven rare plants including the only known site for federally listed Etoniah rosemary. The smaller tracts include high-quality floodplain swamps along the Ocklawaha River; mixed forest land near U.S. 441 south of Ocala; and Inglis Island, disturbed pinelands between the old Cross Florida Barge Canal and the Withlacoochee River. Eight archaeological sites are known from the project. The greatest threat to the project area is intensive logging, but the uplands on the large tract are suitable for residential development. The smaller sites would lose their value as connectors if developed for residences.

Public Use

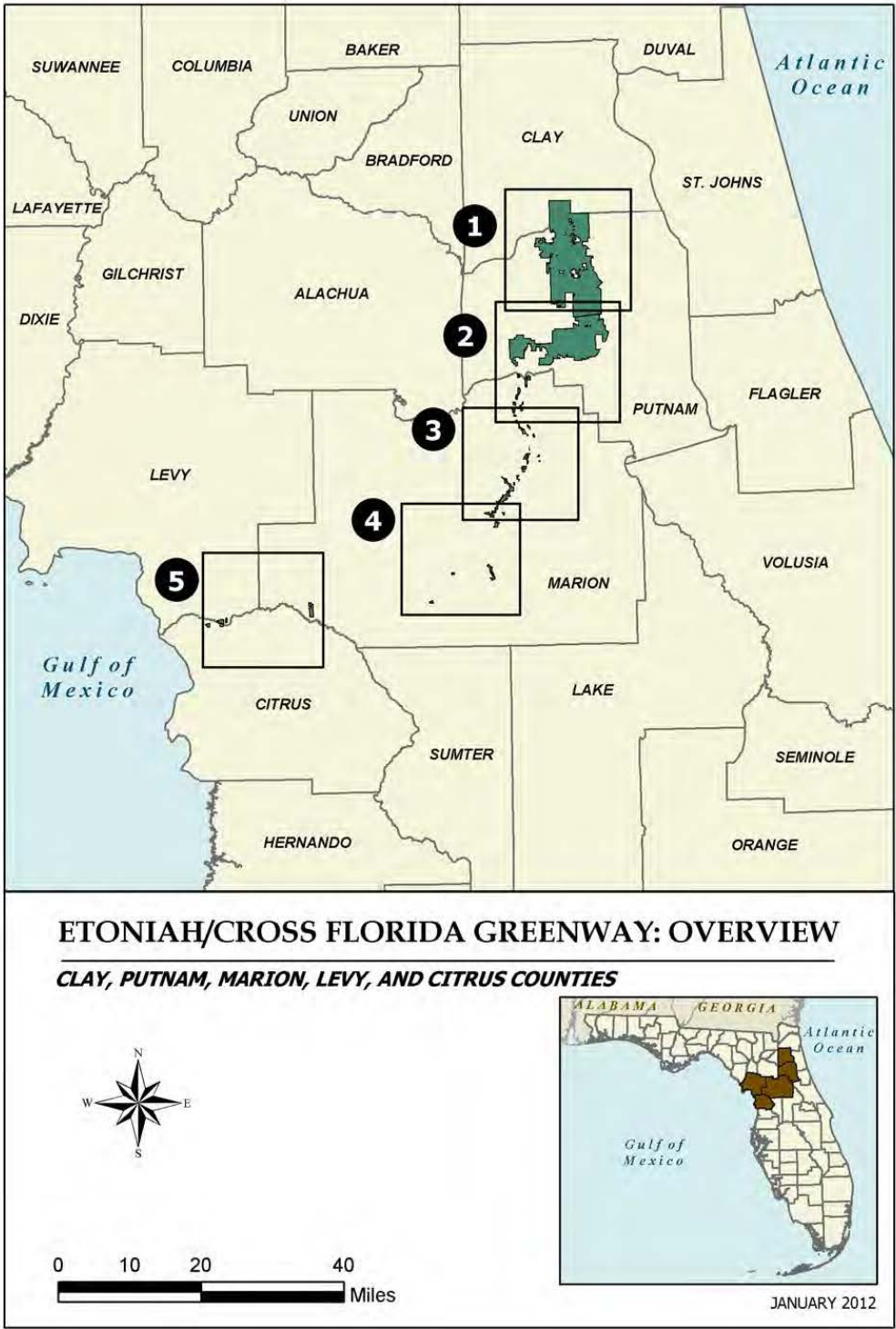
The Cross Florida Greenway connectors will form part of a conservation and recreation area; the majority of

Etoniah/Cross Florida Greenway FNAI Elements	
<i>Etonia Rosemary</i>	G1/S1
Florida Scrub-jay	G2/S2
Florida Black Bear	G5T2/S2
Eastern Indigo Snake	G3/S3
Gopher Tortoise	G3/S3
Florida Mouse	G3/S3
Swallow-tailed Kite	G5/S2
Florida Willow	G2/S2
Pinkroot	G2Q/S2
<i>Variable-leaved Indian-plantain</i>	G2/S2
<i>Pinewoods Dainties</i>	G4T2/S2
Black Creek Crayfish	G2/S2
33 rare species are associated with the project	

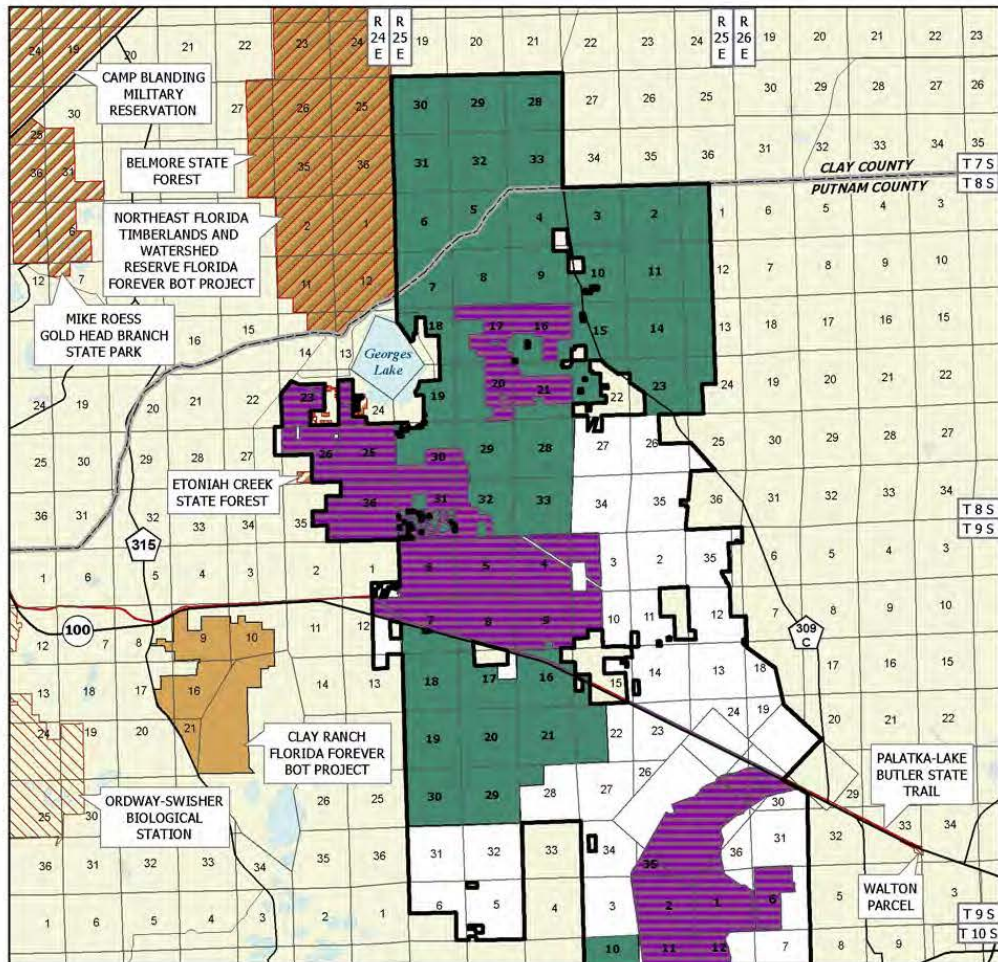
Placed on List	1995*
Project Area (GIS Acres)	93,259
Acres Acquired (GIS)	26,957**
at a Cost of	\$20,773,131**
Acres Remaining (GIS)	66,302
with Estimated (Tax Assessed) Value of \$170,079,702	

* Etoniah Creek, Cross Florida Greenways and Cross Florida Greenways Phase II were combined in 1995 to create Etoniah/Cross Florida Greenway. A Less-Than-Fee parcel of approximately 18,406 acres was added to the project in 1997.

** Includes a donation of 43 acres and acreage acquired and funds spent by the SJRWMD on Plum Crk/Rick Co.



Etoniah/Cross Florida Greenway



ETONIAH/CROSS FLORIDA GREENWAY: MAP 1 OF 5

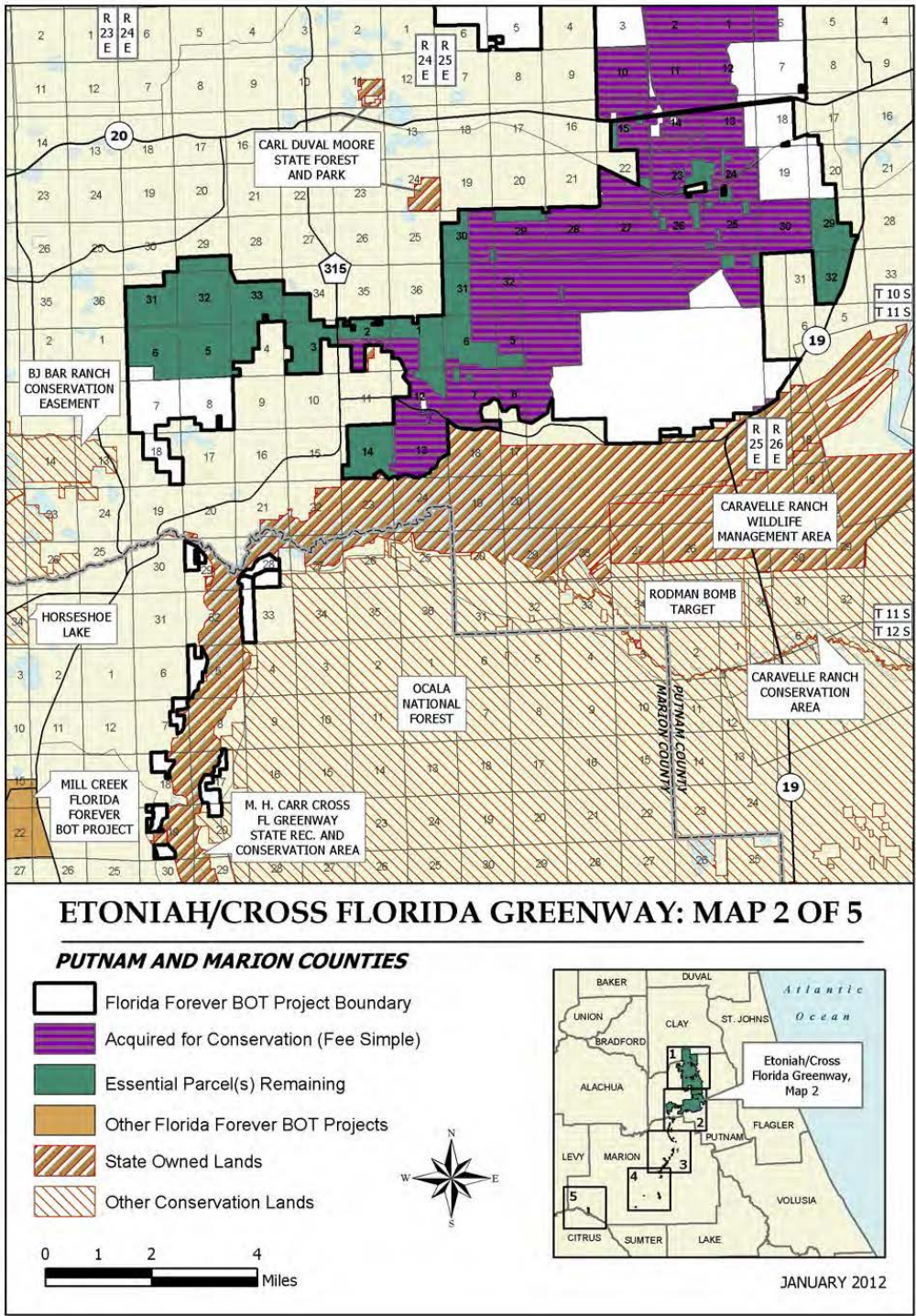
CLAY AND PUTNAM COUNTIES

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

0 1 2 4
Miles



JANUARY 2012



Etoniah/Cross Florida Greenway

the large (Etoniah) tract will become a state forest. The various parts of the project will offer opportunities for hiking, hunting, fishing and nature appreciation.

Acquisition Planning

Etoniah Creek

Phase I tracts (essential) include Stokes and Agricola, formerly Deltona (acquired), Union Camp, Manning (acquired) and Interlachen Lake Estates Subdivision. Life-of-the-South (Odom) is also an essential tract. Phase II includes other large ownerships, such as Roberts, as well as other smaller tracts and subdivisions.

Cross Florida Greenway

Phase I (essential) includes the westernmost segment (Deep Creek Corridor) consisting of a portion of the Miller family ownerships and approximately 14 other owners.

Cross Florida Greenway Phase II

The priority tract (essential) within this portion of the project is the Inglis Island site (acquired by the Office of Greenways and Trails).

On 7/20/1994 the Council added 210 acres to the boundaries of the predecessor projects.

On 12/7/1995, the Council approved the addition of 2,664 acres to the project boundary. The addition included lakeshore and lake bottom associated with Rodman Reservoir. A second modification was made to allow the St. Johns River Water Management District (SJRWMD) to acquire, on the State's behalf, a large ownership (Odom) not identified in the original Phase I area. Acquisition of the canal easement areas is also a priority.

On 3/15/1996 the Council approved adding 141 acres to the project boundaries. On 12/5/1996, the Council transferred the Georgia-Pacific ownership (18,146 acres) to the Less-Than-Fee category.

On 10/15/1998, the Council designated as essential an additional 9,870 acres - Georgia-Pacific and seven smaller tracts in a corridor between two already acquired tracts, and portions of the Roberts ownership.

On 8/22/2000, the Acquisition and Restoration Council (ARC) added 2,110 acres (Florida Power ownership along the Cross Florida Greenway State Recreation and Conservation areas) to the project. On 1/25/2001, ARC added 1,543 acres to the project (boundary in the

Deep Creek area). On 5/17/2001, ARC added 1,110 acres to the boundaries of the project.

On 2/25/2003 the project was added to the Group A list of Florida Forever projects.

On 4/13/2007, the ARC approved a fee-simple, 85-acre addition, known as Foxtrotter Ranch, to the project boundary. It was sponsored by the Office of Greenways & Trails (OGT), consisted of one landowner, Richard Simon, one parcel, and a taxable value of \$2,267,908. OGT will manage the site. The house (approximately 2.5 acres) is not included in the addition, however, it may be donated to the state subsequent to acquisition.

In 6/2008, some 1.19 acres of the Harrington ownership were purchased for \$15,000 with the FFS Florida Forever funds. FFS will manage this section. In 9/2008, the FFS used Florida Forever funds to buy the following acreages: 1.08 acres (Fred Yankee, LLC) for \$13,500; 0.87 acres (Goddard) for \$23,000; 1.01 acres (Land Reclamation, Inc.) for \$15,000; 2.52 acres (Cann) for \$23,000; 1.21 acres (Martin) for \$14,000; 1.27 acres (Vehoski) for \$14,000; and 1 acre (Murray) for \$15,000. The DOF will manage all of these parcels. In 10/2008, the FFS used Florida Forever funds to buy 1.25 acres (Uttech) for \$11,500; 2.5 acres (Lachmansingh) for \$25,000; 3.61 acres (Chapman) for \$37,500; and 2.53 acres (Thornton) for \$23,000. The FFS will manage these parcels. In 11/2008, the FFS used Florida Forever funds to buy 1.27 acres (Dubay) for \$14,000; 1.24 acres (Hood) for \$15,500; 1.25 acres (Contreras) for \$14,000; and 1.24 acres (South) for \$14,000. FFS will manage these parcels.

On 1/21/2009 SJRWMD purchased 208 acres for \$474,363 (Plum Creek/Rick Co.). In 10/2009, 1.25 acres were purchased from Margaret Vail for \$14,000. In November 2009, 1.25 acres were purchased from Kenneth/Diane Schwing for \$15,500. On 12/10/2009, FFS purchased 1.43 acres for \$13,500 and will manage this tract.

On 11/4/2010 FFS purchased 106 acres (Moore--\$405,000) with Florida Forever funds. FFS will manage.

On 1/3/2011, FFS purchased 1.29 acres (Williams--\$18,000 with FF funds. FFS will manage. On 5/2/2011 the FFS funded 1.25 acres (Cearley-\$12,000)

Etoniah/Cross Florida Greenway

in the Cross Florida Greenway portion and will manage. On 8/3/2011 FFS purchased 3.69 acres (Interlachen Lakes Estates) for \$27,500; FFS to manage. On 12/9/2011 ARC recommended a 1509-acre reduction to the project boundary containing residential development/commercial buildings/infrastructure.

Coordination

The SJRWMD was the intermediary in the acquisition of the Manning tract and has provided information and expertise on several other tracts. The Office of Greenways and Trails used additions and inholding funds to acquire Inglis Island. The Division of State Lands will assume the lead on acquisition of the remaining tracts.

Management Policy Statement

The primary goals of management of the Etoniah/Cross Florida Greenway project are: to conserve and protect environmentally unique and irreplaceable lands that contain native, relatively unaltered flora and fauna representing a natural area unique to, or scarce within, a region of this state or a larger geographic area; to conserve and protect significant habitat for native species or endangered and threatened species; to conserve, protect, manage, or restore important ecosystems, landscapes, and forests, in order to enhance or protect significant surface water, coastal, recreational, timber, fish or wildlife resources which local or state regulatory programs cannot adequately protect; and to provide areas, including recreational trails, for natural-resource-based recreation.

Management Prospectus

Qualifications for state designation The large size, restorable pine plantations, and diversity of the Etoniah Creek portion of this project make it highly desirable for management as a state forest. The Cross Florida Greenway State Recreation and Conservation Area includes scenic and historic rivers, lakes, wetlands, and uplands. It is also near, or contiguous with, many other state-owned lands. The Cross Florida Greenway portion of this project, together with the lands already in the Greenway, has the configuration, location, and resources to qualify as a state recreation area.

Manager The FFS proposes to manage the 57,000-acre Etoniah Creek portion of the project and the OGT will manage the remaining lands in the vicinity of the old Cross Florida Barge Canal.

Conditions affecting intensity of management There are no known major disturbances in the Etoniah Creek

portion that will require extraordinary attention, so management intensity is expected to be typical for a state forest. Lands in the Cross Florida Greenway portion are generally moderate-need tracts.

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

Once the core area of the Etoniah Creek portion is acquired, the FFS will provide access to the public for low-intensity, non-facilities-related outdoor recreation. Initial activities will include securing the tract, providing public and fire management accesses, inventorying resources, and removing trash. The FFS will provide access to the public while protecting sensitive resources. The tract's natural resources and threatened and endangered plants and animals will be inventoried to provide the basis for a management plan.

Long-range plans for the Etoniah Creek portion will generally be directed toward restoring disturbed areas to their original conditions, as far as possible, as well as protecting threatened and endangered species. An all-season burning program will use, whenever possible, existing roads, black lines, foam lines and natural breaks to contain fires. Timber management will mostly involve improvement thinning and regeneration harvests. Plantations will be thinned and, where appropriate, reforested with species found in natural ecosystems. Stands will not have a targeted rotation age. Infrastructure will primarily be located in disturbed areas and will be the minimum required for management and public access. The FFS will promote environmental education. For the Greenway portion, activities within the first year after acquisition will primarily consist of site security, resource inventory, removal of trash, and resource-management planning. Long-range activities proposed include a multipurpose trail and facilities for public access.

Revenue-generating potential In the Etoniah Creek portion, the FFS will sell timber as needed to improve or maintain desirable ecosystem conditions. These sales will provide a variable source of revenue, but the revenue-generating potential for this project is expected to be moderate. In the Greenway portion, no revenues are expected to be generated within the first three years after acquisition. However, as the Greenway is developed during its 20-year facility development plan, revenues will be derived from user fees, the sale of products from the lands (limerock berm and timber), and the sale of surplus lands.

Cooperators in management activities The FFS will cooperate with and seek the assistance of other state

Etoniah/Cross Florida Greenway

agencies, local government entities and interested parties as appropriate. Currently, properties along the Greenway are managed in partnership with Marion County, the Florida Game and Fresh Water Fish Commission, and private individuals for recreational purposes.

Updated 2/21/2012

Full Fee:

Management Cost Summary/OGT

Category Source of Funds	Startup LATF	Recurring LATF
Salary	\$36,380	\$36,380
OPS	\$72,660	\$72,660
Expense	\$62,301	\$46,362
OCO	\$3,167	\$0
FCO	\$100,000	\$0
TOTAL	\$274,508	\$185,402

Management Cost Summary/DOF

Category Source of Funds	1996/97 CARL	1997/98 CARL	1998/99 CARL
Salary	\$45,337	\$56,489	\$58,183.67
OPS	\$0	\$3,000	\$7,650.00
Expense	\$11,225	\$22,825	\$58,203.75
OCO	\$43,320	\$50,500	\$128,775.00
FCO	\$0	\$0	\$0
TOTAL	\$99,882	\$132,814	\$252,812.42



Northeast Florida Timberlands and Watershed Reserve

Duval, Nassau and Clay Counties

Partnerships

Purpose for State Acquisition

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

Manager

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

General Description

This project describes a northeast-southwest diagonal along the west side of Duval County, stretching from the Nassau River north of Jacksonville to Trail Ridge in Clay County, near the town of Lawtey. Another section

of the project makes a north-south connection about 12 miles long, between the Camp Blanding Military Reservation and the Etoniah Creek State Forest. About 75 percent of this land is used, or has been used, for silviculture. It also includes mesic flatwoods, cypress and hardwood swamp, sandhills and associated plant communities.

Public Use

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

Acquisition Planning

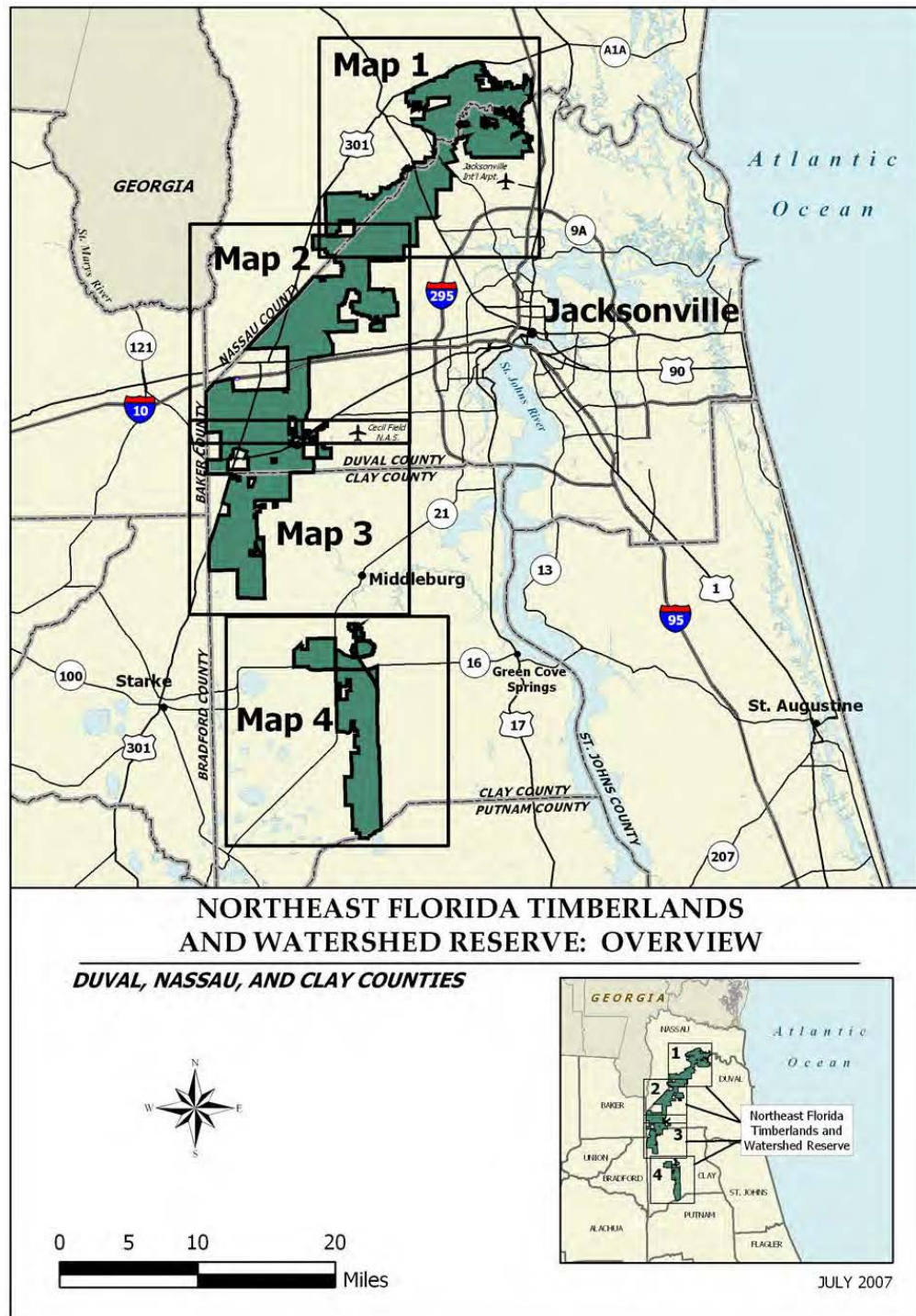
On 12/6/2001, the Acquisition & Restoration Council (ARC) recommended the Northeast Florida Timberlands and Watershed Reserve project for Group A of the Florida Forever (FF) 2002 Priority list. This fee-simple and less-than-fee acquisition, located in Clay, Duval and Nassau Counties, and sponsored by The Nature Conservancy (TNC), the City of Jacksonville and St. Johns River Water Management District (SJR-WMD), consisted of approximately 132,450 acres, more than 150 landowners, and a 2001 taxable value of \$50,158,195.

Northeast Florida Timberlands and Watershed Reserve FNAI Elements	
Frosted Flatwoods Salamander	G2/S2
Florida Black Bear	G5T2/S2
Gopher Tortoise	G3/S3
Eastern Indigo Snake	G3/S3
<i>Hartwrightia</i>	G2/S2
<i>Giant Orchid</i>	G2G3/S2
<i>Thorne's Beaksedge</i>	G3/S1S2
<i>Bartram's Ixia</i>	G2G3/S2S3
<i>Pondspice</i>	G3/S2
<i>St. John's Blackeyed Susan</i>	G3/S2
<i>Yellow Sunnysbell</i>	G4/S2
Sherman's Fox Squirrel	G5T3/S3
15 rare species are associated with the project	

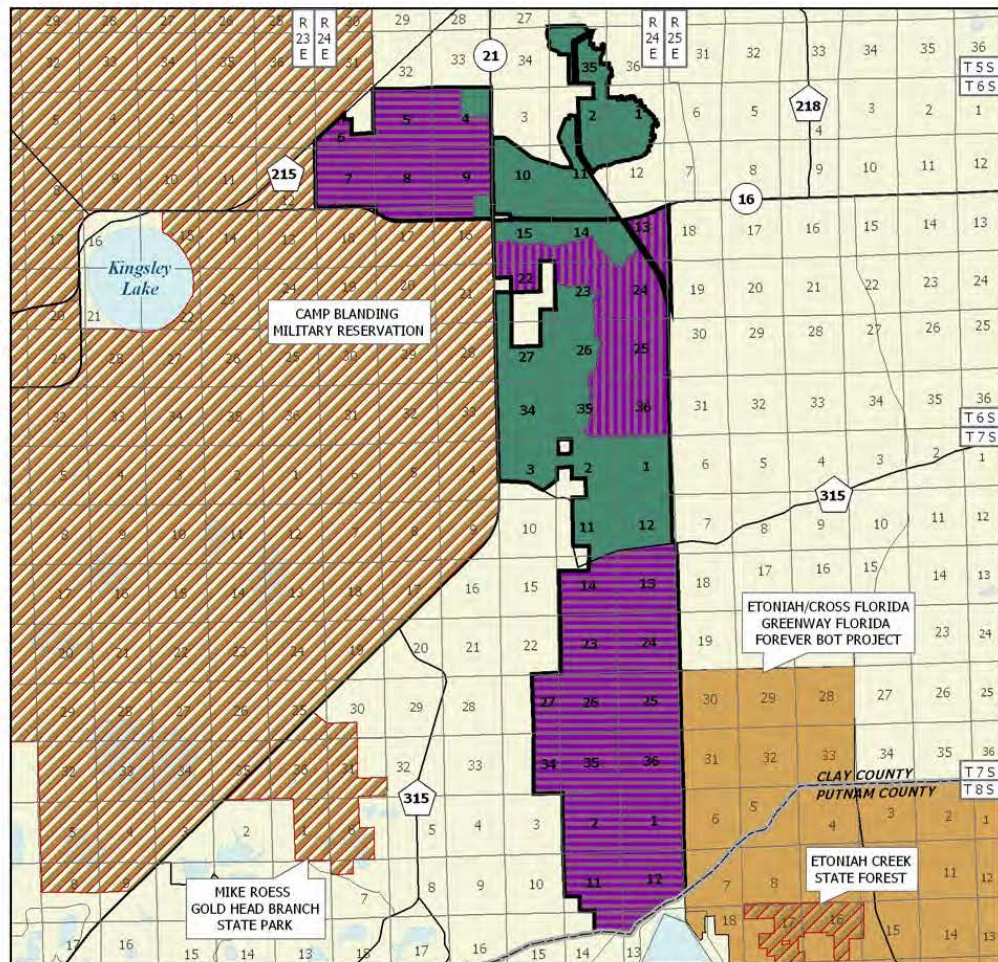
Placed on List	2002
Project Area (GIS Acres)	146,450
Acres Acquired (GIS)	58,969*
At a Cost of	\$141,087,558*
Acres Remaining (GIS)	87,481
With Estimated (tax assessed) Value of	\$30,699,048

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

Northeast Florida Timberlands and Watershed Reserve



Northeast Florida Timberlands and Watershed Reserve



NORTHEAST FLORIDA TIMBERLANDS AND WATERSHED RESERVE: MAP 4 OF 4

CLAY COUNTY

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

0 1 2 4
Miles



SEPTEMBER 2009

Northeast Florida Timberlands and Watershed Reserve

The following 37 ownerships were identified as essential: Gilman, Jackson, Carter, Owen, Nemours, Miller, Bostiwick, Klieg, Bullock, 1st Bank & Trust, Rayonier, International Paper, Motes, Boyd, South Regional Industrial Realty, East Fiftone Partners, Monticello Drugs, St. Joe, Barnett Bank Trustee, Anheuser-Busch, Inc., Travelers Ins., Foster, Tison, Castleton, Wright, Buck, Logan, Higgenbotham, Betz, Ogilvie, Milne, Kaleel & Roberts, Grey, Sythe, Pharr, Wilkinson, and Helmer.

On 6/6/2003, the ARC approved a 506-acre addition, known as the Norfolk Southern property, to the project boundary in Duval County. The fee-simple acquisition, sponsored by TNC, consisted of a single owner, Southern Region Industrial Realty Inc., and had a 2002 taxable value of \$408,700. On 12/5/2003, the ARC approved a 7,043-acre addition, known as the Four Creeks Forest tract, to the project boundary in Nassau County. The fee-simple acquisition, sponsored by the SJRWMD, consisted of one landowner, Rayonier Timberlands Operating Co. LP, and a 2002 taxable value of \$1,478,838.

On 12/3/2004, the ARC approved a 3,500-acre addition, known as the Bull Creek tract, to the project boundary in Clay County. The fee-simple acquisition, sponsored by the SJRWMD, consisted of one landowner, Ventura LLC, and a taxable value of \$760,646.

On 6/30/2006, the Board of Trustees purchased 1,651 acres within the Florida Forever project boundary.

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

On 11/5/2010 DSL purchased 15 acres (Rayonier Forest Resources, L.P.--\$18,108 with FF funds) for FFS to manage. On 4/25/2011, 3.95 acres in Four Creeks State Forest/Pacett) were donated (valued \$2,925). FFS to manage.

Coordination

In 1992 the 172-acre Jacksonville-Baldwin Rail Trail was acquired with Florida Greenways & Trails funds. This trail which meanders through the project is managed by the City of Jacksonville. The SJRWMD is an acquisition partner in areas of the

project to help protect the multiple creeks and rivers. The National Guard Bureau through a Memorandum of Agreement (MOA) is an acquisition partner in areas of the project to help buffer and prevent encroachment of Camp Blanding. TNC, City of Jacksonville, Duval County, FCT, and the U.S. Navy are considered partners in this project.

Management Policy Statement

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

Management Prospectus

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

Conditions affecting intensity of management

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

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

Once the core areas of the project are acquired and assigned to the FFS, initial public access will be provided for diverse, low-intensity outdoor recreation activities. Initial and intermediate management efforts will concentrate on site security, public and resource management access, prescribed

Northeast Florida Timberlands and Watershed Reserve

burns, reforestation, and restoration activity.

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

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

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

as follows:

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

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

Updated 2/29/2012

Exhibit J

Department of State Report on Archeological Sites and
Historical Sites

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

July 1, 2014

Jennifer Reed
Florida Forestry Service
3125 Conner Boulevard Tallahassee, FL 32399
Phone: 850-681-5828
Email: Jennifer.reed@freshfromflorida.com



In response to your inquiry of July 1, 2014 the Florida Master Site File lists eleven previously recorded archaeological sites, one resource group, one historic cemetery and one standing structure found within the **Etoniah Creek State Forest** located in Putnam County.

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

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

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

Sincerely,

A handwritten signature in cursive script that reads "Mary G. Berman".

Mary Berman
Archaeological Analyst
Florida Master Site File
mary.berman@dos.state.fl.us

OBJECTID	SiteID	SiteName	SiteType1	SiteType2	Culture1	Culture2
25510	PU00685	Seasonal Habitat	Artifact scatter-low density (< 2 per sq meter)		Prehistoric	
25511	PU00686	Seasonal Habitat near Live Oak	Artifact scatter-low density (< 2 per sq meter)		Prehistoric	
25520	PU00766	Georges Lake Parking Area			Historic	
25584	PU01238	Holloway Homestead	Homestead		Nineteenth century American, 1821-1899	Twentieth century American, 1900-present
25585	PU01241	Still Pond Turpentine Camp	Lithic scatter/quarry (prehistoric: no ceramics)	Turpentine camp	Twentieth century American, 1900-present	Middle Archaic
25586	PU01242	Quail Road	Homestead	Historic refuse / Dump	Twentieth century American, 1900-present	
25587	PU01243	Blueberry Scrub	Artifact scatter-low density (< 2 per sq meter)		Prehistoric with pottery	
25588	PU01244	Buzzy	Homestead	Historic refuse / Dump	Twentieth century American, 1900-present	
25589	PU01245	Holloway Road Cattle Trough	Other		Twentieth century American, 1900-present	
25590	PU01246	Manning Southeast	Habitation (prehistoric)	Artifact scatter-low density (< 2 per sq meter)	Cades Pond, 300 B.C.-A.D. 800	
25668	PU01483	Kennard Shine Runner	Other		Twentieth century American, 1900-present	
			CemType1	YearEstab	EthnicGrp1	EthnicGrp2
919	PU01239	Mt. Hebron Cemetery	Community	c1900	Unknown	White, Non-Hispanic
			RgType	TimeSig1	TimeSig2	TimeSig3
1751	PU01411	Georgia Southern + Florida Railroad	Linear Resource	Nineteenth century American, 1821-1899	Twentieth century American, 1900-present	c.1890-c.1950
			StrucSys1	YearBuilt	Style	Destroyed
131231	PU01240	Manning Turpentine Shack	Light wood frame	c1950	Frame Vernacular	NO

SurvEval	SurveyNum	ShpoEval	PlotType			
Not Evaluated by Recorder	0	Not Evaluated by SHPO	NORM			
Not Evaluated by Recorder	0	Not Evaluated by SHPO	NORM			
Not Evaluated by Recorder		Not Evaluated by SHPO	NORM			
Ineligible for NRHP	5676	Not Evaluated by SHPO	NORM			
Insufficient Information	5676	Not Evaluated by SHPO	NORM			
Insufficient Information	5676	Not Evaluated by SHPO	NORM			
Insufficient Information	5676	Not Evaluated by SHPO	NORM			
Ineligible for NRHP	5676	Not Evaluated by SHPO	NORM			
Insufficient Information	5676	Not Evaluated by SHPO	NORM			
Not Evaluated by Recorder						
Condition				Status		
Poorly maintained	5676	Not Evaluated by SHPO	NORM	Maintained But Not Used		
Evaluation			NRCategory	HistAssc1	Narrative	
The integrity of 8PU1411 has been severely compromised with the removal of the cross-ties, rails, and tie plates in the 1990s.	18015	Ineligible for NRHP	STRU	Transportation	The GS&F railroad has an elevated gravel railroad bed measuring approximately 16ft across with ditches approximately 16ft wide on either side of the bed. Nonhistoric alterations include the removal of crosssties, rails and tie plates.	
SurvEval			ExtPlan	ExtFabric1 / ExtFabric2 / ExtFabric3	StrucUse1	SurvDist
Ineligible for NRHP	5676	Not Evaluated by SHPO	Square	Metal / Horizontal plank / Wood shingles	Private residence	Ineligible as contributor to NR district

Exhibit K

Management Procedures for Archaeological and Historical Sites and Properties

Management Procedures for Archaeological and Historical Sites and Properties on State-Owned or Controlled Properties
(revised March 2013)

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

A. General Discussion

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

B. Agency Responsibilities

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

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

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

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

C. Statutory Authority

Statutory Authority and more in depth information can be found at:
<http://www.flheritage.com/preservation/compliance/guidelines.cfm>

D. Management Implementation

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

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

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

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

E. Minimum Review Documentation Requirements

In order to have a proposed project reviewed by the Division, certain information must be submitted for comments and recommendations. The minimum review documentation requirements can be found at:
http://www.flheritage.com/preservation/compliance/docs/minimum_review_documentation_requirements.pdf.

* * *

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

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

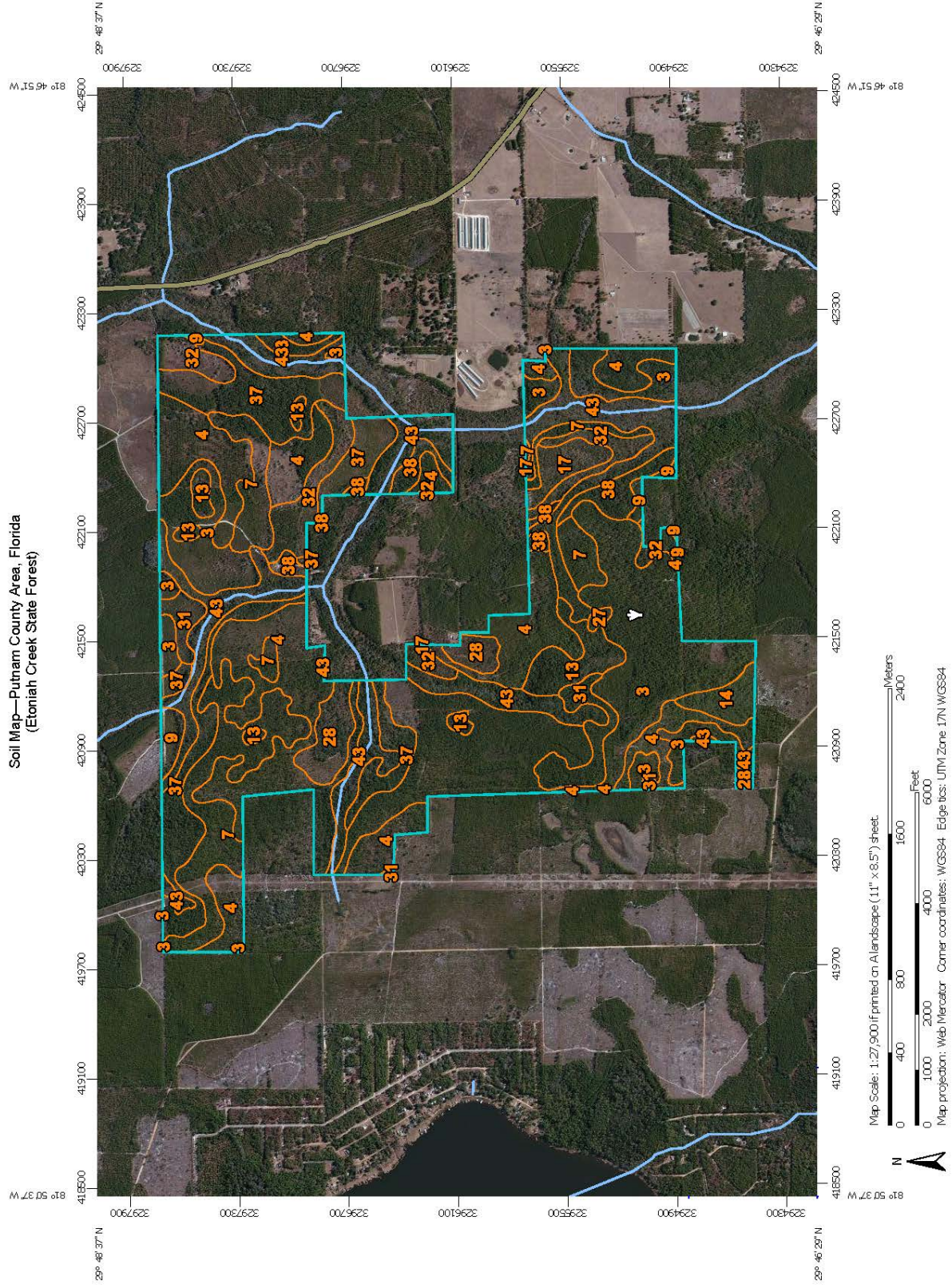
Phone: (850) 245-6425

Toll Free: (800) 847-7278

Fax: (850) 245-6435

Exhibit L

Soil Maps and Descriptions



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Soft Spot

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

Special Line Features

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800. Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Putnam County Area, Florida
Survey Area Data: Version 9, Dec 7, 2013

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

Date(s) aerial images were photographed: Dec 8, 2010—Mar 15, 2011

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

Map Unit Legend

Putnam County Area, Florida (FL107)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3	Myakka fine sand	389.7	25.1%
4	Zolfo fine sand	333.8	21.5%
7	Immokalee fine sand	147.1	9.5%
9	Pomona fine sand	15.5	1.0%
13	St. Johns fine sand, depressional	47.1	3.0%
14	Cassia fine sand	18.2	1.2%
17	Millhopper sand, 0 to 5 percent slopes	20.3	1.3%
27	Samsula muck	2.5	0.2%
28	Centenary fine sand	39.4	2.5%
31	Myakka fine sand, depressional	39.9	2.6%
32	Sparr sand, 0 to 5 percent slopes	79.4	5.1%
37	Ona fine sand	163.5	10.5%
38	Holopaw fine sand	39.3	2.5%
43	Placid-Pompano association, frequently flooded	219.6	14.1%
Totals for Area of Interest		1,555.5	100.0%

Component Legend

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

Report—Component Legend

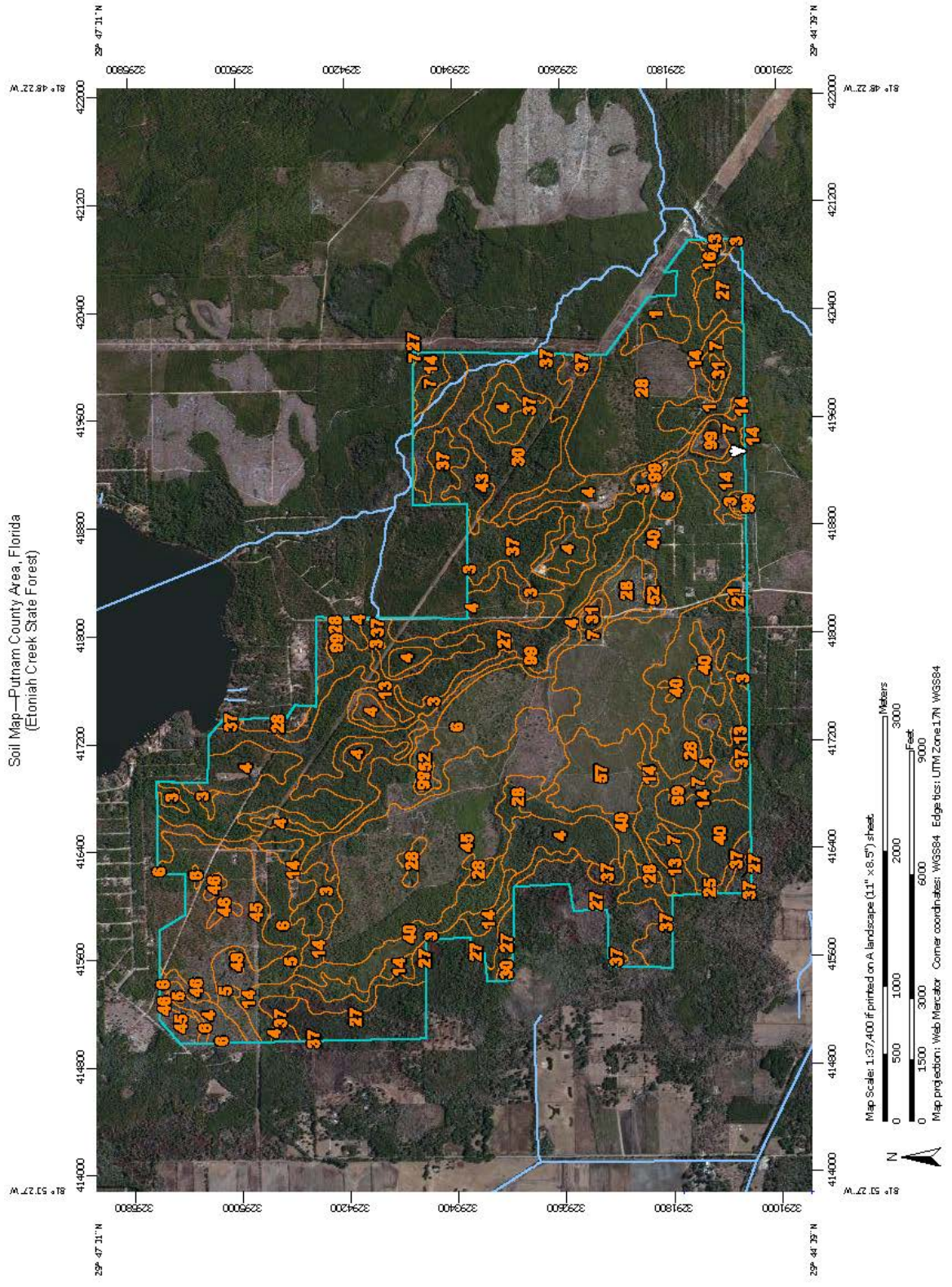
Component Legend—Putnam County Area, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
3—Myakka fine sand	49,200						
		75	Myakka, non-hydric	Series	0.0	1.0	2.0
		15	Myakka, hydric	Series	0.0	1.0	2.0
		3	Immokalee, non-hydric	Series	0.0	1.0	2.0
		3	Cassia	Series	0.0	1.0	2.0
		2	Placid, depressional	Series	0.0	1.0	2.0
		2	St. Johns, depressional	Series	0.0	1.0	2.0
4—Zolfo fine sand	17,930						
		90	Zolfo	Series	0.0	1.0	2.0
		3	Centenary	Series	0.0	1.0	2.0
		3	Adamsville	Series	0.0	1.0	2.0
		2	Tavares	Series	0.0	3.0	5.0
		2	Narcoossee	Series	0.0	1.0	2.0
7—Immokalee fine sand	8,690						
		75	Immokalee, non-hydric	Series	0.0	1.0	2.0
		10	Immokalee, hydric	Series	0.0	1.0	2.0
		5	Myakka, non-hydric	Series	0.0	1.0	2.0
		5	Cassia	Series	0.0	1.0	2.0
		5	St. Johns, depressional	Series	0.0	1.0	2.0
9—Pomona fine sand	42,500						
		75	Pomona, non-hydric	Series	0.0	1.0	2.0
		10	Pomona, hydric	Series	0.0	1.0	2.0
		5	Pomona, depressional	Series	0.0	1.0	2.0
		4	Myakka, non-hydric	Series	0.0	1.0	2.0
		3	Palmetto, non-hydric	Series	0.0	1.0	2.0
		3	Wauchula, non-hydric	Series	0.0	1.0	2.0

Component Legend--Putnam County Area, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
13—St. Johns fine sand, depressional	6,790						
		80	St. Johns, depressional	Series	0.0	1.0	2.0
		4	Ona, hydric	Series	0.0	1.0	2.0
		4	Samsula	Series	0.0	0.5	1.0
		4	Placid, depressional	Series	0.0	1.0	2.0
		4	Myakka, depressional	Series	0.0	1.0	2.0
		4	Pomona, depressional	Series	0.0	1.0	2.0
14—Cassia fine sand	6,250						
		80	Cassia	Series	0.0	1.0	2.0
		5	Adamsville	Series	0.0	1.0	2.0
		5	Zolfo	Series	0.0	1.0	2.0
		5	Myakka, non-hydric	Series	0.0	1.0	2.0
		5	Narcoossee	Series	0.0	1.0	2.0
17—Millhopper sand, 0 to 5 percent slopes	7,890						
		85	Millhopper	Series	0.0	3.0	5.0
		4	Sparr	Series	0.0	3.0	5.0
		4	Candler	Series	0.0	3.0	5.0
		4	Apopka	Series	0.0	3.0	5.0
		3	Tavares	Series	0.0	3.0	5.0
27—Samsula muck	16,300						
		80	Samsula	Series	0.0	0.5	1.0
		5	Hontoon	Series	0.0	0.5	1.0
		5	St. Johns, depressional	Series	0.0	1.0	2.0
		5	Tomoka	Series	0.0	0.5	1.0
		5	Placid, depressional	Series	0.0	1.0	2.0
28—Centenary fine sand	10,750						
		80	Centenary	Series	0.0	1.0	2.0
		4	Deland	Series	0.0	4.0	8.0
		4	Adamsville	Series	0.0	1.0	2.0
		3	Ona, non-hydric	Series	0.0	1.0	2.0
		3	Florahome	Series	0.0	1.5	3.0
		3	Tavares	Series	0.0	3.0	5.0
		3	Zolfo	Series	0.0	1.0	2.0

Component Legend--Putnam County Area, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
31—Myakka fine sand, depressional	2,390						
		90	Myakka, depressional	Series	0.0	1.0	2.0
		4	Placid, depressional	Series	0.0	1.0	2.0
		3	St. Johns, depressional	Series	0.0	1.0	2.0
		3	Pomona, depressional	Series	0.0	1.0	2.0
32—Sparr sand, 0 to 5 percent slopes	6,180						
		90	Sparr	Series	0.0	3.0	5.0
		4	Adamsville	Series	0.0	1.0	2.0
		3	Millhopper	Series	0.0	3.0	5.0
		3	Lochloosa	Series	0.0	3.0	5.0
37—Ona fine sand	8,600						
		80	Ona, non-hydric	Series	0.0	1.0	2.0
		10	Ona, hydric	Series	0.0	1.0	2.0
		4	Myakka, non-hydric	Series	0.0	1.0	2.0
		3	St. Johns, depressional	Series	0.0	1.0	2.0
		3	Placid, depressional	Series	0.0	1.0	2.0
38—Holopaw fine sand	6,120						
		65	Holopaw, non-hydric	Series	0.0	1.0	2.0
		15	Holopaw, hydric	Series	0.0	1.0	2.0
		5	Palmetto, non-hydric	Series	0.0	1.0	2.0
		5	Malabar, non-hydric	Series	0.0	1.0	2.0
		5	Pompano, non-hydric	Series	0.0	1.0	2.0
		5	Sparr	Series	0.0	3.0	5.0
43—Placid-Pompano association, frequently flooded	15,600						
		55	Placid	Series	0.0	1.0	2.0
		30	Pompano	Series	0.0	1.0	3.0
		15	Samsula	Series	0.0	0.5	1.0

Data Source Information

Soil Survey Area: Putnam County Area, Florida
 Survey Area Data: Version 9, Dec 7, 2013



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Soft Spot

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

Special Line Features

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800. Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Putnam County Area, Florida
Survey Area Data: Version 9, Dec 7, 2013

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

Date(s) aerial images were photographed: Dec 8, 2010—Mar 15, 2011

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

Map Unit Legend

Putnam County Area, Florida (FL107)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Candler fine sand, 0 to 5 percent slopes	74.2	1.9%
2	Candler fine sand, 5 to 8 percent slopes	3.9	0.1%
3	Myakka fine sand	390.8	10.1%
4	Zolfo fine sand	417.2	10.7%
5	Placid fine sand, depressional	3.4	0.1%
6	Tavares fine sand, 0 to 5 percent slopes	281.7	7.3%
7	Immokalee fine sand	65.7	1.7%
13	St. Johns fine sand, depressional	339.1	8.7%
14	Cassia fine sand	166.2	4.3%
16	Adamsville sand, 0 to 2 percent slopes	11.7	0.3%
25	Narcoossee fine sand	2.2	0.1%
27	Samsula muck	208.9	5.4%
28	Centenary fine sand	403.9	10.4%
30	Hontoon muck	83.3	2.1%
31	Myakka fine sand, depressional	11.1	0.3%
37	Ona fine sand	227.8	5.9%
40	Paola fine sand, 0 to 8 percent slopes	438.9	11.3%
43	Placid-Pompano association, frequently flooded	104.3	2.7%
45	Astatula fine sand, 0 to 8 percent slopes	492.3	12.7%
46	Astatula fine sand, 8 to 15 percent slopes	19.6	0.5%
48	Florahome sand	2.4	0.1%
52	Orsino fine sand, 0 to 8 percent slopes	28.4	0.7%
57	Deland fine sand, 0 to 8 percent slopes	82.0	2.1%
99	Water	24.7	0.6%
Totals for Area of Interest		3,883.9	100.0%

Component Legend

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

Report—Component Legend

Component Legend—Putnam County Area, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
1—Candler fine sand, 0 to 5 percent slopes	29,650						
		90	Candler	Series	0.0	3.0	5.0
		4	Tavares	Series	0.0	1.0	5.0
		3	Adamsville	Series	0.0	1.0	2.0
		3	Millhopper	Series	0.0	3.0	5.0
2—Candler fine sand, 5 to 8 percent slopes	8,820						
		90	Candler	Series	5.0	6.5	8.0
		3	Apopka	Series	5.0	6.5	8.0
		3	Astatula	Series	0.0	4.0	8.0
		2	Tavares	Series	0.0	3.0	5.0
		2	Millhopper	Series	0.0	3.0	5.0
3—Myakka fine sand	49,200						
		75	Myakka, non-hydric	Series	0.0	1.0	2.0
		15	Myakka, hydric	Series	0.0	1.0	2.0
		3	Immokalee, non-hydric	Series	0.0	1.0	2.0
		3	Cassia	Series	0.0	1.0	2.0
		2	Placid, depressional	Series	0.0	1.0	2.0
		2	St. Johns, depressional	Series	0.0	1.0	2.0
4—Zolfo fine sand	17,930						
		90	Zolfo	Series	0.0	1.0	2.0
		3	Centenary	Series	0.0	1.0	2.0
		3	Adamsville	Series	0.0	1.0	2.0
		2	Tavares	Series	0.0	3.0	5.0
		2	Narcoossee	Series	0.0	1.0	2.0

Component Legend--Putnam County Area, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
5—Placid fine sand, depressional	8,530						
		90	Placid, depressional	Series	0.0	1.0	2.0
		3	Myakka, depressional	Series	0.0	1.0	2.0
		3	Ona, hydric	Series	0.0	1.0	2.0
		2	Samsula	Series	0.0	0.5	1.0
		2	St. Johns, depressional	Series	0.0	1.0	2.0
6—Tavares fine sand, 0 to 5 percent slopes	20,000						
		80	Tavares	Series	0.0	3.0	5.0
		4	Candler	Series	0.0	3.0	5.0
		4	Adamsville	Series	0.0	1.0	2.0
		3	Zolfo	Series	0.0	1.0	2.0
		3	Centenary	Series	0.0	1.0	2.0
		3	Sparr	Series	0.0	3.0	5.0
		3	Narcoossee	Series	0.0	1.0	2.0
7—Immokalee fine sand	8,690						
		75	Immokalee, non-hydric	Series	0.0	1.0	2.0
		10	Immokalee, hydric	Series	0.0	1.0	2.0
		5	Myakka, non-hydric	Series	0.0	1.0	2.0
		5	Cassia	Series	0.0	1.0	2.0
		5	St. Johns, depressional	Series	0.0	1.0	2.0
13—St. Johns fine sand, depressional	6,790						
		80	St. Johns, depressional	Series	0.0	1.0	2.0
		4	Ona, hydric	Series	0.0	1.0	2.0
		4	Samsula	Series	0.0	0.5	1.0
		4	Placid, depressional	Series	0.0	1.0	2.0
		4	Myakka, depressional	Series	0.0	1.0	2.0
		4	Pomona, depressional	Series	0.0	1.0	2.0
14—Cassia fine sand	6,250						
		80	Cassia	Series	0.0	1.0	2.0
		5	Adamsville	Series	0.0	1.0	2.0
		5	Zolfo	Series	0.0	1.0	2.0
		5	Myakka, non-hydric	Series	0.0	1.0	2.0
		5	Narcoossee	Series	0.0	1.0	2.0

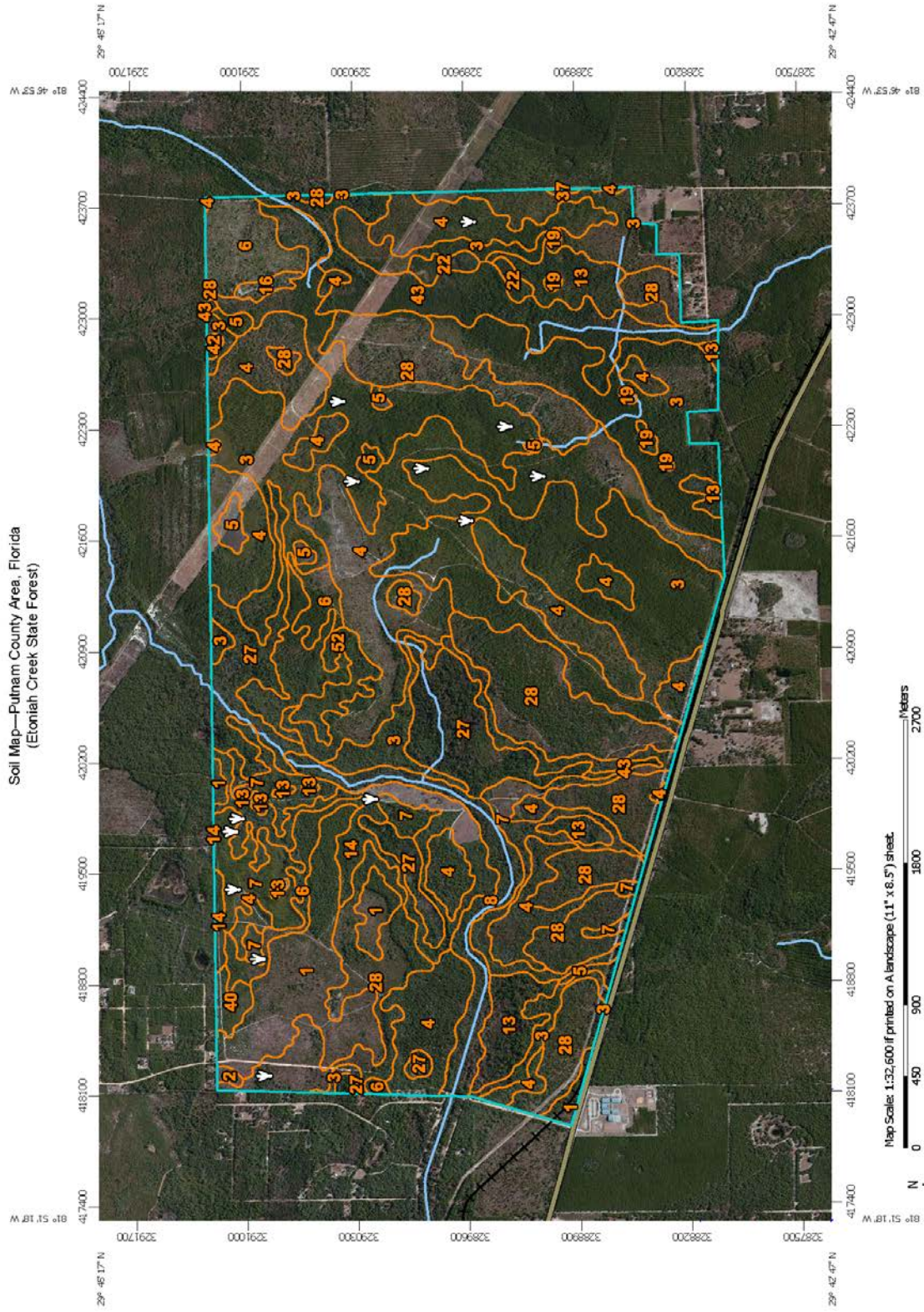
Component Legend--Putnam County Area, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
16—Adamsville sand, 0 to 2 percent slopes	6,490						
		92	Adamsville	Series	0.0	1.0	2.0
		4	Narcoossee	Series	0.0	1.0	2.0
		4	Riviera	Series	0.0	1.0	2.0
25—Narcoossee fine sand	3,200						
		80	Narcoossee	Series	0.0	1.0	2.0
		10	Cassia	Series	0.0	1.0	2.0
		10	Adamsville	Series	0.0	1.0	2.0
27—Samsula muck	16,300						
		80	Samsula	Series	0.0	0.5	1.0
		5	Hontoon	Series	0.0	0.5	1.0
		5	St. Johns, depressional	Series	0.0	1.0	2.0
		5	Tomoka	Series	0.0	0.5	1.0
		5	Placid, depressional	Series	0.0	1.0	2.0
28—Centenary fine sand	10,750						
		80	Centenary	Series	0.0	1.0	2.0
		4	Deland	Series	0.0	4.0	8.0
		4	Adamsville	Series	0.0	1.0	2.0
		3	Ona, non-hydric	Series	0.0	1.0	2.0
		3	Florahome	Series	0.0	1.5	3.0
		3	Tavares	Series	0.0	3.0	5.0
		3	Zolfo	Series	0.0	1.0	2.0
30—Hontoon muck	9,430						
		85	Hontoon	Series	0.0	0.5	1.0
		8	Placid, depressional	Series	0.0	1.0	2.0
		7	Samsula	Series	0.0	0.5	1.0
31—Myakka fine sand, depressional	2,390						
		90	Myakka, depressional	Series	0.0	1.0	2.0
		4	Placid, depressional	Series	0.0	1.0	2.0
		3	St. Johns, depressional	Series	0.0	1.0	2.0
		3	Pomona, depressional	Series	0.0	1.0	2.0

Component Legend--Putnam County Area, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
37—Ona fine sand	8,600						
		80	Ona, non-hydric	Series	0.0	1.0	2.0
		10	Ona, hydric	Series	0.0	1.0	2.0
		4	Myakka, non-hydric	Series	0.0	1.0	2.0
		3	St. Johns, depressional	Series	0.0	1.0	2.0
		3	Placid, depressional	Series	0.0	1.0	2.0
40—Paola fine sand, 0 to 8 percent slopes	2,170						
		90	Paola	Series	0.0	4.0	8.0
		3	Cassia	Series	0.0	1.0	2.0
		3	Candler	Series	0.0	3.0	5.0
		2	Tavares	Series	0.0	3.0	5.0
		2	Orsino	Series	0.0	4.0	8.0
43—Placid-Pompano association, frequently flooded	15,600						
		55	Placid	Series	0.0	1.0	2.0
		30	Pompano	Series	0.0	1.0	3.0
		15	Samsula	Series	0.0	0.5	1.0
45—Astatula fine sand, 0 to 8 percent slopes	12,250						
		85	Astatula	Series	0.0	4.0	8.0
		3	Candler	Series	0.0	3.0	5.0
		3	Apopka	Series	0.0	3.0	5.0
		3	Tavares	Series	0.0	3.0	5.0
		3	Millhopper	Series	0.0	3.0	5.0
		3	Deland	Series	0.0	4.0	8.0
46—Astatula fine sand, 8 to 15 percent slopes	1,370						
		90	Astatula	Series	8.0	11.5	15.0
		5	Candler	Series	5.0	6.5	8.0
		5	Tavares	Series	0.0	3.0	5.0
48—Florahome sand	2,250						
		90	Florahome	Series	0.0	1.5	3.0
		3	Centenary	Series	0.0	1.0	2.0
		3	Adamsville	Series	0.0	1.0	2.0
		2	Tavares	Series	0.0	3.0	5.0
		2	Narcoossee	Series	0.0	1.0	2.0

Component Legend--Putnam County Area, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
52—Orsino fine sand, 0 to 8 percent slopes	2,710						
		80	Orsino	Series	0.0	4.0	8.0
		5	Paola	Series	0.0	4.0	8.0
		5	Astatula	Series	0.0	4.0	8.0
		5	Cassia	Series	0.0	1.0	2.0
		5	Tavares	Series	0.0	3.0	5.0
57—Deland fine sand, 0 to 8 percent slopes	1,650						
		90	Deland	Series	0.0	4.0	8.0
		5	Astatula	Series	0.0	4.0	8.0
		5	Centenary	Series	0.0	1.0	2.0
99—Water	60,400						
		100	Water	Miscellaneous area			

Data Source Information

Soil Survey Area: Putnam County Area, Florida
 Survey Area Data: Version 9, Dec 7, 2013



Map Scale: 1:32,600 if printed on A landscape (11" x 8.5") sheet.

Map projection: Web Mercator Corner coordinates: WGS84 Edge-tics: UTM Zone 17N WGS84

Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

Special Line Features

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800. Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Putnam County Area, Florida
Survey Area Data: Version 9, Dec 7, 2013

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

Date(s) aerial images were photographed: Dec 8, 2010—Mar 15, 2011

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

Map Unit Legend

Putnam County Area, Florida (FL107)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Candler fine sand, 0 to 5 percent slopes	198.8	4.8%
2	Candler fine sand, 5 to 8 percent slopes	3.6	0.1%
3	Myakka fine sand	1,154.3	28.0%
4	Zolfo fine sand	862.8	21.0%
5	Placid fine sand, depressional	36.1	0.9%
6	Tavares fine sand, 0 to 5 percent slopes	131.2	3.2%
7	Immokalee fine sand	223.5	5.4%
8	Arents, 0 to 2 percent slopes	101.3	2.5%
13	St. Johns fine sand, depressional	139.2	3.4%
14	Cassia fine sand	128.7	3.1%
16	Adamsville sand, 0 to 2 percent slopes	9.5	0.2%
19	Pomona fine sand, depressional	13.0	0.3%
22	Tomoka muck	21.5	0.5%
27	Samsula muck	233.5	5.7%
28	Centenary fine sand	621.2	15.1%
37	Ona fine sand	1.5	0.0%
40	Paola fine sand, 0 to 8 percent slopes	16.3	0.4%
42	Riviera fine sand, depressional	3.1	0.1%
43	Placid-Pompano association, frequently flooded	180.2	4.4%
52	Orsino fine sand, 0 to 8 percent slopes	35.9	0.9%
Totals for Area of Interest		4,115.4	100.0%

Component Legend

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

Report—Component Legend

Component Legend—Putnam County Area, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
1—Candler fine sand, 0 to 5 percent slopes	29,650						
		90	Candler	Series	0.0	3.0	5.0
		4	Tavares	Series	0.0	1.0	5.0
		3	Adamsville	Series	0.0	1.0	2.0
		3	Millhopper	Series	0.0	3.0	5.0
2—Candler fine sand, 5 to 8 percent slopes	8,820						
		90	Candler	Series	5.0	6.5	8.0
		3	Apopka	Series	5.0	6.5	8.0
		3	Astatula	Series	0.0	4.0	8.0
		2	Tavares	Series	0.0	3.0	5.0
		2	Millhopper	Series	0.0	3.0	5.0
3—Myakka fine sand	49,200						
		75	Myakka, non-hydric	Series	0.0	1.0	2.0
		15	Myakka, hydric	Series	0.0	1.0	2.0
		3	Immokalee, non-hydric	Series	0.0	1.0	2.0
		3	Cassia	Series	0.0	1.0	2.0
		2	Placid, depressional	Series	0.0	1.0	2.0
		2	St. Johns, depressional	Series	0.0	1.0	2.0
4—Zolfo fine sand	17,930						
		90	Zolfo	Series	0.0	1.0	2.0
		3	Centenary	Series	0.0	1.0	2.0
		3	Adamsville	Series	0.0	1.0	2.0
		2	Tavares	Series	0.0	3.0	5.0
		2	Narcoossee	Series	0.0	1.0	2.0

Component Legend--Putnam County Area, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
5—Placid fine sand, depressional	8,530						
		90	Placid, depressional	Series	0.0	1.0	2.0
		3	Myakka, depressional	Series	0.0	1.0	2.0
		3	Ona, hydric	Series	0.0	1.0	2.0
		2	Samsula	Series	0.0	0.5	1.0
		2	St. Johns, depressional	Series	0.0	1.0	2.0
6—Tavares fine sand, 0 to 5 percent slopes	20,000						
		80	Tavares	Series	0.0	3.0	5.0
		4	Candler	Series	0.0	3.0	5.0
		4	Adamsville	Series	0.0	1.0	2.0
		3	Zolfo	Series	0.0	1.0	2.0
		3	Centenary	Series	0.0	1.0	2.0
		3	Sparr	Series	0.0	3.0	5.0
		3	Narcoossee	Series	0.0	1.0	2.0
7—Immokalee fine sand	8,690						
		75	Immokalee, non-hydric	Series	0.0	1.0	2.0
		10	Immokalee, hydric	Series	0.0	1.0	2.0
		5	Myakka, non-hydric	Series	0.0	1.0	2.0
		5	Cassia	Series	0.0	1.0	2.0
		5	St. Johns, depressional	Series	0.0	1.0	2.0
8—Arents, 0 to 2 percent slopes	3,020						
		100	Arents	Taxon above family	0.0	1.0	2.0
13—St. Johns fine sand, depressional	6,790						
		80	St. Johns, depressional	Series	0.0	1.0	2.0
		4	Ona, hydric	Series	0.0	1.0	2.0
		4	Samsula	Series	0.0	0.5	1.0
		4	Placid, depressional	Series	0.0	1.0	2.0
		4	Myakka, depressional	Series	0.0	1.0	2.0
		4	Pomona, depressional	Series	0.0	1.0	2.0
14—Cassia fine sand	6,250						
		80	Cassia	Series	0.0	1.0	2.0
		5	Adamsville	Series	0.0	1.0	2.0
		5	Zolfo	Series	0.0	1.0	2.0
		5	Myakka, non-hydric	Series	0.0	1.0	2.0
		5	Narcoossee	Series	0.0	1.0	2.0

Component Legend--Putnam County Area, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
16—Adamsville sand, 0 to 2 percent slopes	6,490						
		92	Adamsville	Series	0.0	1.0	2.0
		4	Narcoossee	Series	0.0	1.0	2.0
		4	Riviera	Series	0.0	1.0	2.0
19—Pomona fine sand, depressional	1,240						
		80	Pomona, depressional	Series	0.0	1.0	2.0
		10	Tomoka	Series	0.0	0.5	1.0
		10	Placid, depressional	Series	0.0	1.0	2.0
22—Tomoka muck	4,600						
		80	Tomoka	Series	0.0	0.5	1.0
		5	St. Johns, depressional	Series	0.0	1.0	2.0
		5	Hontoon	Series	0.0	0.5	1.0
		5	Placid, depressional	Series	0.0	1.0	2.0
		5	Samsula	Series	0.0	0.5	1.0
27—Samsula muck	16,300						
		80	Samsula	Series	0.0	0.5	1.0
		5	Hontoon	Series	0.0	0.5	1.0
		5	St. Johns, depressional	Series	0.0	1.0	2.0
		5	Tomoka	Series	0.0	0.5	1.0
		5	Placid, depressional	Series	0.0	1.0	2.0
28—Centenary fine sand	10,750						
		80	Centenary	Series	0.0	1.0	2.0
		4	Deland	Series	0.0	4.0	8.0
		4	Adamsville	Series	0.0	1.0	2.0
		3	Ona, non-hydric	Series	0.0	1.0	2.0
		3	Florahome	Series	0.0	1.5	3.0
		3	Tavares	Series	0.0	3.0	5.0
		3	Zolfo	Series	0.0	1.0	2.0
37—Ona fine sand	8,600						
		80	Ona, non-hydric	Series	0.0	1.0	2.0
		10	Ona, hydric	Series	0.0	1.0	2.0
		4	Myakka, non-hydric	Series	0.0	1.0	2.0
		3	St. Johns, depressional	Series	0.0	1.0	2.0
		3	Placid, depressional	Series	0.0	1.0	2.0

Component Legend--Putnam County Area, Florida							
Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope		
					Low	RV	High
40—Paola fine sand, 0 to 8 percent slopes	2,170						
		90	Paola	Series	0.0	4.0	8.0
		3	Cassia	Series	0.0	1.0	2.0
		3	Candler	Series	0.0	3.0	5.0
		2	Tavares	Series	0.0	3.0	5.0
		2	Orsino	Series	0.0	4.0	8.0
42—Riviera fine sand, depressional	2,870						
		70	Riviera, depressional	Series	0.0	1.0	2.0
		10	Winder	Series	0.0	1.0	2.0
		10	Riviera	Series	0.0	1.0	2.0
		10	Holopaw, depressional	Series	0.0	1.0	2.0
43—Placid-Pompano association, frequently flooded	15,600						
		55	Placid	Series	0.0	1.0	2.0
		30	Pompano	Series	0.0	1.0	3.0
		15	Samsula	Series	0.0	0.5	1.0
52—Orsino fine sand, 0 to 8 percent slopes	2,710						
		80	Orsino	Series	0.0	4.0	8.0
		5	Paola	Series	0.0	4.0	8.0
		5	Astatula	Series	0.0	4.0	8.0
		5	Cassia	Series	0.0	1.0	2.0
		5	Tavares	Series	0.0	3.0	5.0

Data Source Information

Soil Survey Area: Putnam County Area, Florida

Survey Area Data: Version 9, Dec 7, 2013

Exhibit M

Department of Environmental Protection
Outstanding Florida Waters



**FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION**

BOB MARTINEZ CENTER
2600 BLAIRSTONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

June 3, 2014

Ms. Jennifer Reed
Land Planning Coordinator
Florida Forestry Service
Florida Department of Agriculture & Consumer Services
The Conner Building
3125 Conner Boulevard - Room 237
Tallahassee, FL 32399-1650

RE: Land Use Plan for Etoniah Creek State Forest

Dear Ms. Reed:

Thank you for your inquiry regarding the surface water quality classifications on and near Etoniah Creek State Forest in Putnam County. There are no Outstanding Florida Waters located in or adjacent to Etoniah Creek State Forest (Rule 62-302.700, Florida Administrative Code (FAC)). Any surface waters on the site are classified as Class III waters (subparagraph 62-302.400(16)(b)54., FAC), which is the statewide default classification.

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

Sincerely,

Eric R. Shaw
Environmental Manager
Standards Development Section

Exhibit N

Water Resources



Florida Forest Service

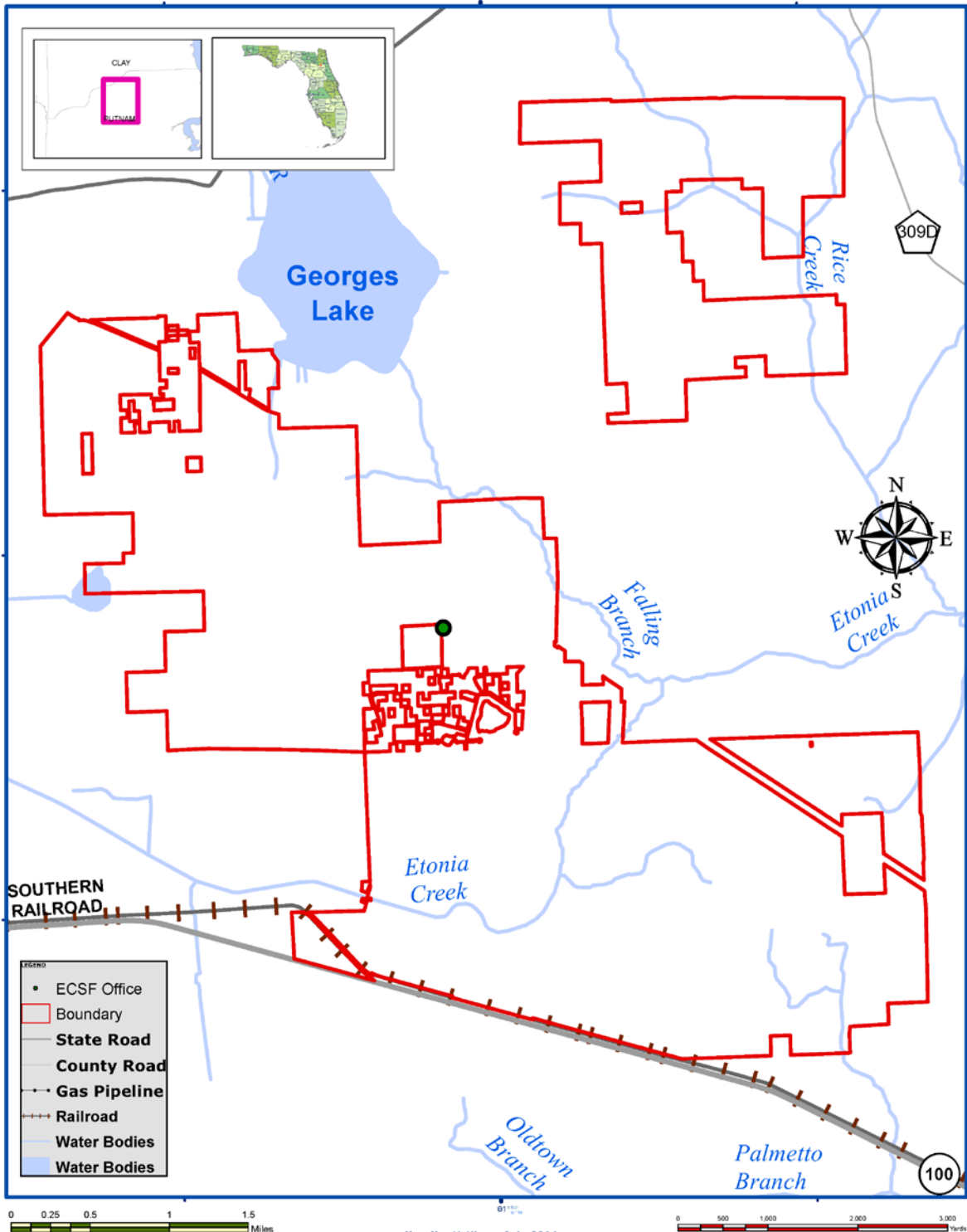
Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum

Etoniah Creek State Forest

Water Resources Map

DISCLAIMER:
This map was prepared by the Florida Forest Service
and is not intended to be used for any purpose other
than general information. It is not a legal document
and should not be used for any legal purpose.
The Florida Forest Service makes no warranty, either
express or implied, for the accuracy or completeness
of the map.

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





Florida Forest Service

Etoniah Creek State Forest

Water Resources Map

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

DISCLAIMER:
This map was prepared by the Florida Forest Service
for the purpose of providing information only. It is not
warranted or guaranteed by the Florida Forest Service.
The Florida Forest Service does not assume any liability
for any errors or omissions in this map.

Map of Area Boundary: Contours of
the Florida Natural Areas Inventory
Palmetto State Defense Sites (PSDS) from the
US Army Corps of Engineers

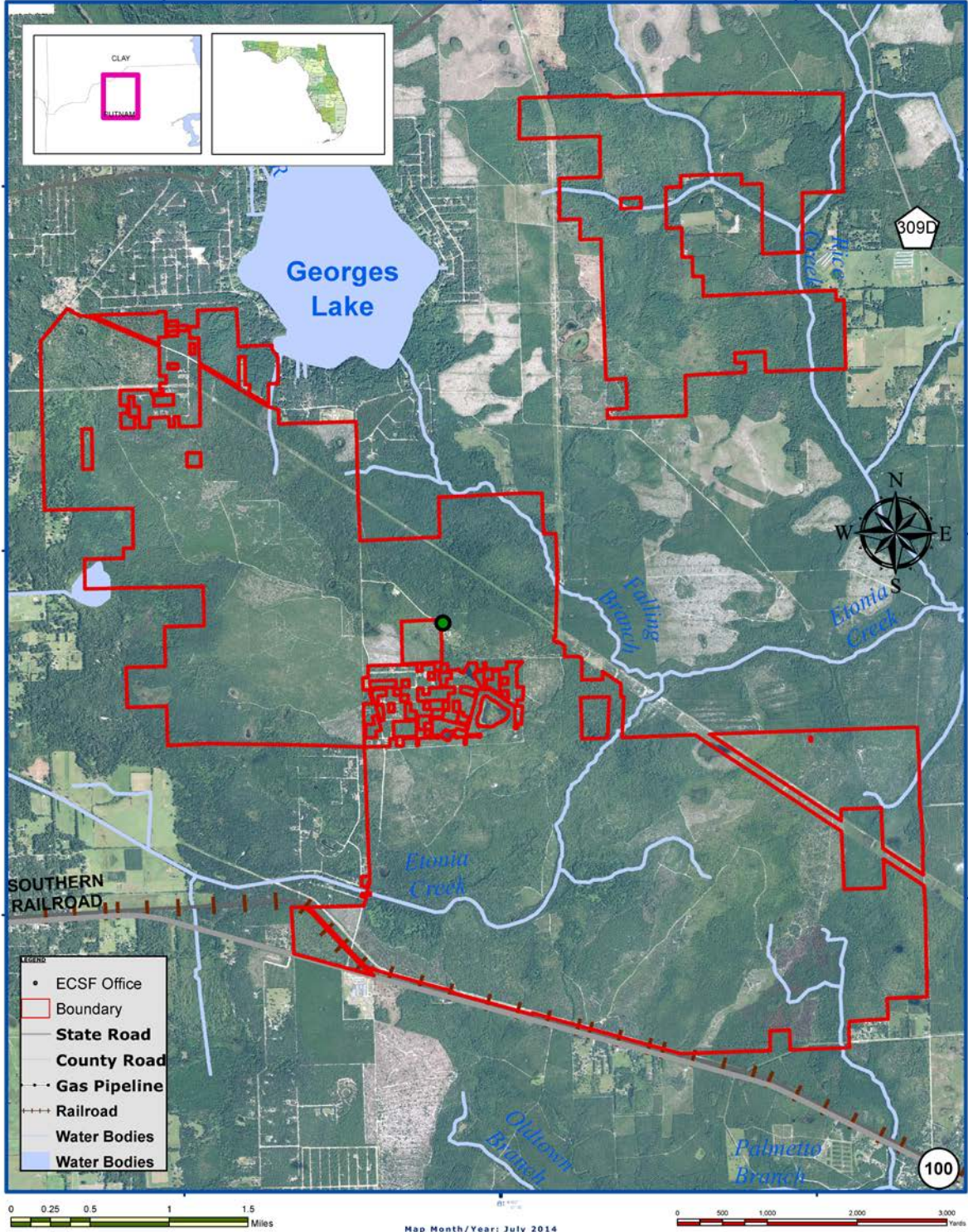


Exhibit O

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

June 5, 2014

Jennifer Reed
FL Dept of Agriculture & Consumer Services
Florida Forest Service
Conner Bldg., 3125 Conner Boulevard
Tallahassee, FL 32399-1650

Dear Ms. Reed,

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

Project: Etoniah Creek State Forest
Date Received: 5/29/2014
Location: Putnam County

Based on the information available, this site appears to be located on or very near a significant region of scrub habitat, a natural community in decline that provides important habitat for several rare species within a small area. Additional consideration should be given to avoid and/or mitigate impacts to these natural resources, and to design land uses that are compatible with these resources.

FNAI Element Occurrences

A search of our maps and database indicates that we currently have several element occurrences mapped in the vicinity of the study area (see 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 include records of federally listed species, particularly *Aphelocoma coerulescens*, *Conradina etonia*, and *Drymarchon couperi*, on or very near this site (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 FNAI Element Occurrences data layer includes rigorously documented occurrences of rare species and natural communities. 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 occurrence labels indicate the general vicinity of the occurrence. This may be due to lack of precision of the source data, or an element that covers an extended area (such as a wide-ranging species or large natural community). 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

*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*

Tracking Florida's Biodiversity

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.

Biodiversity Matrix

In addition to element occurrences, other rare species and natural communities may be identified on or near the site based on habitat models and species range models. The Biodiversity Matrix Report compiles several data sources – including Element Occurrences, occurrence-based species habitat models, predictive range models, and natural community maps – to provide a broader list of documented, likely, and potential species on or near the site. These species could be taken into consideration in field surveys, land management, and land use decisions. Note that the Biodiversity Matrix Report lists species and communities by square-mile Matrix Unit, rather than by the site of interest, so the Documented list may vary from the Element Occurrence Table supplied with this report. Also, note that this list aggregates results from all matrix units that overlap the site, so the location of the elements are somewhat obscured.

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

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

Land Acquisition Projects

This site appears to be located within the Etoniah/Cross Florida Greenway Florida Forever BOT Project, which is part of the State of Florida's Conservation and Recreation Lands land acquisition program. A description of this project is enclosed. For more information on this Florida Forever Project, contact the Florida Department of Environmental Protection, Division of State Lands.

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

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

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

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

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

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

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

Sincerely,

Nathan Pasco

Nathan Pasco
GIS / Data Services

Encl

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

FLORIDA
Natural Areas
INVENTORY

Element Occurrences

- Animals
Plants
Communities
Other
Data Sensitive
- Point Indicates General
Vicinity of Element

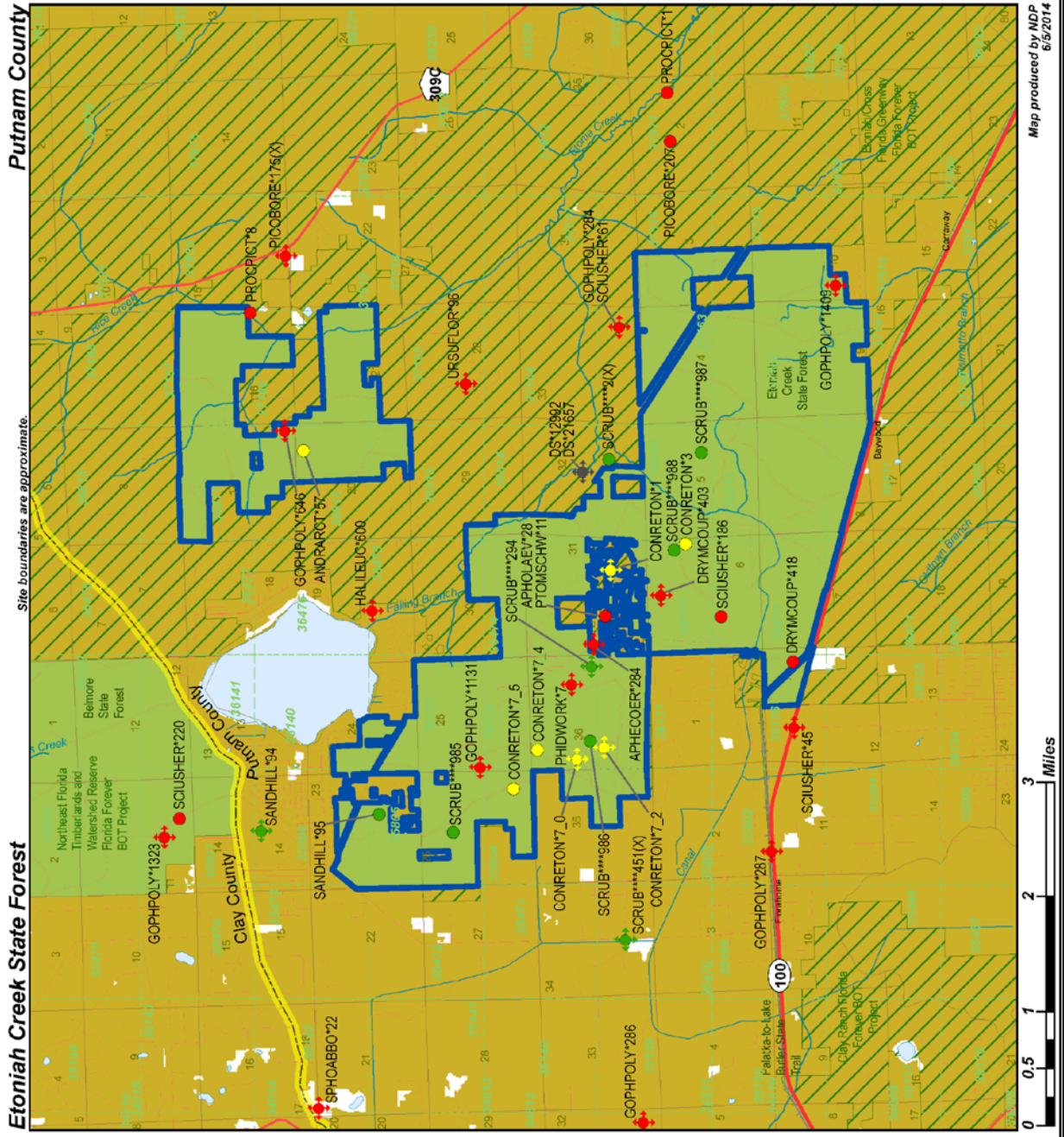
U.S. Fish & Wildlife Service
Scrub Jay Survey 1992-96

Conservation Lands

- Federal
 State
 Local
 Private
 State Aquatic Preserves
Land Acquisition Projects
 Florida Forever
 Board of Trustees Projects

- Legend**
-  **FNAI Rare Species Habitat**
 -  **FNAI Biodiversity Matrix Square Mile Units**
 -  **County Boundary**
 -  **Interstate**
 -  **Turkey**
 -  **Major Highway**
 -  **Local Road**
 -  **Railroad (Inactive railroads shown in Gray)**

NOTE
Map should not be interpreted without
accompanying documents.

Map produced by NDP
6/5/2014

FNAI ELEMENT OCCURRENCE REPORT on or near
Etoniah Creek State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
ANDRARC157	<i>Andropogon arctatus</i>	Pine-woods Bluestem	G3	S3	N	LT	2004-04-22	2004-04-22: One clump of <i>Andropogon arctatus</i> observed in wet flatwoods with heavy disturbance from woody encroachment and road. Associated species include <i>Pinus taeda</i> , <i>Gordonia lasianthus</i> , <i>Myrica cerifera</i> , <i>Ilex glabra</i> , <i>Hypericum fasciculatum</i> , <i>Sarracenia</i> .	2004-04-22: one clump in leaf in wet area (F04FNA11FLUS).
APHECOER284	<i>Aphelocoma coerulescens</i>	Florida Scrub-Jay	G2	S2	LT	FT	2004-07-27	1981: OAK SCRUB AND SAND PINE SCRUB.	2004-07-27: 2004-07-27: birds called up in three locations: lat 29.752 long -81.8391991 (pair), 29.754 long -81.8446 (pair), and 29.749 long -81.839 (single) (PNDPED01FLUS). 1991: SCRUB JAYS OBSERVED (M91KOK01FLUS). 1981-02-02: 2 SCRUB JAYS (U81COX01FLU).
APHOLAEV28	<i>Aphodius laevigatus</i>	Large Pocket Gopher Aphodius Beetle	G3/G4	S3?	N	N	1996-02-24 – 1996-03-02	1996-03-02: No information given (U06SKE01FLUS).	1996-03-02: A total of 123 specimens were collected from 1992-12-22 to 1996-03-02, most likely at light or in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01SKE02FLUS).
CONRETON1	<i>Conradina etonia</i>	Etonia Rosemary	G1	S1	LE	LE	2007-11-26	1991-03-06: chiefly along disturbed sandy roadside in recently subdivided (but largely undeveloped) site in a sand pine (<i>Pinus clausa</i>) scrub with <i>Quercus chapmani</i> , <i>Q. geminata</i> , <i>Q. myrtifolia</i> , <i>Persea humilis</i> , <i>Garberia heterophylla</i> , among others.	Throughout the course of this monitoring new plants were found with additional survey effort, therefore annual counts reflecting population expansion and survey effort, not real population increases. See source shapefile for exact counts at exact points.
CONRETON3	<i>Conradina etonia</i>	Etonia Rosemary	G1	S1	LE	LE	2004-11-00	1998-03-13: narrow patch of dense scrub along an draw with sandhill on all sides. <i>Lyonia ferruginea</i> is as abundant as the oaks. <i>Quercus myrtifolia</i> and <i>Q. geminata</i> ; scattered young sand pines (F98JOH02FLUS).	2007-11-26: 2 plants. No seedlings in burned area. Plants flowering but not fruiting (U08JEN03FLUS). 2006-10-30: 5 plants; 3 seedlings in burned area. Plants not flowering nor fruiting (U08JEN03FLUS). 2005-10-17: 2 plants. Burned.
CONRETON7_0	<i>Conradina etonia</i>	Etonia Rosemary	G1	S1	LE	LE	2007-11-26	This is a parent EO. Refer to individual sub-EOs for detailed information.	This is a parent EO for 3 sub-EOs (sub-EO #s 2, 4 and 5). Refer to individual sub-EOs for detailed information.

06/03/2014

Page 1 of 7

FNAI ELEMENT OCCURRENCE REPORT on or near
Etoniah Creek State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
CONRETON7_2	<i>Conradina etonia</i>	Etonia Rosemary	G1	S1	LE	LE	2004-04-22	1998-03-12: low open sand pine scrub with <i>Quercus geminata</i> , <i>Q. myrtifolia</i> , and <i>Lyonia ferruginea</i> in understory. <i>Sabal etonia</i> was associated with <i>C. etonia</i> (U98JOH02FLUS).	2007-11-26: 852 total plants. For detailed number of plants per source feature see source observation tab (U08JEN03FLUS). 2006-10-30: 701 total plants. For detailed number of plants per source feature see source observation tab (U08JEN03F).
CONRETON7_4	<i>Conradina etonia</i>	Etonia Rosemary	G1	S1	LE	LE	2007-11-26	2003-11-00: on roadside shoulder in scrub habitat (U04DOF01FLUS).	2007-11-26: 0 plants east side, 8 plants west side of road. Plants flowering but not fruiting (U08JEN03FLUS). 2006-10-30: 0 plants on east side, 8 plants on west side of road. Plants not flowering or fruiting (U08JEN03FLUS). 2005-10-17: 414 plants. Many seedlings. Plants.
CONRETON7_5	<i>Conradina etonia</i>	Etonia Rosemary	G1	S1	LE	LE	2007-11-26	2003-11-00: Plants growing along trail in scrub habitat (U04DOF01FLUS).	2007-11-26: No census. Plants flowering but not fruiting (U08JEN03FLUS). 2006-10-30: 378 plants. Few flowers-very dry conditions. Plants flowering but not fruiting (U08JEN01FLUS). 2005-10-17: 414 plants. Many seedlings. Plants.
DRYMOUP403	<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S3	LT	FT	2011-04-07	Mosaic of sandhill, scrub, pine plantation, scrubby flatwoods and baygall managed as part of Etoniah Creek State Forest.	2011-04-07: Kindell, Hipes, and NeSmith observed a medium sized adult at the mouth of a tortoise burrow just off Holloway Rd and an indigo snake shed skin in the pine straw raking area and also in an open, recently thinned and burned sandhill (F11FNA05FL).
DRYMOUP418	<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S3	LT	FT	1992-08-08	SAND PINE SCRUB TRANSITIONAL TO FLATWOODS. SCRUB DOMINATED BY SAND LIVE OAK, STAGGERBUSH. SCATTERED YOUNG (8-10 YRS.) SAND PINE. 600 ACRES OF SAID HABITAT.	DOR CA. 4.5 FT. LONG.
DS*1292	Data Sensitive Element		G3	S3?	N	N	2004		Data Sensitive
DS*21657	Data Sensitive Element		G3	S2	N	N	2004		Data Sensitive

06/03/2014

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FNAI ELEMENT OCCURRENCE REPORT on or near
Etoniah Creek State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
GOPHPOLY1131	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	2011-06	2004-04-28: Landscape of mostly sandhill with small inclusions of mesic flatwoods, scrub, and xeric hammock. Disturbances include fire suppression and woody encroachment. Associated species include <i>Pinus clausa</i> , <i>Quercus geminata</i> , <i>Quercus laevis</i> , <i>Serenoa</i>	2011-06: FNAI staff observed a total of 178 active, 80 inactive, and 172 abandoned tortoise burrows in 664 acres (18%) of transects within 3,858 acres of potential gopher tortoise habitat in the western tract (except for very southeastern corner) of Eton
GOPHPOLY1323	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	2010-10	2011: extensive portion cleared with the stated goal of sandhill restoration (F11FNA05FLUS). 2006-03-28: former sandhill with heavy disturbance from sand pine and slash pine plantations (F06FNA11FLUS). 2005-12-07: Sandhill with disturbances from forest	2010-10: D. Hipes observed a total of 40 active, 11 inactive, and 35 abandoned tortoise burrows in 108 acres (20%) of transects within 549 acres of potential gopher tortoise habitat in the southern tract of Belmore SF (F11FNA05FLUS). 2006-03-2
GOPHPOLY1409	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	2011-04-01	2011-04-01: Sandhill (F11FNA05FLUS)	2011-06: D. Hipes observed a total of 4 active, 0 inactive, and 2 abandoned tortoise burrows in 7 acres (21%) of transects within 34 acres of potential gopher tortoise habitat in the southeastern corner of Etoniah SF (F11FNA05FLUS). 2004-04-20
GOPHPOLY284	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	1987-PRE	SANDHILL IN RELATIVELY GOOD CONDITION (LONGLEAF PINE, WIREGRASS)	1987-pre: Species occurrence noted here in Diemer's unpublished map set (U86DIE01FLUS)
GOPHPOLY287	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	1987-Pre	No general description given	1987-Pre: Tortoise seen crossing road (U86DIE01FLUS)
GOPHPOLY646	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	2011-03-28	2004-04-22: Central part - landscape of sandhill with some exotics present (<i>Paspalum notatum</i> , <i>Eremochloa ophurioides</i>); western part - landscape consists of mostly sandhill with mesic flatwoods; disturbances include fire suppression, woody encroachment, a	2011-03-28: D. Hipes observed a total of 49 active, 2 inactive, and 3 abandoned tortoise burrows in 29 acres (22%) of transects within 130 acres of potential gopher tortoise habitat in the northeastern tract of Etoniah SF (F11FNA05FLUS). 2004-04-22: 6 ac

06/03/2014

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FNAI ELEMENT OCCURRENCE REPORT on or near
Etoniah Creek State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
HALLEUC*000	<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3	N	N	2003	No general description given	Nest: Active - 2000-2003, 1998, 1995, 1990; Inactive - 1999; Unknown status or not assessed - 1996-1997; Gone - 1991; No data - 1992-1994 (U92GFC01FLUS, U03FWC01FLUS)
PHIDWORK*7	<i>Phidippus workmani</i>	Workman's Jumping Spider	G2G3	S2S3	N	N	1994-04-08	1994-04-08: turkey oak/wiregrass ecosystem (B04EDW01FLUS)	1994-04-08: G. B. Edward and colleagues collected 1 immature. It was reared to a female (B04EDW01FLUS); (specimen was deposited in FSCA).
PICOBORE*175	<i>Picoides borealis</i>	Red-cockaded Woodpecker	G3	S2	LE	FE	ZZ	PINE.	ca. 1978: ACTIVE COLONY.
PICOBORE*207	<i>Picoides borealis</i>	Red-cockaded Woodpecker	G3	S2	LE	FE	1991-03-06	SANDHILL, LONGLEAF PINE.	1 POSSIBLY ACTIVE TREE OBSERVED. COULDN'T TELL IF RESIN WAS FRESH-DRJ. GATEWOOD OBSERVED TREE IN DEC. 1990.
PROCRICT*8	<i>Procambarus pictus</i>	Black Creek Crayfish	G2	S2	N	SSC	2010-02-24	Rice Creek is tributary to Etoniah Creek, which empties into the St. Johns River. The region is mostly rural and supports a mosaic of native forests, managed forests (plantations), farms, and small towns. The two 2010 collection sites are just outside o	2010-02-24: R. Franz and P. Moler collected specimen(s) at two sites in upper Rice Creek drainage (coordinates in U11MOL03FLUS; these may have been generated from mapping first in Google Earth rather than directly from gps unit). PNDMOL01FLUS, PNDFRA01FL
PTOMSCHW*11	<i>Ptomaphagus schwarzi</i>	Schwarz' Pocket Gopher Ptomaphagus Beetle	G3	S3	N	N	1996-02-24 - 1996-03-02	1996-03-02: No information given (U06SKE01FLUS)	1996-03-02: Sixteen specimens were collected from 1993-01-08 to 1996-03-02, most likely in malt and dung-baited pitfall traps set in pocket gopher burrows (U06SKE01FLUS, A01PEC01FLUS).
SANDHILL*94	Sandhill		G3	S2	N	N	2004	No general description given	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1991) (U05FNA02FLUS). Partially gridded Sandhill with a few homes.
SANDHILL*96	Sandhill		G3	S2	N	N	2004-04-20	No general description given	EO on site.

06/03/2014

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FNAI ELEMENT OCCURRENCE REPORT on or near
Etoniah Creek State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
SOUSHER186	<i>Sciurus niger shermani</i>	Sherman's Fox Squirrel	G5T3	S3	N	SSC	2004-04-28	2004-04-28: Individual observed in recently restored (hydroaerated and buried) sandhill. Habitat characterized by <i>Quercus laevis</i> , <i>Pinus clausa</i> , <i>Vaccinium stamineum</i> , <i>Rhus copallina</i> , <i>Asimina incana</i> , <i>Aristida stricta</i> , <i>Schizachyrium scoparium</i> , <i>Andropogon virgin</i> .	2004-04-28: 1 individual observed commuting (F04FNA11FLUS).
SOUSHER45	<i>Sciurus niger shermani</i>	Sherman's Fox Squirrel	G5T3	S3	N	SSC	1982-06	"TURKEY OAKS AND SAND OAKS, OPEN PINE SCRUB".	DOR SPECIMEN (NOT CATALOGUED, UF/FSM) COLL. JUNE 1982 BY DAN CORDIER.
SOUSHER61	<i>Sciurus niger shermani</i>	Sherman's Fox Squirrel	G5T3	S3	N	SSC	1991	SANDHILL WITH MATURE LONGLEAF AND REGENERATING PINE, WIREGRASS GROUND COVER.	No EO data given
SCRUB***2	Scrub		G2	S2	N	N	1981-01-27	SCRUB W/ PATCHES OF VERY MATURE SAND PINE. ONE RECENTLY DEAD TREE WOULDVE BEEN CHAMPION. W SECTION HAS BEEN SUBDIVIDED & ROADS BUILT.	SAND PINE & TURKEY OAK (TO 40') > ROSEMARY (4-5'), SCRUB PALMETTO, SAND LIVE OAK, CHAPMAN'S OAK, MYRTLE OAK (?), FETTERBUSH, REDBAY, TOUGH BUMELIA, NOLINA (?)
SCRUB***234	Scrub		G2	S2	N	N	2004	OAK SCRUB AND SAND PINE SCRUB. RECENTLY SUBDIVIDED (BUT LARGELY UNDEVELOPED). SOIL SHEETS 12 & 20 IN PUTNAM COUNTY SOIL SURVEY AND MAPPED AS PAOLA (SPODIC QUARTZIPSAMMENTS) AND TAVARES (TYPIC QUARTZIPSAMMENTS) PAOLA SOILS IN PUTNAM COUNTY ARE TYPICALLY	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1991-03-06) (U05FNA02FLUS). FAIRLY DENSE SAND PINE (PINUS CLAUUSA) FOREST OVERSTORY WITH DENSE UNDERSTORY - SHRUB LAYER OF EVERGREEN SCLEROPHYLLOUS OAKS.
SCRUB***451	Scrub		G2	S2	N	N	1950-PRE	SAND PINE SCRUB.	OVERSTORY OF SAND PINE, UNDERSTORY OF SHRUBS INCLUDING SAND LIVE OAK, MYRTLE OAK, LAUREL OAK, ROSEMARY, DEERBERRY, RUSTY LYONIA, GARBERIA, SCRUB HOLLY.

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FNAI ELEMENT OCCURRENCE REPORT on or near
Etoniah Creek State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
SCRUB***965	Scrub		G2	S2	N	N	1998-03-13	DENSE TALL OAK SCRUB WITH SCATTERED SAND PINES ON WESTERN SLOPE BETWEEN SANDHILL AND BAYHEAD	DENSE SCRUB OAKS WITH WIDELY SCATTERED SAND PINES. 10-12-FT LYONIA FERRUGINEA, PLUS QUERCUS GEMINATA, Q. MYRTIFOLIA, Q. CHAPMANII. STAND OF DEAD 3-FT TALL LYONIA LUCIDA ON LOWER BORDER OF STAND. LESS COMMON SPECIES INCLUDE OSMANTHUS AMERICANUS, CERATIFOL.
SCRUB***966	Scrub		G2	S2	N	N	1998-04-23	TALL OPEN OAK SCRUB WITH LOW SHRUB UNDERSTORY AND SCATTERED SAND PINES	TALL SCRUB OF SMALL TREE SIZE OAKS AND SCATTERED SAND PINES WITH OPENINGS. QUERCUS GEMINATA, Q. MYRTIFOLIA, Q. CHAPMANII WITH PERSEA HUMILIS, ILEX OPACA VAR ARENICOLA, AND OSMANTHUS AMERICANUS WITH SABAL ETONIA AND VACCINIUMS IN UNDERSTORY. GARBERIA HETE.
SCRUB***967	Scrub		G2	S2	N	N	1998-04-23	DENSE LONG-UNBURNED OAK SCRUB WITH CARPET OF GRAY PUFF LICHENS ON GROUND LAYER.	DENSE OAK (Q. GEMINATA, Q. MYRTIFOLIA) LYONIA FERRUGINEA SCRUB, WITH SHRUBS 4-5 FEET TALL. OSMANTHUS AMERICANUS OCCASIONAL AND SCATTERED SAND PINES 20 FT TALL WITH SOME DEAD PINES PRESENT. GROUND LAYER HAS CARPET OF CLADINA EVANSII LICHEN. ECOTONE TO FLA.
SCRUB***968	Scrub		G2	S2	N	N	2004	DENSE OAK SCRUB WITH ABUNDANT LYONIA FERRUGINEA AND SCATTERED SAND PINES	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1998-04-23) (U05FNA02FLUS). NARROW ELONGATED PATCH OF DENSE OAK SCRUB WITH SCATTERED YOUNG SAND PINES BORDERED BY WET AREA TO N AND SANDHILL TO SOUTH. DOM
SPHOABB072	<i>Sphodros abbotti</i>	Blue Purse-web Spider	G4G5	S4	N	N	1998-04-11	1998-04-11: webs found at the bases of trees (U98MOL02FLUS). 1962: Description was not given (A80GER01FLUS).	1998-04-11: Species was collected on site by P. E. Moler and G. Clark (U98MOL02FLUS). 1962: Gertsch and Platnick (1980) recorded species as present here, based on a 1962 collection. More precise and updated record is needed (A80GER01FLUS).

06/03/2014

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FNAI ELEMENT OCCURRENCE REPORT on or near
Etoniah Creek State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
URSUFLO*96	<i>Ursus americanus floridanus</i>	Florida Black Bear	G-5T2	S2	N	ST*	2012	Large area of sand pine and oak scrub, mesic flatwoods, sandhill, depression marshes and hardwood swamps, pine plantation; regular harvesting of sand pine (U05SIM01FLUS).	2012: Estimated population of 729-1056 (U05SIM01FLUS). This EO represents the Primary and Secondary Bear Ranges for the Ocala population. Primary is the FWC-designated core area that represents breeding range and contains documented evidence of reproduc



Florida Natural Areas Inventory

Biodiversity Matrix Report



Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Documented					
<i>Andropogon arctatus</i>	Pine-woods Bluestem	G3	S3	N	LT
<i>Aphodius laevigatus</i>	Large Pocket Gopher Aphodius Beetle	G3G4	S3?	N	N
<i>Conradina etonia</i>	Etonia Rosemary	G1	S1	LE	LE
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S3	LT	FT
<i>Gopherus polyphemus</i>	Gopher Tortoise		S3	C	ST
<i>Procambarus pictus</i>	Black Creek Crayfish	G2	S2	N	SSC
<i>Ptomaphagus schwarzi</i>	Schwarz' Pocket Gopher Ptomaphagus Be	G3	S3	N	N
Sandhill			S2	N	N
<i>Sciurus niger shermani</i>	Sherman's Fox Squirrel	G5T3	S3	N	SSC
Scrub		G2	S2	N	N
Likely					
<i>Aphelocoma coerulescens</i>	Florida Scrub-Jay	G2	S2	LT	FT
<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3	N	N
Mesic flatwoods		G4	S4	N	N
<i>Phidippus workmani</i>	Workman's Jumping Spider	G2G3	S2S3	N	N
Sandhill upland lake		G3	S2	N	N
<i>Sphodros abboti</i>	Blue Purse-web Spider	G4G5	S4	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T2	S2	N	ST*
Potential					
<i>Agrimonia incisa</i>	Incised Groove-bur	G3	S2	N	LE
<i>Amoglossum diversifolium</i>	Variable-leaved Indian-plantain	G2	S2	N	LT
<i>Asplenium heteroresiliens</i>	Wagner's Spleenwort	GNA	S1	N	N
<i>Asplenium x curtissii</i>	Curtiss' Spleenwort		S1	N	N
<i>Balduina atropurpurea</i>	Purple Honeycomb-head	G2	S1	N	LE
<i>Brickellia cordifolia</i>	Flyr's Brickell-bush	G2G3	S2	N	LE
<i>Calopogon multiflorus</i>	Many-flowered Grass-pink		S2S3	N	LE
<i>Calydorea coelestina</i>	Bartram's Ixia		S2S3	N	LE
<i>Carex chapmanii</i>	Chapman's Sedge	G3	S3	N	LT
<i>Corynorhinus rafinesquii</i>	Rafinesque's Big-eared Bat	G3G4	S2	N	N
<i>Ctenium floridanum</i>	Florida Toothache Grass	G2	S2	N	LE
<i>Digitaria gracillima</i>	Longleaf Fingergrass	G1	S1	N	N
<i>Grus canadensis pratensis</i>	Florida Sandhill Crane	G5T2T3	S2S3	N	ST
<i>Gymnopogon chapmanianus</i>	Chapman's Skeletongrass	G3	S3	N	N
<i>Hartwrightia floridana</i>	Hartwrightia	G2	S2	N	LT
<i>Heterodon simus</i>	Southern Hognose Snake		S2	N	N
<i>Linum westii</i>	West's Flax	G1	S1	N	LE
<i>Lithobates capito</i>	Carolina Gopher Frog	G3	S3	N	SSC
<i>Litsea aestivalis</i>	Pondspice	G3?	S2	N	LE
<i>Matelea floridana</i>	Florida Spiny-pod	G2	S2	N	LE
Mesic hammock		G3	S3?	N	N
<i>Monotropsis reynoldsiae</i>	Pygmy Pipes	G1Q	S1	N	LE
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3	S3	N	N
<i>Myotis austroriparius</i>	Southeastern Bat	G3G4	S3	N	N
<i>Nemastylis floridana</i>	Celestial Lily	G2	S2	N	LE
<i>Neofiber alleni</i>	Round-tailed Muskrat	G3	S3	N	N
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2S3	C	N
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Picoides borealis</i>	Red-cockaded Woodpecker		S2	LE	FE

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



Florida Natural Areas Inventory
Biodiversity Matrix Report



Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
<i>Pituophis melanoleucus mugitus</i>	Florida Pine Snake	G4T3	S3	N	SSC
<i>Podomys floridanus</i>	Florida Mouse	G3	S3	N	SSC
<i>Pteroglossaspis ecristata</i>	Giant Orchid	G2G3	S2	N	LT
<i>Pycnanthemum floridanum</i>	Florida Mountain-mint	G3	S3	N	LT
<i>Rhododendron chapmanii</i>	Chapman's Rhododendron	G1	S1	LE	LE
<i>Rhynchospora thomei</i>	Thorne's Beaksedge	G3	S1S2	N	N
<i>Rudbeckia nitida</i>	St. John's Blackeyed Susan		S2	N	LE
<i>Salix floridana</i>	Florida Willow	G2	S2	N	LE
Seepage stream		G3	S2	N	N
<i>Sideroxylon alachuense</i>	Silver Buckthorn	G1	S1	N	LE

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

Elements and Element Occurrences

An **element** is any exemplary or rare component of the natural environment, such as a species, natural community, bird rookery, spring, sinkhole, cave, or other ecological feature.

An **element occurrence (EO)** is an area of land and/or water in which a species or natural community is, or was, present. An EO should have practical conservation value for the Element as evidenced by potential continued (or historical) presence and/or regular recurrence at a given location.

Element Ranking and Legal Status

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

FNAI GLOBAL ELEMENT RANK

- G1** = Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
- G2** = Imperiled globally because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
- G3** = Either very rare and local throughout its range (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
- G4** = Apparently secure globally (may be rare in parts of range).
- G5** = Demonstrably secure globally.
- GH** = Of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker).
- GX** = Believed to be extinct throughout range.
- GXC** = Extirpated from the wild but still known from captivity or cultivation.
- G#?** = Tentative rank (e.g., G2?).
- G#G#** = Range of rank; insufficient data to assign specific global rank (e.g., G2G3).
- G#T#** = Rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1).
- G#Q** = Rank of questionable species - ranked as species but questionable whether it is species or subspecies; numbers have same definition as above (e.g., G2Q).
- G#T#Q** = Same as above, but validity as subspecies or variety is questioned.
- GU** = Unrankable; due to a lack of information no rank or range can be assigned (e.g., GUT2).
- GNA** = Ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
- GNR** = Element not yet ranked (temporary).
- GNRTNR** = Neither the element nor the taxonomic subgroup has yet been ranked.

FNAI STATE ELEMENT RANK

- S1** = Critically imperiled in Florida because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
- S2** = Imperiled in Florida because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
- S3** = Either very rare and local in Florida (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
- S4** = Apparently secure in Florida (may be rare in parts of range).
- S5** = Demonstrably secure in Florida.
- SH** = Of historical occurrence in Florida, possibly extirpated, but may be rediscovered (e.g., ivory-billed woodpecker).
- SX** = Believed to be extirpated throughout Florida.
- SU** = Unrankable; due to a lack of information no rank or range can be assigned.
- SNA** = State ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
- SNR** = Element not yet ranked (temporary).

FEDERAL LEGAL STATUS

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

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

C = Candidate species for which federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened.

LE = Endangered: species in danger of extinction throughout all or a significant portion of its range.

LE, LT = Species currently listed endangered in a portion of its range but only listed as threatened in other areas

LE, PDL = Species currently listed endangered but has been proposed for delisting.

LE, PT = Species currently listed endangered but has been proposed for listing as threatened.

LE, XN = Species currently listed endangered but tracked population is a non-essential experimental population.

LT = Threatened: species likely to become Endangered within the foreseeable future throughout all or a significant portion of its range.

SAT = Treated as threatened due to similarity of appearance to a species which is federally listed such that enforcement personnel have difficulty in attempting to differentiate between the listed and unlisted species.

SC = Not currently listed, but considered a "species of concern" to USFWS.

STATE LEGAL STATUS

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

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

FE = Listed as Endangered Species at the Federal level by the U. S. Fish and Wildlife Service

FT = Listed as Threatened Species at the Federal level by the U. S. Fish and Wildlife Service

F(XN) = Federal listed as an experimental population in Florida

FT(S/A) = Federal Threatened due to similarity of appearance

ST = State population listed as Threatened by the FFWCC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at a rapid rate and as a consequence is destined or very likely to become an endangered species within the foreseeable future. (ST* for *Ursus americanus floridanus* (Florida black bear) indicates that this status does not apply in Baker and Columbia counties and in the Apalachicola National Forest. ST* for *Neovison vison* pop.1 (Southern mink, South Florida population) indicates that this status applies to the Everglades population only.)

SSC = Listed as Species of Special Concern by the FFWCC. Defined as a population which warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in its becoming a threatened species. (SSC* indicates that a species has SSC status only in selected portions of its range in Florida. SSC* for *Pandion haliaetus* (Osprey) indicates that this status applies in Monroe county only.)

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

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

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

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

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

Element Occurrence Ranking

FNAI ranks of quality of the element occurrence in terms of its viability (EORANK). Viability is estimated using a combination of factors that contribute to continued survival of the element at the location. Among these are the size of the EO, general condition of the EO at the site, and the conditions of the landscape surrounding the EO (e.g. an immediate threat to an EO by local development pressure could lower an EO rank).

A = Excellent estimated viability
A? = Possibly excellent estimated viability
AB = Excellent or good estimated viability
AC = Excellent, good, or fair estimated viability
B = Good estimated viability
B? = Possibly good estimated viability
BC = Good or fair estimated viability
BD = Good, fair, or poor estimated viability
C = Fair estimated viability
C? = Possibly fair estimated viability
CD = Fair or poor estimated viability
D = Poor estimated viability
D? = Possibly poor estimated viability
E = Verified extant (viability not assessed)
F = Failed to find
H = Historical
NR = Not ranked, a placeholder when an EO is not (yet) ranked.
U = Unrankable
X = Extirpated

*For additional detail on the above ranks see: <http://www.natureserve.org/explorer/eorankguide.htm>

FNAI also uses the following EO ranks:

H? = Possibly historical
F? = Possibly failed to find
X? = Possibly extirpated

The following offers further explanation of the H and X ranks as they are used by FNAI:

The rank of H is used when there is a lack of recent field information verifying the continued existence of an EO, such as (a) when an EO is based only on historical collections data; or (b) when an EO was ranked A, B, C, D, or E at one time and is later, without field survey work, considered to be possibly extirpated due to general habitat loss or degradation of the environment in the area. This definition of the H rank is dependent on an interpretation of what constitutes "recent" field information. Generally, if there is no known survey of an EO within the last 20 to 40 years, it should be assigned an H rank. While these time frames represent suggested maximum limits, the actual time period for historical EOs may vary according to the biology of the element and the specific landscape context of each occurrence (including anthropogenic alteration of the environment). Thus, an H rank may be assigned to an EO before the maximum time frames have lapsed. Occurrences that have not been surveyed for periods exceeding these time frames should not be ranked A, B, C, or D. The higher maximum limit for plants and communities (i.e., ranging from 20 to 40 years) is based upon the assumption that occurrences of these elements generally have the potential to persist at a given location for longer periods of time. This greater potential is a reflection of plant biology and community dynamics. However, landscape factors must also be considered. Thus, areas with more anthropogenic impacts on the environment (e.g., development) will be at the lower end of the range, and less-impacted areas will be at the higher end.

The rank of X is assigned to EOs for which there is documented destruction of habitat or environment, or persuasive evidence of eradication based on adequate survey (i.e., thorough or repeated survey efforts by one or more experienced observers at times and under conditions appropriate for the Element at that location).

Exhibit P

Florida Fish and Wildlife Conservation Commission Response



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and Wildlife
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MyFWC.com/Research

June 6, 2014

Ms. Jennifer Reed
Land Planning Coordinator
Department of Agriculture and Consumers Services
Florida Forest Service
3125 Conner Boulevard
Tallahassee, FL 32399-1650

Dear Ms. Reed:

This letter is in response to your request for listed species occurrence records and critical habitats for your project (Etoniah Creek State Forest) located in Putnam County, Florida. Records from The Florida Fish and Wildlife Conservation Commission's database indicate that listed species occurrence data are located within project area. Enclosed are 8.5 x 11 maps showing listed species locations, black bear range, SHCA for Cooper's hawk, black bear, short-tailed hawk, striped newt and the Florida mouse, Prioritized SHCA's, species richness, priority wetlands for listed species, and land cover for the project site and surrounding area.

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

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

Our fish and wildlife location data represents only those occurrences recorded by FWC staff and other affiliated researchers. It is important to understand that our database does not necessarily contain records of all listed species that may occur in a given area. Also, data on certain species, such as gopher tortoises, are not entered into our database on a site-specific basis.

Therefore, one should not assume that an absence of occurrences in our database indicates that species of significance do not occur in the area.

The Florida Natural Areas Inventory (FNAI) maintains a separate database of listed plant and wildlife species, please contact FNAI directly for specific information on the location of element occurrences within the project area.

Ms. Jennifer Reed
Page 2
June 6, 2014

Because FNAI is funded to provide information to public agencies only, you may be required to pay a fee for this information. County-wide listed species information can be located at their website (<http://www.fnai.org>).

Please credit the Florida Fish and Wildlife Conservation Commission in any publication or presentation of these data. If you have any questions or further requests, please contact me at (850) 488-0588 or gisrequests@myfwc.com.

Sincerely,

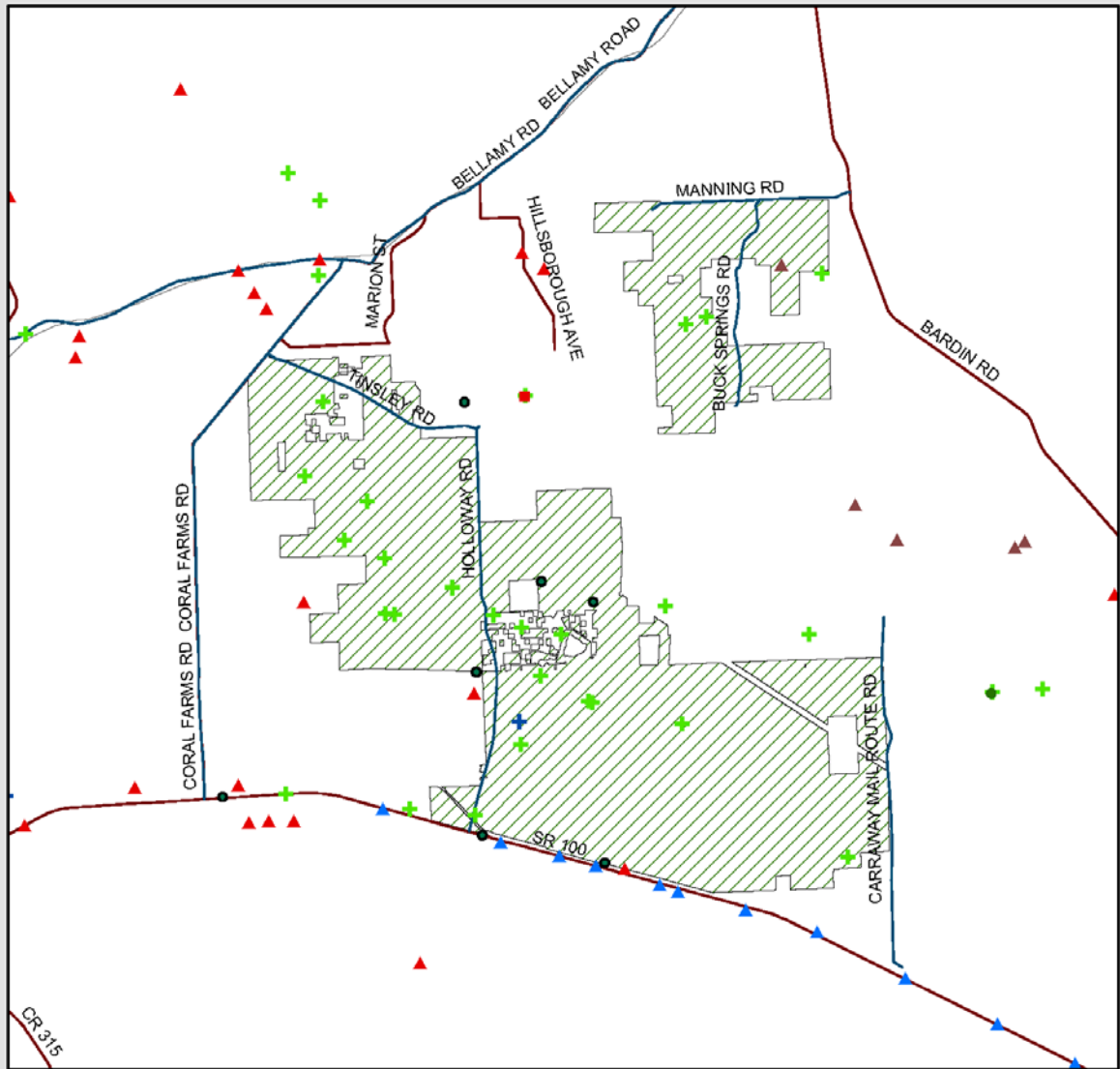


Jan Stearns
Staff Assistant

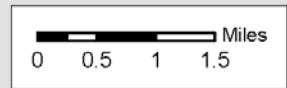
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Enclosures

Species Locations

Etoniah Creek State Forest



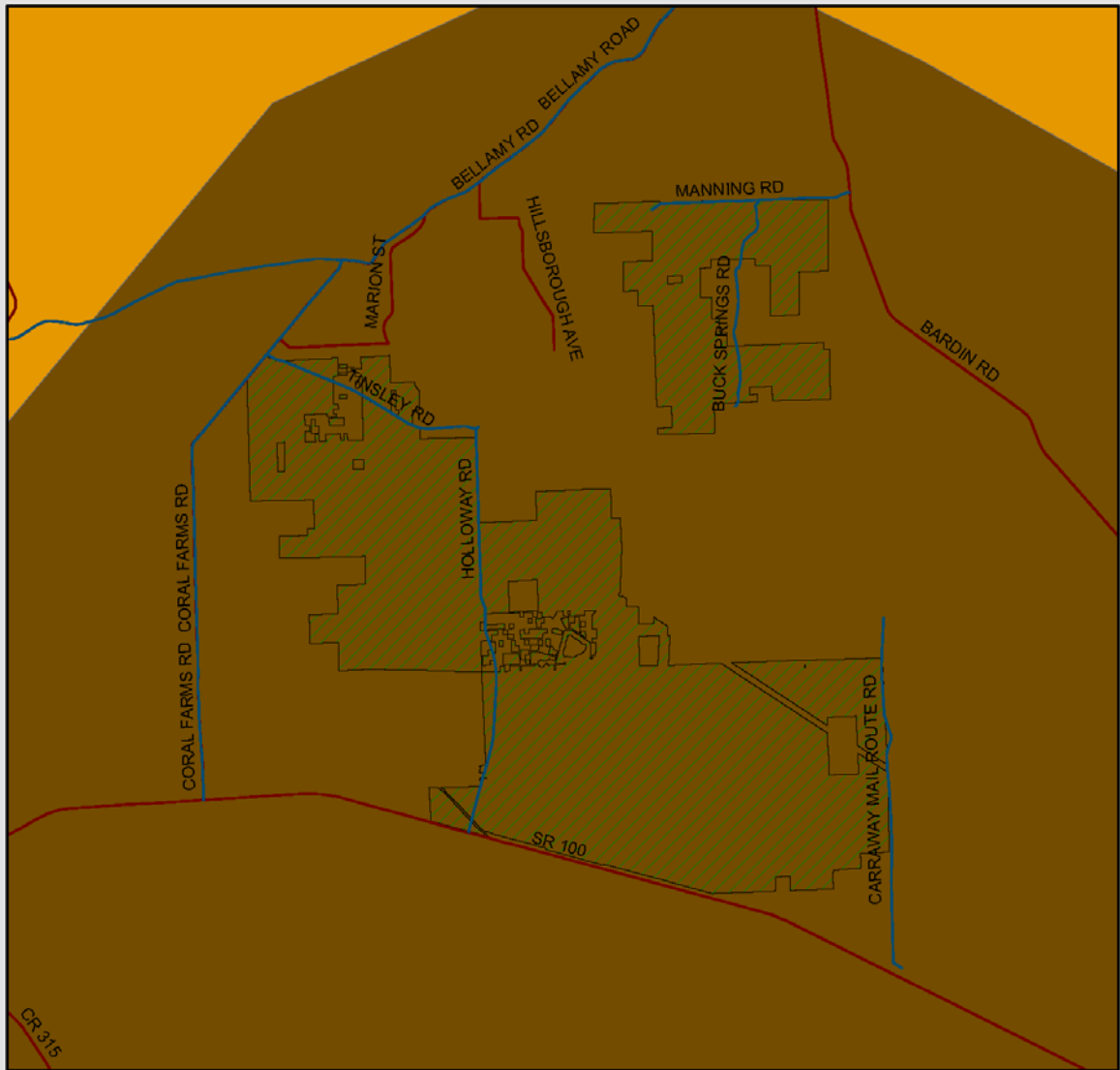
- | | |
|---------------------------|-----------------------------------|
| ● Indigo Snake | ▲ Black Bear Telemetry |
| ● Red Cockaded Woodpecker | ● Florida Natural Inventory Areas |
| ■ Eagle Nests | ● Wildlife Observations |
| ▲ Bear Calls | □ County Boundary |
| ▲ Bear Mortality | ▨ Project Site |



2014_6003

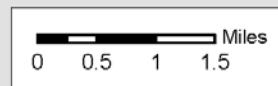
Black Bear Range

Etoniah Creek State Forest



Bear Range 2008

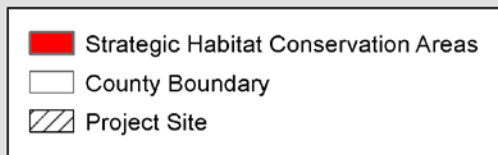
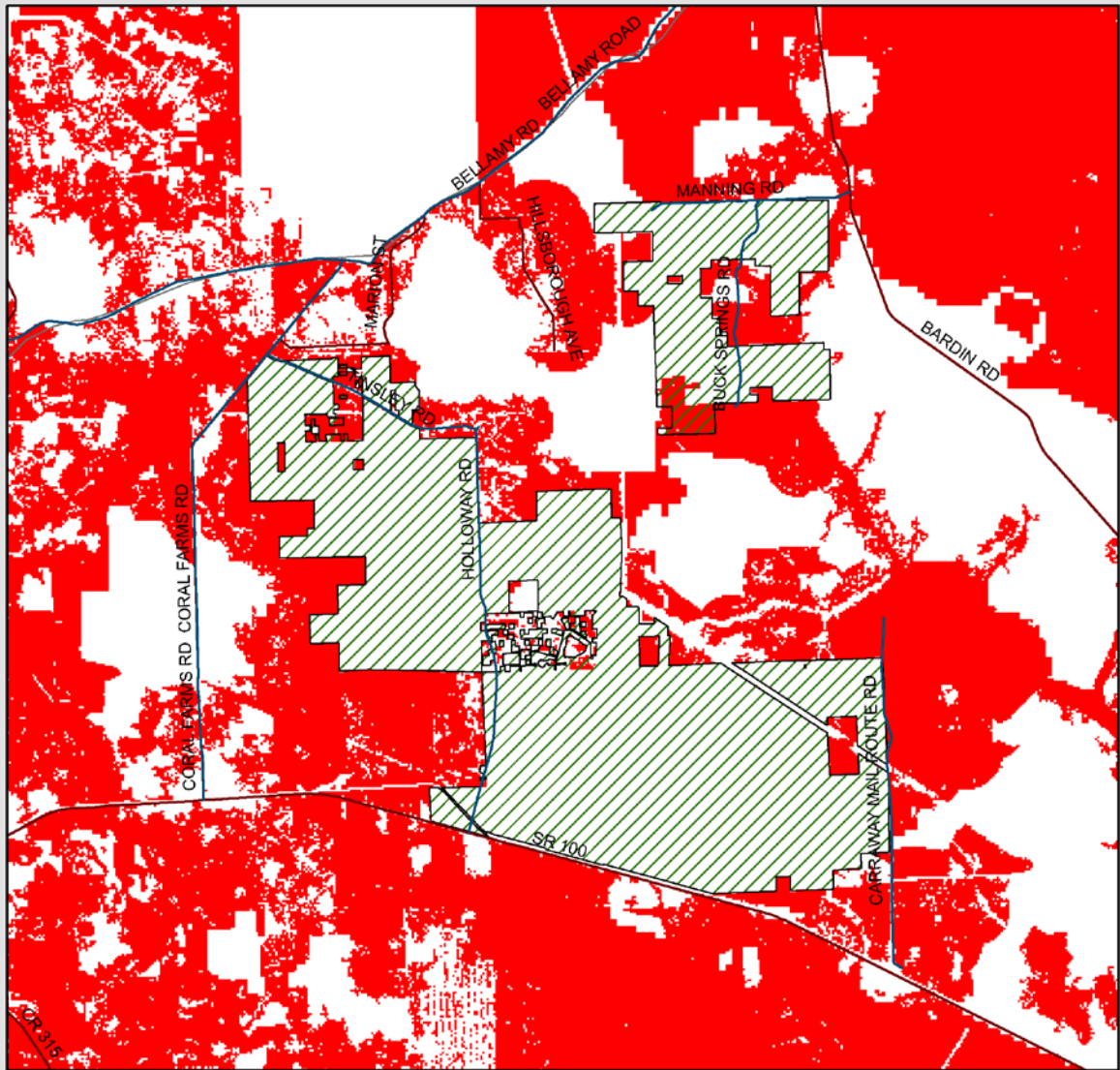
County Boundary
Project Site
RangeType
Primary
Secondary



2014_6003

Strategic Habitat Conservation Areas

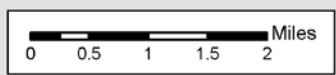
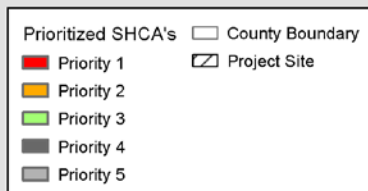
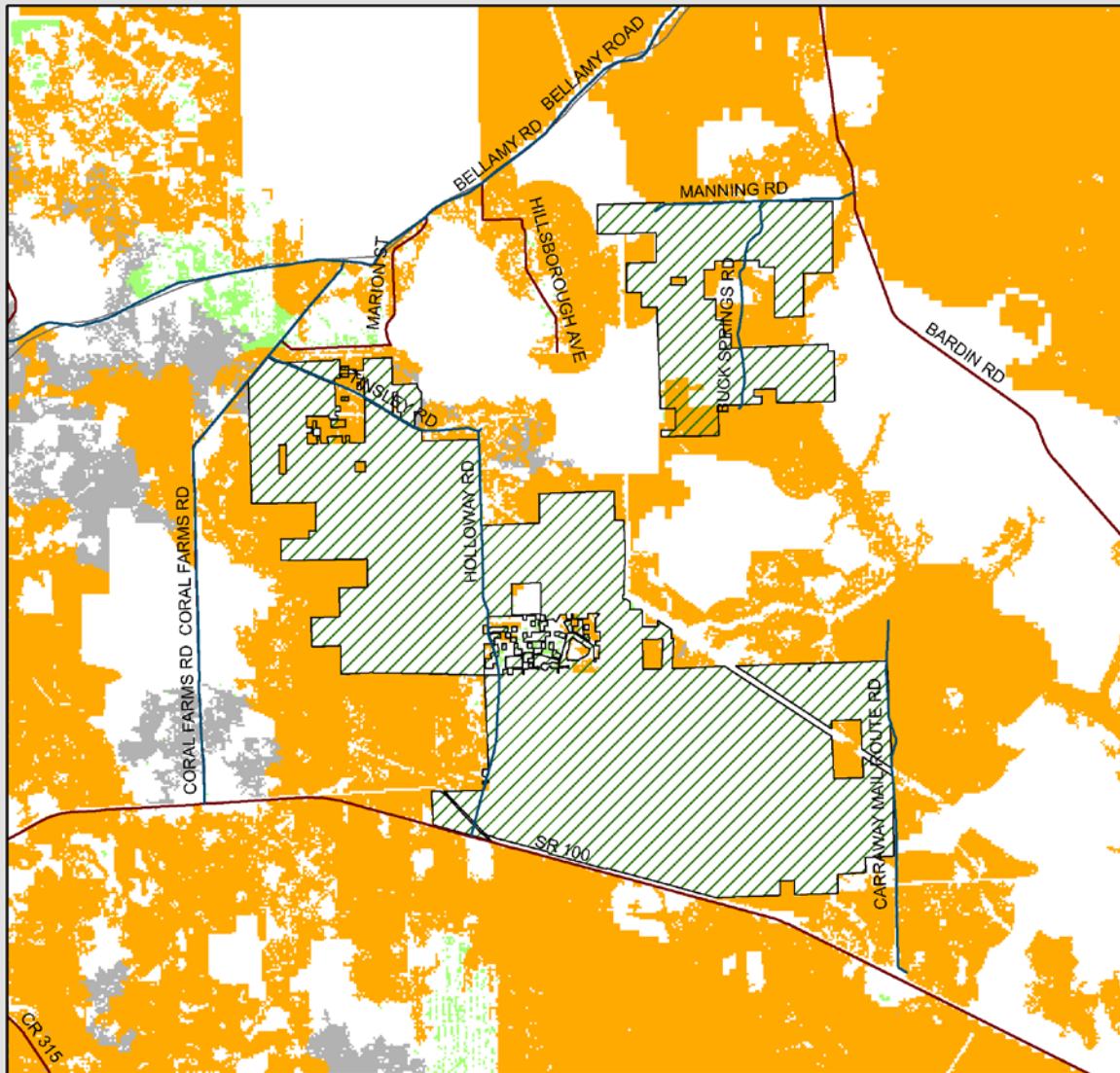
Etoniah Creek State Forest



2014_6003

Prioritized SHCA's

Etoniah Creek State Forest

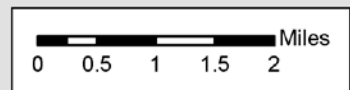
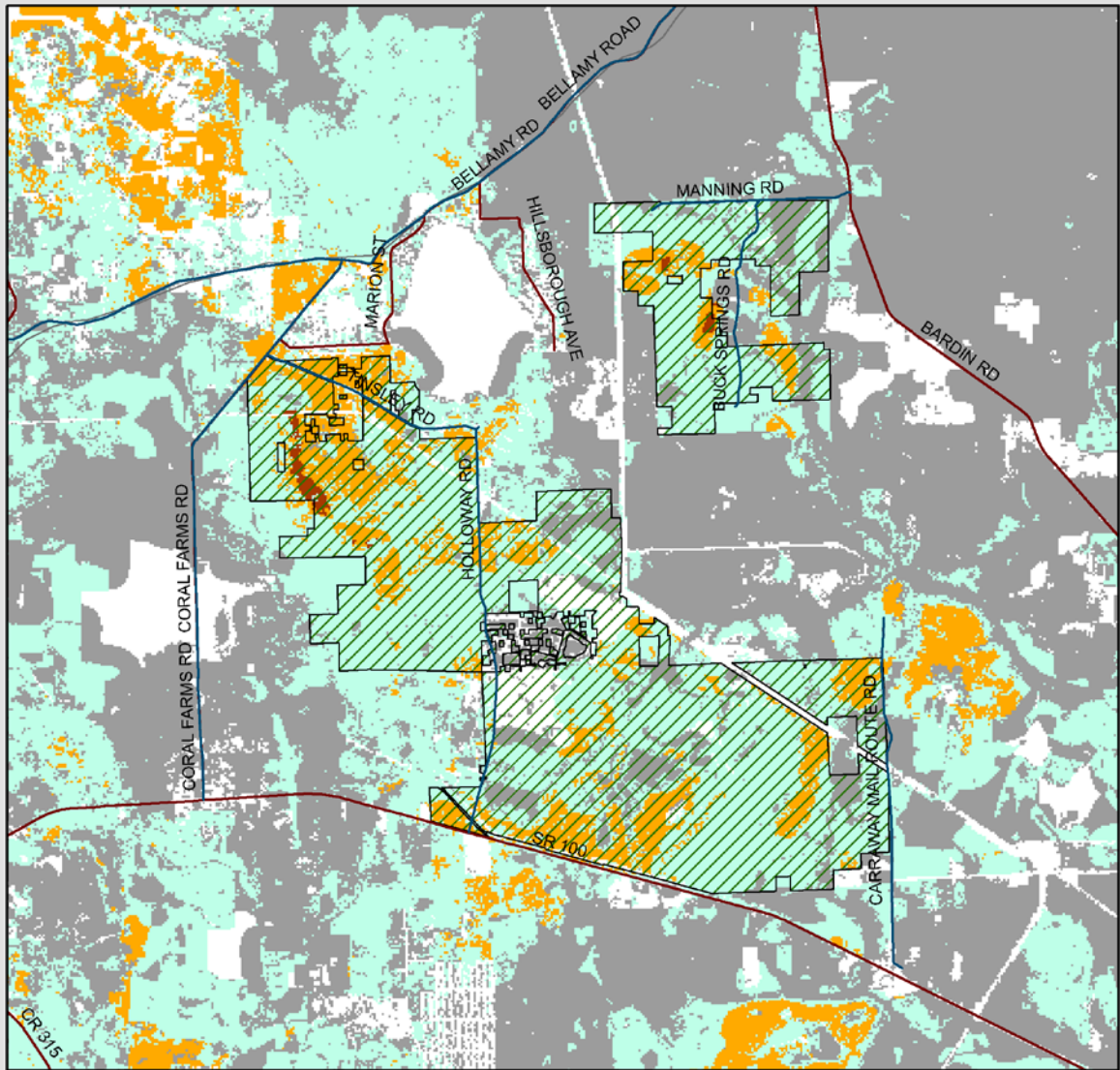


The prioritized SHCA map identifies 5 classes of SHCA based upon Heritage ranking criteria developed by The Nature Conservancy, the Natural Heritage Program Network, and the Florida Natural Areas Inventory. There are 2 possible ranks used to prioritize a species' SHCA: 1) the global rank based on a species worldwide status, and 2) the state rank based upon the species status in Florida. The state and global ranks are based upon many factors such as known occurrence locations, estimated abundance, range, amount of habitat currently protected, perceived levels of threats towards the species, and ecological fragility.

2014_6003

Species Richness

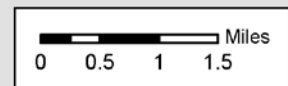
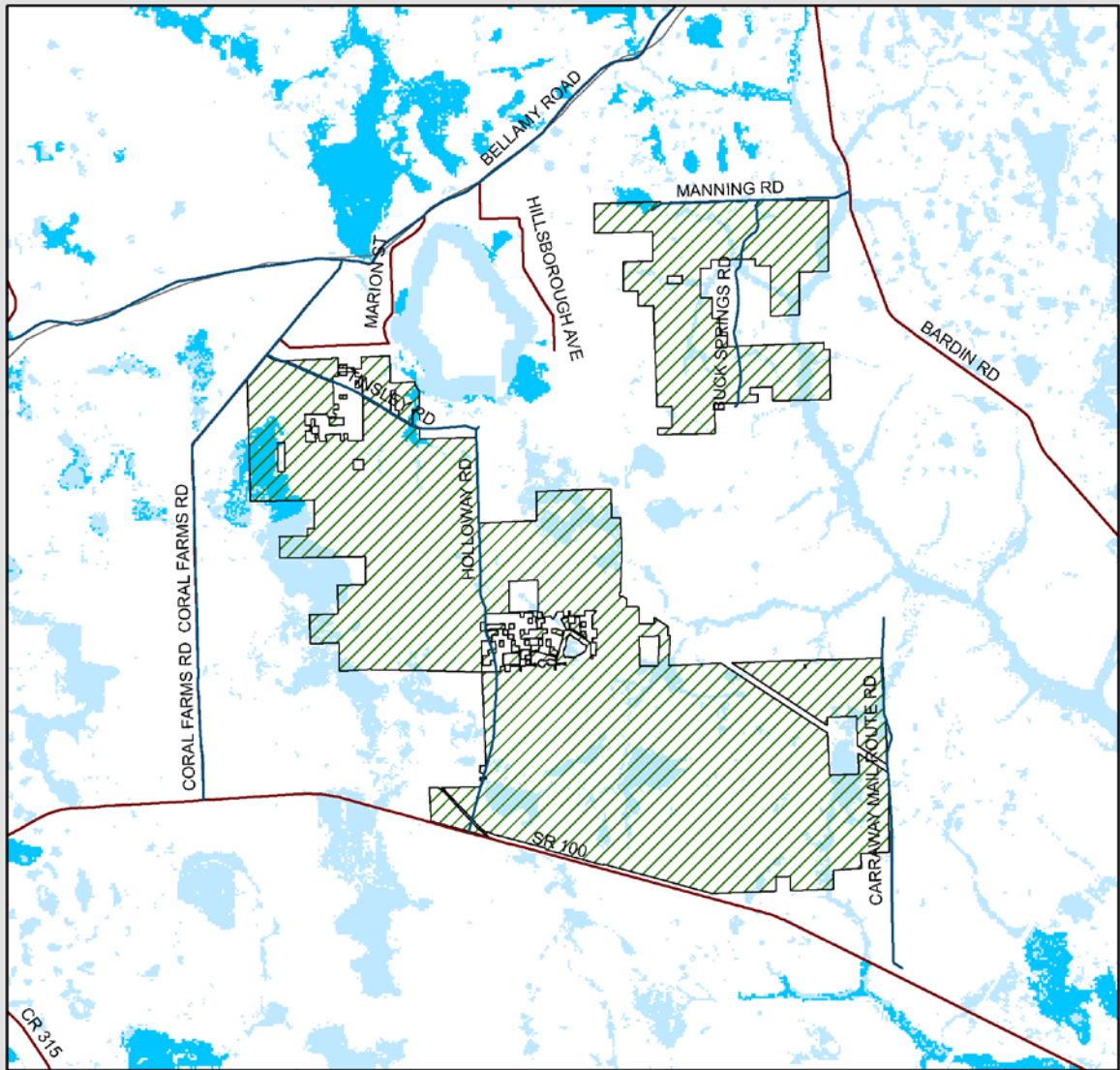
Etoniah Creek State Forest



2014_6003

Priority Wetlands

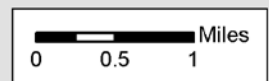
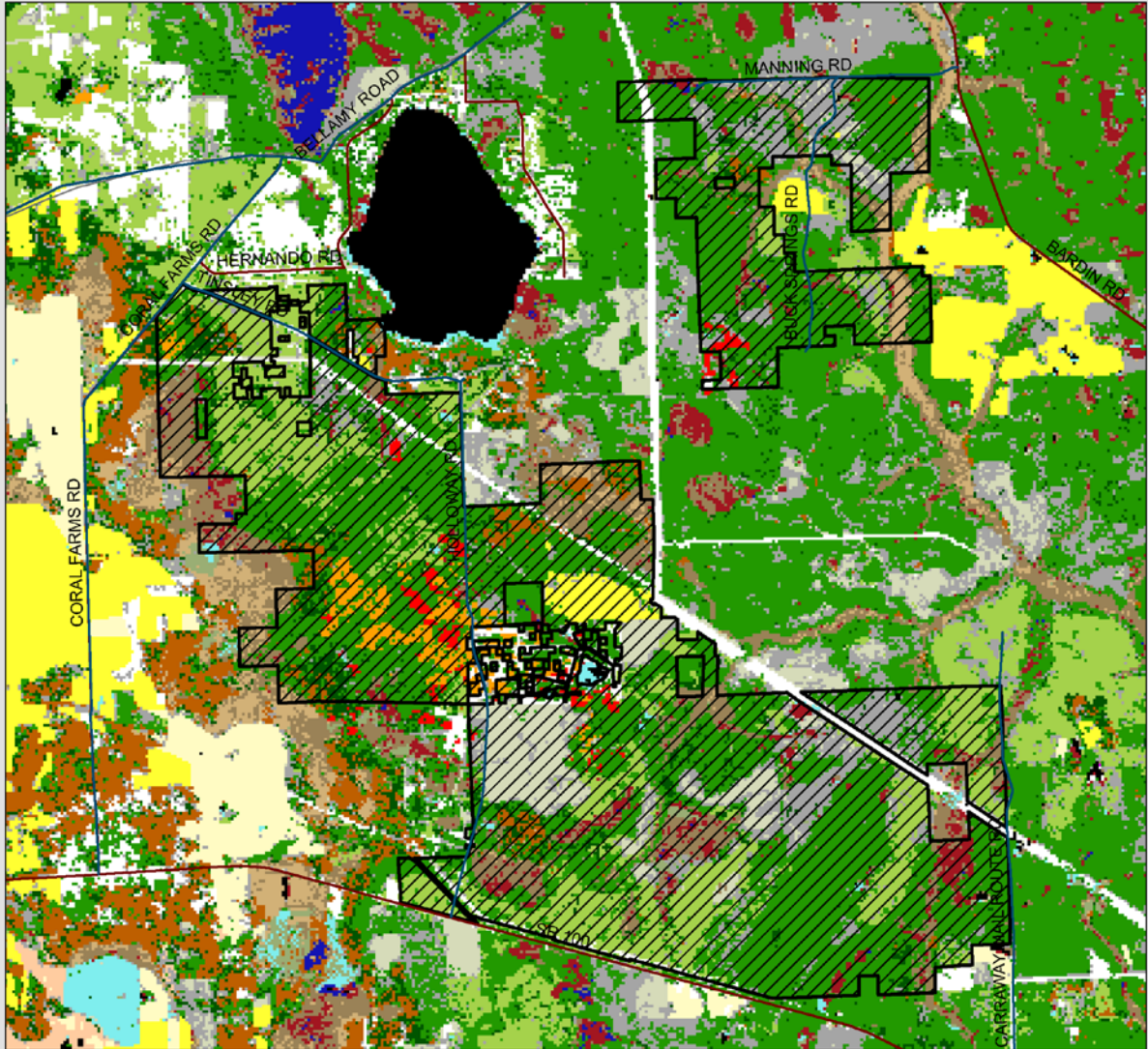
Etoniah Creek State Forest



2014_6003

Florida Land Cover - 2003

Etoniah Creek State Forest



2014_6003

Exhibit Q

Fire History

Etoniah Creek State Forest Rx Burn acres by FY

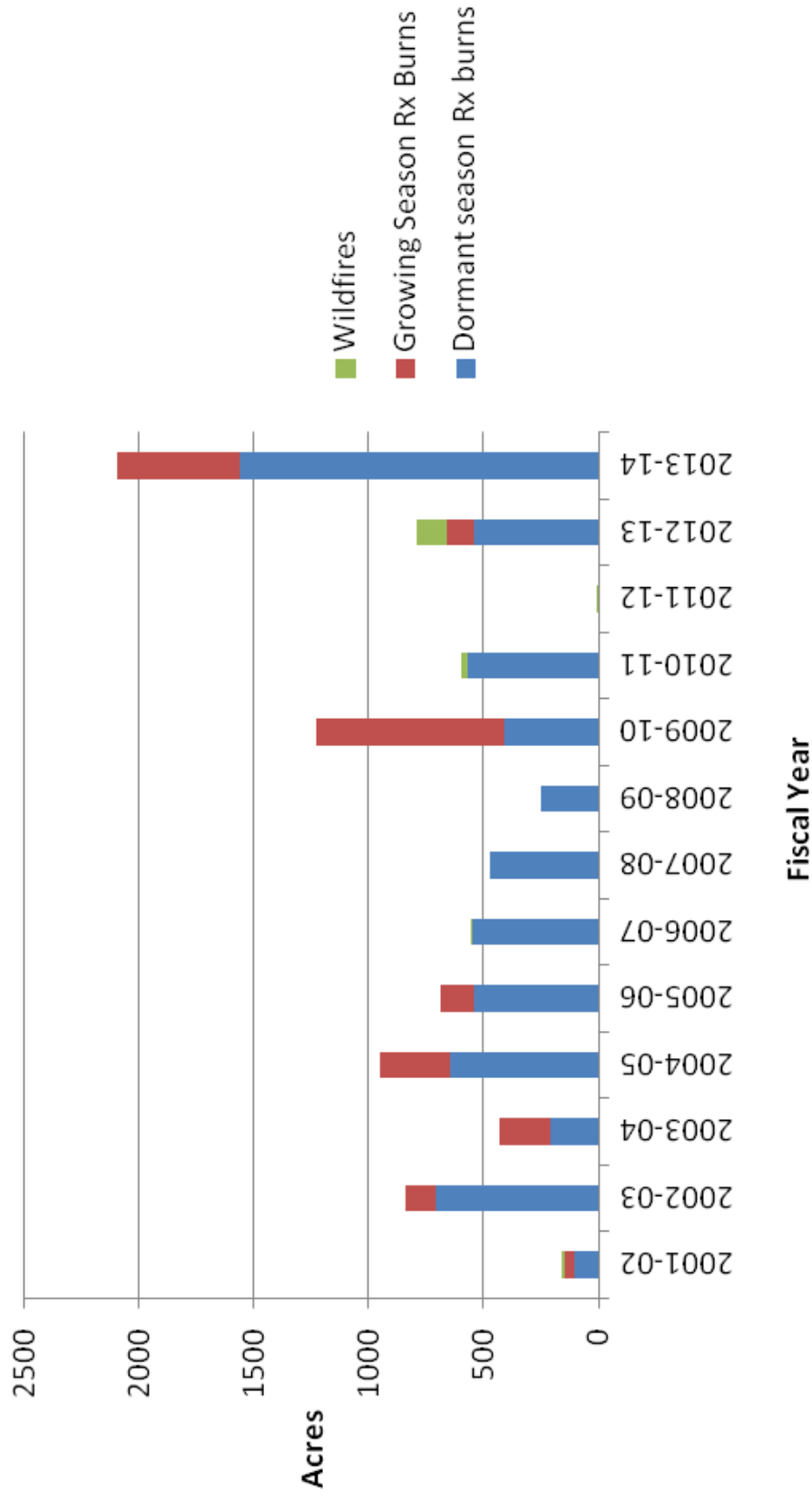


Exhibit R

Invasive Species



Florida Forest Service

Etoniah Creek State Forest

Location of Non-Native Invasive Species

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

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

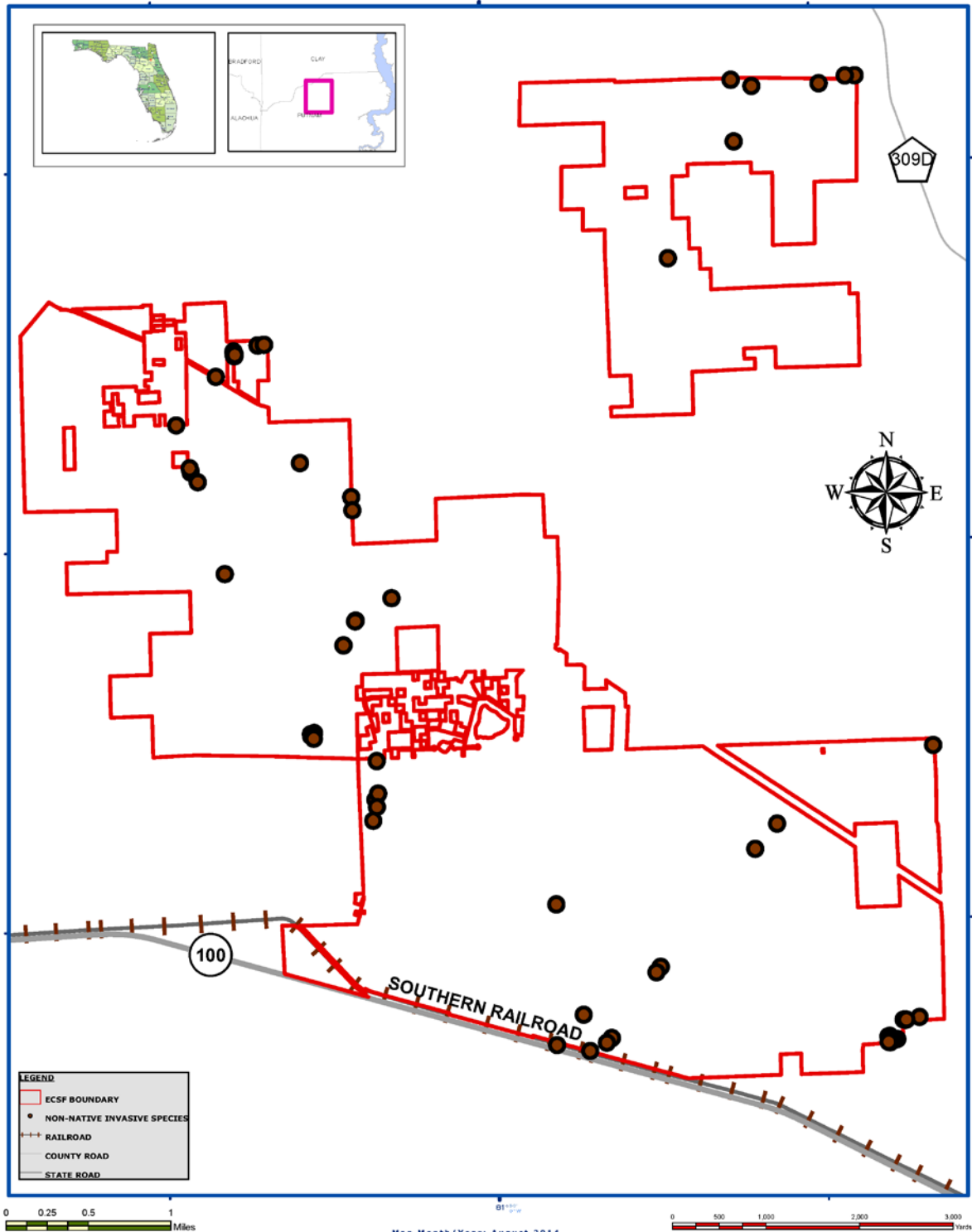


Exhibit S

Current Natural Communities



Florida Forest Service

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

Etoniah Creek State Forest

Current Natural Communities

DISCLAIMER:
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for informational purposes only. It is not intended to be used
for any other purpose. The Florida Forest Service does not
warrant the accuracy or completeness of the information
presented on this map. The Florida Forest Service is not
responsible for any errors or omissions on this map.

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

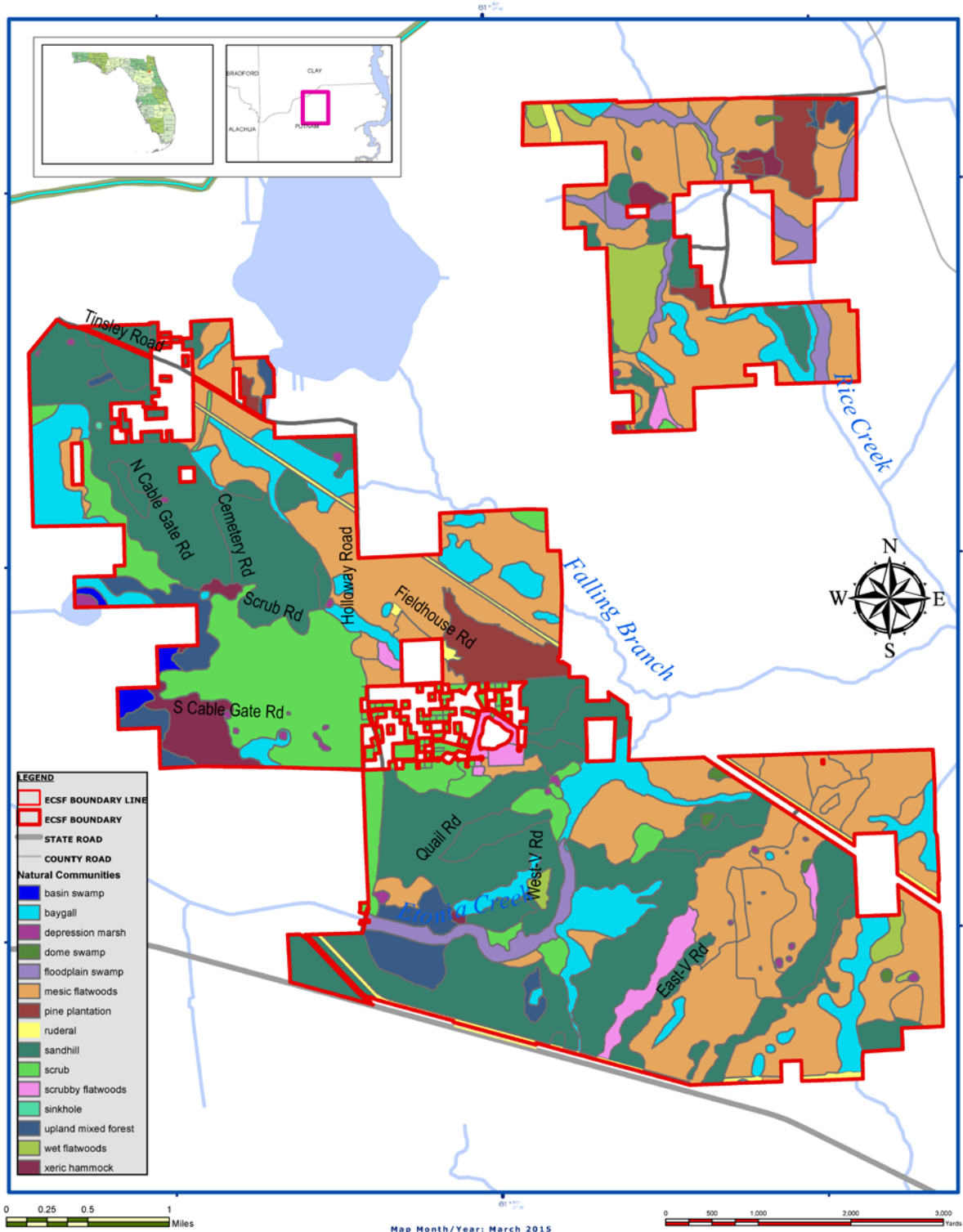


Exhibit T

Historic Natural Communities



Florida Forest Service

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

Etoniah Creek State Forest Historic Natural Communities

DISCLAIMER:
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and is for informational purposes only. It does not constitute
a warranty or representation of any kind. The Florida
Forest Service makes no warranty, either express or
implied, as to the accuracy or completeness of the
information contained herein. The Florida Forest Service
accepts no liability for any damages, including
consequential damages, arising from the use of this
map.

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

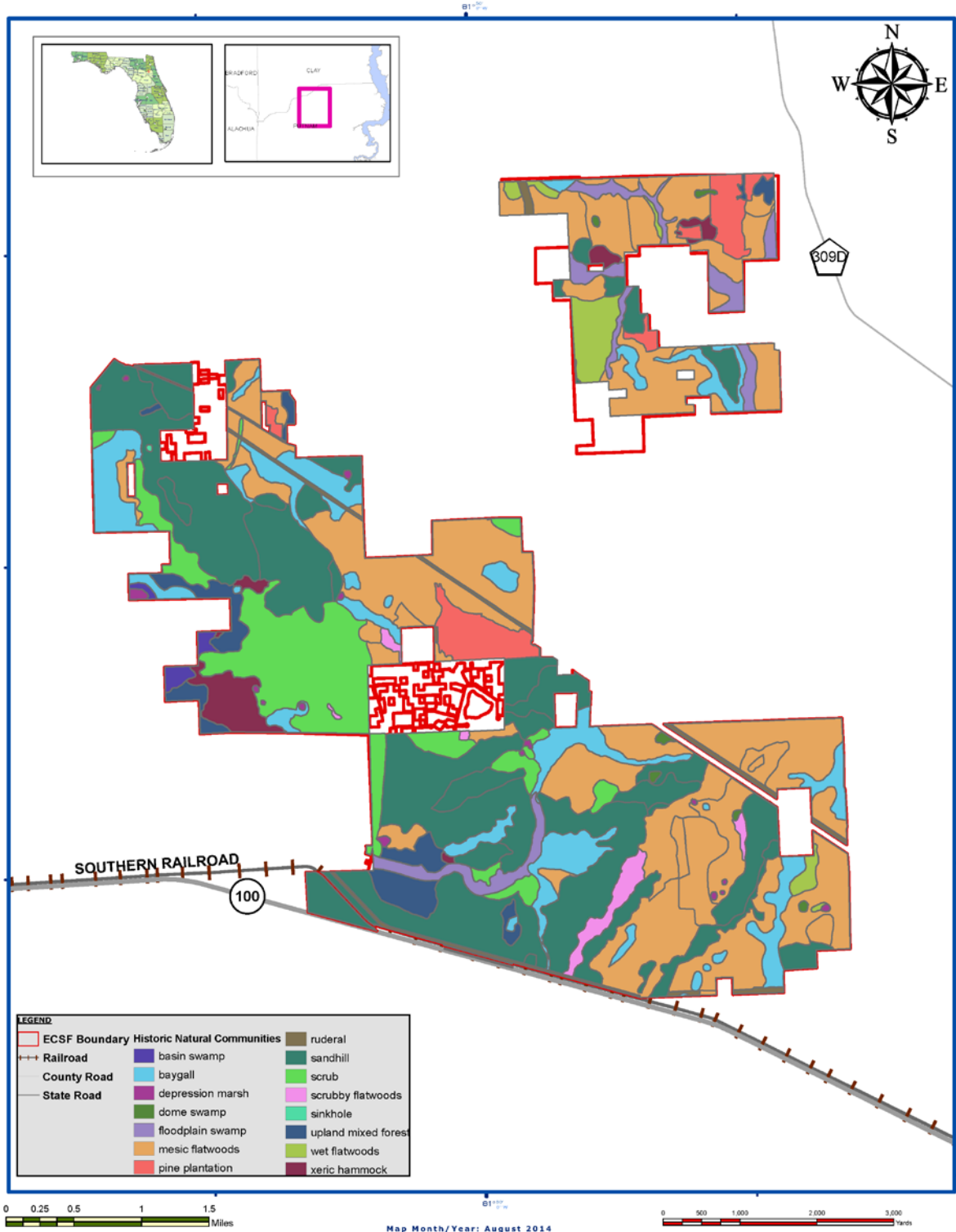


Exhibit U

Management Prospectus

Etoniah/Cross Florida Greenway

Clay, Putnam, Marion, Levy and
Citrus Counties

Critical Natural Lands

Purpose for State Acquisition

Though partially logged and planted in pine, the large expanse of flatwoods, sandhills, and scrub in central Putnam County, extending to the Cross-Florida Greenway along the Ocklawaha River, is important for the survival of many kinds of wildlife and plants. The Greenway itself is a unique strip of land for recreation and conservation that makes a cross-section of the peninsula from the Withlacoochee River to the St. Johns. The Etoniah/Cross Florida Greenway project will conserve the Putnam County land as well as fill in gaps in the Greenway; ensure that wildlife such as Florida black bear and scrub jays and plants such as the Etoniah rosemary will have areas in which to live; and provide recreation for the public ranging from long-distance hiking trails to fishing, camping, and hunting. This project may also help complete the Florida National Scenic Trail, a statewide non-motorized trail that crosses a number of Florida Forever project sites.

Manager

Florida Forest Service/FFS (formerly Division of Forestry/DOF), Florida Department of Agriculture and Consumer Services (Etoniah Creek tract) and Office of Greenways and Trails (OGT), Florida Department Environmental Protection (remaining tracts). FFS will monitor compliance with the terms of any less-than-fee purchase agreement.

General Description

The project consists of a large tract extending north from the Cross Florida Greenway to Clay County, and four smaller tracts designed to fill in gaps in state ownership along the Cross Florida Greenway. The original Etoniah/Cross Florida Greenway project is important for the survival of black bear in northeast Florida, includes many acres of pine plantation and cut-over flatwoods, but also high-quality sandhill, a unique white-cedar swamp along Deep Creek, and patches of sand pine scrub near Etoniah Creek that harbor at least a dozen rare species including fox squirrel, gopher tortoise, indigo and pine snakes, rare crayfish, and seven rare plants including the only known site for federally listed Etoniah rosemary. The smaller tracts include high-quality floodplain swamps along the Ocklawaha River; mixed forest land near U.S. 441 south of Ocala; and Inglis Island, disturbed pinelands between the old Cross Florida Barge Canal and the Withlacoochee River. Eight archaeological sites are known from the project. The greatest threat to the project area is intensive logging, but the uplands on the large tract are suitable for residential development. The smaller sites would lose their value as connectors if developed for residences.

Public Use

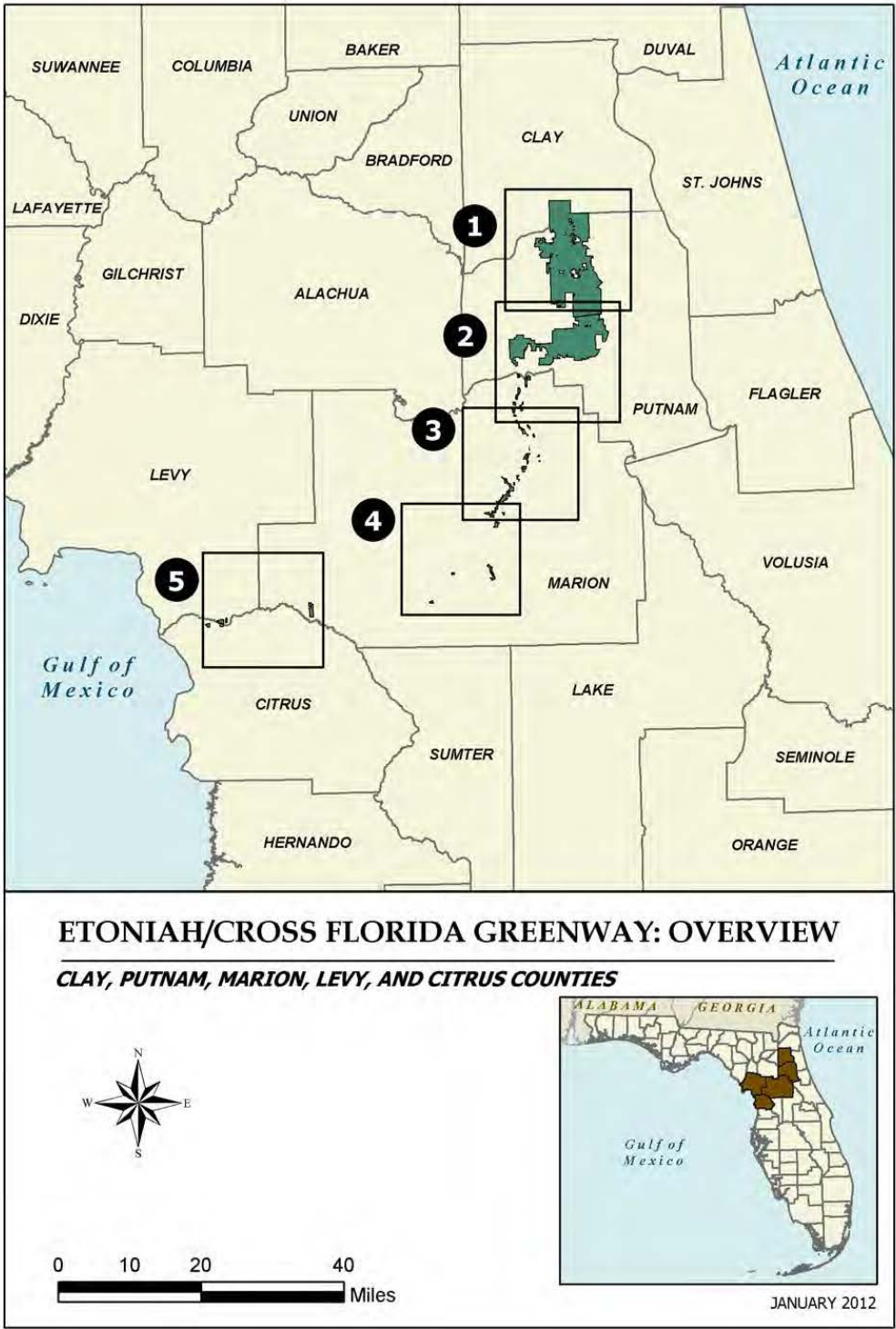
The Cross Florida Greenway connectors will form part of a conservation and recreation area; the majority of

Etoniah/Cross Florida Greenway FNAI Elements	
<i>Etonia Rosemary</i>	G1/S1
Florida Scrub-jay	G2/S2
Florida Black Bear	G5T2/S2
Eastern Indigo Snake	G3/S3
Gopher Tortoise	G3/S3
Florida Mouse	G3/S3
Swallow-tailed Kite	G5/S2
Florida Willow	G2/S2
Pinkroot	G2Q/S2
<i>Variable-leaved Indian-plantain</i>	G2/S2
<i>Pinewoods Dainties</i>	G4T2/S2
Black Creek Crayfish	G2/S2
33 rare species are associated with the project	

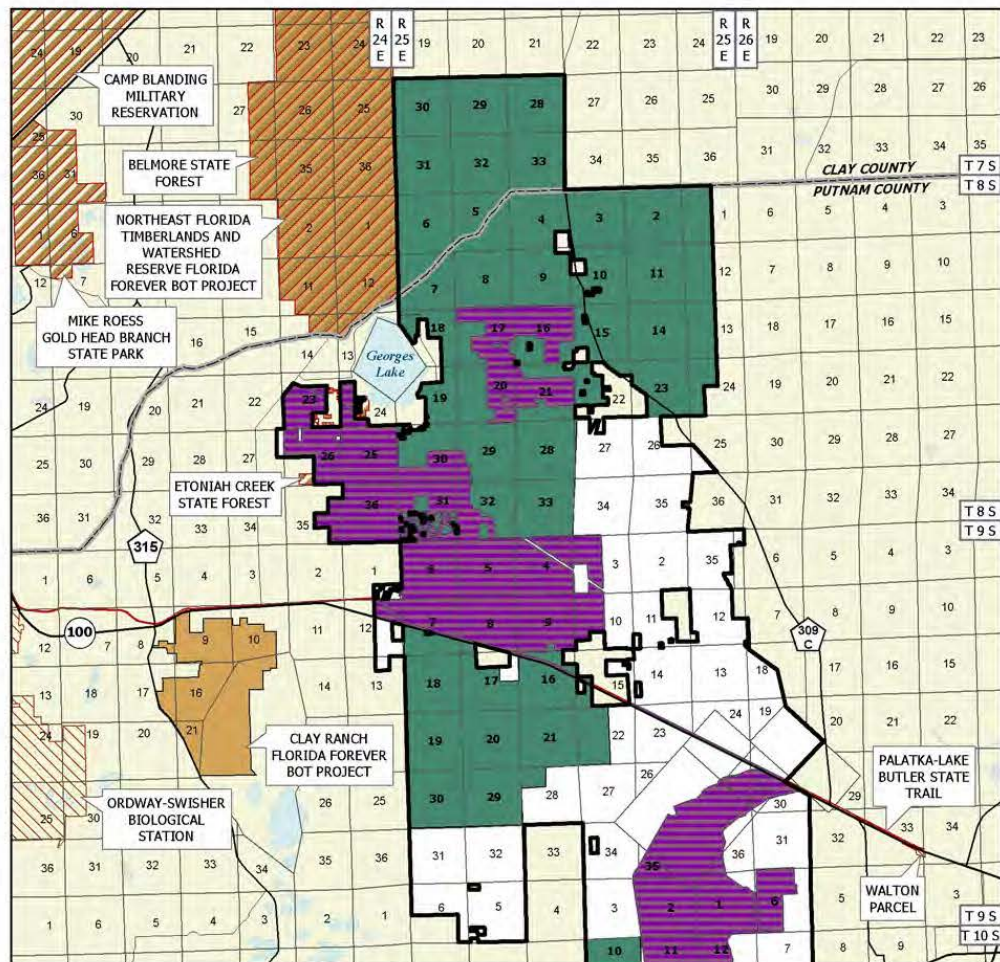
Placed on List	1995*
Project Area (GIS Acres)	93,259
Acres Acquired (GIS)	26,957**
at a Cost of	\$20,773,131**
Acres Remaining (GIS)	66,302
with Estimated (Tax Assessed) Value of \$170,079,702	

* Etoniah Creek, Cross Florida Greenways and Cross Florida Greenways Phase II were combined in 1995 to create Etoniah/Cross Florida Greenway. A Less-Than-Fee parcel of approximately 18,406 acres was added to the project in 1997.

** Includes a donation of 43 acres and acreage acquired and funds spent by the SJRWMD on Plum Crk/Rick Co.



Etoniah/Cross Florida Greenway



ETONIAH/CROSS FLORIDA GREENWAY: MAP 1 OF 5

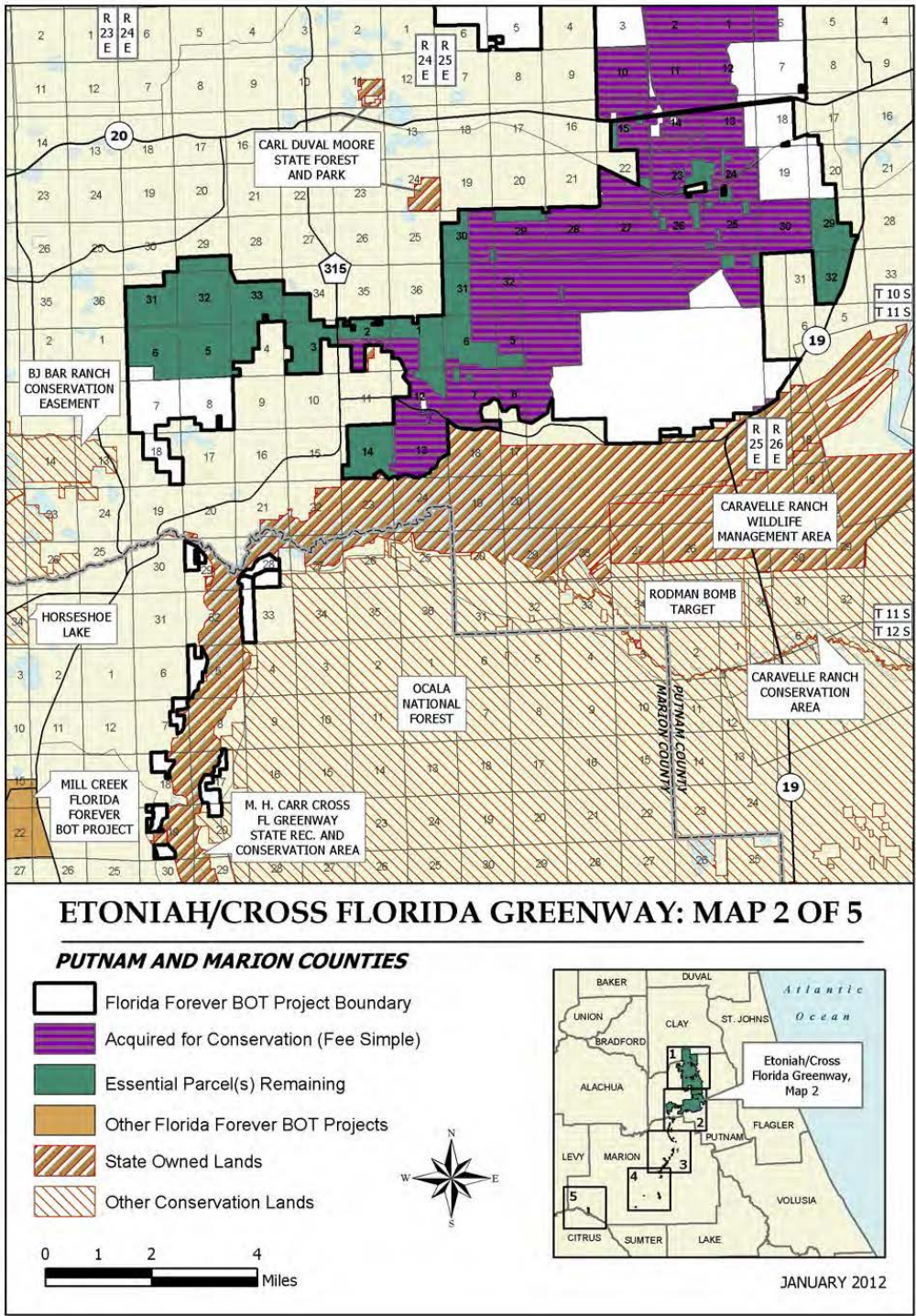
CLAY AND PUTNAM COUNTIES

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

0 1 2 4
Miles



JANUARY 2012



Etoniah/Cross Florida Greenway

the large (Etoniah) tract will become a state forest. The various parts of the project will offer opportunities for hiking, hunting, fishing and nature appreciation.

Acquisition Planning

Etoniah Creek

Phase I tracts (essential) include Stokes and Agricola, formerly Deltona (acquired), Union Camp, Manning (acquired) and Interlachen Lake Estates Subdivision. Life-of-the-South (Odom) is also an essential tract. Phase II includes other large ownerships, such as Roberts, as well as other smaller tracts and subdivisions.

Cross Florida Greenway

Phase I (essential) includes the westernmost segment (Deep Creek Corridor) consisting of a portion of the Miller family ownerships and approximately 14 other owners.

Cross Florida Greenway Phase II

The priority tract (essential) within this portion of the project is the Inglis Island site (acquired by the Office of Greenways and Trails).

On 7/20/1994 the Council added 210 acres to the boundaries of the predecessor projects.

On 12/7/1995, the Council approved the addition of 2,664 acres to the project boundary. The addition included lakeshore and lake bottom associated with Rodman Reservoir. A second modification was made to allow the St. Johns River Water Management District (SJRWMD) to acquire, on the State's behalf, a large ownership (Odom) not identified in the original Phase I area. Acquisition of the canal easement areas is also a priority.

On 3/15/1996 the Council approved adding 141 acres to the project boundaries. On 12/5/1996, the Council transferred the Georgia-Pacific ownership (18,146 acres) to the Less-Than-Fee category.

On 10/15/1998, the Council designated as essential an additional 9,870 acres - Georgia-Pacific and seven smaller tracts in a corridor between two already acquired tracts, and portions of the Roberts ownership.

On 8/22/2000, the Acquisition and Restoration Council (ARC) added 2,110 acres (Florida Power ownership along the Cross Florida Greenway State Recreation and Conservation areas) to the project. On 1/25/2001, ARC added 1,543 acres to the project (boundary in the

Deep Creek area). On 5/17/2001, ARC added 1,110 acres to the boundaries of the project.

On 2/25/2003 the project was added to the Group A list of Florida Forever projects.

On 4/13/2007, the ARC approved a fee-simple, 85-acre addition, known as Foxtrotter Ranch, to the project boundary. It was sponsored by the Office of Greenways & Trails (OGT), consisted of one landowner, Richard Simon, one parcel, and a taxable value of \$2,267,908. OGT will manage the site. The house (approximately 2.5 acres) is not included in the addition, however, it may be donated to the state subsequent to acquisition.

In 6/2008, some 1.19 acres of the Harrington ownership were purchased for \$15,000 with the FFS Florida Forever funds. FFS will manage this section. In 9/2008, the FFS used Florida Forever funds to buy the following acreages: 1.08 acres (Fred Yankee, LLC) for \$13,500; 0.87 acres (Goddard) for \$23,000; 1.01 acres (Land Reclamation, Inc.) for \$15,000; 2.52 acres (Cann) for \$23,000; 1.21 acres (Martin) for \$14,000; 1.27 acres (Vehoski) for \$14,000; and 1 acre (Murray) for \$15,000. The DOF will manage all of these parcels. In 10/2008, the FFS used Florida Forever funds to buy 1.25 acres (Uttech) for \$11,500; 2.5 acres (Lachmansingh) for \$25,000; 3.61 acres (Chapman) for \$37,500; and 2.53 acres (Thornton) for \$23,000. The FFS will manage these parcels. In 11/2008, the FFS used Florida Forever funds to buy 1.27 acres (Dubay) for \$14,000; 1.24 acres (Hood) for \$15,500; 1.25 acres (Contreras) for \$14,000; and 1.24 acres (South) for \$14,000. FFS will manage these parcels.

On 1/21/2009 SJRWMD purchased 208 acres for \$474,363 (Plum Creek/Rick Co.). In 10/2009, 1.25 acres were purchased from Margaret Vail for \$14,000. In November 2009, 1.25 acres were purchased from Kenneth/Diane Schwing for \$15,500. On 12/10/2009, FFS purchased 1.43 acres for \$13,500 and will manage this tract.

On 11/4/2010 FFS purchased 106 acres (Moore--\$405,000) with Florida Forever funds. FFS will manage.

On 1/3/2011, FFS purchased 1.29 acres (Williams--\$18,000 with FF funds. FFS will manage. On 5/2/2011 the FFS funded 1.25 acres (Cearley-\$12,000)

Etoniah/Cross Florida Greenway

in the Cross Florida Greenway portion and will manage. On 8/3/2011 FFS purchased 3.69 acres (Interlachen Lakes Estates) for \$27,500; FFS to manage. On 12/9/2011 ARC recommended a 1509-acre reduction to the project boundary containing residential development/commercial buildings/infrastructure.

Coordination

The SJRWMD was the intermediary in the acquisition of the Manning tract and has provided information and expertise on several other tracts. The Office of Greenways and Trails used additions and inholding funds to acquire Inglis Island. The Division of State Lands will assume the lead on acquisition of the remaining tracts.

Management Policy Statement

The primary goals of management of the Etoniah/Cross Florida Greenway project are: to conserve and protect environmentally unique and irreplaceable lands that contain native, relatively unaltered flora and fauna representing a natural area unique to, or scarce within, a region of this state or a larger geographic area; to conserve and protect significant habitat for native species or endangered and threatened species; to conserve, protect, manage, or restore important ecosystems, landscapes, and forests, in order to enhance or protect significant surface water, coastal, recreational, timber, fish or wildlife resources which local or state regulatory programs cannot adequately protect; and to provide areas, including recreational trails, for natural-resource-based recreation.

Management Prospectus

Qualifications for state designation The large size, restorable pine plantations, and diversity of the Etoniah Creek portion of this project make it highly desirable for management as a state forest. The Cross Florida Greenway State Recreation and Conservation Area includes scenic and historic rivers, lakes, wetlands, and uplands. It is also near, or contiguous with, many other state-owned lands. The Cross Florida Greenway portion of this project, together with the lands already in the Greenway, has the configuration, location, and resources to qualify as a state recreation area.

Manager The FFS proposes to manage the 57,000-acre Etoniah Creek portion of the project and the OGT will manage the remaining lands in the vicinity of the old Cross Florida Barge Canal.

Conditions affecting intensity of management There are no known major disturbances in the Etoniah Creek

portion that will require extraordinary attention, so management intensity is expected to be typical for a state forest. Lands in the Cross Florida Greenway portion are generally moderate-need tracts.

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

Once the core area of the Etoniah Creek portion is acquired, the FFS will provide access to the public for low-intensity, non-facilities-related outdoor recreation. Initial activities will include securing the tract, providing public and fire management accesses, inventorying resources, and removing trash. The FFS will provide access to the public while protecting sensitive resources. The tract's natural resources and threatened and endangered plants and animals will be inventoried to provide the basis for a management plan.

Long-range plans for the Etoniah Creek portion will generally be directed toward restoring disturbed areas to their original conditions, as far as possible, as well as protecting threatened and endangered species. An all-season burning program will use, whenever possible, existing roads, black lines, foam lines and natural breaks to contain fires. Timber management will mostly involve improvement thinning and regeneration harvests. Plantations will be thinned and, where appropriate, reforested with species found in natural ecosystems. Stands will not have a targeted rotation age. Infrastructure will primarily be located in disturbed areas and will be the minimum required for management and public access. The FFS will promote environmental education. For the Greenway portion, activities within the first year after acquisition will primarily consist of site security, resource inventory, removal of trash, and resource-management planning. Long-range activities proposed include a multipurpose trail and facilities for public access.

Revenue-generating potential In the Etoniah Creek portion, the FFS will sell timber as needed to improve or maintain desirable ecosystem conditions. These sales will provide a variable source of revenue, but the revenue-generating potential for this project is expected to be moderate. In the Greenway portion, no revenues are expected to be generated within the first three years after acquisition. However, as the Greenway is developed during its 20-year facility development plan, revenues will be derived from user fees, the sale of products from the lands (limerock berm and timber), and the sale of surplus lands.

Cooperators in management activities The FFS will cooperate with and seek the assistance of other state

Etoniah/Cross Florida Greenway

agencies, local government entities and interested parties as appropriate. Currently, properties along the Greenway are managed in partnership with Marion County, the Florida Game and Fresh Water Fish Commission, and private individuals for recreational purposes.

Updated 2/21/2012

Full Fee:

Management Cost Summary/OGT

Category Source of Funds	Startup LATF	Recurring LATF
Salary	\$36,380	\$36,380
OPS	\$72,660	\$72,660
Expense	\$62,301	\$46,362
OCO	\$3,167	\$0
FCO	\$100,000	\$0
TOTAL	\$274,508	\$185,402

Management Cost Summary/DOF

Category Source of Funds	1996/97 CARL	1997/98 CARL	1998/99 CARL
Salary	\$45,337	\$56,489	\$58,183.67
OPS	\$0	\$3,000	\$7,650.00
Expense	\$11,225	\$22,825	\$58,203.75
OCO	\$43,320	\$50,500	\$128,775.00
FCO	\$0	\$0	\$0
TOTAL	\$99,882	\$132,814	\$252,812.42



Exhibit V

Land Management Reviews

Name of Site: Etoniah Creek SF

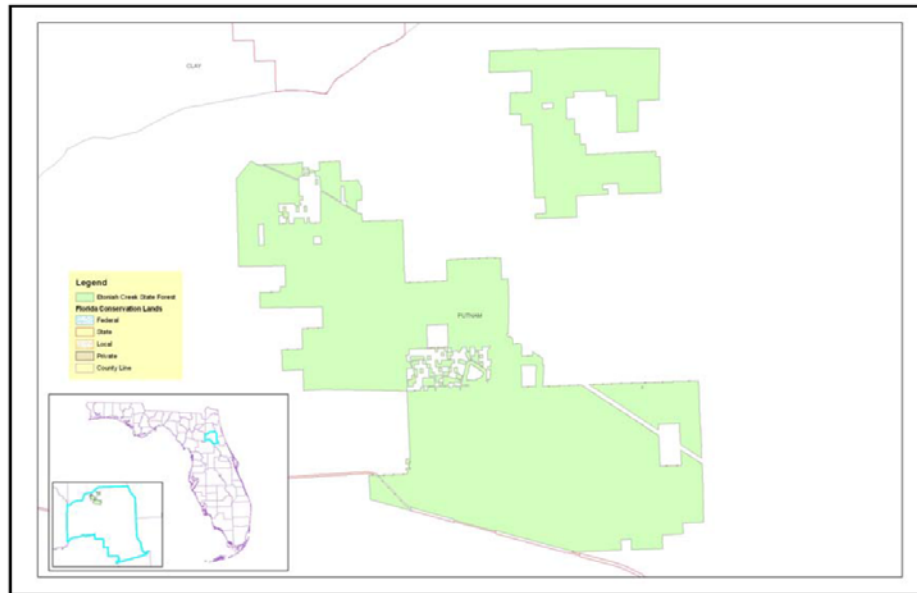
County: Putnam County

Managed by: Department of Agriculture and Consumer Services
Florida Forest Service

Acres: 8,691.1
Area Reviewed: Entire tract

Review Date: 5/17-18/11

Management Plan Approval Date: 12/3/04



Review Team Determination

Managed in accordance with
Acquisition purpose? Yes =5, No = 0



Management practices, including public access,
in compliance with the management plan? Yes =5, No = 0



Categories	Management Plan Review	Field Review
Natural Communities	0.58	3.41
Listed Species	0.97	3.88
Natural Resource Survey	0.88	3.99
Cultural Resources	1.00	3.53
Prescribed Fire	0.87	3.13
Restoration	1.00	3.00
Exotic Species	0.80	3.70
Hydrology	0.60	3.65
Groundwater Monitoring	0.80	3.67
Surface Water Monitoring	0.40	3.78
Resource Protection	0.95	3.95
Adjacent Property Concerns	0.87	4.20
Public Access & Education	0.87	3.60
Management Resources	N/A	4.00
Managed Area Uses	1.00	N/A
Buildings, Equipment, Staff & Funding	N/A	2.50

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 on their invasive exotic plant control program on the property. (VOTE: 5+, 0-)

★★★★★

2. Considering the amount of funding and staffing at this forest, the FFS staff are making an exceptional effort at accomplishing their prescribed burning goals, but more could be done with additional staff. (VOTE: 5+, 0-)

★★★★★

3. The team commends the FFS staff for the excellent recreational opportunities provided at this forest. (VOTE: 5+, 0-)

★★★★★

Consensus Recommendations to the Managing Agency

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

1. The team recommends that funding should be sought to contract with USDA for feral hog removal, because previous attempts to remove them have been unsuccessful. (VOTE: 5+, 0-)

★★★★★

Managing Agency Response: In the spring of 2006, DOF (now called the Florida Forest Service, FFS) contacted the USDA APHIS office to inquire about this. The cost would have been slightly over \$5,000 with the pricing being dependent upon FFS employees conducting the majority of the pre-baiting. It was determined that it would be cost prohibitive. The budget situation is worse now, but this might be a viable option in the future.

2. The team recommends that FFS should continue to aggressively pursue acquisition of the outparcels of the Interlachen Lakes Estates, in order to protect the largest concentration of *Conradina etonia* and the only known population of scrub jay in the forest. (VOTE: 5+, 0-)

★★★★★

Managing Agency Response: Purchasing continues as willing sellers are found, and funding becomes available.

Field Review Checklist Findings

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

- Natural Communities, regarding xeric hammock, floodplain swamp, baygall, dome swamp, sinkholes, upland mixed forest and depression marshes.
- Listed Species, regarding animal inventory, scrub jay, black bear, gopher tortoise, plant inventory, and etonia rosemary.
- Natural Resources, regarding 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, regarding the cultural resource survey.
- Non-native, Invasive and Problem Species, regarding the prevention and control of plants and control of animals and pests/pathogens.
- Hydrologic/Geologic Function, regarding roads/culverts and hydro-period alteration.
- Ground/Surface Water Monitoring, regarding the water quality and quantity for both.

- Resource Protection, regarding boundary surveys, gates/fencing, and signage.
- Adjacent Property Concerns, regarding inholdings and additions.
- Public Access & Education, regarding roads, parking, wildlife/rare plants, recreational opportunities, and the management of visitor impacts.

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. Management of natural communities, specifically wet flatwoods, scrubby flatwoods, sinkholes, upland mixed forest, and depression marsh, with documentation in the management plan.

Managing Agency Response: The natural communities map provided in the 2004 plan was compiled before FNAI completed their natural community mapping project in that same year. The currently approved plan was written seven years ago, and the format has changed considerably since then. The next revision of the plan will address management actions to achieve a desired future condition.

2. Hydrologic/Geologic function, specifically hydro-period alteration, with documentation in the management plan.

Managing Agency Response: In January of 2010, a private environmental engineering firm conducted an assessment of the status of the various wetlands present on ECSF. Also, an in-house hydrological activity summary was prepared through the FFS Forest Hydrology section. Some of the remedial actions recommended in the Forest Hydrology section assessment have yet to be implemented due to the cost and/or extensive nature of the work involved. These will be addressed in the next revision of the 10 year Resource Management Plan. The new plan, currently being drafted, will include more emphasis on hydrologic and geologic features.

3. The need for surface water monitoring, more specifically the quality and quantity of the water, with documentation in the management plan.

Managing Agency Response: The FFS will contact the SJRWMD for assistance with this, and it will be addressed in the next revision of the 10 year Resource Management Plan.

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. Management of natural communities, specifically sandhill, scrub, wet flatwoods and scrubby flatwoods, with documentation in the management plan.

Managing Agency Response: Agree. See the response to question 1 on page 3 of 9.

2. The need for management resources, specifically staff and funding, with documentation in the management plan.

Managing Agency Response: Currently funding for additional staff is very unlikely, but the next revision of the management plan will identify additional staffing needs which may be achievable in the next ten years.

Florida Forest Service Manager and Key Staff Present:

- Scott Crosby, Forester
- Charlie Pedersen
- Terry Sheehan
- Ernie Ash

Exhibit W

State Forest Management Plan Advisory Group Summary

**Etoniah Creek State Forest
Management Plan Advisory Group, Public Meeting / Organizational Meeting
January 21, 2015**

Meeting Commenced at 6:00 pm

Welcome: Bill Korn

- Introduction
- Statute Outline
- Sunshine Laws
- Term of Service
- Public Meeting Requirements: County Commission Meeting; Public Notice in Newspaper and Florida Administrative Weekly; Posted in State Forest Kiosks
- Objective of Meeting is to get public input and to show information about the State Forest
- During presentation MPAG group may ask questions
- Written comments
- General public may speak, MPAG members listen to comments
- 5 minute limit on speakers

Introduction of Attendees:

- Bill Korn – Florida Forest Service (FFS) State Office
- Jennifer Reed, FFS State Office
- Catherine Ingram, FFS State Office
- Charlie Pedersen, FFS District Biologist
- Scott Crosby – FFS Forest Supervisor
- Ernie Ash – FFS District Resource Administrator (MPAG Member)

MPAG Members Present:

- Walton Pellicer, Putnam County Board of County Commissioners
- Gary Gresham, Rodeheaver Boys Ranch
- Sherry Tornwall, Southeastern Distance Riders Association
- Larry Harvey, Putnam County Board of County Commissioners
- Joyce King, Audubon Society
- Jimmy Conner, Florida Fish & Wildlife Conservation Commission
- Nels Parson, St. John's River Water Management District
- Bill Chitty, Adjacent Land Owner and Volunteer
- Andy Hirko, RockTenn
- John Newbold, III, Putnam Soil & Water Conservation District

Member Absent: Jeff Glenn, Florida Trail Association

Chairperson Election:

Bill Chitty nominated Ernie Ash, Walton Pellicer seconded the nomination

Unanimously elected

Meeting Adjourned at 6:18 pm

**Etoniah Creek State Forest
Management Plan Advisory Group, Public Meeting / Public Meeting
January 21, 2015**

Meeting Commenced at 6:30 pm

Florida Forest Service Attendees:

- Bill Korn – FFS State Office
- Jennifer Reed, FFS State Office
- Catherine Ingram, FFS State Office
- Charlie Pedersen, FFS District Biologist
- Scott Crosby – FFS Forest Supervisor
- Ernie Ash – FFS District Resource Administrator (MPAG Member)

MPAG Members Present:

- Walton Pellicer, Putnam County Board of County Commissioners
- Gary Gresham, Rodeheaver Boys Ranch
- Sherry Tornwall, SEDRA
- Larry Harvey, Putnam County Board of County Commissioners
- Joyce King, Audubon Society
- Jimmy Conner, FWC
- Nels Parson, SJRWMD
- Bill Chitty, Adjacent Land Owner and Volunteer
- Andy Hirko, Rock Tenn
- John Newbold, III, Putnam SWCD

Member Absent: Jeff Glenn, Florida Trail Association

Welcome: Ernie Ash & Bill Korn

Welcome: Scott Crosby

Power point presentation: Scott Crosby

The power point presentation briefly discussed boundary lines; adjacent lands; management of the property; and the general goals and objectives of the management plan.

Questions during presentation

Slide #10 (Recreation)

Nels Parson: Visitor Count, How is the number generated?

Scott Crosby: Day use passes, visual counts, special events, and camping permits

Larry Harvey: Public access and logging trucks. County wants to pave road and is concerned about the trucks using the road. Is there another access?

Scott Crosby: No other access at this time for the logging trucks.

Bill Korn: Cautioned against management discussion. Those discussions should take place at the MPAG planning meeting on the 22nd.

Slide #22 (Capital Improvements)

Nels Parson: Platform extension, is that due to George's Lake rise and fall?

Scott Crosby: Yes.

Power point presentation ended

Bill Korn: Further remarks concerning tomorrow's meeting.

Two Speakers from the Public:

Gary Gresham: Is there any recourse for loggers and utility companies damaging the roads? For the leased area, which is an in-holding within the forest, access is problematic.

Ernie Ash: Loggers should repair the road. Utility companies are supposed to repair, but ECSF has no power to enforce.

Scott Crosby: During prescribed burns FFS accesses those roads as well.

Nels Parson: Does the power company own the area or is this area an easement?

Robbie Smith: FPL does own the easement.

Gary Gresham: It should be in FFS best interest to repair the road.

Bill Chitty: There is a concern by the general public that after a timber harvest the land is not always left in the best condition.

Scott Crosby: Best Management Practices guide the operations of a timber harvest. There is care taken around bodies of water. When BMPs have been assessed, ECSF has received 100% compliance. Some areas have not had harvesting done in a long while. It takes time to bring the forest back to ideal conditions.

Bill Chitty: Timber harvest trash makes access difficult for hunters and hikers on some areas.

Meeting Adjourned: 7:05 pm

**Etoniah Creek State Forest
Management Plan Advisory Group, Public Meeting / Workshop
January 22, 2015**

Meeting Commenced at 1:30 pm

Welcome: Bill Korn

Florida Forest Service Attendees:

- Bill Korn – FFS State Office
- Jennifer Reed, FFS State Office
- Catherine Ingram, FFS State Office
- Charlie Pedersen, FFS District Biologist
- Scott Crosby – FFS Forest Supervisor
- Ernie Ash – FFS District Resource Administrator (MPAG Member)

MPAG Members Present:

- Walton Pellicer, Putnam County Board of County Commissioners
- Sherry Tornwall, SEDRA
- Larry Harvey, Putnam County Board of County Commissioners
- Joyce King, Audubon Society
- Jimmy Conner, FWC
- Nels Parson, SJRWMD
- Andy Hirko, Rock Tenn
- John Newbold, III, Putnam SWCD

Member Absent:

- Jeff Glenn, Florida Trail Association
- Gary Gresham, Rodeheaver Boys Ranch
- Bill Chitty, Adjacent Land Owner and Volunteer

Guest:

- Robbie Smith

Members took a few minutes to read over the minutes from the previous evening and look over the written comments FFS has received.

A motion to approve the minutes was made by John Newbold and seconded by Walton Pellicer. All were in favor of the approval of the minutes.

Bill Korn: Overview of the process for the day's meeting and changes to the plan. Changes are made with a consensus of the MPAG. FFS Director will have a final say in any changes, most are accepted.

MPAG will start with speaker comments from the previous evening and written comments.

Public Meeting Speaker, Gary Gresham

Comments concerning logging damage sustained along the FPL right-of-way.

E. Ash – Operational issue to be handled by FFS.

Public Meeting Speaker #2, Bill Chitty

Mr. Chitty addressed his concerns regarding recent timber harvests and the post-logging debris that remained behind. MPAG addressed as part of Mr. Chitty's written comments. See #14 below.

Public Meeting Written Comments

Bill Chitty - Written Comments (attached)

1. Goal & Objectives –
 - Discussion between multiple members concerning various goals and objectives and whether a measurement is needed.
 - Reference could be made to the five year operational plans when applicable.
 - Specific Comment added to Goal 3, Objective 3. Language changed.
2. Page 10, page 17 – editorial changes.
3. Game species – change made from great Horned Owl to Barred Owl.
4. Page 31 – Pitcher pump – operational issue. Changed made to page 31. Pitcher pump added to Green Camp.
5. Page 32 – Trail issue. Discussion of trails and FNST.
6. On-Site Residence – changes made to the plan.
7. Surveys & Monitoring, Florida Scrub Jay – FFS staff will add language to the plan regarding FSJs.
8. Xeric Hammock – no changes made to the plan. A. Hirko supported the current language.
9. Page 56 – editorial change made to the plan.
10. Page 56 – Dip netting – language added.
11. Page 58 – Sinkhole Community – word change made to the plan, “unwarranted” to “unmanaged”.
12. Page 46 – Scrub – no written comments.
13. Page 47 – previously addressed.
 - J. King - Comments concerning other species.
 - J. Conner – FWC only reports and develops strategic plans on threatened or endangered, not focal species.
 - More description and management discussion may be added in the Survey and Monitoring section concerning key listed species and focal species occurring on property.
14. Timber Harvests –

- N. Parson - Discussion concerning replanting schedules and recommendations where sand pine is harvested.
- Aesthetic issues related to recent sand pine harvest discussed, with the consensus that future burning and reforestation may resolve those issues. Multiple members discussed logging activities and management activities.
- No changes made to the plan.

15. Exhibit E – Aviation Checkpoint will be removed.

16. Exhibit P – FWC Scrub Jay list – FFS cannot control FWC data. No change made to the plan.

17. Exhibit P – FWC Eagles Nest – FFS cannot control FWC data. No change made to the plan.

B. Kraig McLane – Written Comment (attached)

1. Item C – Mountain Biking

- E. Ash – FFS will work with volunteers and look at putting in a bike trail if the need is made known. ECSF may not be the best terrain or soil cover for mountain biking.
- N. Parson and A. Hirko support addition to the plan.
- Plan changed on page 33.
- J. Newbold gave comments concerning the plan. Would like to add information concerning mountain biking. Mr. Newbold left the meeting due to a previous commitment.

2. Item D – plan changed on page 33 and in camp site section.

Bill Korn: Stated that now written comments had been reviewed by MPAG, it was time to go around table and give individual team members time to share their thoughts on plan

Jimmy Conner, FWC

1. Five Year Operational Plans versus Ten Year Management Plan.

- B. Korn – explanation of operational plans.
- E. Ash – further explanation.

2. Page 5, Goal 3, Objective 2

- E. Ash – restoration is more than a 10 year endeavor.
- S. Crosby – Long term goal to convert 2,600 acres of sand pine to longleaf.
- “Improvement” changed to “Restoration”

3. Page 5, Goal 3, Objective 4

- Objective 4 will be Objective 3.
- “Restored” changed to “Evaluated”.

4. Page 7, DHR monitoring personnel

5. Page 7, Hydrological Needs Assessment

- Exhibit added to the plan.

6. Page 7, Goal 7, Objective 3
 - Discussion of the performance measure.
 - N. Parson - Photo points may be needed for management purposes.
 - Assessment language was added to the plan on Page 7.
7. Page 8, Goal 8, Objective 2 – Boundary Maintenance
 - Objective 2 and Objective 4 were combined.
 - Language added to Objective 4.
8. Should there be an Environmental Education goal?
9. Page 11. Issue with common species not mentioned.
 - A. Hirko – Are rare, listed, and other names for species all the same definitions?
10. Page 12 – Crooked wood added.
11. Page 13, Section 4, B – Editorial change made.
12. Natural Communities – Current condition descriptions are pretty awesome.

Andy Hirko

1. Page 1, Offsite Pine Harvests
 - Discussion concerning past management practices and difference between planted sand pine and where it occurs naturally.
2. Page 2, Practice Sustainable Forest Management
 - Does FFS or ECSF hold a SFI certification?
 - FFS is moving towards that end, starting in the near future on two state forests.
3. Page 5, Liaison Panel – Language added to include timber industry representative.
4. Page 6, Objective 6 – Question concerning acreage differences in mapping natural communities.

Joyce King

1. Concerns about Florida scrub jay (FSJ) and focal species
2. Bill Chitty's comments concerning FSJ in longleaf pine plantation.
 - Discussion by C. Pedersen regarding FSJ habitat needs.
3. Scrub natural community description is good.
4. Page 25, Land Acquisition Projects.
 - N. Parson - Optimal Management Boundary and acquisitions.
 - Discussion regarding management needs and acquisitions.

Sherry Tornwall

1. Page 12 – Apiaries added to list.

2. Page 29 – Section V – Rocks in the road for vehicles. Could a fire line be added to the side or some other solution?
 - S. Crosby - FFS is mowing the side of the road for multiple purposes, including horses.
3. Discing and harrowing make it difficult for horses. Could the area be roller-drummed afterwards?
 - E. Ash – Day Use Parking Area – rocks will be covered.
 - B. Korn – a list of suggestions for management would be looked at.
4. Page 30, Parking area for equestrian would be helpful.
 - Language added for a horse accessible parking lot on page 33.
 - Nels Parson asked that on page 30 – “Dock” changed to “Platform”
 - Discussion concerning an equestrian parking lot at the Clay Electric Right-of-Way. FFS does not control this area.

Ernie Ash

FFS is reevaluating acreage numbers in the plan concerning the natural communities.

Walton Pellicer

Page 41 – Possible typographical error – no change made.

Larry Harvey

No comments. Mr. Harvey had asked about use of Holloway Road by log trucks as county was considering need for paving it.

- N. Parson - Timber routes and access issues.
- S. Crosby – Haul routes vary based multiple factors.
- E. Ash – Haulers would be able to use county roads unless designated otherwise.
- Discussion between multiple members.

Nels Parson

1. Page 5, Goal 2, Objective 1 and 2 – Language added referencing the State Forest Handbook
2. Goal 8, Objective 6 – Is an Equipment Needs Goal needed – Tree Cutting Mower
3. Page 19 – DHR list – What is “Other”?
 - N. Parson – What is a “Cattle Trough”
 - E. Ash – Artifact Found
4. Page 31 – “Dock” changed to “Platform”
5. Page 33 – Interpretive Displays – Portable kiosk (display) to explain land management. Language addition made.
6. Page 34, Section V, 2 - Language added.

- Discussion concerning silviculture management practices.

It was brought up that previous in meeting the written comments from Elizabeth Layer regarding motorcycle use/misuse of forest roads were not discussed.

Elizabeth Layer written comments concerning motorcycle activity (attached).

- E. Ash – Operational and law enforcement issue.

Bill Korn - Final Wrap Up and discussion of schedule of next steps. Jennifer Reed will send an e-mail to MPAG members with the workshop minutes, the edited plan, and any exhibits that have changed. MPAG members will be asked to approve.

ARC Meeting to approve the ECSF management plan in June is possible.

Meeting Adjourned at 3:57 pm

Exhibit X

State Forest Summary Budget

Etoniah Creek State Forest Summary Budget

	ETONIAH CREEK STATE FOREST LANDS MGT. ONLY 13-14 EXPENDITURES -	Percentage of Total for FY 2013-14	ECSF Based Upon LMUAC Resource Management Funding Need
Resource Management	\$ 106,246	30.40%	\$ 200,613.64
Exotic Species Control	\$ 6,908	2.50%	\$ 16,497.83
Prescribed Burning	\$ 38,275	5.80%	\$ 38,274.97
Cultural Resources Management	\$ 276	0.10%	\$ 659.91
Timber Management	\$ 27,907	10.10%	\$ 66,651.24
Hydrological Management	\$ 1,934	0.70%	\$ 4,619.39
<u>OTHER RESOURCE MANAGEMENT</u>	\$ -		\$ -
	\$ 30,946	11.20%	\$ 73,910.29
Listed Species Management	\$ -		\$ -
Forest Pest and Disease	\$ -		\$ -
Plant Conservation Program	\$ -		\$ -
State Forest Research Projects	\$ -		\$ -
Boundary Surveys for State Forests	\$ -		\$ -
<u>Other Activities Also Include:</u>	\$ -		\$ -
Liaison Community Meetings / Boundary Line Maintenance / Forest Inventories and Various Other Activities / Wildfire Suppression on State Forests			
			\$ -
Administration	\$ 21,552	7.80%	\$ 51,473.24
Central Office Headquarters	\$ 21,552	7.80%	\$ 51,473.24
District/Regions	\$ -		\$ -
Units/Projects	\$ -		\$ -
	\$ -		\$ -
Support	\$ 81,511	29.50%	\$ 96,347.34
Land Management Planning	\$ 4,974	1.80%	\$ 11,878.44
Land Management Reviews	\$ 829	0.30%	\$ 1,979.74
Training/Staff Development	\$ 15,749	5.70%	\$ 37,615.06
Vehicle Purchase	\$ 1,105	0.40%	\$ 2,639.65
Vehicle Operations and Maintenance	\$ 41,170	14.90%	\$ -
	\$ -		\$ -
OTHER SUPPORT	\$ 17,684	6.40%	\$ 42,234.45
State Forest Land Acquisition Support			\$ -
<u>Other Support Activities Also Include:</u>	\$ -		\$ -
Computer Maintenance / Radio Maintenance / Technical Support / Management of Apiary and Cattle Leases / State Forest Easements and Other Various Activities	\$ -		\$ -
			\$ -
Capital Improvements	\$ 53,880	19.50%	\$ 128,683.09
New Facility Construction	\$ 12,710	4.60%	\$ 30,356.01
Facility Maintenance	\$ 41,170	14.90%	\$ 98,327.08
			\$ -
Visitor Services/Recreation	\$ 35,367	12.80%	\$ 84,468.90
Information/Education	\$ 8,013	2.90%	\$ 19,137.49
Operations	\$ 27,354	9.90%	\$ 65,331.41
			\$ -
Law Enforcement	\$ -	0.00%	\$ -
Total	\$ 276,307	100.00%	\$ 659,913.28

Exhibit Y

ECSF Hydrological Plan

ETONIAH CREEK STATE FOREST (Putnam County)

Initial State Acquisition: April, 1999

Area: 8,694 Acres

Primary Basin(s): Lower St. Johns

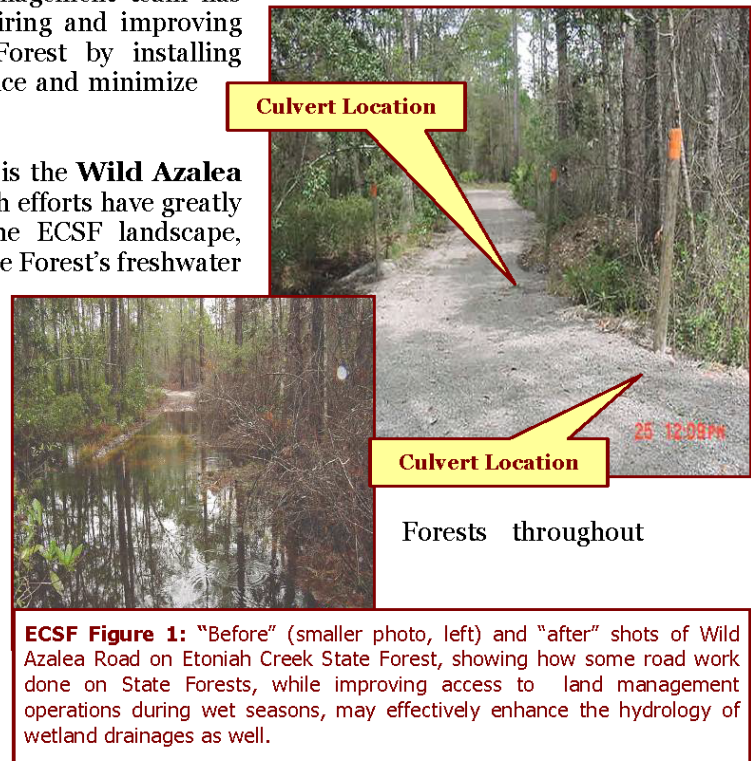
Current Number of DEP FERI Database Listings: 1 Project (Completed)

Previous Restoration Activities -

The majority of the roads on Etoniah Creek State Forest (ECSF) are at- or below-grade, many serving as conduits for surface stormwater and leading to erosion and sedimentation in wetlands on the Forest. Since 2000 the ECSF management team has worked with the FFS Road Crew in repairing and improving road conditions and drainage on the Forest by installing appropriate crossings to enhance conveyance and minimize drainage impediment.

An example of this kind of work on ECSF is the **Wild Azalea Road** work, listed on DEP's FERI site. Such efforts have greatly enhanced the existing hydrology over the ECSF landscape, ultimately improving the water quality of the Forest's freshwater resources (See Figure 1). Improvement work on the **Boggy Loop Road** on the Manning Tract and re-route work on the **Scrub Road** in recent years provided enhanced the wetland drainages adjacent to those structures.

Road projects such as this are part of the on-going management program of State the state



ECSF Figure 1: "Before" (smaller photo, left) and "after" shots of Wild Azalea Road on Etoniah Creek State Forest, showing how some road work done on State Forests, while improving access to land management operations during wet seasons, may effectively enhance the hydrology of wetland drainages as well.

Current/Planned/Proposed Restoration Activities -

No formal restoration activities are currently being proposed, planned, or implemented on ECSF at this time.

Wetland Restoration Needs Assessment -

A restoration needs assessment was conducted on the **Manning Tract** and parts of the main tract of the Etoniah Creek State Forest from July, 2009 to February, 2010. **One hundred seventy-three (173)** points were established, of which **12** were sites identified as potential wetland restoration opportunities (see **Table 3, page viii**). Numerous other sites were identified as in need of attention, most of which could be done using existing FFS resources.

Additional information about the assessment is available upon request from the Hydrology Section of the Florida Forest Service (see **Appendix 1**).

Exhibit Z

Arthropod Control Plan Response



ADAM H. PUTNAM
COMMISSIONER

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

ARTHROPOD MANAGEMENT PLAN - PUBLIC LANDS

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

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

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

Name of Designated Land:

Etoniah Creek State Forest

Is Control Work Necessary:

☐ Yes

☒ No

Location:

390 Holloway Road
Florahome, FL 32140

Land Management Agency:

Florida Forest Service

Are Arthropod Surveillance Activities Necessary?

☐ Yes

☒ No

If "Yes", please explain:

Which Surveillance Techniques Are Proposed?
Please Check All That Apply:

☐ Landing Rate Counts

☐ Light Traps

☐ Sentinel Chickens

☐ Citizen Complaints

☐ Larval Dips

☒ Other

If "Other", please explain:

None

Arthropod Species for Which Control is Proposed:

Proposed Larval Control:

Proposed larval monitoring procedure:

Are post treatment counts being obtained:

☐ Yes

☒ No

Biological Control of Larvae:

Might predacious fish be stocked:

☐ Yes

☒ No

Other biological controls that might be used:

Material to be Used for Larvaciding Applications:

(Please Check All That Apply.) None apply.

☐ Bti

☐ Bs

☐ Methoprene

☐ Non-Petroleum Surface Film

☐ Other, please specify:

Please specify the following for each larvacide:

Chemical or Common name:

☐ Ground

☐ Aerial

Rate of application:

Method of application:

Proposed Adult Mosquito Control:

Aerial adulticiding ☐ Yes ☒ No

Ground adulticiding ☐ Yes ☒ No

Please specify the following for each adulticide:

Chemical or common name:

Rate of application: N/A

Method of application:

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

Aerial ULV Spraying
Ground ULV Spraying

Proposed Notification Procedure for Control Activities:

Putnam County Mosquito Control may respond to public health and/or bioterrorism declaration by notifying Scott Crosby, Forestry Supervisor II at 386-329-2552.

Records:

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

☒ Yes ☐ No

Records Location:

140 County Landfill Road, Palatka, FL 32177

How long are records maintained: 5 years

Vegetation Modification: No

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

Proposed Land Modifications: No

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

Include proposed operational schedules for water fluctuations:

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

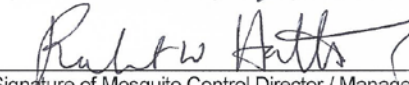
Proposed Modification of Aquatic Vegetation: No

Land Manager Comments:

Arthropod Control Agency Comments:

Adult mosquito spraying will be initiated by Putnam County Mosquito Control and/or its agents, on Florida State Forests land only in the event of public health emergency and/or bioterrorism as ordered by Florida Public Health Service, Florida Department of Agriculture, and/or Florida Forest Service.


Signature of Lands Manager or Representative Date 4/22/15


Signature of Mosquito Control Director / Manager Date 4/22/15