



FLORIDA DEPARTMENT OF Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, FL 32399

Ron DeSantis
Governor

Jay Collins
Lt. Governor

Alexis A. Lambert
Secretary

December 16, 2025

Mr. Brian Camposano
Florida Forest Service
Department of Agriculture and Consumer Services
3125 Conner Boulevard, Room 236
Tallahassee, Florida 32399-1650

RE: Big Shoals State Forest – Lease No. 3592

Dear Mr. Camposano:

On **December 12, 2025**, the Acquisition and Restoration Council (ARC) recommended approval of the **Big Shoals State Forest** management plan. Therefore, Division of State Lands, Office of Environmental Services (OES), acting as agent for the Board of Trustees of the Internal Improvement Trust Fund, hereby approves the **Big Shoals State Forest** management plan. The next management plan update is due December 12, 2035.

Pursuant to s. 253.034(5)(a), F.S., each management plan is required to describe both short-term and long-term management goals and include measurable objectives to achieve those goals. Short-term goals shall be achievable within a 2-year planning period, and long-term goals shall be achievable within a 10-year planning period. Upon completion of short-term goals, please submit a signed letter identifying categories, goals, and results with attached methodology to OES.

Pursuant to s. 259.032(8)(g), F.S., by July 1 of each year, each governmental agency and each private entity designated to manage lands shall report to the Secretary of Environmental Protection, via OES, on the progress of funding, staffing, and resource management of every project for which the agency or entity is responsible.

Pursuant to s. 259.036(2), F.S., management areas that exceed 1,000 acres in size, shall be scheduled for a land management review at least every 5 years.

Pursuant to s. 259.032, F.S., and Chapter 18-2.021, F.A.C., management plans for areas less than 160 acres may be handled in accordance with the negative response process. This process requires small management plans and management plan amendments be submitted to OES for review, and tARC for public notification. OES will approve these plans or plan amendments submitted for review through delegated authority unless three or more ARC members request the division place the item on a future council meeting agenda for review. To create better efficiency, improve customer service, and assist

Mr. Brian Camposano

Page 2

December 16, 2025

members of the ARC, OES will notice negative response items on Thursdays except for weeks that have State or Federal holidays that fall on Thursday or Friday. OES will contact you on the appropriate Friday to inform you if the item is approved via delegated authority or if it will be placed on a future ARC agenda by request of the ARC members.

Approval of this land management plan does not waive the authority or jurisdiction of any governmental entity that may have an interest in this project. Implementation of any upland activities proposed by this management plan may require a permit or other authorization from federal and state agencies having regulatory jurisdiction over those activities. Pursuant to the conditions of your lease, please forward copies of all permits to OES upon issuance.

Sincerely,

Sine Murray
Program Administrator
Office of Environmental Services
Division of State Lands

TEN-YEAR LAND MANAGEMENT PLAN

FOR THE

BIG SHOALS STATE FOREST

HAMILTON COUNTY



Photo courtesy of the Florida Forest Service

PREPARED BY

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

FLORIDA FOREST SERVICE

APPROVED ON

DECEMBER 16, 2025

TEN-YEAR LAND MANAGEMENT PLAN
FOR THE
BIG SHOALS STATE FOREST



Approved by:

A handwritten signature in black ink, appearing to read "Richard Dolan", written over a horizontal line.

Richard Dolan, Director
Florida Forest Service

1/12/2026

Date

A handwritten signature in black ink, appearing to read "James Roberts", written over a horizontal line.

James Roberts, Chief
Forest Management Bureau

1/12/26

Date

**TEN-YEAR LAND MANAGEMENT PLAN
BIG SHOALS STATE FOREST
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**TEN-YEAR LAND MANAGEMENT PLAN
BIG SHOALS STATE FOREST
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LAND MANAGEMENT PLAN EXECUTIVE SUMMARY

LEAD AGENCY: Florida Department of Agriculture and Consumer Services (FDACS), Florida Forest Service (FFS)
COMMON NAME: Big Shoals State Forest
LOCATION: Hamilton County
ACREAGE TOTAL: 1,814.47 acres

Historic Communities	Natural	Approximate Acreage*
Basin swamp		59
Bottomland forest		159
Depression marsh		21
Dome swamp		134

Historic Communities	Natural	Approximate Acreage*
Mesic flatwoods		1,349
Sandhill		10
Wet flatwoods		63

* Acreage discrepancies may occur based on FNAI polygons

TIITF LEASE AGREEMENT NUMBERS: 4836

USE: Single ____ Multiple X

MANAGEMENT AGENCY

Florida DACS, Florida Forest Service
Florida Fish and Wildlife Conservation Commission
Florida DEP, Division of Recreation and Parks
Suwannee River Water Management District
Department of State, Division of Historical Resources

RESPONSIBILITY

General Forest Resource Management
Wildlife Resources and Laws
Recreation and Parks Management
Water Resource Protection and Restoration
Historical and Archaeological Resource Management

DESIGNATED LAND USE: Multiple-Use State Forest
SUBLEASES: None
ENCUMBRANCES: None
TYPE ACQUISITION: Florida Forever and Hamilton County Funds, Suwannee River Water Management District.
UNIQUE FEATURES: BSSF is part of Big Shoals Public Lands (BSPL). Four Mile Branch
ARCHAEOLOGICAL / HISTORICAL: Two (2) known sites
MANAGEMENT NEEDS: Restoration and maintenance of native ecosystems
ACQUISITION NEEDS: 532 Acres of Optimal Management Boundary
SURPLUS ACREAGE: None
PUBLIC INVOLVEMENT: BSSF Liaison Committee, Management Plan Advisory Group
Public Hearing, Acquisition and Restoration Council - - - - -

- - - - -
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DO NOT WRITE BELOW THIS LINE (FOR DIVISION OF STATE LANDS USE ONLY)

ARC Approval Date: _____ TIITF Approval Date: _____

Comments: _____

I. Introduction

Big Shoals State Forest (BSSF) consists of 1,814.47 acres of the 3,956.46-acre Big Shoals Public Lands (BSPL). The state forest portion is located on the northern side of Big Shoals State Park in Hamilton County. Located in the southeastern corner of Hamilton County, this property (formerly known as the Brown Tract) was purchased from the Nature Conservancy by the state of Florida in 1986 through the Conservation and Recreational Lands (CARL) program. It was designated as a state forest in March 1989.

There are several natural community types within BSSF. BSSF is dominated by mesic flatwoods, with bottomland forests, wet flatwoods, basin swamps and cypress domes being well represented. A perennial stream, Four Mile Branch, flows through Big Shoals and into the Suwannee River. The diversity of natural communities hosts a wealth of plant and animal biodiversity including pitcher plants and thriving white-tailed deer populations.

A. General Mission and Management Plan Direction

The primary mission of the Florida Forest Service (FFS) is to “protect Florida and its people from the dangers of wildland fire and manage the forest resources through a stewardship ethic to assure they are available for future generations.”

Management strategies for BSSF emphasize the multiple-use concept, as defined in sections 253.034(2)(a) and 589.04(3), Florida Statutes (F.S.). Implementation of this concept will utilize and conserve state forest resources in a harmonious and coordinated combination that will best serve the people of the State of Florida, and that is consistent with the purpose for which BSSF was acquired. Multiple-use management for BSSF will be accomplished with the following strategies:

- Practice sustainable forest management for the efficient generation of revenue and in support of state forest management objectives;
- Provide for resource-based outdoor recreational opportunities for multiple interests;
- Restore and manage healthy forests and native ecosystems ensuring the long-term viability of populations and species listed as endangered, threatened, or rare, and other components of biological diversity, including game and non-game wildlife, and plants;
- Protect known archaeological, historical, and cultural resources;
- Restore, maintain, and protect hydrological functions, related water resources, and the health of associated wetlands and aquatic communities; and
- Provide research and educational opportunities related to natural resource management.

This management plan is provided according to requirements of Sections 253.034, 259.032, and 373, F.S., and was prepared utilizing guidelines outlined in Section 18-2.021 of the Florida Administrative Code, F.A.C. It is not an annual work plan or detailed operational plan but provides general guidance for the management of BSSF for the next ten-year period and outlines the major concepts that will guide management activities on BSSF. Though not part of this plan, each state forest also updates and maintains five-year action plans for silviculture, ecology, prescribed fire, roads and bridges, boundary maintenance, and recreation. These internal plans are updated annually with the current year serving as the annual operations plan for the forest.

B. Past Accomplishments

Records of past management activities and public use on BSSF have been compiled monthly and are available from the Forest Manager. A table has been prepared for this plan that summarizes the accomplishments for each of the past 20 years. See Exhibit A. The table does not attempt to account for all activities on BSSF but summarizes major activities. It does not list the multitude of daily activities and public interactions involved in managing BSSF. Since the approval of the previous management plan in 2005, there have been numerous events, developments, and accomplishments. Among the most notable have been the following:

- Assisted FWC with Check Station Road improvement project.
- Updated the timber inventory on 3,498 acres
- Site prepped 183 acres with herbicide
- Planted 236,000 containerized longleaf pine seedlings on 387 acres
- Planted 28,180 containerized slash pine seedlings on 55 acres
- Conducted seedling survival checks on 204 acres
- Chopped 85 acres before and after silvicultural practices
- Treated 393 acres with herbicide before and after silvicultural practices
- Mowed 120 acres before and after silvicultural practices
- Invasive species control nine (9) acres total, including: 3.10 acres of Japanese climbing fern, 3 acres of mimosa, and 3 acres of sweet tanglehead
- Marked 839 acres of timber
- Cruised 735 acres of timber
- Harvested 534 acres of timber, totaling 46,793 tons for approximately \$825,276
- Conducted prescribed burning on 7,816 acres
- Inventoried 3,498 acres across 239 plots
- Provided visitor services to about 223,136 visitors a year
- Cleared four (4) miles of the Woodpecker Trail across multiple events over time
- Held several special events including bicycling, horseback riding, and OOF hunts
- Conducted two (2) programs / tours
- Monitored two (2) archaeological sites
- Rebuilt Road 1 and eight (8) miles of road
- Built and repaired eight (8) bridges
- Graded 2.5 miles of road
- Installed 8 culverts
- Added four (4) low water crossings
- Marked and maintained 44 miles of state forest boundary
- Mowed 165 miles of road
- Maintained 104 miles of firelines
- Maintained 33 miles of trail
- Recorded 705 inmate hours
- Cleared 5 miles of roads impacted by Hurricane Irma
- Improved 60 acres of wild turkey habitat through NWTF grant
- Acquired 138 acres known as the Chasteen Property from Alachua County Conservation Trust

C. Goals / Objectives for the Next Ten-Year Period

The following goals and objectives provide direction and focus of management resources for the next ten-year planning period. Funding, agency program priorities, and the potential for wildfire or other natural disasters during the planning period will determine the degree to which these objectives can be met. Management activities on BSSF during this period must conserve, protect, utilize, and enhance the natural and historical resources and manage resource-based public outdoor recreation, which is compatible with the conservation and protection of this forest. Most of the management operations will be conducted by the FFS, although appropriate activities will be contracted to private sector vendors or completed with the cooperation of other agencies. All activities will enhance the property's natural resource or public recreation value.

The management activities listed below will be addressed within the ten-year management period and are defined as short-term goals, long-term goals, or ongoing goals. Short-term goals are goals that are achievable within a two-year planning period, and long-term goals are achievable within a ten-year planning period. Objectives are listed in priority order for each goal. Other activities will be completed with minimal overhead expense and existing staff.

➤ GOAL 1: Sustainable Forest Management

Objective 1: Continue to update and implement the Five-Year Silviculture Action Plan including reforestation, timber harvesting, prescribed burning, restoration, and timber stand improvement activities and goals. (Ongoing objective)

Performance Measures:

- Annual updates of the Five-Year Silviculture Action Plan completed
- Continued implementation of the Five-Year Silviculture Action Plan (acres treated)

Objective 2: Continue to implement the FFS process for developing stand descriptions and conducting forest inventory, including maintaining a GIS database containing forest stands, roads, prescribed burns, timber sales, and other attributes (including, but not limited to: rare, threatened, and endangered species, archaeological and historical resources, and invasive species locations). (Ongoing objective)

Performance Measures:

- Update GIS database and re-inventory all attributes as required by FFS procedures
- Number of acres inventoried during this planning cycle

➤ GOAL 2: Public Access and Recreation Opportunities

Objective 1: Maintain public access and recreation activities that are compatible with multiple-use management including but not limited to horseback riding, bicycling, hiking, and hunting. (Ongoing objective)

Performance Measure: Number of visitor opportunities per day

Objective 2: Continue to safely integrate human use into BSSF, following the Five-Year Outdoor Recreation Plan, and update annually. (Ongoing objective)

Performance Measures:

- Annual updates of the Five-Year Outdoor Recreation Plan completed
- Continued implementation of the Five-Year Outdoor Recreation Plan

Objective 3: Continue to involve and meet with the Liaison Committee. The purpose of Liaison Committee meetings is to facilitate communication between the FFS and committee members (and the groups they represent) about state forest management and to obtain feedback from these entities. The Liaison Committee consists of local residents, community leaders, special interest group representatives (vendors, hunters and other recreational users, etc.), environmental group representatives, and other public / private entities. (Ongoing objective)

Performance Measures:

- Liaison Committee remains organized
- Annual meetings continue

Objective 4: Maintain cooperation with Florida Fish and Wildlife Conservation Commission (FWC) to develop specific hunting season quotas and bag limits, and to address hunting issues which are to be agreed upon at an annual cooperators meeting between FFS and FWC. (Ongoing objective)

Performance Measures:

- Annual letter on agreed-upon hunting issues
- Updated rules posted and WMA brochures available online at MyFWC.com

Objective 5: Evaluate the potential for additional public access and recreation areas on BSSF that are compatible with multiple-use management. Recreation opportunities will fall under the scope of multiple-use management in accordance with watershed protection, conservation, and ecosystem restoration; and as detailed in the purpose for acquisition. (Short-term objective)

Performance Measure: List of viable access points and visitor opportunities for consideration

Objective 6: Maintain cooperation with Florida Department of Environmental Protection (FDEP) to improve the equestrian trailhead and parking area. (Ongoing objective)

Performance Measure: Improvement completed

Objective 7: Recruit volunteers and volunteer organizations to assist with recreation and / or resource management. (Ongoing objective)

Performance Measures:

- Number of volunteers and organizations that assist with projects
- Number of hours provided by volunteers

➤ **GOAL 3: Habitat Restoration, Improvement, and Fire Management**

Objective 1: The BSSF currently contains approximately 1,481 acres of fire-dependent communities. BSSF staff will plan and conduct prescribed burns in a manner that benefits these fire-dependent natural communities within the forest. To achieve an average fire-return interval of two (2) to four (4) years for most fire-dependent communities, FFS will attempt to conduct prescribed burns on an average of approximately 375 to 750 acres per year. Currently, FFS staff estimates 1,200 acres at BSSF are within the desired fire-return interval. (Ongoing objective)

Performance Measures:

- Annual number of acres burned
- Number of acres burned within target fire-return interval

Objective 2: Continue to annually update and implement the Five-Year Prescribed Burning Management Plan and the prescribed burning goals. (Ongoing objective)

Performance Measures:

- Annual updates of the Five-Year Prescribed Burning Management Plan completed
- Continued implementation of the Five-Year Prescribed Burning Management Plan (acres treated)

Objective 3: Reduce the threat of wildfire within the wildland urban interface on BSSF and the surrounding community through a comprehensive mitigation strategy that includes evaluating vegetative fuels near residential areas and identifying potential fuel reduction projects constructing and maintaining firelines and utilizing prescribed fire to reduce wildfire risk. (Ongoing objective)

Performance Measures:

- Evaluations completed
- Should the evaluations determine that fuel reduction is necessary, number of acres treated for fuel reduction
- Existing firelines maintained through mowing and harrowing

Objective 4: Utilize prescribed fire to enhance restoration of native groundcover. Evaluate areas where native groundcover has been eliminated or heavily impacted from historical land use on a case-by-case basis for alternative methods to address reestablishment of native groundcover. Restore native groundcover from historical land use where practical or heavily impacted. (Long-term objective)

Performance Measure: Number of acres restored

➤ **GOAL 4: Listed and Rare Species Habitat Maintenance, Enhancement, Restoration, or Population Restoration**

Objective 1: In cooperation with FWC, maintain a Wildlife Management Strategy addressing wildlife species for BSSF, with emphasis on imperiled species and associated management prescriptions for their habitats. (Ongoing objective)

Performance Measures:

- Imperiled species management strategy completed
- Baseline listed and rare species list completed for BSSF

Objective 2: In consultation with FWC, implement survey and monitoring protocols, where feasible, for listed and rare species. (Ongoing objective)

Performance Measure: Number of species for which monitoring is ongoing

➤ **GOAL 5: Invasive Species Management and Control**

Objective 1: Continue to follow and annually update the Five-Year Ecological Plan for BSSF, to locate, identify, and control invasive species. (Ongoing objective)

Performance Measures:

- Total number of acres identified and successfully treated
- Annual updates of the Five-Year Ecological Plan completed
- Continue to maintain BSSF invasive database information annually

➤ **GOAL 6: Cultural and Historical Resource Management**

Objective 1: Ensure all known cultural and historical sites are recorded in the Department of State, Division of Historical Resources (DHR) Florida Master Site File. (Ongoing objective)

Performance Measure: Documentation of known sites

Objective 2: Monitor recorded sites annually and send updates to the DHR Florida Master Site File as needed. (Ongoing objective)

Performance Measure: Number of sites monitored. Reports submitted to DHR

Objective 3: Maintain at least one (1) qualified staff member as an Archaeological Resource Management (ARM) Monitor. (Ongoing objective)

Performance Measure: Number of local staff trained as ARM monitors

➤ **GOAL 7: Hydrological Preservation and Restoration**

Objective 1: Protect water resources during management activities through the implementation of all applicable Silviculture Best Management Practices (BMPs). (Ongoing objective)

Performance Measure: Percent compliance with Silviculture BMPs

Objective 2: Conduct or obtain a site assessment / study to identify potential hydrological restoration needs. (Short-term objective)

Performance Measure: Assessment conducted

Objective 3: Close, rehabilitate, or restore roads, fire lines, and trails that are causing hydrologic alterations or negatively impacting water quality. (Ongoing objective)

Performance Measure: Total number of roads, firelines, and trails closed, rehabilitated, and / or restored

➤ **GOAL 8: Capital Facilities and Infrastructure**

Objective 1: BSSF staff, along with help from volunteers and / or user groups, will continue maintenance of one (1) information kiosk, one (1) trailhead, five (5) parking areas to include one (1) designated for equestrians and other for hunting, 3.9 miles of trails, and four (4) miles of primary roads. (Ongoing objective)

Performance Measure: The number of existing facilities, miles of roads, and miles of trails maintained

Objective 2: Continue to follow the Five-Year Roads and Bridges Management Plan and update annually. (Ongoing objective)

Performance Measures:

- Continued implementation of the Five-Year Roads and Bridges Management Plan
- Annual updates of the Five-Year Roads and Bridges Management Plan completed

Objective 3: Continue to implement the Five-Year Boundary Survey and Maintenance Management Plan and update annually. Approximately 20% of BSSF boundary will be remarked annually as necessary, which includes harrowing, reposting signage, and repainting boundary trees. (Ongoing objective)

Performance Measures:

- Continued implementation of the Five-Year Boundary Survey and Maintenance Management Plan
- Percentage of forest boundary maintained each year
- Annual updates of the Five-Year Boundary Survey and Maintenance Management Plan completed

II. Administration Section

A. Descriptive Information

1. Common Name of Property

The common name of the property is Big Shoals State Forest (BSSF).

2. Legal Description and Acreage

Access to BSSF is from US Highway 41, north on County Road 135. The entrance to Big Shoals area is accessed from County Road 135 to Old Goodwin Bridge Road. See Exhibit B. The total acreage of BSSF is 1,814.47 acres. The property is located in all or part of Sections 2, 3, 4, 5, 9, and 10 of Township 2 South, Range 16 East, Sections 33 and 34 of Township 1 South, Range 16 East, Section 27 of Township 1 South, Range 16 East, and also Section 27 of Township 1 South, Range 13 East in Hamilton County, Florida. BSSF's tracts and acreage are shown in Exhibit E. Acreage acquired by funding source is identified in Table 1.

Table 1. BSSF Acreage by Funding Source

Funding Source	Acres
CARL	1,672.51
Florida Forever	141.96

A complete legal description of lands owned by the Board of Trustees of the Internal Improvement Trust Fund (TIITF) is on record at the Suwannee Forestry Center, Florida Department of Environmental Protection, Division of State Lands in Tallahassee, and the FFS State Office in Tallahassee.

3. Proximity to Other Public Resources

Lands managed by state, federal, or local governments for conservation of natural or cultural resources that are located within approximately 15 miles of the BSSF are included in Exhibit F and Table 2.

Table 2. Nearby Significant Public Conservation Lands

Tract	Agency	Distance
Big Shoals Conservation Area	SRWMD	Adjacent S
Big Shoals State Park	DRP	Adjacent S
Deep Creek Conservation Area	SRWMD	0.5 miles S
Swift Creek Conservation Area	SRWMD	1.3 miles SW
Suwannee Valley Conservation Area	SRWMD	1.5 miles SW
Stephen Foster Folk Culture Center State Park	DRP	1.7 miles W
Osceola National Forest	USDA	4.9 miles E
Woods Ferry Conservation Area	SRWMD	5.4 miles W
Bay Creek Conservation Area	SRWMD	5.7 miles NE
Belmont Conservation Area	SRWMD	7.3 miles N
Camp Branch Conservation Area	SRWMD	8.6 miles W
Benton Conservation Area	SRWMD	9.3 miles N
Cypress Creek Conservation Area	SRWMD	9.3 miles N
Alligator Lake Park and Recreation Area	SRWMD	12.3 miles SE
Olustee Creek Conservation Area	USDA	13.9 miles SE
Fort Union Conservation Area	SRWMD	14.1 miles NW

DRP – Florida Division of Recreation and Parks
 USDA – United States Department of Agriculture

SRWMD – Suwannee River Water Management District

4. Property Acquisition and Land Use Considerations

Originally purchased from the Nature Conservancy in 1986 with funds from the Conservation and Recreation Lands (CARL) program, the property currently comprises approximately 1,814.47 acres. Prior to this management plan, Big Shoals State Forest was jointly managed as part of Big Shoals Public Lands and primarily used for farming and cattle grazing.

Big Shoals State Forest resides amongst conservation lands jointly managed by the Florida Forest Service, Florida Department of Environmental Protection Division of Recreation and Parks (DRP), Suwannee River Water Management District (SRWMD), and the Florida Fish and Wildlife Conservation Commission (FWC). In March 2023, an additional 141.96-acre parcel, known as the Chasteen parcel, was acquired through the Florida Forever conservation program. All TIITF-acquired parcels are identified in Table 3.

Table 3. Parcel Acquisition

Parcel Name	TIIT Lease No.	Lease Date	Acres
Brown Tract	3592	3/15/1989	1,672.51
Chasteen	3592	3/29/2023	141.96

B. Management Authority, Purpose, and Constraints

1. Purpose for Acquisition / Management Prospectus

The main objectives identified by the CARL program for purchasing the property were to:

- Manage and protect the natural resources of BSSF
- Provide public access and recreational use
- Protect in perpetuity the largest whitewater area in Florida, along with the unique vistas, upland areas, river floodplain, and cultural resources of the Suwannee

River, while providing outstanding resource-based recreation opportunities to Florida residents and visitors.

2. Degree of Title Interest Held by the Board

The TIITF hold fee simple title to the 1,814.47 acres of BSSF in Hamilton County. Intergovernmental Lease Agreement No. 3592, between TIITF and FDACS, provides authority for FFS to manage BSSF.

3. Designated Single or Multiple-Use Management

BSSF is managed under a multiple-use concept by the FFS, under the authority of Chapters 253 and 589, F.S. The FFS is the lead managing agency as stated in TIITF Management Lease No. 3592.

Multiple-use management is the harmonious and coordinated management of timber, recreation, conservation of fish and wildlife, forage, archaeological and historic sites, habitat and other biological resources, and water resources so they are utilized in the combination that will best serve the people of the state, making the most judicious use of the land for some or all these resources and considering the relative values of the various resources. Local demands, acquisition objectives, and other factors influence the array of uses that are compatible with and allowed on any specific area of BSSF. This management approach is believed to provide for the greatest public benefit, by allowing compatible uses while protecting overall forest health, native ecosystems, and the functions and values associated with them.

4. Revenue Producing Activities

Numerous activities on BSSF provide for multiple uses, as well as generate revenue to offset management costs. Revenue-producing activities will be considered when they have been determined to be financially feasible and will not adversely impact management of BSSF. Current and potential revenue-producing activities for the BSSF include, but are not limited to:

- *Timber Harvests* – Timber harvests on BSSF will be conducted to improve forest health, promote wildlife habitat, restore plant communities, and provide additional benefits.
- *Recreation Fees* – Fees are currently collected for vendor / special use permits as applicable. Fees will be assessed for any future improved day-use areas or camping established on the forest.
- *Apiary Leases* – There are currently no apiary lease sites on BSSF.
- *Fuelwood Sales* – Permits are sold for the cutting and collection of firewood in designated areas of BSSF where past fire suppression has led to severe oak encroachment.
- *Miscellaneous Forest Product Sales* – Other miscellaneous forest product sales, including but not limited to, palm fronds and berries, pinecones, and pine straw, may be considered.

5. Conformation to State Lands Management Plan

Management of BSSF under the multiple-use concept complies with the State Lands Management Plan and provides optimum balanced public utilization of the property. Specific authority for the FFS's management of public land is derived from Chapters 253, 259, and 589 F.S.

6. Legislative or Executive Constraints

FFS makes every effort to comply with applicable statutes, rules, and ordinances when managing BSSF. For example, when public facilities are developed on state forests, every effort is made to comply with Public Law 101-336, the Americans with Disabilities Act. As new facilities are developed, the universal access requirements of this law are followed in all cases except where the law allows reasonable exceptions (e.g., where handicap access is structurally impractical or where providing such access would change the fundamental character of the facility being provided).

There are no known legislative or executive constraints specifically directed toward BSSF.

7. Aquatic Preserve / Area of Critical State Concern

BSSF is not within an aquatic preserve or an area of critical state concern, nor is it in an area under study for such designation.

C. Capital Facilities and Infrastructure

1. Property Boundaries Establishment and Preservation

BSSF boundaries, 14.5 miles in total, are managed by state forest personnel in accordance with the guidelines of the State Forest Handbook. There are twelve (12) gates throughout BSSF that require periodic maintenance. State forest boundaries are maintained by periodic clearing, repainting and reposting, and placement of state forest boundary signs by FFS personnel. The boundaries are identified in Exhibit B.

2. Improvements

Major recreation facilities on BSSF include the Equestrian Trailhead and Horse Trail, and Woodpecker Trail. See Exhibit D for a map of the buildings and improvements at BSSF. Buildings / Recreation infrastructure present on the BSSF include:

- Equestrian Trailhead
- Woodpecker Trail
- Horse Trail

3. On-Site Housing

There are no (0) residences on BSSF. Housing is prioritized based on FFS policy.

FFS may establish on-site housing (mobile / manufactured home) on BSSF if deemed necessary to alleviate security and management issues. The need and feasibility for BSSF will be evaluated and established if considered appropriate by the Center Manager and approved by the FFS Director. Prior to the occurrence of any ground disturbing activity for establishing on-site housing, a notification will be sent to the DHR and Florida Natural

Areas Inventory (FNAI) for review and recommendations. This type of housing will not exceed three homes per location with the possibility of more than one on-site housing location occurring if considered necessary by the Center Manager and approved by the Director.

4. Operations Infrastructure

a. Operations Budget

For Fiscal Year 2023-2024 the total operating budget for BSSF was \$275,437.74. This amount includes expenses, contractual services, Other Personal Services Employment (OPS), etc. A summary budget for BSSF is contained in Exhibit U. Implementation of any of the activities within this management plan is contingent on availability of funding, other resources, and other statewide priorities.

b. Equipment

To carry out the mission of the FFS, equipment assigned to the BSSF includes: one (1) pickup truck, one (1) UTV, one (1) farm tractor, and two (2) attachments for the farm tractor.

c. Staffing

One (1) Forestry Supervisor II is assigned to BSSF who also has duties on Twin Rivers State Forest. Other personnel from the Suwannee Forestry Center are occasionally used to assist with management activities at BSSF.

The Forestry Supervisor II will work to achieve the goals outlined in this management plan. Recreation planning and management activities as well as resource management and planning activities, such as trail flagging / identification, recreation facility placement, timber cruising, and sale administration, etc., are the responsibility of the Forestry Supervisor II under the direction of the Operations Administrator and Center Manager. Forest operations, such as road maintenance, operations / recreation facility maintenance, prescribed burning, etc., are the responsibility of the Forest Area Supervisor under the direction of the Operations Administrator and Center Manager.

To supplement the staff assigned to BSSF, the Forestry Supervisor II is responsible for recruiting interested volunteers who can bring the experience and skills needed to assist with the management of the BSSF recreation program, as well as resource management activities.

Additionally, a State Forest Liaison Committee comprised of private citizens and representatives of forest user groups meets bi-annually to provide input on forest management activities and share ideas with FFS staff to improve the state forest.

D. Additional Acquisitions and Land Use Considerations

1. Alternate Uses Considered

No alternate uses are being considered at this time. Alternate uses will be considered as requests are made and will be accommodated as appropriate if they are determined to be compatible with existing uses and with the management goals and objectives of BSSF. Uses

determined as incompatible include but are not limited to: water resource development projects, water supply projects, storm-water management projects, sewage treatment facilities, linear facilities, off highway vehicle use, dumping, mining, and oil well stimulation (e.g. hydraulic fracturing / fracking), or as determined by law, regulation, or other incompatible uses as described elsewhere in the management plan. Deadhead logging is not compatible with nor considered an appropriate use within or adjacent to BSSF boundaries. Although no water resources projects are being considered at this time on SRWMD-owned lands within BSSF, they should not be precluded.

2. Additional Land Needs

There are 10 parcels of land totaling 532 acres adjacent to the property which should receive priority for acquisition because they would benefit the management of the property. See Exhibit C.

3. Surplus Land Assessment

On conservation lands where FFS is the lead manager, FFS assesses and identifies areas for potential surplus land. This assessment consists of an examination of resource and operational management needs, public access and recreational use, and GIS modeling and analysis.

The evaluation of BSSF by FFS has determined that all of the forest is being managed and operated for the original purposes of acquisition, as well as center on the multiple-use concept, as defined in sections 589.04(3) and 253.034(2)(a) F.S. Implementation of this concept will utilize and conserve state forest resources in a harmonious and coordinated combination that will best serve the people of the State of Florida.

4. Adjacent Conflicting Uses

There are no known inholdings with conflicting uses.

FFS will cooperate with adjacent property owners, prospective owners, or prospective developers to discuss methods to minimize negative impacts on management, resources, facilities, roads, recreation, etc., and discuss ways to minimize encroachment onto BSSF.

BSSF is fragmented by County Road 135 and Southeast 94th Street. These roads are a primary consideration when planning and conducting prescribed burns due to smoke management concerns. Furthermore, when appropriate, FFS will coordinate with DRP for joint efforts in recreation management, trail maintenance, closures for prescribed burning, and other recreational opportunities for the public.

5. Compliance with Local Comprehensive Plan

This plan was submitted to the Planning and Development Division of the Hamilton County Board of County Commissioners for review and compliance with its local comprehensive plan. See Exhibit S.

6. Utility Corridors and Easements

BSSF has two (2) inholdings with ingress and egress access easements: a) a Florida Park Service road to access the southern side of property, and b) a powerline easement which is collocated at the FWC Check Station located where Road 70 meets CR 135. Currently there is one (1) established utility corridors on BSSF.

FFS does not favor the fragmentation of natural communities with linear facilities. Consequently, easements for such uses will be discouraged to the greatest extent practical. The FFS does not consider BSSF suitable for any new linear facilities. When such encroachments are unavoidable, previously disturbed sites will be the preferred location. The objectives, when identifying possible locations for new linear facilities, will be to minimize damage to sensitive resources (e.g., listed species and archaeological sites), minimize habitat fragmentation, limit disruption of management activities, including prescribed burns, and limit disruption of resource-based multiple use activities such as recreation.

Collocation of new linear facilities with existing corridors will be considered but will be used only where expansion of existing corridors does not increase the level of habitat fragmentation and disruption of management and multiple-use activities. FFS will further encourage the use of underground cables where scenic considerations are desirable as well as encourage the development of use of wildlife crossings for unavoidable roadway development projects. Easements for such utilities are subject to the review and approval of the TIITF and the SRWMD. Requests for linear facility uses will be handled according to the Governor and the Cabinet's linear facilities policy.

E. Agency and Public Involvement

1. Responsibilities of Managing Agencies

FFS is the lead managing agency, responsible for overall forest management and public recreation activities, as stated in TIITF Management Lease No. 3592. Pursuant to the management lease, the lead managing agency may enter into further agreements or to subleases on any part of BSSF. DRP is the lead managing agency for the Big Shoals State Park that shares an internal boundary with BSSF.

FFS will cooperate with the DHR regarding appropriate management practices on historical or archaeological sites on the property as stated in Section 267.061, F.S. FFS will consult DHR prior to the initiation of ground disturbing activities as required per DHR guidelines.

FDACS Office of Agricultural Law Enforcement (OALE) assumes law enforcement responsibilities, while FWC enforces hunting regulations, cooperatively sets hunting season dates with FFS, and conducts other wildlife management activities with input from FFS.

The SRWMD will be consulted and involved in matters relating to water resources and hydrological restoration as appropriate.

2. Law Enforcement

Primary law enforcement responsibilities will be handled by FDACS Office of Agricultural Law Enforcement (OALE). Rules governing the use of BSSF are stated in Chapter 5I-4, F.A.C. OALE will also assist with open burning and wildfire investigations as needed.

Officers from FWC will enforce fish and wildlife regulations and aid in enforcing state forest rules. The Hamilton County Sheriff's Office provides additional assistance as needed.

Special rules under Chapter 5I-4, F.A.C. were promulgated for FDACS-FFS to manage the use of state lands and better control traffic, and to oversee recreation and other uses on BSSF.

3. Wildland Fire

The FFS has the primary responsibility for prevention, detection, and suppression of wildfires wherever they may occur. The FFS shall provide leadership and direction in the evaluation, coordination, allocation of resources, and monitoring of wildfire management and protection (590.01, F.S.). The FFS also has the responsibility of authorizing prescribed burns (590.02 [1][i], F.S.).

4. Public and Local Government Involvement

This plan has been prepared by FFS and will be carried out primarily by the FFS. FFS responds to public involvement through liaison committees, management plan advisory groups, public hearings, and through ongoing direct contact with user groups. Land Management Review Teams, as coordinated by the Division of State Lands, have conducted reviews of management plan implementation in 2013, 2017 and 2022. See Exhibit R. The review team's recommendations were addressed in this plan, as appropriate.

The plan was developed with input from the BSSF Management Plan Advisory Group and was reviewed at a public hearing on June 26, 2025. A summary of the advisory group's meetings and discussions, as well as written comments received on the plan, are included in Exhibit T. The ARC public hearing and meeting serve as an additional forum for public input and review of the plan.

5. Volunteers

Volunteers are important assets to BSSF. Volunteer activities may occur as one-time events or in association with recurring projects and routine maintenance. Additional volunteer recruitment will continue to assist furthering the FFS's mission.

6. Friends of Florida State Forests

Friends of Florida State Forests, Inc. (FFSF) is a Direct Support Organization of the Florida Forest Service. FFSF supports management activities and projects on Florida's state forests. FFSF is established by Florida Statute, supports programs within Florida's state forests and is governed by a board of directors representing all areas of the state. Through community support, FFSF assists the FFS to expand opportunities for recreation, environmental education, fire prevention, and forest management within Florida's state forests.

The FFSF program is referenced in Chapter 589.012, F.S. For more information visit: www.floridastateforests.org.

III. Archaeological / Cultural Resources and Protection

A. Past Uses

Big Shoals Public Lands, which includes BSSF and the areas surrounding the conservation lands, have a history of human habitation due to the existence of the Suwannee River and several springs. White Springs, the settlement that developed around the springs, was also known to plantation and pioneer families as “Rebel’s Refuge” during the Civil War. The timber industry fueled the town’s incorporation in 1885, and the downtown spring was developed into a prosperous vacation destination. Until a fire in 1911 destroyed most of the town, White Springs boasted more than 500 hotel and boarding rooms. Throughout the 20th century, the local economy and use of the land in the area was largely based on agriculture and forestry. Before the property was acquired in 1986, Occidental Agriculture Chemical Product Company owned the mining rights to BSPL and other adjacent parcels (Big Shoals State Park Management Plan, 2024).

This property was leased for farming prior to state purchase and ownership.

B. Archaeological and Historical Resources

A review of information contained in the Florida Department of State, DHR, Florida Master Site File has determined there are 2 recorded archaeological sites and no (0) historical cemeteries within the designated area for BSSF. Currently, none of the known sites on BSSF are listed in the National Register of Historic Places and none are eligible. See Table 4 and Exhibit G for a cultural resource roster.

Table 4. Archaeological and Historical Sites on BSSF

Site ID	Site Name	Site Type
HA00326	Observation Platform	AR
HA00369	Top Bay	AR

AR – Archaeological Site

Sensitive Areas maps are provided to personnel to help identify locations where protection is critical. Periodic monitoring by staff and law enforcement is also important to protection efforts. Where cultural sites are part of current or future public use areas and DHR approves, interpretation may be utilized to inform and educate the public.

C. Ground Disturbing Activities

Representatives of DHR and FNAI will be consulted prior to the initiation of proposed ground disturbing activity as required per DHR guidelines. FFS will make every effort to protect known archaeological and historical resources. FFS will follow the “Management Procedures for Archaeological and Historical Sites and Properties on State Owned or Controlled Lands” and will comply with all appropriate provisions of Section 267.061(2)(a,b), F.S. See Exhibit H. Any significant ground disturbing activity proposal will be submitted to DHR’s Compliance and Review office for review prior to undertakings and allow the Division a reasonable

opportunity to comment. Ground disturbing activities not specifically covered by this plan will be conducted under the parameters of the Interim Management Guidelines.

D. Survey and Monitoring

Currently two (2) local district FFS staff is trained by DHR as an Archaeological Resource Management (ARM) monitor. The is trained as an archaeological monitor and serves as the primary contact for historical issues. FFS will pursue opportunities for additional personnel to receive ARM Monitor training to facilitate protection of cultural resources. FFS will consult with public lands archaeologists at DHR as necessary to determine an appropriate priority and frequency of monitoring at each of the listed sites, and any protection measures that might be required. Unless required on a more frequent basis, all archaeological and historical sites within the state forest will be monitored at least annually. FFS field staff will monitor the listed sites to note condition and any existing or potential threats.

Any known archaeological and historical sites will be identified on maps to aid state forest personnel and if necessary, law enforcement personnel in patrolling and protecting sites. Applicable surveys will be conducted by contracted archaeologists during the process of planning and implementing multiple-use management activities. FFS personnel will remain alert for any environmentally significant resource discoveries and protective actions will be taken as necessary. In addition, FFS will seek the advice and recommendations of DHR regarding any additional archaeological survey needs. Trained monitors will oversee limited types of ground-disturbing activities in which DHR recommends monitoring. FFS will utilize the services of DHR Public Lands archaeologists, when available, to locate and evaluate unknown resources, and to make recommendations in the management of known resources.

IV. Natural Resources and Protection

The primary purpose for FFS management of BSSF is protection of the largest whitewater area in Florida and its unique vistas, upland areas, river floodplain, and cultural resources of the Suwannee River through a stewardship ethic to assure these resources will be available for future generations. Management activities will be executed in a manner to minimize soil erosion and maintain and protect / enhance the hydrological resources on BSSF. If problems arise, corrective action will be implemented by FFS staff under the direction of FFS's Forest Hydrology Section. Efforts will be made to monitor and protect BSSF's waterbodies and their associated water quality and native plants and animals.

BSSF falls within the jurisdiction of the SRWMD. FFS will coordinate with SRWMD and / or FDEP, as necessary, on activities pertaining to water resource protection and management. Any activities requiring water management district permits will be handled accordingly. FFS will work with SRWMD to ensure that levels and quality of ground and surface water resources are appropriately monitored.

A. Soils and Geologic Resources

1. Resources

Soil information for BSSF was obtained from the United States Department of Agriculture Natural Resources Conservation Service (NRCS). The major soils listed by the NRCS include: Albany fine sand; Mascotte-Mascotte; Blanton sand; Mascotte and Plummer soils;

and Pelham sand. Detailed information on all soils present on BSSF may be found in Exhibit I.

2. Soil Protection

Management activities will be executed in a manner that minimizes negative impacts to the soil. As problems arise, corrective action will be implemented by FFS staff under the direction of the FFS Forest Hydrology Section in conjunction with recommendations as contained in the most current version of the Florida Silviculture BMP Manual.

Significant soil erosion from drainage ditches have caused washouts on BSSF, and most notably include scouring of the Woodpecker Trail. FFS staff are planning on repairing the areas of trail that have washed out by filling holes and then repaving the areas on the trail that have been damaged. FFS staff will also assess drainage ditches to see if improvements can be made, such as water bars and turn outs, to prevent damage to the trail in the future.

B. Water Resources

The water resources on BSSF perform essential roles in the protection of water quality, groundwater recharge, flood control, and aquatic habitat preservation. In the interest of maintaining these valuable resource functions, state forest management personnel will work with the FFS Hydrology Section to incorporate wetlands restoration into the overall resource management program as opportunities arise, particularly where wetlands systems have been impaired or negatively impacted by previous management activities or natural disasters. See Exhibit K for map of the water resources on BSSF.

1. Resources

Water resources on BSSF include Four Mile Branch, which flows from the northern boundary of the state forest and exits the southern boundary of the forest; flowing through BSSP and into the Suwannee River. Four Mile Branch is fed through smaller ephemeral streams flowing from areas of basin swamp. Further, Long Branch, a tributary of the Suwannee River, flows south through the northeastern edge of the Chasteen parcel before emptying into the Suwannee River. See Exhibit K for map of the water resources on BSSF.

2. Water Classification

The FDEP's Standards Development Section reports that all of the surface waters within and adjacent to BSSF are classified as Class III Waters (Fish Consumption; Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife), which is the statewide default classification under Rule 62-302.400, F.A.C.

According to subsection 62-302.700(9)(f)6, F.A.C., on April 18, 1988, the majority of BSSF was designated as the Big Shoals OFW under the Big Shoals CARL Program. Additionally, the adjacent area is covered by the Suwannee River Special Water OFW, per subparagraph 62-302.700(9)(i)34., F.A.C. These OFWs are both located in Hamilton and Columbia counties. See Exhibit J.

3. Water Protection

An objective for the acquisition and management of this public land was to protect the largest whitewater area in Florida and its unique vistas, upland areas, river floodplain, and cultural resources of the Suwannee River. Concerns over a continuous, usable source of fresh water requires emphasis on protecting this vital resource. Water resource protection measures, at a minimum, will be accomplished using BMPs as described in the most current version of Silviculture BMP Manual. The FFS will coordinate with the appropriate district office and/or DEP, as necessary, on activities pertaining to water resource protection and management. Any activities requiring water management district permits will be handled accordingly. The FFS will work with the SRWMD to ensure that levels and quality of ground and surface water resources are appropriately monitored.

4. Swamps, Marshes, and Other Wetlands

Maintenance of naturally occurring wetland communities is a high priority and will be accomplished through appropriate management activities, including prescribed fire and adherence to Silviculture BMPs. In addition to the waterways (Long Branch and Four Mile Branch), BSSF contains approximately 373 acres in four (4) hydric communities: basin swamp, bottomland forest, depression marsh and dome swamp. Maintenance of naturally-occurring wetlands communities is a high priority and will be accomplished through appropriate management activities, including prescribed fire when necessary, and adherence to Silviculture BMP.

5. Wetlands Restoration

Wetlands restoration objectives on BSSF include erosion control, restoration of hydrology, and restoration of wetland plant and animal communities. To achieve these objectives, restoration activities may involve road and soil stabilization, water level control structure removal or installation, invasive species control, site preparation and re-vegetation with native wetlands species, and project monitoring. These activities may be conducted individually or concurrently and implemented by FFS personnel or by non-FFS personnel under mitigation or contractual agreements. Wetland restoration projects should be conducted in conjunction with other restoration activities indicated elsewhere in this plan.

The FFS will cooperate with SRWMD, FDEP, Hamilton County, and municipalities to monitor any declines in surface water quality or suspected contamination of groundwater in the region and monitor land use zoning changes on properties bordering BSSF. Water resource protection measures, at a minimum, will be accomplished through the use of Best Management Practices (BMPs) as described in the FFS's Silviculture Best Management Practices manual.

Where applicable, BSSF, with assistance from the FFS Forest Management Bureau, may pursue funding to develop and implement wetlands restoration projects. Additionally, cooperative research among FFS, other state agencies, and the federal government will provide valuable information in determining future management objectives of wetland restoration.

Wetlands restoration will be coordinated with the SRWMD and BSSP as applicable. Any activities requiring permits from the water management district will be handled accordingly and will follow the latest edition of the FFS Silviculture Best Management Practices Manual.

6. Florida Department of Environmental Protection Basin Management Action Plan (BMAP)

Currently, BSSF does not reside in an active BMAP zone.

A Basin Management Action Plan (BMAP) is a "blueprint" for restoring impaired waters by reducing pollutant loadings to meet the allowable loadings established in a Total Maximum Daily Load (TMDL). It represents a comprehensive set of strategies, including, but not limited to: permit limits on wastewater facilities, urban and agricultural best management practices, conservation programs, financial assistance, and revenue generating activities, all designed to implement the pollutant reductions established by the TMDL. These broad-based plans are developed with local stakeholders, as they rely on local input and local commitment, and are adopted by Secretarial Order to be enforceable.

A BMAP is developed as part of the Department's TMDL Program and represents the collaborative efforts of stakeholders to identify current and planned management actions to achieve pollutant load reductions required by the TMDL.

The BMAP provides for phased implementation under subparagraph 403.067(7)(a)1, F.S. The phased BMAP approach allows for the implementation of projects designed to achieve incremental reductions, while simultaneously monitoring and conducting studies to better understand the water quality dynamics (sources and response variables) in the watershed.

C. Flora and Fauna Resources

1. Rare, Threatened, and Endangered Species

The intent of FFS is to manage BSSF in a manner that will minimize the potential for wildlife species to become imperiled. FFS employees continually monitor the forest for threatened or endangered species while conducting management activities. Specialized management techniques may be used, as necessary, to protect or increase protection of rare, threatened, and endangered species, as applicable for both plants and animals. See Table 5.

Table 5. Rare, Threatened, or Endangered Species Documented on BSSF

Common Name	Scientific Name	FNAI Global Rank*	FNAI State Rank*	Federal Status*	State Status*
<i>Mollusks</i>					
Florida mapleleaf	<i>Pustulosa kleiniana</i>	G2?	S1	N	N
<i>Plants</i>					
Chapman's sedge	<i>Carex chapmannii</i>	G3	S3	N	T
Florida toothache grass	<i>Ctenium floridanum</i>	G2	S2	N	E
<i>Insects</i>					
King's hairstreak	<i>Satyrium kingi</i>	G3G4	S2	N	N
<i>Amphibians</i>					
Gopher frog	<i>Lithobates capito</i>	G2G3	S3	N	N
<i>Reptiles</i>					
American alligator	<i>Alligator mississippiensis</i>	G5	S4	SAT	FT(S/A)
Eastern diamondback rattlesnake	<i>Crotalus adamanteus</i>	G3	S3	N	N
Timber rattlesnake	<i>Crotalus horridus</i>	G4	S3	N	N
Eastern indigo snake	<i>Drymarchon couperi</i>	G2G3	S2?	T	FT
Gopher tortoise	<i>Gopherus polyphemus</i>	G3	S3	N	ST
Suwannee alligator snapping turtle	<i>Macrochelys suwanniensis</i>	G2	S2	T	FT
Pine snake	<i>Pituophis melanoleucus</i>	G4	S3	N	ST
<i>Birds</i>					
Bald eagle	<i>Haliaeetus leucocephalus</i>	G5	S3	N	N
Wood stork	<i>Mycteria americana</i>	G4	S2	FT	LT
<i>Mammals</i>					
Big brown bat	<i>Eptesicus fuscus</i>	G5	S3	N	N

* STATUS / RANK KEY

FNAI Global Rank: G1 = Critically Imperiled, G2 = Imperiled, G3 = Very Rare, G4 = Apparently Secure, G5 = Demonstrably Secure, GH = Possibly Extinct, GNR = Element not yet ranked (temporary), G#? = Tentative rank, T# = Taxonomic Subgroup; numbers have same definition as G#'s.

FNAI State Rank: S1 = Critically Imperiled, S2 = Imperiled, S3 = Very Rare, S4 = Apparently Secure, S5 = Demonstrably secure in Florida, SH = Possibly Extinct, S#? = Tentative Rank.

Federal Status (USFWS): LE = Listed Endangered, LT = Listed Threatened, N = Not currently listed, 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. SAT, T(S/A) = threatened due to similarity of appearance. A species that is threatened due to similarity of appearance with another listed species and is listed for its protection. Species listed as T(S/A) are not biologically endangered or threatened and are not subject to Section 7 consultation.

State Status (FWC): Animals: FE = Listed as Endangered Species at the Federal level by the USFWS, FT = Listed as Threatened Species at the Federal level by the USFWS, 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 FWC, SSC = Listed as Species of Special Concern by the FWC, N = Not currently listed, nor currently being considered for listing.

Plants: 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; CE = Commercially Exploited; N = Not currently listed, nor currently being considered for listing.

2. Florida Natural Areas Inventory

The Florida Natural Areas Inventory (FNAI) is the single most comprehensive source of information available on the locations of rare species and significant ecological resources throughout Florida. FNAI has reported the following:

a. Element Occurrences

FNAI element occurrences data layer includes occurrences of rare species and natural communities. For animals and plants, element occurrences usually indicate a viable population of the species. In addition to the species in Table 5, FNAI reports a few documented Element Occurrences of rare or endangered species within the vicinity of the property. See Exhibit L.

Documented habitat includes: basin swamp, bottomland forest, depression marsh, dome swamp, sandhill, wet flatwoods, and mesic flatwoods.

b. Likely and Potential Habitat for Rare Species

In addition to documented occurrences, other rare or threatened species may occur on or near BSSF. Rare species and communities that have not been documented but that are likely or potential at the site are listed in Exhibit L.

FNAI 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 before expansions or alterations are made to any facilities.

3. Florida Fish and Wildlife Conservation Commission

The FWC Fish and Wildlife Research Institute (FWRI) reports records of listed species occurrences or critical habitats around or within the confines of the property. This includes state and federally listed endangered or threatened species.

Specific findings by the FWC include:

- a.** Records of Florida black bear (*Ursus americanus floridanus*) and eastern indigo snake (*Drymarchon couperi*) are found on or within one mile of BSSF.
- b.** Strategic Habitat Conservation Areas within one mile of the property for eastern indigo snake, Florida black bear, and gopher tortoise (*Gopherus polyphemus*).
- c.** BSSF is located within an area of significant Species Richness which indicates the total number of species within potential habitat identified in a specific location.
- d.** BSSF is within Priority Wetlands, which are wetlands significant to listed wetland-dependent vertebrates.

These data represent only those occurrences recorded by FWC staff and other affiliated researchers. The database does not necessarily contain records of all listed species that may occur in a given area. Also, data on certain species are not entered into the database on a

site-specific basis. Therefore, one should not assume that an absence of occurrences in their database indicates that species of significance do not occur in the area. See Exhibit M.

FWC recommends the review of management guidelines in the published FWC Gopher Tortoise Management Plan to guide management actions for the gopher tortoise (*Gopherus polyphemus*) on BSSF. The FWC Gopher Tortoise Management Plan provides beneficial resource guidelines for habitat management and monitoring of the gopher tortoise. For reference, the FWC Gopher Tortoise Management Plan can be accessed at www.MyFWC.com.

FWC recommends the review of management guidelines in FWC's published Species Action Plans for the management of imperiled, rare, and focal bird species. The FWC Species Action Plans provide beneficial resource guidelines for habitat management and monitoring of the respective species. For reference, the FWC Species Action Plans can be accessed at www.MyFWC.com.

4. Game Species and Other Wildlife

Wildlife management plays an important role in the management of resources on BSSF. FWC provides cooperative technical assistance in managing the wildlife and fish populations, determining hunting seasons, establishing bag and season limits, and overall law enforcement on BSSF.

Notable wildlife species inhabiting BSSF include Florida black bear (*Ursus americanus floridanus*) and gopher tortoise (*Gopherus polyphemus*).

BSSF supports a small population of feral hogs (*Sus scrofa*). Nuisance trapping may be utilized to control this population.

Non-game species will be managed and protected through the restoration and maintenance of native ecosystems found on BSSF. The current State Forest Handbook gives additional details for such things as snag management and retention.

5. Survey and Monitoring

FFS may implement species-specific management plans developed by FWC and other agencies as applicable. FFS will cooperate with FWC and other agencies in the development of new wildlife management plans and monitoring protocols, as necessary. Such plans will be consistent with rule and statute promulgated for the management of such species.

a. Gopher Tortoises

Standardized surveys for gopher tortoise burrows have been conducted by FFS and FWC staff opportunistically, as needed, but generally in advance of land management activities that may impact tortoises (e.g., timber harvest). All surveys are done in cooperation with FWC.

The FFS follows and utilizes the Best Management Practices for gopher tortoises to assist in meeting management objectives for both the species and the communities in which it is found.

b. Florida Black Bear

FFS will continue to cooperate with FWC to implement FWC's Florida Black Bear Management Plan, with emphasis on maintaining sustainable black bear populations in suitable habitats throughout Florida for the benefit of the species and people.

c. Listed Plant Species

All known locations of listed or rare flora are GIS mapped and location data are shared with FNAI.

d. Other Rare Biota Surveys

Surveys are done as time and staffing allow. High quality plant communities continue to incur ad hoc surveys for both invasive plants and animals. The FFS will utilize FWC Species Action Plans for guidance both monitoring populations and for habitat management recommendations for rare and imperiled species, where appropriate.

Most of the isolated wetlands have received a cursory biological survey, with rare and significant plant and animal species observed and documented. Assistance will be offered to FWC for gopher tortoise burrow commensal monitoring, as well as monitoring for other rare species, as appropriate.

During routine management activities, incidental sightings of rare animals and plants are GIS mapped by FFS staff. All rare species data are collected and sent to FNAI annually.

6. Gopher Tortoise Recipient Site Feasibility Assessment

The FFS has assessed the feasibility of establishing a gopher tortoise recipient site on BSSF. Soil drainage classes present across the majority of the forest range from somewhat poorly drained to very poorly drained; often either frequently flooded or with a degree of surficial saturation during the wetter months of the year. There are a few small areas which have soils that are moderately well drained to excessively drained but lack sufficient acreage. See Exhibit I. Therefore, despite the property totaling just over 1,800 acres in size, the FFS has determined there are no suitable soils for gopher tortoise recipient site establishment on BSSF.

D. Sustainable Forest Resources

FFS practices sustainable multiple-use forestry to meet BSSF resource needs and values of the present without compromising the similar capability of the future. Sustainable forestry involves practicing a land stewardship ethic that integrates the reforestation, managing, growing, nurturing, and harvesting of trees for useful products with the conservation of soil, air and water quality, wildlife and fish habitat, and aesthetics. This is accomplished by maintaining and updating accurate estimates of standing timber in order to assure that the timber resources retain their sustainability. Forest inventories will be updated on a continual basis according to guidelines established by the FFS Forest Management Bureau.

E. Beaches and Dune Resources

No beaches or dunes occur on BSSF.

F. Swamps, Marshes, and Other Wetlands

BSSF contains approximately 373 acres in four (4) hydric communities: Basin swamp, bottomland forest, depression marsh and dome swamp. Maintenance of naturally occurring wetland communities is a high priority and will be accomplished through appropriate management activities, including prescribed fire, when necessary, adherence to Silviculture BMPs.

G. Mineral Resources

No mineral deposits of commercial value are known to exist on BSSF.

H. Unique Natural Features and Outstanding Native Landscapes

BSSF is located about half a mile from the Big Shoals in the Suwannee River, for which the property is named, are the largest whitewater rapids in Florida. The property is connected to the river by Big Shoals State Park.

I. Research Projects / Specimen Collection

Research projects may be conducted on BSSF on a temporary or permanent basis for the purpose of obtaining information that furthers the knowledge of forestry and related fields. FFS cooperates with other governmental agencies, non-profit organizations, and educational institutions, whenever feasible, on this type of research. FFS will consider assisting with research projects when funds and manpower are available.

All research to be considered on BSSF must be in accordance with the guidelines stated in the State Forest Handbook. Any requests for research should be submitted in writing to the appropriate field staff to be forwarded to the Forest Management Bureau for approval. Requests must include: a letter outlining the purpose, scope, methodology, and location of the proposed research. Requests are subject to review by FFS Foresters, Biologists, the Forest Health Section, and the Forest Hydrology Section, as appropriate. Authorization to conduct research will require that the investigator provide copies of any reports or studies generated from any research to the FFS and the BSSF staff. Other special conditions may be applicable, and the authorization may be terminated at any point if the study is not in compliance.

Research projects, studies, and / or specimen collections that have been initiated on the property within the last 20 years include:

- University of Georgia, Dr. Joseph L. Corn. 2005. Tick surveillance on thirty-one (31) Florida State Forests.
- University of Georgia, Dr. Joseph L. Corn. 2009. Tick surveillance on thirty-one (31) Florida State Forests.
- University of Florida, Dr. Andrew Warren. July 7, 2015. Collect insect voucher specimens for *Lepidoptera*, *Coleoptera*, *Diptera*, and *Hymenoptera*.
- University of Florida, Iwan Molgo; Dr. Pam Soltis and Dr. Doug Soltis. July 24, 2015. Genetic traits within the genus *Callisia*. Investigate parentage and ploidal levels in conjunction with its morphology and natural history.

- University of Florida, Dr. Andrew Warren. March 3, 2017. Renewal to collect insect voucher specimens for *Lepidoptera*, *Coleoptera*, *Diptera* and *Hymenoptera*.
- University of North Carolina, Robert Schoonover and Alan Weakley. March 31, 2017. Genetic and morphological analyses of *Trichostema* populations throughout the southeastern United States to better understand species distribution and evolutionary trends.
- University of Florida, Dr. Andrew Warren. March 1, 2018. Renewal to collect insect voucher specimens for *Lepidoptera*, *Coleoptera*, *Diptera* and *Hymenoptera*.
- University of Florida, Riley Gott and Dr. Jacqueline Miller. March 2, 2018. Biology and systematics of the Florida duskywings (Lepidoptera: Hesperidae: *Erynnis*).
- University of North Carolina, Robert Schoonover and Alan Weakley. March 27, 2018. Genetic and morphological analyses of *Trichostema* populations throughout the southeastern United States to better understand species distribution and evolutionary trends.
- University of Florida, Dr. Andrew Warren. January 29, 2019. Renewal to collect insect voucher specimens for *Lepidoptera*, *Coleoptera*, *Diptera* and *Hymenoptera*.
- University of Florida, Riley Gott and Dr. Jacqueline Miller. December 6, 2019. Renewal for biology and systematics of the Florida duskywings (Lepidoptera: Hesperidae: *Erynnis*).
- University of Florida, Riley Gott and Dr. Jacqueline Miller. January 23, 2020. Renewal for biology and systematics of the Florida duskywings (Lepidoptera: Hesperidae: *Erynnis*).
- Boise State University, Roger Rosentreter. March 1, 2020. Lichen collection vouchers.
- University of Florida, Dr. Andrew Warren. March 2, 2020. Renewal to collect insect voucher specimens for *Lepidoptera*, *Coleoptera*, *Diptera* and *Hymenoptera*.
- Florida State University, Dr. Austin Mast. May 1, 2020. Plant voucher specimen collection for the Florida Panhandle and North Florida state forests.
- University of Florida, Dr. Andrew Warren. March 7, 2021. Renewal to collect insect voucher specimens for *Lepidoptera*, *Coleoptera*, *Diptera* and *Hymenoptera*.
- Florida State University, Dr. Austin Mast. July 3, 2021. Plant voucher specimen collection for the Florida Panhandle and North Florida State Forests.
- Boise State University, Roger Rosentreter. October 6, 2021. Renewal of Lichen collection vouchers.
- University of Florida, Dr. Andrew Warren. April 3, 2022. Renewal to collect insect voucher specimens for *Lepidoptera*, *Coleoptera*, *Diptera* and *Hymenoptera*.
- Florida Fish and Wildlife Conservation Commission, Traci Castellon. September 6, 2022. Indigo snake research and monitoring to address three (3) components of the United State Fish and Wildlife Services (USFWS) recovery strategy.
- Boise State University, Roger Rosentreter. January 5, 2023. Renewal of Lichen collection vouchers.
- University of Florida, Dr. Andrew Warren. June 1, 2023. Renewal to collect insect voucher specimens for *Lepidoptera*, *Coleoptera*, *Diptera* and *Hymenoptera*.
- Adventure Scientists, Jessica Eggers. July 2, 2023. Collect tuliptree samples for genetic research from all state forests located in D-1 to D-12.
- Florida Fish and Wildlife Conservation Commission, Kendyl Hassler. July 5, 2023. Long-tailed weasel (*Mustela frenata*) and Eastern spotted skunk (*Spilogale putorius*) occurrence, habitat use and diet composition within the Florida Wildlife Corridor study area in North Florida.

J. Ground Disturbing Activities

Although the FFS's approach to handling ground disturbing activities is identified in other sections of this plan, the FFS's overall approach to this issue is summarized here. FFS recognizes the importance of managing and protecting sensitive resources and will take steps to ensure that such resources are not adversely impacted by ground disturbing activities. Sensitive resources include areas such as known sensitive species locations; archaeological, fossil, and historical sites; and ecotones, wetlands, and water resources. The process for evaluating and obtaining approval for ground disturbing activities is outlined in Appendix 2.A.6. of the State Forest Handbook. When new pre-suppression firelines, recreation trails, or other low-impact recreation site enhancements are necessary, their placement will be reviewed by state forest field staff to avoid sensitive areas. For ground disturbing activities such as construction of buildings, parking lots, and new roads, the FFS will consult with FNAI, DHR, WMD, and ARC, as appropriate.

V. Public Access and Recreation

The primary recreation objective is to provide the public with passive outdoor recreation activities that are dependent on the natural environment. FFS will continue to promote and encourage public access and recreational use by the public while protecting resources and practicing multiple-use management.

Periodic evaluations will be conducted by FFS staff to monitor recreation impacts on resources. Modifications to recreational uses will be implemented should significant negative impacts be identified. New recreation opportunities and facilities, which are compatible with the primary goals and responsibilities of the FFS, will be considered only after FFS determines their compatibility with other forest uses and forest resources. Assessment of visitor impacts, outdoor recreation opportunities and facilities, and proposed changes will all be addressed in the Five-Year Outdoor Recreation Plan updates.

A. Existing Recreation Opportunities

Recreation opportunities at BSSF include hiking, birdwatching, horseback riding, hunting, picnicking, wildlife viewing, and photography. See Exhibit D for a map of the Recreation, Facilities, and Improvements.

1. Forestry Station Office

Visitors can obtain information and speak with staff about the forest from the Center Office located at 137 SE Forestry Cir, Lake City, FL 32025 or at the Live Oak Forestry Station located at 7620 133rd Rd, Live Oak, FL 32060.

2. Education and Public Outreach

Big Shoals State Forest is also one of many designated sites on FWC's Great Florida Birding and Wildlife Trail. This trail is not only about birds; but also promotes butterflies, natural communities, and trail sites. All our programs and public contacts stress the importance of the forest being managed under the multiple-use concept. At least 70 species of birds can be found on BSSF.

3. Recreation and Trails

There are two (2) trails partially located on BSSF. A 1.5-mile section of the Equestrian Trail traverses the southern portion of the property before winding south onto Big Shoals State Park property. The trailhead is located at the intersection of Road 2 and Road 40 and includes a field for parking and an informational kiosk. The Woodpecker Trail runs through 3.4 miles of BSSF, more or less winding through the forest from west to east. However, the trailheads are located at the western and eastern ends of Road 1 on Big Shoals State Park property. The Woodpecker Trail is a paved biking and hiking trail with two (2) benches, one (1) kiosk, one (1) informational sign, and three (3) bridges.

B. Planned Recreation Opportunities

FFS will continue to assess plans for additional recreation opportunities based on demand, carrying capacity, demographics, and impact to the resources on BSSF. All planned improvements may be completed as staff and funding permits. Both terrestrial and aquatic resources and related activities will be evaluated. Any plans will be incorporated into the Five-Year Outdoor Recreation Plan on file at BSSF. FFS will continually reach out to user groups to communicate its needs and concerns with our user groups, cooperators, and visitors.

1. Public Access and Parking

Within this ten-year planning cycle, other parking and access points will be evaluated. A secondary access point will be considered where Road 8 meets CR 135. This access point would require a new parking area and signage instructing visitors on how to pay the day use fee. Additional parking areas on Road 8 and Road 1 will also be evaluated, along with a new trailhead and parking area on the Chasteen parcel. Current parking areas and forest access points will continually be evaluated for improvements. The existing trailhead may need to be redesigned to allow for a larger parking area using previously impacted sites. Improvements to the horse trail head and parking area will be considered. Improvements that will be considered for this trailhead include a pavilion, pitcher pump, improved driving surface, and a fence. Parking and access issues will be addressed annually as the Five-Year Outdoor Recreation Plan is updated and documented impacts are reviewed.

2. Recreation Trails

Within this ten-year planning cycle, suitable locations will be explored for additional recreation trails. Input from user groups will be considered in any trail improvements. The construction, maintenance, and improvements of hiking, nature, and equestrian trails will be ongoing. Foot bridges and boardwalks may need to be installed on trails to mitigate impacts in wetland areas. The 3.4-mile portion of the Woodpecker Trail located on BSSF will need to be completely resurfaced within the 10-year period, but periodic maintenance will be required until resurfacing to fix any potholes or other hazards that are created by erosion/scouring and tree roots. A new trail will be planned for construction on the Chasteen tract. This trail will include a parking area with a trailhead and kiosk, as well as additional kiosks and educational signage along the trail identifying any significant management activities or features. Additional multi-use, equestrian, cycling, nature, and hiking trails may be evaluated, planned, and installed on BSSF.

3. Environmental Education

Environmental education activities on BSSF are displayed on kiosks and conducted through guided tours and hands-on events by request. Targeted groups include the general public, school and youth groups, and various user groups. BSSF partners with other organizations to provide various in person events throughout the year. Information in the kiosks will continually be updated to remain current and relevant. Additional kiosks will be added to the two (2) existing benches along the Woodpecker Trail. Informational signs will also be added along the trail to identify and educate users about prescribed fire and the different ecosystems that the trail passes through.

4. Amenities (Pavilions, Docks, Bathrooms, etc.)

During this ten-year planning period, FFS will assess the feasibility of installing additional pavilions at sites that are to be determined. Pavilions may be installed at various locations on BSSF if future demands create a need for them. Pitcher pumps are also being planned for installation. At least one water source should be added as an equestrian amenity at the Equestrian trailhead. Culverts will need to be replaced or added to prevent further erosion in spots along the Woodpecker Trail. All other existing amenities and kiosks may be replaced, upgraded, or improved as needed. Additional amenities that may be assessed during this ten-year planning period include but are not limited to: bear-proof trashcans, gates, educational displays, signs, fencing, potable water sources, boardwalks, and culverts. Any amenity installed will provide a positive benefit for forest users.

C. Hunter Access

Regulated hunting and fishing on Florida's state forests are managed cooperatively with the FWC. FWC regulates recreational hunting in the Big Shoals Wildlife Management Area, an approximately 2,140-acre portion of the property that includes FFS and SRWMD lands. The entire 1,814.47 acres of BSSF is within the WMA.

Hunting season dates, limits, and methods are established annually by FWC, in cooperation with FFS. Wildlife Management Area (WMA) regulations are updated annually and are identified in the current WMA brochures provided by FWC at www.MyFWC.com. Non-hunting recreation users are encouraged to check the Wildlife Management Area regulations and season dates before visiting BSSF.

D. Education

FFS is receptive to forming partnerships with local K-12 schools and / or universities for the development and implementation of educational opportunities on BSSF upon request from the local school district. If partnerships are developed, the Five-Year Outdoor Recreation Plan will provide more insight to management activities as they pertain to future educational opportunities BSSF may provide to the public.

VI. Forest Management Practices

A. Prescribed Fire

Forest management practices on BSSF are important in the restoration and maintenance of forest ecosystems and provide a variety of socio-economic benefits to Floridians. Management practices on BSSF include prescribed fire, which is an effective tool in controlling the

encroachment of shrubs and off-site hardwoods, stimulating the recovery of native herbaceous groundcover, and promoting the regeneration of native pines.

FFS utilizes a fire management program on state forests that includes wildfire prevention, detection and suppression, and prescribed burning. This program is the responsibility of FFS's Suwannee Forestry Center and is detailed in the Five-Year Prescribed Burning Management Plan. Emphasis will be placed on prescribed burning, wildfire prevention, and education to help reduce wildfire occurrence on BSSF.

A Fire History chart detailing the recent history of prescribed burns and wildfires at BSSF is available in Exhibit N.

FFS has two (2) fire towers and two (2) tractor-plow units located throughout Hamilton County. Additional support is available from neighboring counties. District personnel and equipment will be used for pre-suppression practices, establishment of firebreaks, rehabilitation of existing firelines, construction of new firelines, maintenance of perimeter firebreaks, and prescribed burning at BSSF.

The prescribed burning program developed for BSSF produces multiple benefits. The objectives of prescribed burning on BSSF include facilitating forest management operations, enhancing wildlife and listed species habitat; decreasing fuel loading, enhancing public safety, and restoring, maintaining, and protecting all native ecosystems, ecotones, and their ecological processes. FFS personnel are responsible for planning and implementing the annual prescribed burn program for BSSF, which will consist of dormant and growing season burns. An update to the Five-Year Prescribed Burning Management Plan is developed each year by FFS staff. All burns conducted on BSSF are executed by Florida Certified Prescribed Burn Managers in accordance with Chapters 590.125, F.S. and 5I-2 F.A.C.

According to FNAI, historic, fire-dependent natural communities on BSSF are estimated to have occupied 1,636 acres and to have burned at approximately two (2) to four (4) year intervals. Current fire-dependent communities encompass 1,481 acres. Some historically fire-dependent communities have been altered through past land use practices, which inhibits the ability to meet objectives with prescribed fire alone. Based on current conditions and management objectives, BSSF will plan for 375 to 750 acres to be prescribed burned annually. Priority ranking of burn units is used to keep fire-return intervals maintained while slowly adding additional acreage. Meeting prescribed fire goals will be largely dependent on weather conditions, available personnel, and statewide emergency situations such as wildfires, hurricanes, and other natural disaster response and relief. Currently it is estimated that approximately 1,200 acres of BSSF are within the desired fire-return interval.

1. Fire Management

The fire management plan serves as a working tool and an informational document for BSSF. The plan provides guidelines regarding wildfire suppression and prescribed fire management. It will specify burn units, burn unit prescriptions, appropriate fire-return intervals, and fire pre-suppression planning. The plan may be reviewed and amended as necessary. The use of prescribed fire in the management of timber, wildlife, and ecological

resources on BSSF is necessary if the FFS is to fulfill the goals and objectives stated in this plan including: enhancing and restoring native plant communities, managing protected species, and managing timber, recreation, historical, and other resource values. The fire management plan and its objectives shall reflect and incorporate these multiple-resource objectives.

- a. **Prescribed Fire:** Prescribed fire is the most important land management tool, both ecologically and economically, for managing vegetation and natural communities and for perpetuating existing wildlife populations in Florida. Forest operation records and staff experience should be combined with the FNAI inventory and assessment (2023) to identify areas that may require mechanical or chemical treatments in conjunction with prescribed fire to restore a more natural vegetative structure.
- b. **Burn Unit Plans:** Each prescribed fire will be conducted in accordance with FFS regulations and state law (Chapter 5I-2 F.A.C., Chapter 590, F.S.) and have a burn unit plan (or prescription). Each prescription will contain, at a minimum, the information, as required by Section 590.125(3), F.S., needed to complete the FFS Prescribed Burn Plan Form FDACS 11461.

Aerial ignition may be considered for large burn units where this tactic can be cost effective for larger acreages. Consideration should be given to rotating burn units between dormant and growing season burns over time with the understanding that historically, most natural fires occurred during the growing season or the transition to the growing season. Fire-return intervals for a burn unit are recommended to fall within the natural, historic range for the dominant natural community or communities within a given burn unit.

Based upon available species survey data, burn units within a prescription that have listed wildlife species shall explicitly state their presence and any restrictions or requirements relative to prescribed burning in proximity to these species or habitats. These may include time of year, pre-burn preparation, fire-return intervals, and other burn parameters.

B. Wildfire Prevention and Mitigation Strategies

FFS utilizes a comprehensive wildfire management approach on state forests that includes an ongoing program of wildfire prevention, detection and suppression, and prescribed burning. Implementation of this program is the responsibility of FFS's Suwannee Forestry Center. Emphasis will be placed on consistent accomplishment of prescribed burning goals and community outreach to increase public understanding of wildfire prevention and the benefits of prescribed fire.

The FFS has three paramount considerations regarding wildfires and are established in priority order:

- 1) Protection of human lives
- 2) Protection of improvements
- 3) Protection of natural resources

All procedures regarding wildfire will follow the State Forest Handbook and the BSSF Fire Management Plan.

1. Suppression Strategies

If a wildfire occurs on BSSF there are two (2) alternative suppression strategies as defined below:

- a. Contain and Control** is defined as a suppression strategy where a fire is restricted to a certain area by using existing natural or constructed barriers that stop the fire's spread under the prevailing and forecasted weather until it is out. This strategy allows the use of environmentally sensitive tactics based on fuels, fire behavior, and weather conditions that keep a wildfire from burning a large area or for a long duration.
- b. Direct Suppression** is defined as a suppression strategy where aggressive suppression tactics are used to establish firelines around a fire to halt its spread and to extinguish all hotspots. This alternative is used whenever there is a threat to human life, property, private lands, and / or critical natural or cultural resources. This strategy should also be used when the total district fire load dictates that crews not be involved with individual fires for any longer than necessary.

Appropriate suppression action will be that which provides for the most reasonable probability of minimizing fire suppression cost and critical resource damage, consistent with probable fire behavior, total fire load, potential resource and environmental impacts, safety, and smoke management considerations. The Incident Command System (ICS) will be used for all suppression actions.

2. Smoke Management

Caution will be exercised to prevent a public safety or health hazard from the smoke of any prescribed burn or wildfire. Prescribed burns must pass the smoke screening procedure and be conducted by a certified burner. If smoke threatens to cause a safety hazard, then direct, immediate suppression action will be taken.

3. Firebreaks and Firelines

A system of permanent firebreaks will be developed and maintained around and within the boundaries of BSSF to guard against fires escaping from and entering the forest. Such firebreaks will consist of natural barriers, roads, trails, permanent grass strips, and where appropriate, well-maintained harrowed lines. All pre-suppression firebreaks will meet the established Silvicultural BMP criteria.

During wildfire suppression, the use of water and foam, permanent firebreaks, natural barriers, and existing roads and trails for firelines can be used when human life, safety, property, and resource considerations allow. Plowed and / or bladed lines will be used for initial installation of firelines in heavy fuels and in cases where it's considered necessary to protect life, property, or resources and / or to minimize threats to firefighters. Plowed and bladed lines will be rehabilitated, and BMPs implemented as soon as practical after the fire is suppressed.

4. Sensitive Areas

BSSF retains on file in the state forest headquarters an Environmentally Sensitive Area Map that identifies protected sites such as critical wetlands and archaeological and historical sites known to occur on the state forest. FFS personnel are aware of these areas in the event of a wildfire. Special precautions will be followed when prescribed burning in sensitive areas on BSSF. When possible, fire staff will avoid line construction in wetland ecotones and other areas throughout the forest.

5. Firewise Communities

FFS has implemented a Firewise community approach for prevention statewide. Specifically, in the area adjacent to or nearby BSSF, efforts in this regard will continue to identify communities at risk and to contact their representatives.

6. Adjacent Neighbor Contacts

The staff at BSSF maintains a list of neighbors that have requested they be notified in advance of prescribed burns. These families are contacted by telephone or email with potential sites and dates of anticipated prescribed burns.

7. Post-Burn Evaluations

A post-burn evaluation is required for each prescribed burn on the state forest to assess impacts on timber and habitat. Based on the evaluations after prescribed fires in particular, decisions will be made on the effectiveness of the prescribed burn and improvements that can be made in the future. A historical fire record for all significant fires and prescribed burns will be maintained. This will be accomplished using completed burn plans and the maintenance of GIS data. These records are intended to provide data for future management decisions.

C. Sustainable Forestry and Silviculture

Timber is a valuable economic and ecological resource, and timber harvesting for the purposes of generating revenue, improving stand viability, forest health, wildlife, and ecological restoration and maintenance is critical to the silvicultural objectives on the state forest.

1. Strategies

The following silvicultural strategies will apply to silvicultural practices on BSSF:

- a. To restore and maintain forest health and vigor through timber harvesting, prescribed burning, and reforestation, both naturally and artificially, with species native to BSSF.
- b. To create, through natural or artificial regeneration, uneven-aged, and even-aged management, a forest with both young and old growth components that yields sustainable economic, ecological, and social benefits.

2. Silvicultural Operations

Silvicultural operations on BSSF will be directed toward improving forest health, wildlife habitat, ecological and economical sustainability, as well as toward recovery from past management practices prior to state acquisition that are not in accordance with the objectives of this plan. Stands of off-site species with merchantable volume will be

scheduled for harvest, followed by reforestation with the appropriate tree species. Herbicide applications may be necessary to control woody competition and to re-establish desired native overstory and groundcover species. Site preparation methods may include prescribed fire, mechanical vegetation control, and / or herbicide applications. Herbicides used will be registered for forestry use by the U.S. Environmental Protection Agency (EPA) and will not adversely affect water resources.

Prescribed fire is the most desirable method of vegetation control in fire-dependent ecosystems. However, due to the existence of areas where fuel loads have reached dangerous levels, or urban interface dictates prescribed fire is not suitable, mechanical or chemical vegetation control may be used. Mechanical and / or chemical vegetation control will be utilized where appropriate as determined by FFS staff for wildlife enhancement, fuel mitigation, and reforestation.

Maintenance and restoration of timber stands and natural communities through timber harvesting will include thinning for maintenance, regeneration harvests applicable to the species present and clear-cutting to remove off-site species.

All silvicultural activities, including timber harvesting and reforestation, will meet or exceed the standards in FFS's Silviculture BMPs and the State Forest Handbook, and will follow the Five-Year Silviculture Action Plan.

3. Forest Inventory

The purpose of a forest inventory is to provide FFS resource managers with information and tools for short and long-range resource management and planning. Ten percent of BSSF forest will be re-inventoried annually to provide an accurate estimation of the standing timber and to ensure that stands will be managed sustainably.

Timber / forestry resources available on the property include loblolly, longleaf, slash, and small pockets of sand pine. In addition, there are mixed hardwoods and cypress found throughout BSSF.

4. Timber Sales

Timber sales are advertised for competitive bids and sold on a per unit or lump sum basis. All timber sales are conducted according to guidelines specified in the State Forest Handbook.

5. Cattle Grazing

There are currently no cattle leases on BSSF.

D. Invasive Species Control

FFS employees continually monitor BSSF for invasive species while conducting management activities. FFS will locate, identify, and apply control measures with the intent to eradicate or control invasive species. Table 6 lists the general treatment strategy, acres impacted, and population stability trend for invasive plant species occurring on BSSF. Also, see Exhibit O.

On-going maintenance and monitoring strategies are outlined in the Five-Year Ecological

Management Plan which is developed to locate, identify, and control invasive plant species. Occurrences of invasive species are recorded in the BSSF GIS database and are monitored and treated annually as funding permits. The GIS database is updated as new infestations are discovered.

Adjacent landowners who are known to have these species on their property will be approached to cooperate on control measures. FFS works to control the spread of invasive species by decontaminating agency equipment and equipment used by private contractors according to the State Forest Handbook.

FFS will enlist support from FWC in efforts to control invasive animals. Feral hogs are present on BSSF but are not believed to occur in significant numbers at this time.

Training in the identification and control of invasive species will be scheduled for personnel as time and resources permit. Training concerning invasive plants will be coordinated with the Forest Management Bureau's Forest Health Section. Control of invasive species will be target specific and use a variety of methods including appropriately labeled and efficacious herbicides.

Table 6. Invasive Plant Species Occurring on BSSF

Common Name	Scientific Name	Treatment Strategy	Acres Impacted	Increasing / Decreasing
Japanese climbing fern	<i>Lygodium japonicum</i>	Spot Treatment with herbicide / Biocontrol	0.1	Decreasing
Mimosa	<i>Mimosa julibrissin</i>	Spot Treatment with herbicide	0.1	Decreasing
Sweet tanglehead	<i>Heteropogon melanocarpus</i>	Unknown / Herbicide resistant	0.1	Increasing
Bamboo	<i>Bambusoideae sp.</i>	Spot Treatment with herbicide	Unknown	Increasing
Showy rattlebox	<i>Crotalaria spectabilis</i>	Spot treatment with foliar herbicide	Unknown	Increasing
Coral ardisia	<i>Ardisia crenata</i>	Spot treatment with foliar herbicide	Unknown	Increasing

E. Insects, Disease, and Forest Health

Currently, there are no significant insect or disease problems on BSSF. In the event of a forest pest outbreak, BSSF resource managers will consult with the Forest Management Bureau's Forest Health Section to formulate an appropriate and effective response.

In compliance with Section 388.4111, F.S. and in Section 5E-13.042, F.A.C., all lands have been evaluated and subsequently designated as environmentally sensitive and biologically highly productive. Such designation is appropriate and consistent with the previously documented natural resources and ecosystem values and affords the appropriate protection for these resources from arthropod control practices that would impose a potential hazard to fish, wildlife, and other natural resources existing on this property. The local arthropod control agency in Hamilton County will be notified of the approval of this plan documenting this designation.

As a result, prior to conducting any arthropod control activities on BSSF, the local agency must prepare a public lands control plan that addresses all concerns that FFS may have for protecting the natural resources and ecosystem values on the state forest. In this regard, FFS will provide the local agency details on the management objectives for BSSF. This public lands control plan must comply with FDACS guidelines and use the appropriate FDACS form. The plan must then be approved and mutually adopted by the county, FFS, and FDACS, prior to initiation of any mosquito control work. Should the local mosquito control district not propose any mosquito control operations on the property, no arthropod control plan is required. See Exhibit V.

F. Use of Private Land Contractors

The forest manager makes ongoing evaluations of the use of private contractors and consultants to facilitate the total resource management activities of this state forest. The opportunities for outsourcing land management work include:

1. Herbicide applications
2. Restoration activities
3. Reforestation
4. Site preparation activities
5. Timber harvesting
6. Biological assessments and mapping
7. Contractors for fixed capital and infrastructure improvements

VII. Proposed Management Activities for Natural Communities

In 2023, FNAI completed an inventory and natural community mapping project on BSSF. Current and historic natural community cover types can be found in Exhibits P and Q, and Table 7. The inventory included managed and altered community types which are habitats that have been impacted by humans and do not fit into FNAI's Natural Community Classification. See Tables 8 and 9.

Table 7. Natural Community Types

Community Type	Historic Acres*	Current Acres*
Basin swamp	59	59
Bottomland forest	159	158
Depression marsh	21	21
Dome swamp	134	134
Mesic flatwoods (including restored areas)	1,349	1,163
Sandhill	10	0
Wet flatwoods	63	61
Managed and other altered community types**	0	199
TOTAL	1,795	1,795

* Rounding errors exist

** See Tables 8 & 9

Table 8. Managed Landcover Type

Community Type	Current Acres*
Pine plantation	43
TOTAL	43

* Protocol as described in Appendix 2 of FNAI's "Guide to the Natural Communities of Florida", 2010 Edition.

Table 9. Other Altered Landcover Types

Landcover Type	Current Acres*
Abandoned field/pasture	24
Artificial Pond	1
Clearing/regeneration	11
Successional hardwood forest	120
TOTAL	156

* Protocol as described in Appendix 2 of FNAI's "Guide to the Natural Communities of Florida", 2010 Edition.

For the purposes of this management plan, restoration is defined as the process of returning ecosystems to the appropriate structure and species composition, based on soil type, representative species present, and hydrology. Management during this ten-year period will begin with a forest-wide assessment of the fuel loading, timber densities, reforestation needs, and groundcover in order to develop a five-year comprehensive action plan for prescribed burning and other management activities across BSSF. Strategies may include thinning pine stands, mowing, or chopping in areas of heavy fuel buildup, application of both dormant and growing season fires, and / or the use of herbicides to control hardwoods / hardwood regeneration. Site preparation and reforestation may be required to increase pine stocking in stands with very poor stocking or in restoration efforts. Fire-return intervals are included as a guide and may vary depending upon specific conditions and are intended to attain desired forest and resource management goals. See Table 10.

Table 10. Prescribed Fire Interval Guide on BSSF

Community Type	Historic Fire-return Intervals**	BSSF Fire Frequency Goal (Local)	Comments
Basin swamp	5 – 100	2 – 4	Burns with adjacent communities
Bottomland forest	N/A	N/A	We burn the surrounding flatwoods on a 2-to-4-year rotation to establish natural ecotone
Depression marsh	2 – 4	2 – 4	
Dome swamp	5 – 100	2 – 4	Ecotones burn with adjacent communities
Mesic flatwoods*	2 – 4	2 – 4	
Pine plantation	N/A	2 – 4	Burns with adjacent sandhill
Sandhill	1 – 3	1 – 3	Burns with adjacent forest communities
Wet flatwoods	3 – 5	3 – 5	

* Includes restoration community acreage

** As determined by FNAI

The following community descriptions, existing condition descriptions, and management recommendations are taken from a 2023 FNAI mapping project report and the Guide to the Natural

Communities of Florida (FNAI 2010), as well as from the knowledge and experience gained by FFS during forest inventory efforts and routine field work on BSSF.

To achieve the objectives outlined in this plan, the following management activities will be performed in the natural and managed communities at BSSF during the next ten-year planning period. Goals, desired conditions, standards, and guidelines provide management area direction. These goals and desired conditions may take many planning cycles to attain.

A. Basin Swamp

Description:

Basin swamps are mostly isolated wetlands vegetated with hydrophytic trees and shrubs that can withstand an extended hydroperiod. Basin swamps are highly variable in size, shape, and species composition. They are typically large and/or embedded in a non-pyrogenic community and thus are not as heavily influenced by frequent fires in the surrounding landscape as dome swamps.

Basin swamps at BSSF have a closed canopy of large pond cypress (*Taxodium ascendens*) with occasional slash pine (*Pinus elliottii*) and swamp tupelo (*Nyssa biflora*). The subcanopy fills the small gaps in the canopy and is composed of red maple (*Acer rubrum*), sweetbay (*Magnolia virginiana* var. *australis*), and loblolly bay (*Gordonia lasianthus*). Tall shrubs are sparse to moderately dense, dominated by loblolly bay (*Gordonia lasianthus*), fetterbush (*Lyonia lucida*), southern bayberry (*Morella cerifera*), and swamp bay (*Persea palustris*), with occasional titi (*Cyrilla racemiflora*). Herbs are variable and include Virginia chain fern (*Anchistea virginica*), arrowheads (*Sagittaria* spp.), lizard's tail (*Saururus cernuus*), false nettle (*Boehmeria cylindrica*), beaksedges (*Rhynchospora* spp.), and royal fern (*Osmunda spectabilis*).

Basin swamps appear as medium to dark grey with the rough texture of a closed canopy in the historic photographs.

Current Conditions:

There are two (2) basin swamps mapped on the property. One is a large basin on the northeast side of the property, accessible from SE 94th Street. The other basin swamp is a small remnant on the northwestern edge of the property and was historically connected to a much larger basin swamp off property to the west (visible on historic photographs), which has since been destroyed for phosphate mining.

Basin swamps at BSSF have a closed canopy of pond cypress (*Taxodium ascendens*) with occasional slash pine (*Pinus elliottii*) and swamp tupelo (*Nyssa biflora*). Subcanopy trees are occasional with sweetbay (*Magnolia virginiana* var. *australis*), red maple (*Acer rubrum*), and loblolly bay (*Gordonia lasianthus*). Tall and short shrubs are dense toward the swamp edges and sparse at the interior. Shrubs include sweet pepperbush (*Clethra alnifolia*), Virginia willow (*Itea virginica*), fetterbush (*Lyonia lucida*), maleberry (*Lyonia ligustrina* var. *foliosiflora*), and swamp bay (*Persea palustris*). Herbs are sparse with occasional Virginia chain fern (*Anchistea virginica*). Vines such as bristly greenbrier (*Smilax hispida*) are occasional.

Fire Regimes:

Fire intervals are variable and depend on such factors as dominant vegetation, fire exposure, and drought. The interior of basin swamps may go without fire for decades or even centuries while the exposed outer edges can be more susceptible to frequent fire. Basin swamps that are situated within the matrix of a pyrogenic community, such as mesic flatwoods, will likely burn more frequently than basin swamps positioned within a matrix of mesic or hydric hammock. Basin swamps within BSSF are usually burned with adjacent upland communities.

Management Needs:

Little active management is required for this community type. Burning adjacent fire-adapted communities and allowing fire to enter basin swamps naturally with the adjacent uplands is desirable. Exclusion of fires can lead to hardwood encroachment and peat accumulation. Hydrologic disturbances such as ditches, firebreaks, and roads should be minimized, if not avoided altogether in this community.

B. Bottomland Forest**Description:**

Bottomland forest is a deciduous, or mixed deciduous/evergreen, closed-canopy forest on terraces and levees within riverine floodplains and in shallow depressions. Found in situations intermediate between swamps (which are flooded most of the time) and uplands, the canopy may be quite diverse with both deciduous and evergreen hydrophytic to mesophytic trees. Bottomland forests occur on low-lying, seasonally flooded and/or saturated soils of a riverine floodplain. Bottomland forests are inundated for a portion of the wet season but may dry out during the late spring. This variability accounts for the mixed canopy species composition.

At BSSF, bottomland forest has a closed canopy composed of mature to old growth swamp laurel oak (*Quercus laurifolia*), sweetgum (*Liquidambar styraciflua*), green ash (*Fraxinus pennsylvanica*), and loblolly pine (*Pinus taeda*). The subcanopy fills any small gaps in the canopy and includes younger canopy species as well as red maple (*Acer rubrum*), loblolly bay (*Gordonia lasianthus*), southern magnolia (*Magnolia grandiflora*), sweetbay (*Magnolia virginiana* var. *australis*), swamp tupelo (*Nyssa biflora*), swamp bay (*Persea palustris*), and occasional slash pine (*Pinus elliotii*). The tall shrub layer is sparse, consisting mainly of sapling red maple (*Acer rubrum*), sweetbay (*Magnolia virginiana* var. *australis*), southern bayberry (*Morella cerifera*), and swamp bay (*Persea palustris*). The short shrub layer is moderately open; common species are red buckeye (*Aesculus pavia pavia*), fetterbush (*Lyonia lucida*), southern bayberry (*Morella cerifera*), swamp bay (*Persea palustris*), bluestem palmetto (*Sabal minor*), and saw palmetto (*Serenoa repens*). The herbaceous layer is moderately dense and patchy; dominant species are slender woodoats (*Chasmanthium laxum*) and sedges (*Carex* spp.). Jack-in-the-pulpit (*Arisaema triphyllum*), spoon-flower (*Peltandra sagittifolia*), and lizard's tail (*Saururus cernuus*) are occasional.

Floodplain swamps are also present as narrow inclusions within bottomland forests at BSSF. These areas have a mature, closed canopy dominated by pond cypress (*Taxodium ascendens*) and swamp tupelo (*Nyssa biflora*), a sparse shrub layer represented by Carolina ash (*Fraxinus caroliniana*), fetterbush (*Lyonia lucida*), southern bayberry (*Morella cerifera*), and swamp bay (*Persea palustris*), and a sparse herbaceous layer with sedges (*Carex* sp.), slender woodoats (*Chasmanthium laxum*), and lizard's tail (*Saururus cernuus*).

Bottomland forest is evident on the historic aerial photography as medium to dark gray linear patterns with the rough texture of a closed canopy.

Current Conditions:

Most bottomland forests at BSSF are in good condition, with structure and species composition similar to desired future conditions. In addition to the dominant species noted above, other shrubs include American beautyberry (*Callicarpa americana*) and Carolina buckthorn (*Frangula caroliniana*). Additional herbs include Virginia chain fern (*Anchistea virginica*), netted chain fern (*Lorinseria areolata*), and cinnamon fern (*Osmundastrum cinnamomeum*). Vines are common and include crossvine (*Bignonia capreolata*), muscadine (*Muscadinia rotundifolia*), laurel greenbrier (*Smilax laurifolia*), and eastern poison ivy (*Toxicodendron radicans*).

The bottomland forest in the northeastern portion of the property is in poor condition with heavy ground disturbance from old roads. Weedy herbs are common here including beggarticks (*Bidens alba* var. *radiata*), yankeeweed (*Eupatorium compositifolium*), and woodsorrel (*Oxalis* sp.). Several invasive species were noted here including coral ardisia (*Ardisia crenata*), wax begonia (*Begonia cucullata*), Japanese climbing fern (*Lygodium japonicum*), tropical soda apple (*Solanum viarum*), Chinese tallow tree (*Triadica sebifera*), and elephant ear (*Xanthosoma sagittifolium*).

Fire Regimes:

Bottomland forest is not a fire-maintained natural community.

Management Needs:

Little active management is required for the majority of bottomland forests on the property. Management should focus on removing invasive plant species where they are concentrated in areas of heavy disturbance.

C. Depression Marsh**Description:**

Depression marsh is typically a shallow, usually rounded depression of sand substrate with concentric bands of herbaceous vegetation or subshrubs. Depression marshes typically occur in landscapes occupied by fire-maintained matrix communities such as mesic flatwoods, where fires frequently burn through these small marsh communities.

Depression marshes on BSSF are herb dominated with few shrubs and trees. There may be a canopy of a few swamp tupelo (*Nyssa biflora*), particularly along the outer edges. Common buttonbush (*Cephalanthus occidentalis*) may be present as a tall shrub scattered throughout the marsh. Short shrubs are occasional, usually at the outer edges of the marsh. Typical short shrubs are willow herb (*Decodon verticillatus*), gallberry (*Ilex glabra*), and fetterbush (*Lyonia lucida*). Herbaceous cover is dense throughout, dominated by clustered sedge (*Carex glaucescens*), maidencane (*Hymenachne hemitoma*), and Virginia chain fern (*Anchistea virginica*). Other common species are wetland white bluestem (*Andropogon dealbatus*), spikerush (*Eleocharis* sp.), Carolina redroot (*Lachnanthes caroliniana*), and yellow-eyed grass (*Xyris* sp.)

The signature for depression marsh on the historic photographs appears black and smooth, sometimes speckled with light gray throughout or at the edges. The black color is indicative of open water whereas the light grey speckles are trees.

Current Conditions:

Most depression marshes on BSSF have at least a few scattered trees such as red maple (*Acer rubrum*), swamp tupelo (*Nyssa biflora*), slash pine (*Pinus elliottii*), and water oak (*Quercus nigra*). A sparse to moderate layer of tall shrubs may be present around the perimeter of the marsh. Common species are red maple, common buttonbush (*Cephalanthus occidentalis*), common persimmon (*Diospyros virginiana*), southern bayberry (*Morella cerifera*), and swamp tupelo (*Nyssa biflora*). Short shrubs are sparse to moderate in the outer half of depression marshes as well. Dominant species are willow herb (*Decodon verticillatus*), gallberry (*Ilex glabra*), fetterbush (*Lyonia lucida*), southern bayberry (*Morella cerifera*), and swamp bay (*Persea palustris*). Herbaceous cover is moderate to dense, dominated by clustered sedge (*Carex glaucescens*), maidencane (*Hymenachne hemitoma*), and Virginia chain fern (*Anchistea virginica*). Additional herb species include broomsedge bluestem (*Andropogon virginicus*), spikerush (*Eleocharis* sp.), dogfennel (*Eupatorium capillifolium*), soft rush (*Juncus effusus* ssp. *solutus*), Carolina redroot (*Lachnanthes caroliana*), primrosewillow (*Ludwigia* sp.), rosy camphorweed (*Pluchea baccharis*), bunched beaksedge (*Rhynchospora cephalantha* var. *cephalantha*), and Elliott's yellow-eyed grass (*Xyris elliottii*).

Fire Regimes:

Because of their small size and shallow depth, depression marshes historically burned through along with the surrounding upland community. Presently, prescribed fires should be allowed to burn into depression marshes when the surrounding uplands burn. Prescribed fires in the growing season may have a better chance to encroach into the deep, peat-accumulated centers thereby controlling the buildup of peat and the encroachment of woody species. Depression marshes are usually burned with adjacent upland communities.

Management Needs:

Depression marshes depend on fire to maintain their herbaceous dominance and prevent shrub growth. Fires should be allowed to burn completely across depression marshes. Early growing season burns are recommended to control encroaching shrubs when feasible. Strictly burning in the winter may promote establishment of hardwoods and shrubs. Any hydrological disturbances, such as ditches, firebreaks, and roads, should be avoided.

D. Dome Swamp

Description:

Dome swamps are isolated, forested depressions occurring in fire-maintained communities. This community's characteristic profile is formed by smaller trees in shallow waters along the outer edge, while taller trees grow in the deeper interior of the swamp.

Dome swamps on BSSF have a closed canopy of pond cypress (*Taxodium ascendens*) with occasional swamp tupelo (*Nyssa biflora*) and slash pine (*Pinus elliottii*). Cypress may be absent and replaced by swamp tupelo in some dome swamps. The subcanopy, if present at all, should contain younger members of the canopy. The tall shrub layer is sparse or absent and may include red maple (*Acer rubrum*), southern bayberry (*Morella cerifera*), and swamp bay

(*Persea palustris*). The short shrub layer is sparse to moderate, typically dominated by fetterbush (*Lyonia lucida*). Other species include sweet pepperbush (*Clethra alnifolia*), seedling southern bayberry (*Morella cerifera*), and swamp bay (*Tamala palustris*). The herbaceous layer is highly variable and may be sparse to dense. Typical herbs include clustered sedge (*Carex glaucescens*) and Virginia chain fern (*Anchistea virginica*). Other common species are broomsedge bluestem (*Andropogon virginicus*), sedges (*Carex* sp.), witchgrasses (*Dichanthelium* sp.), maidencane (*Hymenachne hemitoma*), spoon-flower (*Peltandra sagittifolia*), sugarcane plumegrass (*Erianthus giganteus*), and lizard's tail (*Saururus cernuus*).

Dome swamps appear on historic photography as medium to dark isolated forested patches within mesic flatwoods.

Current Conditions:

Dome swamps on BSSF have a closed canopy of widely spaced pond cypress (*Taxodium ascendens*), swamp tupelo (*Nyssa biflora*), and slash pine (*Pinus elliottii*). Swamp tupelo-dominated swamps are less frequent and tend to have a sparse canopy over dense herbaceous vegetation. The subcanopy includes red maple (*Acer rubrum*), loblolly bay (*Gordonia lasianthus*), and sweetbay (*Magnolia virginiana* var. *australis*). The tall shrub layer is typically sparse, and includes red maple (*Acer rubrum*), fetterbush (*Lyonia lucida*), southern bayberry (*Morella cerifera*), and swamp bay (*Persea palustris*). The short shrub layer is sparse to moderate and typically dominated by fetterbush. Other occasional shrub species are sweet pepperbush (*Clethra alnifolia*) and Virginia marsh St. John's wort (*Persea virginicum*). The herbaceous layer is in dense patches, scattered throughout. Clustered sedge (*Carex glaucescens*) and Virginia chain fern (*Anchistea virginica*) are the dominant herbs. Other common species are broomsedge bluestem (*Andropogon virginicus*), false nettle (*Boehmeria cylindrica*), threeway sedge (*Dulichium arundinaceum* var. *arundinaceum*), manyflower marshpennywort (*Hydrocotyle umbellata*), climbing hempvine (*Mikania scandens*), royal fern (*Osmunda spectabilis*), cinnamon fern (*Osmundastrum cinnamomeum*), smartweed (*Persicaria* sp.), spoon-flower (*Peltandra sagittifolia*), sugarcane plumegrass (*Erianthus giganteus*), and lizard's tail (*Saururus cernuus*).

Fire Regimes:

Fire is essential for the maintenance of dome swamps. The fire frequency is greatest at the periphery of the dome swamp where a normal fire cycle might be as short as 3 to 5 years, compared to the 100-year fire cycle for the interior portions where moisture is greater. Fires from surrounding upland communities should be allowed to burn into dome swamp edges to maintain the herbaceous ecotone and prevent shrubby and invasive plant encroachment.

Management Needs:

Prescribed fires from neighboring flatwoods should be allowed to burn the edges and, in many cases, through dome swamps in order to maintain the typical diverse ecotone and interior herbaceous cover. Avoid placement of firebreaks or plow lines in dome swamps and their ecotones. Maintain the natural hydrology as much as possible. A reduction in hydroperiod can promote invasion of mesic species, which can eventually allow hardwoods to replace cypress and swamp tupelo.

E. Mesic Flatwoods (Including Restoration Areas)

Description:

Mesic flatwoods are fire-maintained, southern pine forests with little or no mid-story and a fairly dense low shrub and herb layer. Most occur on relatively flat terrain with moderate to poor drainage. Longleaf pines (*Pinus palustris*) and other southern pine species form the canopy. There is little or no subcanopy or tall shrubs, other than pine recruitment. The relatively open pine canopy and moderate shrub layer allows ample light penetration for a diverse assemblage of herbaceous species.

Mesic flatwoods at BSSF have a canopy of longleaf pine (*Pinus palustris*). Loblolly pine (*Pinus taeda*) and slash pine (*Pinus elliottii*) may be present but are not dominant. Hardwoods should not be present in the canopy or subcanopy. Tall shrubs are infrequent to absent. The short shrub layer is moderately dense. Common shrubs include saw palmetto (*Serenoa repens*), shiny blueberry (*Vaccinium myrsinites*), gallberry (*Ilex glabra*), blue huckleberry (*Gaylussacia tomentosa*), coastalplain staggerbush (*Lyonia fruticosa*), slimleaf pawpaw (*Asimina angustifolia*), and fetterbush (*Lyonia lucida*). Herbaceous cover is moderately dense in openings in the shrubs. Dominant species are southern wiregrass (*Aristida beyrichiana*) and Curtiss' dropseed (*Sporobolus curtissii*). Other common species are witchgrass (*Dichanthelium* sp.), broomsedge bluestem (*Andropogon virginicus*), tailed bracken fern (*Pteridium pseudocaudatum*), hairsedge (*Bulbostylis* sp.), *Carex* sp., Florida threeawn (*Aristida rhizomophora*), Virginia chain fern (*Anchistea virginica*), and whip nutrush (*Scleria triglomerata*). Earleaf greenbrier (*Smilax auriculata*) and yellow jessamine (*Gelsemium sempervirens*) are infrequent.

Mesic flatwoods on BSSF may have inclusions of upland pine throughout. Early land survey records from 1826 note some of the pine lands as “undulating” which may indicate the characteristic rolling terrain landscape of upland pine. Natural community points recorded by FNAI in 2007 also have some notable canopy/subcanopy species such as southern red oak (*Quercus falcata*) and pignut hickory (*Carya glabra*) within the mesic flatwoods. No evidence of upland pine was observed during the 2023 ground-truthing effort. Extensive land clearing in the uplands is evident even in the 1937 photography, which causes further difficulty in determining if upland pine was present historically.

Mesic flatwoods is visible on the historic photography as a medium gray with black dimples (scattered trees). Clearing in the mesic flatwoods is evident in the 1937 and 1946 aerial photography as bright white with dimples.

Current Conditions:

Currently mapped mesic flatwoods at BSSF are variable in structure, composition, and levels of disturbance. These areas typically have a canopy dominated by loblolly pine (*Pinus taeda*) and slash pine (*Pinus elliottii*) with a few scattered longleaf pine (*Pinus palustris*). The subcanopy may have a sparse to moderate cover of hardwoods including sweetgum (*Liquidambar styraciflua*), laurel oak (*Quercus hemisphaerica*), water oak (*Quercus nigra*), southern magnolia (*Magnolia grandiflora*), and live oak (*Quercus virginiana*). The tall shrub layer is sparse to moderately dense and dominated by oak trees. Other tall shrubs are loblolly bay (*Gordonia lasianthus*), gallberry (*Ilex glabra*), sweetgum, and swamp bay (*Persea palustris*). Short shrub cover in oak invaded flatwoods is sparse. Common species are slimleaf

pawpaw (*Asimina angustifolia*), American beautyberry (*Callicarpa americana*), common persimmon (*Diospyros virginiana*) saw palmetto (*Serenoa repens*), sparkleberry (*Vaccinium arboreum*), shiny blueberry (*Vaccinium myrsinites*), and deerberry (*Vaccinium stamineum*). Herbaceous cover is extremely sparse, suppressed by a dense layer of pine and oak litter. Occasional species include broomsedge bluestem (*Andropogon virginicus*), tailed bracken fern (*Pteridium pseudocaudatum*), southern wiregrass (*Aristida beyrichiana*), capillary hairsedge (*Bulbostylis ciliatifolia*), witchgrass (*Dichanthelium* sp.), whip nutrush (*Scleria triglomerata*), and Curtiss' dropseed (*Sporobolus curtissii*). Vines are common and include yellow jessamine (*Gelsemium sempervirens*), muscadine (*Muscadinia rotundifolia*), earleaf greenbrier (*Smilax auriculata*), saw greenbrier (*Smilax bona-nox*), and cat greenbrier (*Smilax glauca*).

Better quality mesic flatwoods are present in a few small areas at slightly lower elevations. These flatwoods have a canopy of longleaf pine and slash pine. There is no subcanopy except for a few young pines. The tall shrub layer generally has a few invading water oak, sweetgum, and red maple (*Acer rubrum*). The short shrub layer is dense with occasional openings. Saw palmetto is the dominant cover, but gallberry, blue huckleberry (*Gaylussacia tomentosa*), coastalplain staggerbush (*Lyonia fruticosa*), and fetterbush (*Lyonia lucida*) are common. Other shrub species include red chokeberry (*Aronia arbutifolia*), dwarf huckleberry (*Gaylussacia dumosa*), fourpetal St. John's wort (*Hypericum tetrapetalum*), dwarf live oak (*Quercus minima*) and winged sumac (*Rhus copallinum* var. *copallinum*). Herb cover is sparse to moderate, dominated by Curtiss' dropseed, southern wiregrass, and broomsedge bluestem. Other common species include Florida threeawn (*Aristida rhizomophora*), purple bluestem (*Andropogon cretaceus*), tall elephantsfoot (*Elephantopus elatus*), slender flattop goldenrod (*Euthamia caroliniana*), whitehead bogbutton (*Lachnocaulon anceps*), blazing star (*Liatris* sp.), and silkgrass (*Pityopsis* sp.). Greenbrier and yellow jessamine are occasional.

A substantial portion of the historic mesic flatwoods, particularly in the southern and eastern halves of the property, have a history of clearing/conversion to pine plantations. Most of these areas are in various stages of restorative treatments including pine thinning, herbicide application, and planting longleaf pine. These have been mapped as restoration mesic flatwoods. The canopy here is typically sparse due to pine thinning. Canopy trees include slash pine (*Pinus elliottii*), loblolly pine (*Pinus taeda*), live oak (*Quercus virginiana*), and occasional remnant longleaf pine (*Pinus palustris*). There is little to no subcanopy except the occasional live oak and/or water oak (*Quercus nigra*). There is planted longleaf pine typically in the short shrub layer. Shrubs include groundsel tree (*Baccharis halimifolia*), American beautyberry (*Callicarpa americana*), fourpetal St. John's wort (*Hypericum tetrapetalum*), gallberry (*Ilex glabra*), laurel oak (*Quercus hemisphaerica*) water oak, live oak, winged sumac (*Rhus copallinum* var. *copallinum*), sand blackberry (*Rubus cuneifolius*), southern dewberry (*Rubus trivialis*), saw palmetto (*Serenoa repens*), sparkleberry (*Vaccinium arboreum*), and shiny blueberry (*Vaccinium myrsinites*). Herb species are usually weedy and may be sparse to dense. Typical herbs include bushy bluestem (*Andropogon glomeratus*), pinebarren flatsedge (*Cyperus ovatus*), witchgrasses (*Dichanthelium* spp.), tall elephantsfoot (*Elephantopus elatus*), Canadian horseweed (*Erigeron canadensis*), dogfennel (*Eupatorium capillifolium*), slender flattop goldenrod (*Euthamia caroliniana*), climbing hempvine (*Mikania scandens*), switchgrass (*Panicum virgatum*), rustweed (*Polypremum procumbens*), tailed bracken (*Pteridium pseudocaudatum*), cupscale (*Sacciolepis* sp.), and licoriceweed (*Scoparia dulcis*). Vines are

occasional and include muscadine (*Muscadinia rotundifolia*), earleaf greenbrier (*Smilax auriculata*), saw greenbrier (*Smilax bona-nox*), and cat greenbrier (*Smilax glauca*).

Fire Regimes:

The fire return interval for mesic flatwoods is every 2 to 4 years. Restoration areas and severely hardwood encroached areas should be burned closer to the 2-year interval, depending on hardwood density, to reduce shrubs and promote an open, grassy understory. Frequent fires are critical for preserving the structure of the flatwoods, preventing woody encroachment, and reducing weedy competition.

Management Needs:

Mesic flatwoods depend on frequent, low-intensity fires to maintain an open structure and a diverse herbaceous layer. Many plant species in mesic flatwoods rely on these fires for reproduction. Management should focus on conducting prescribed burns every 2 to 4 years, with restoration and hardwood encroached areas being closer to the 2-year interval. Growing season fires are more effective at controlling shrubs and hardwood encroachment than winter burns and should be considered when fuel loading and weather conditions allow.

Roller chopping should be avoided in areas that support wiregrass and other native species. Although roller chopping is effective at reducing hardwood cover, it increases weedy species and reduces natural perennial groundcover herbs, particularly wiregrass.

F. Sandhill**Description:**

Sandhills are forests of southern pines with a sparse understory of deciduous oaks and a fairly dense ground cover of grasses and herbs on rolling hills of well-drained sands. The most typical associations are dominated by longleaf pine (*Pinus palustris*), turkey oak (*Quercus laevis*), and wiregrass (*Aristida stricta*).

There is one small area mapped as historic sandhill on the northeastern addition to BSSF. This area, though already completely cleared on the 1937 photographs, is mottled with visible bright white patches, likely areas of open sand, compared to the medium grey of the surrounding uplands. LiDAR imagery also reveals this area to be elevated compared to the surrounding uplands.

Current Conditions:

The historic sandhill mapped on BSSF is currently mapped as abandoned field / abandoned pasture. The canopy and subcanopy are sparse to moderate with planted loblolly pine (*Pinus taeda*). Tall and short shrubs are occasional with American beautyberry (*Callicarpa americana*), sweetgum (*Liquidambar styraciflua*), pricklypear (*Opuntia* sp.), and live oak (*Quercus virginiana*). Herbs are moderate to dense, primarily with bahiagrass (*Paspalum notatum*) and a few other species including false foxglove (*Agalinis* sp.), yankeeweed (*Eupatorium compositifolium*), slender flattop goldenrod (*Euthamia caroliniana*), pale meadowbeauty (*Rhexia mariana*), and bluecurls (*Trichostema* sp.). Large patches of sand are frequent throughout this area.

Fire Regimes:

Sandhills are a fire climax community, being dependent on frequent ground fires every 1 to 3 years to reduce hardwood competition and to perpetuate pines and grasses.

Management Needs:

If restoration to the historic natural community is the goal, an extensive effort would be required. The planted loblolly pine canopy will be removed and replaced with longleaf pine or slash pine, based on the likelihood of flooding. Reintroduction of fire would be needed, and some planting of perennial grasses such as southern *wiregrass* may be beneficial.

G. Wet Flatwoods**Description:**

Wet flatwoods are flat, poorly drained communities of scattered, southern pines with a diverse understory of hydrophytic herbs and low shrubs.

Wet flatwoods are characterized by a dense groundcover of wiregrass and a wide variety of other herbaceous species. The pine canopy is typically made up of one or a combination of longleaf pine (*Pinus palustris*), slash pine (*P. elliottii*), or pond pine (*P. serotina*). The subcanopy, if present, can contain a few scattered trees or shrubs such as sweetbay (*Magnolia virginiana*), swamp bay (*Persea palustris*), loblolly bay (*Gordonia lasianthus*), pond cypress (*Taxodium ascendens*), dahoon (*Ilex cassine*), titi (*Cyrilla racemiflora*), and/or wax myrtle (*Myrica cerifera*). Typical short shrubs are sweet pepperbush (*Clethra alnifolia*), fetterbush (*Lyonia lucida*), blue huckleberry (*Gaylussacia tomentosa*), gallberry (*Ilex glabra*), southern bayberry, swamp bay, and saw palmetto (*Serenoa repens*). Herb cover is moderate to dense, dominated by southern wiregrass (*Aristida beyrichiana*), beaksedges (*Rhynchospora* spp.), nutrushes (*Scleria* spp.), Virginia chain fern (*Anchistea virginica*), and yellow-eyed grasses (*Xyris* spp.).

Wet flatwoods are present in low, small areas throughout BSSF. Most of these areas form a linear transitional ecotone between mesic flatwoods and wetlands such as dome and basin swamps. Wet flatwoods are usually a darker shade of gray than the mesic flatwoods on the historic aerial photography.

Current Conditions:

Wet flatwoods on BSSF have a canopy of slash pine (*Pinus elliottii*), longleaf pine (*Pinus palustris*), and loblolly pine (*Pinus taeda*). Other canopy species include red maple (*Acer rubrum*), swamp bay (*Persea palustris*), and pond cypress (*Taxodium ascendens*). Lack of fire has contributed to a moderate to dense subcanopy of red maple, sweetbay (*Magnolia virginiana* var. *australis*), swamp tupelo (*Nyssa biflora*), laurel oak (*Quercus hemisphaerica*), water oak (*Quercus nigra*), and occasional pond cypress (*Taxodium ascendens*). There is a moderately dense tall shrub layer that includes most hardwood canopy/subcanopy species, along with gallberry (*Ilex glabra*), fetterbush (*Lyonia lucida*), and southern bayberry (*Morella cerifera*). The short shrub cover is variable, ranging from sparse to dense. Typical short shrubs include tall shrub species along with sweet pepperbush (*Clethra alnifolia*), blue huckleberry (*Gaylussacia tomentosa*), common persimmon (*Diospyros virginiana*), and saw palmetto (*Serenoa repens*). Herb cover may be absent if the shrub layers are extremely dense and/or leaf litter is heavy. If present, common herb species are broomsedge bluestem (*Andropogon*

virginicus), wetland white bluestem (*Andropogon dealbatus*), clustered sedge (*Carex glaucescens*), slender woodoats (*Chasmanthium laxum*), cinnamon fern (*Osmundastrum cinnamomeum*), maidencane (*Hymenachne hemitoma*), beaksedges (*Rhynchospora* spp.), nutrushes (*Scleria* sp.), Virginia chain fern (*Anchistea virginica*), and yellow-eyed grasses (*Xyris* spp.). Vines are common and include muscadine (*Muscadinia rotundifolia*) and cat greenbrier (*Smilax glauca*).

Fire Regimes:

Historically, the fire return interval in wet flatwoods is 3 to 10 years. For management purposes, prescribed fires may be more advisable on a 3-to-5-year cycle. This reduces woody encroachment, sustains herbaceous species, and aids in preventing heavy fuel loads that can lead to catastrophic wildfires.

Management Needs:

Wet flatwoods at BSSF are associated with and can be managed along with mesic flatwoods. As with the mesic flatwoods, hardwood encroachment is an ongoing issue. Prescribed burns of the surrounding mesic flatwoods should be allowed to burn across these areas every 3 to 5 years. Prescribed burns burning the late spring and early summer months should be considered as fuel loading and weather conditions allow.

H. Managed Landcover Types

Pine plantations and pastures represent vegetative communities that the FFS manages as integral components of the agency's multi-use management approach. These managed communities provide both ecological benefits, such as wildlife habitat for gopher tortoises and ground and surface water filtration, as well as opportunities for generating revenue that can be used to help offset management costs. Management of plantations and pastures within BSSF is conducted to further ensure compatibility with other management goals and objectives.

1. Pine Plantation

Description:

Pine plantation at BSSF occupies former mesic flatwoods. Refer to the desired future condition heading for this community.

Current Conditions:

Pine plantations are areas altered by silvicultural activities. These can include lands where either 1) planted pines are having or will have an ongoing detrimental effect on native groundcover, 2) the history of planted pines has damaged ground cover to the point where further restoration beyond thinning and burning is required, and/or 3) the method of planting (e.g., bedding) has adversely impacted groundcover.

Most of the pine plantations throughout BSSF are in various stages of restorative treatment and are currently mapped as restoration mesic flatwoods. Two small pine plantations are mapped on the property, and one was ground-truthed. The canopy is densely planted loblolly pine (*Pinus taeda*). Sweetgum (*Liquidambar styraciflua*) is occasional in the subcanopy. Tall and short shrubs are occasional and include red maple (*Acer rubrum*), slimleaf pawpaw (*Asimina angustifolia*), American beautyberry (*Callicarpa americana*), southern magnolia (*Magnolia grandiflora*), eastern wild black cherry (*Prunus serotina* var.

serotina), water oak (*Quercus nigra*), live oak (*Quercus virginiana*), saw palmetto (*Serenoa repens*), and sparkleberry (*Vaccinium arboreum*). Herbs are sparse due to heavy pine duff and include bluestem (*Andropogon* sp.), spleenwort (*Asplenium* sp.), thistle (*Cirsium* sp.), flatsedge (*Cyperus* sp.), creeping cucumber (*Melothria pendula*), and thin paspalum (*Paspalum setaceum*). Vines are occasional with trumpet creeper (*Campsis radicans*), yellow jessamine (*Gelsemium sempervirens*), Virginia creeper (*Parthenocissus quinquefolia*), and earleaf greenbrier (*Smilax auriculata*).

Fire Regimes:

Refer to the historic community. If the goal is restoration of the historic pyrogenic community, more frequent fire may be required than is typical for the historic community in order to reduce woody cover.

Management Needs:

In historic pine flatwoods, thinning of the pine stand will promote more herbaceous cover in the understory, but planting of wiregrass, as well as frequent prescribed burns, may be necessary in some areas to move the community towards a more natural structure and composition.

I. Other Altered Landcover Types

Description:

Altered landcover types are mapped in areas where the natural community has been overwhelmingly changed by human activity. Pine plantation is described in the previous section of this plan.

The altered landcover types described in this section are often not appropriate areas for restoration. If restoration is desired, the target future condition of the altered habitat is dependent on the historic community. Please refer to the appropriate community type for a more specific explanation of the desired future condition.

Current Conditions:

Altered landcover types on BSSF comprise abandoned field/abandoned pasture, artificial pond, and successional hardwood forest.

Abandoned field / Abandoned pasture (24 acres) – Old fields, fallow pastures, early successional areas formerly grazed or in agriculture without recent activity to maintain the area as pasture or planted field. These areas are often dominated by weedy native (e.g., *Rubus* spp., *Myrica cerifera*) and non-native species (e.g., *Indigofera hirsuta*). One small area of former sandhill and mesic flatwoods has been mapped as abandoned field/abandoned pasture in the northeastern property addition.

Artificial pond (1 acre) – Water retention ponds, cattle ponds, etc. Two small ponds have been mapped on the northeastern property addition.

Clearing (11 acres) – Dove fields, wildlife food plots, recent or historic clearings that have significantly altered the groundcover and/or overstory of the original natural community.

Several small clearings of unknown origin are delineated throughout the property using current aerial photography.

Successional Hardwood (120 acres) – closed-canopied forests dominated by fast growing hardwoods such as laurel oak (*Quercus hemisphaerica*), water oak (*Quercus nigra*), and/or sweetgum (*Liquidambar styraciflua*), often with remnant pines. These forests are either invaded natural habitat (i.e., mesic flatwoods and sandhill) due to lengthy fire suppression or old fields that have succeeded to forest.

Successional hardwood forests often occupy land that was cleared for agriculture many decades ago. In other cases, planted and natural stands of pines have become dominated by oaks following years of fire exclusion and no longer function as a pyrogenic community.

The closed canopy contains a mix of sweetgum (*Liquidambar styraciflua*), laurel oak (*Quercus hemisphaerica*), water oak (*Quercus nigra*), and planted loblolly pine (*Pinus taeda*). The subcanopy is sparse to moderate with canopy species and American holly (*Ilex opaca*), southern magnolia (*Magnolia grandiflora*), and live oak (*Quercus virginiana*). Shrubs may be sparse to dense and include canopy and subcanopy species along with American beautyberry (*Callicarpa americana*), St. Andrew's cross (*Hypericum hypericoides*), southern bayberry (*Morella cerifera*), and saw palmetto (*Serenoa repens*). Little to no herb species are present due to heavy leaf litter. Vines such as yellow jessamine (*Gelsemium sempervirens*) are occasional.

A few invasive plants including tropical soda apple (*Solanum viarum*), and Chinese tallow tree (*Triadica sebifera*) were noted in the successional hardwood forest within the northeastern property addition. A large stand of non-native bamboo (*Bambusa* sp.) was also observed in this area.

Fire Regimes:

Refer to the historic community.

Management Needs:

It may not be practical or desirable to restore some of the altered habitats (e.g., artificial ponds, clearings) to the historic natural community.

VIII. References

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IX. Glossary of Abbreviations

ARC.....	Acquisition and Restoration Council
BMP.....	Best Management Practices
BSPL.....	Big Shoals Public Lands
BSSF.....	Big Shoals State Forest
CARL	Conservation and Recreation Lands Acquisition Program
DHR.....	Division of Historical Resources
DRP	Division of Recreation and Parks
DSO	Direct Support Organization
F.A.C.	Florida Administrative Code
FDACS	Florida Department of Agriculture and Consumer Services
FDEP	Florida Department of Environmental Protection
FFS	Florida Forest Service
FISC.....	Florida Invasive Species Council
FNAI.....	Florida Natural Areas Inventory
F.S.....	Florida Statutes
FWC	Florida Fish and Wildlife Conservation Commission
NRCS.....	Natural Resources Conservation Service
OALE	FDACS Office of Agricultural Law Enforcement
OFW	Outstanding Florida Waters
OOF	Operation Outdoor Freedom
OPS.....	Other Personal Services Employment
SRWMD.....	Suwannee River Water Management District
TIITF	Board of Trustees of the Internal Improvement Trust Fund
USFS.....	United States Forest Service

USFWS.....United States Fish and Wildlife Service
WMA.....Wildlife Management Area