

# Florida Department of Environmental Protection

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February 16, 2018

Steven Cutshaw Division of Recreation and Parks Department of Environmental Protection 3900 Commonwealth Boulevard, MS 525 Tallahassee, Florida 32399-3000

# RE: Stephen Foster Folk Culture Center State Park - Lease No. 3346

Dear Mr. Cutshaw:

On February 16, 2018, the Acquisition and Restoration Council (ARC) recommended approval of the Stephen Foster Folk Culture Center State Park management plan. Therefore, Division of State Lands, Office of Environmental Services, acting as agent for the Board of Trustees of the Internal Improvement Trust Fund, hereby approves the Stephen Foster Folk Culture Center State Park management plan. The next management plan update is due February 16, 2028.

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 the Division of State Lands, Office of Environmental Services.

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 the Division of State Lands, on the progress of funding, staffing, and resource management of every project for which the agency or entity is responsible.

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 the Division of State Lands for review, and the ARC for public notification. The Division of State Lands 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 members of the ARC, the Division of State Lands will notice negative response items on Thursdays except for weeks that have State or Federal holidays that fall on Thursday or Friday. The Division of State Lands 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.

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.

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 particular activities. Pursuant to the conditions of your lease, please forward copies of all permits to this office upon issuance.

Sincerely,

Raymond V. Spaulding Chief, Office of Environmental Services Division of State Lands Department of Environmental Protection

# Stephen Foster Folk Culture Center State Park

# Approved Unit Management Plan

# STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Recreation and Parks February 2018



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### INTRODUCTION

Stephen Foster Folk Culture Center State Park is located in Hamilton County in the town of White Springs, about 3.3 miles from Interstate 75 (see Vicinity Map). Access to the park is from State Road 136 and U.S. Highway 41 (see Reference Map). The Vicinity Map also reflects significant land and water resources existing near the park.

Stephen Foster Folk Culture Center State Park was initially acquired on July 1, 1979. Currently, the park comprises 907.08 acres. The Board of Trustees of the Internal Improvement Trust Fund (Trustees) hold fee simple title to the park and on April 26, 1984, the Trustees leased (Lease Number 3346) the property to DRP under a 50-year lease. The current lease will expire on April 5, 2034.

Stephen Foster Folk Culture Center State Park is designated single-use to provide public outdoor recreation and other park-related uses. The legislative directive enshrined in Florida Statute 258.081 states the Division of Recreation and Parks (DRP) shall maintain and operate Stephen Foster Folk Culture Center State Park in such a manner that the performing arts component of the Florida Folklife Programs shall be the priority use of the property.

### Purpose and Significance of the Park

The purpose of the Stephen Foster Folk Culture Center State Park is to provide resource-based recreation opportunities, with an emphasis on Florida folk life, for Florida residents and visitors, and to manage conservation efforts for the park's natural and cultural resources.

#### Park Significance

- Stephen Foster, the composer of Florida's official state song, "Old Folks at Home," is memorialized at the park through the dedication of a museum and a working carillon tower showcasing his prolific career.
- From the mid-1800s to the 1920s, the town of White Springs was a popular tourist destination due to the alleged medicinal properties of the local White Sulphur Springs. A springhouse was built around the springs in 1901; Theodore Roosevelt and Henry Ford are among the most famous visitors.
- The Florida Folk Festival, one of the largest and longest running folk festivals in the United States, is held at the park annually and provides a variety of educational and cultural activities. A complex of historic and newer buildings, pavilions and stages supports the folk festival and other events.
- Within the park, 15 distinct natural communities and 23 imperiled plant and animal species have been recorded. These include the hooded pitcherplant (*Sarracenia minor*), gulf sturgeon (*Acipenser oxyrinchus desotoi*), gopher tortoise (*Gopherus polyphemus*), and wood stork (*Mycteria americana*).

 Resource-based recreation opportunities available to the public include camping, primitive camping, canoeing/kayaking, fishing, cycling, hiking, and horseback riding. The park is designated as a gateway to the Suwannee River Wilderness Trail, with riverside cabins available for paddlers.

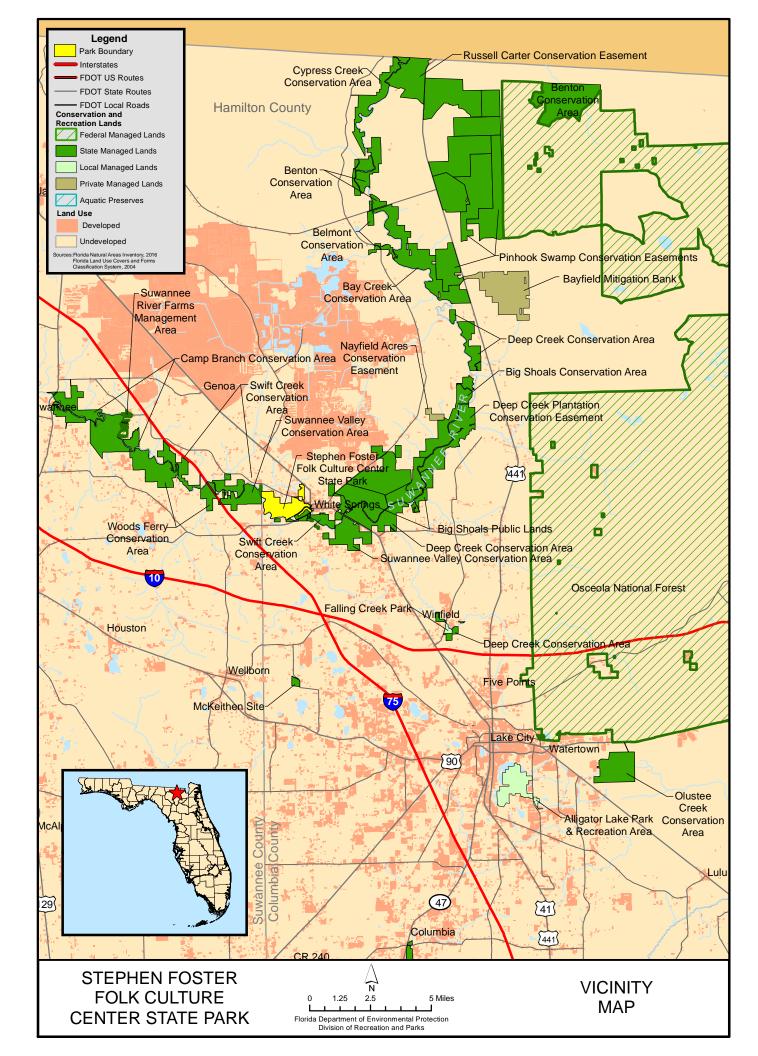
In the management of Stephen Foster Folk Culture Center State Park, a balance is sought between the goals of maintaining and enhancing natural conditions and providing various recreational opportunities. Natural resource management activities are aimed at management of natural systems. Development in the park is directed toward providing public access to and within the park, and to providing recreational facilities, in a reasonable balance, that are both convenient and safe. Program emphasis is on interpretation of the park's natural, aesthetic, and educational attributes.

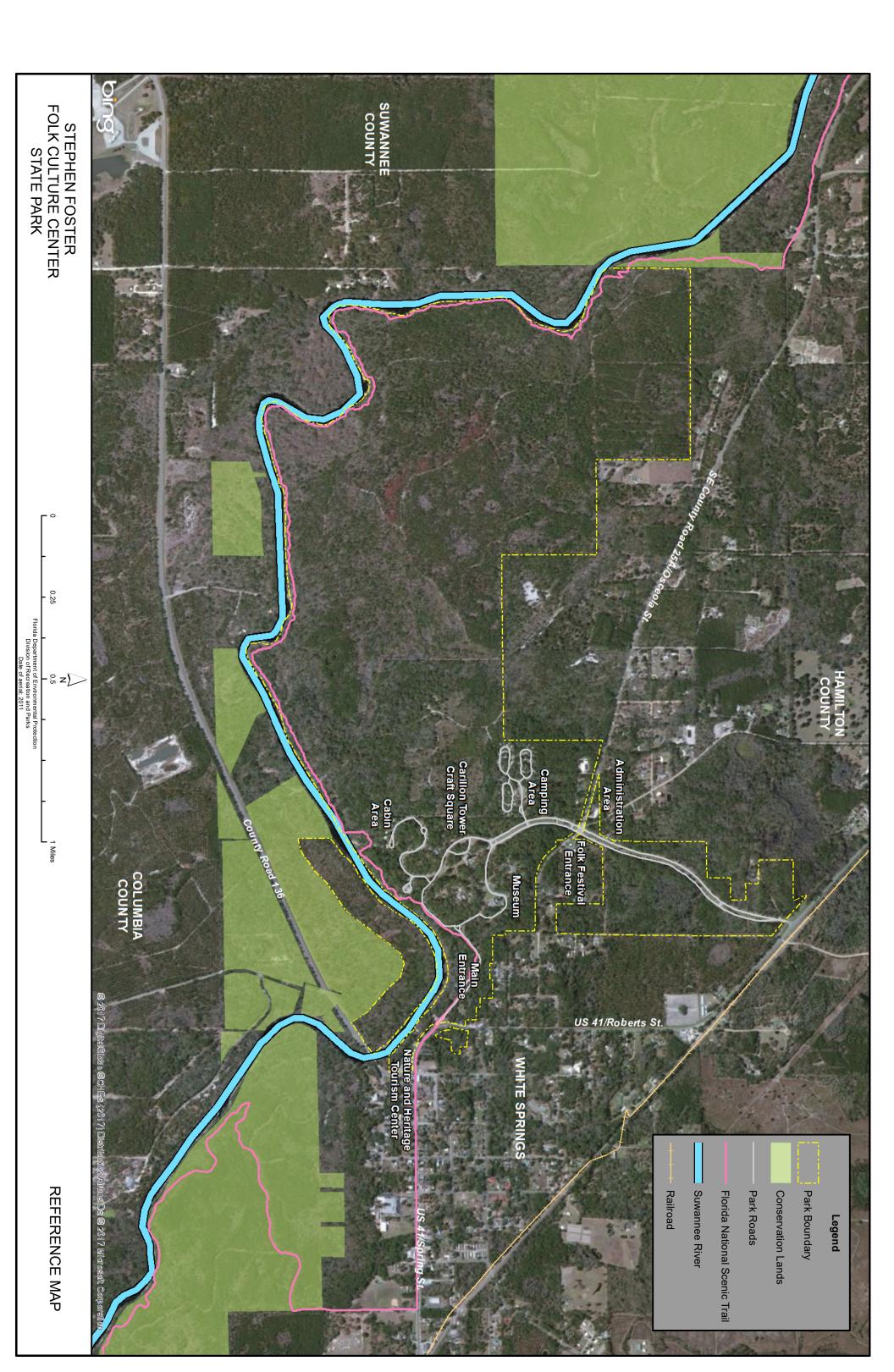
# Purpose and Scope of the Plan

This plan serves as the basic statement of policy and direction for the management of Stephen Foster Folk Culture Center State Park as a unit of Florida's state park system. It identifies the goals, objectives, actions and criteria or standards that guide each aspect of park administration, and sets forth the specific measures that will be implemented to meet management objectives and provide balanced public utilization. The plan is intended to meet the requirements of Sections 253.034 and 259.032, Florida Statutes, Chapter 18-2, Florida Administrative Code, and is intended to be consistent with the State Lands Management Plan. With approval, this management plan will replace the 2002 approved plan.

The plan consists of three interrelated components: the Resource Management Component, the Land Use Component and the Implementation Component. The Resource Management Component provides a detailed inventory and assessment of the natural and cultural resources of the park. Resource management needs and issues are identified, and measurable management objectives are established for each of the park's management goals and resource types. This component provides guidance on the application of such measures as prescribed burning, exotic species removal, imperiled species management, cultural resource management and restoration of natural conditions.

The Land Use Component is the recreational resource allocation plan for the park. Based on considerations such as access, population, adjacent land uses, the natural and cultural resources of the park, and current public uses and existing development, measurable objectives are set to achieve the desired allocation of the physical space of the park. These objectives identify use areas and propose the types of facilities and programs as well as the volume of public use to be provided.





The Implementation Component consolidates the measurable objectives and actions for each of the park's management goals. An implementation schedule and cost estimates are included for each objective and action. Included in this table are (1) measures that will be used to evaluate the DRP's implementation progress, (2) timeframes for completing actions and objectives and (3) estimated costs to complete each action and objective.

All development and resource alteration proposed in this plan is subject to the granting of appropriate permits, easements, licenses, and other required legal instruments. Approval of the management plan does not constitute an exemption from complying with the appropriate local, state or federal agencies.

In the development of this plan, the potential of the park to accommodate secondary management purposes was analyzed. These secondary purposes were considered within the context of DRP's statutory responsibilities and the resource needs and values of the park. This analysis considered the park's natural and cultural resources, management needs, aesthetic values, visitation and visitor experiences. For this park, it was determined that timber management and hardwood removal could be accommodated in a manner that would be compatible and not interfere with the primary purpose of resource-based outdoor recreation and conservation. These compatible secondary management purposes are addressed in the Resource Management Component of the plan.

Uses such as, water resource development projects, water supply projects, stormwater management projects, linear facilities and sustainable agriculture and forestry (other than those forest management activities specifically identified in this plan) are not consistent with this plan or the management purposes of the park.

The potential for generating revenue to enhance management was also analyzed. Visitor fees and charges are the principal source of revenue generated by the park. It was determined that timber management and hardwood removal would be appropriate at this park as additional sources of revenue for land management since they are compatible with the park's primary purpose of resource-based outdoor recreation and conservation.

DRP may provide the services and facilities outlined in this plan either with its own funds and staff or through an outsourcing contract. Private contractors may provide assistance with natural resource management and restoration activities or a concessionaire may provide services to park visitors in order to enhance the visitor experience. For example, a concessionaire could be authorized to sell merchandise and food and to rent recreational equipment for use in the park. A concessionaire may also be authorized to provide specialized services, such as interpretive tours, or overnight accommodations when the required capital investment exceeds that which DRP can elect to incur. Decisions regarding outsourcing, contracting with the private sector, the use of concessionaires, etc. are made on a case-by-case basis in accordance with the policies set forth in DRP's Operations Manual (OM).

#### **Management Program Overview**

#### Management Authority and Responsibility

In accordance with Chapter 258, Florida Statutes and Chapter 62D-2, Florida Administrative Code, the DRP is charged with the responsibility of developing and operating Florida's recreation and parks system. These are administered in accordance with the following policy:

It shall be the policy of the Division of Recreation and Parks to promote the state park system for the use, enjoyment, and benefit of the people of Florida and visitors; to acquire typical portions of the original domain of the state which will be accessible to all of the people, and of such character as to emblemize the state's natural values; conserve these natural values for all time; administer the development, use and maintenance of these lands and render such public service in so doing, in such a manner as to enable the people of Florida and visitors to enjoy these values without depleting them; to contribute materially to the development of a strong mental, moral, and physical fiber in the people; to provide for perpetual preservation of historic sites and memorials of statewide significance and interpretation of their history to the people; to contribute to the tourist appeal of Florida.

The Board of Trustees of the Internal Improvement Trust Fund (Trustees) has granted management authority of certain sovereign submerged lands to the DRP under Management Agreement MA 68-086 (as amended January 19, 1988). The management area includes a 400-foot zone from the edge of mean high water where a park boundary borders sovereign submerged lands fronting beaches, bays, estuarine areas, rivers or streams. Where emergent wetland vegetation exists, the zone extends waterward 400 feet beyond the vegetation. The agreement is intended to provide additional protection to resources of the park and nearshore areas and to provide authority to manage activities that could adversely affect public recreational uses.

Many operating procedures are standardized system-wide and are set by internal direction. These procedures are outlined in the OM that covers such areas as personnel management, uniforms and personal appearance, training, signs, communications, fiscal procedures, interpretation, concessions, public use regulations, resource management, law enforcement, protection, safety and maintenance.

# Park Management Goals

The following park goals express DRP's long-term intent in managing the state park:

- Provide administrative support for all park functions.
- Protect water quality and quantity in the park, restore hydrology to the extent feasible and maintain the restored condition.
- Restore and maintain the natural communities/habitats of the park.
- Maintain, improve or restore imperiled species populations and habitats in the park.
- Remove exotic and invasive plants and animals from the park and conduct needed maintenance-control.
- Protect, preserve and maintain the cultural resources of the park.
- Provide public access and recreational opportunities in the park.
- Develop and maintain the capital facilities and infrastructure necessary to meet the goals and objectives of this management plan.

# Management Coordination

The park is managed in accordance with all applicable laws and administrative rules. Agencies having a major or direct role in the management of the park are discussed in this plan.

The Florida Department of Agriculture and Consumer Services (FDACS), Florida Forest Service (FFS), assists DRP staff in the development of wildfire emergency plans and provides the authorization required for prescribed burning. The Florida Fish and Wildlife Conservation Commission (FWC) assists staff in the enforcement of state laws pertaining to wildlife, freshwater fish and other aquatic life existing within the park. In addition, the FWC aids DRP with wildlife management programs, including imperiled species management. The Florida Department of State (FDOS), Division of Historical Resources (DHR) assists staff to ensure protection of archaeological and historical sites. The Florida Department of Environmental Protection (DEP), Florida Coastal Office (FCO) aids staff in aquatic preserves management programs. The DEP, Bureau of Beaches and Coastal Systems aids staff in planning and construction activities seaward of the Coastal Construction Control Line (CCCL). In addition, the Bureau of Beaches and Coastal Systems aid the staff in the development of erosion control projects.

# **Public Participation**

DRP provided an opportunity for public input by conducting a public workshop and an advisory group meeting to present the draft management plan to the public. These meetings were held on October 24, 2017 and October 25, 2017, respectively. Meeting notices were published in the Florida Administrative Register (Vol. 43/Issue 195), included on the Department Internet Calendar, posted in clear view at the park, and promoted locally. The purpose of the advisory group meeting is to provide the advisory group members an opportunity to discuss the draft management plan (see Addendum 2).

#### **Other Designations**

Stephen Foster Folk Culture Center State Park is not within an Area of Critical State Concern as defined in Section 380.05, Florida Statutes, and it is not presently under study for such designation. The park is a component of the Florida Greenways and Trails System, administered by the Department's Office of Greenways and Trails. Elements within the park contribute to the White Springs Historic District (8HAS316), which is listed on the National Register of Historic Places.

All waters within the park have been designated as Outstanding Florida Waters, pursuant to Chapter 62-302, Florida Administrative Code. Surface waters in this park are also classified as Class III waters by the Department. This park is not within or adjacent to an aquatic preserve as designated under the Florida Aquatic Preserve Act of 1975 (Section 258.35, Florida Statutes).

### **RESOURCE MANAGEMENT COMPONENT**

### Introduction

The Florida Department of Environmental Protection (DEP), Division of Recreation and Parks (DRP) in accordance with Chapter 258, Florida Statutes, has implemented resource management programs for preserving for all time the representative examples of natural and cultural resources of statewide significance under its administration. This component of the unit plan describes the natural and cultural resources of the park and identifies the methods that will be used to manage them. Management measures expressed in this plan are consistent with the DEP's overall mission in ecosystem management. Cited references are contained in Addendum 3.

The DRP's philosophy of resource management is natural systems management. Primary emphasis is placed on restoring and maintaining, to the degree possible, the natural processes that shaped the structure, function and species composition of Florida's diverse natural communities as they occurred in the original domain. Single species management for imperiled species is appropriate in state parks when the maintenance, recovery or restoration of a species or population is complicated due to constraints associated with long-term restoration efforts, unnaturally high mortality or insufficient habitat. Single species management should be compatible with the maintenance and restoration of natural processes, and should not imperil other native species or seriously compromise park values.

The DRP's management goal for cultural resources is to preserve sites and objects that represent Florida's cultural periods, significant historic events or persons. This goal often entails active measures to stabilize, reconstruct or restore resources, or to rehabilitate them for appropriate public use.

Because park units are often components of larger ecosystems, their proper management can be affected by conditions and events that occur beyond park boundaries. Ecosystem management is implemented through a resource management evaluation program that assesses resource conditions, evaluates management activities and refines management actions, and reviews local comprehensive plans and development permit applications for park/ecosystem impacts.

The entire park is divided into management zones that delineate areas on the ground that are used to reference management activities (see Management Zones Map). The shape and size of each zone may be based on natural community type, burn zone, and the location of existing roads and natural fire breaks. It is important to note that all burn zones are management zones; however, not all management zones include fire-dependent natural communities. Table 1 reflects the management zones with the acres of each zone.

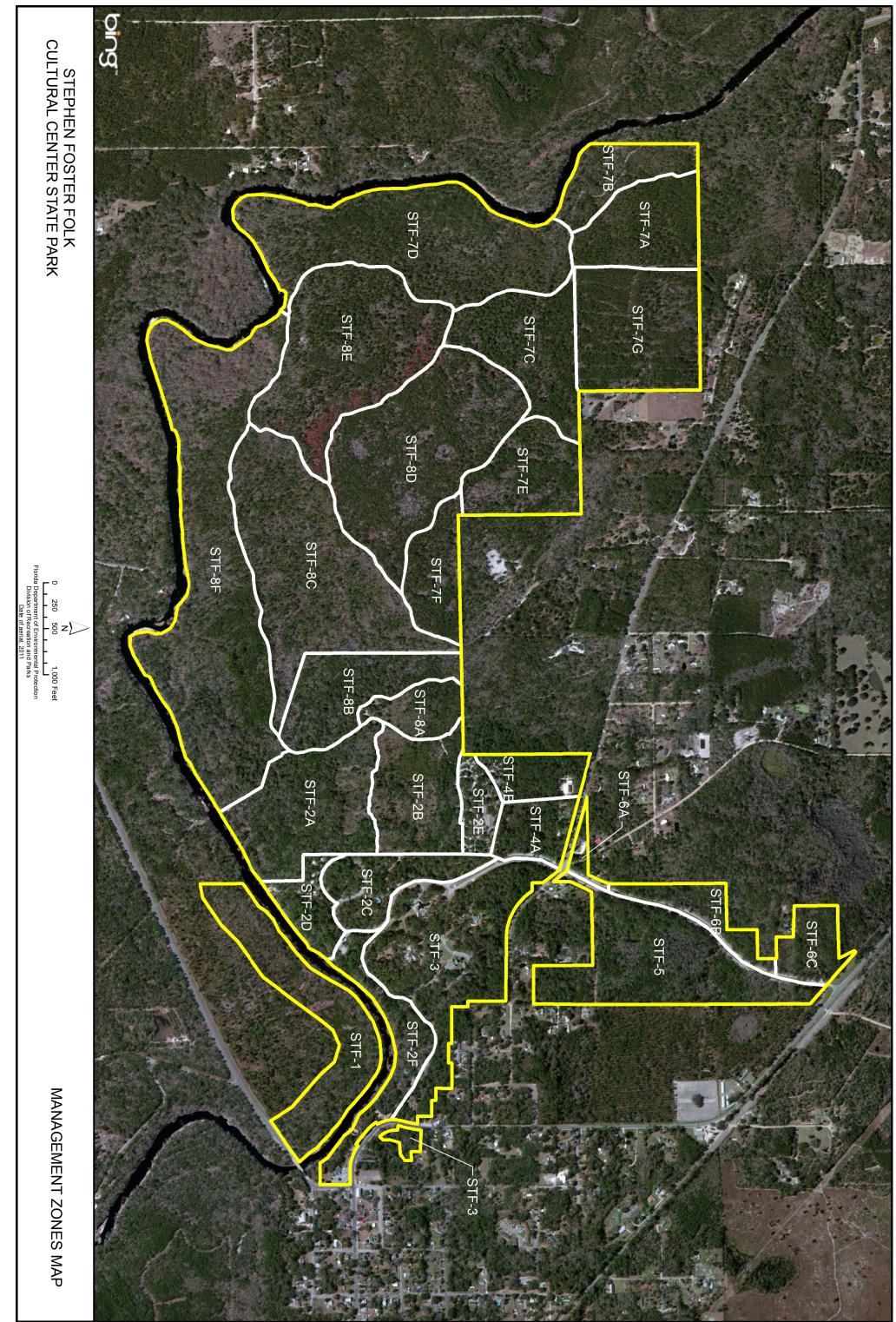
Table 1: Stephen Foster Folk Culture Center State Park Management Zones				
Management Zone	Acreage	Managed with Prescribed Fire		
STF-1	38.42	Y		
STF-2A	41.49	Y		
STF-2B	27.4	Y		
STF-2C	18.83	Y		
STF-2D	11.12	Y		
STF-2E	8.7	N		
STF-2F	20.71	N		
STF-3	55.89	Y		
STF-4A	12.04	Y		
STF-4B	10.15	Y		
STF-5	50.77	Y		
STF-6A	2.89	N		
STF-6B	11.24	Y		
STF-6C	10.98	Y		
STF-7A	24.87	Y		
STF-7B	16.88	Y		
STF-7C	30.99	Y		
STF-7D	73.19	Y		
STF-7E	22.52	Y		
STF-7F	14.7	Y		
STF-7G	38.47	Y		
STF-8A	10.67	Y		
STF-8B	26.34	Y		
STF-8C	74.13	Y		
STF-8D	67.94	Y		
STF-8E	61.88	Y		
STF-8F	108.91	Y		

#### **Resource Description and Assessment**

### Natural Resources

#### Topography

Stephen Foster Folk Culture Center State Park is located within the Northern Physiographic Zone of the state. Two topographic regions meet near Stephen Foster, the Gulf Coastal Lowlands and the Northern Highlands. A topographic break called the Cody Scarp separates the two regions. In certain places, the Gulf Coastal Lowlands extend into the Northern Highlands along major rivers and streams; here they are called the River Valley Lowlands (Ceryak et al. 1983). The lower elevations in the park are located in this River Valley Lowlands region, while the higher elevations are part of the Northern Highlands.



Within the park, slopes along the Suwannee River and along local drainages vary from steep to gentle. Elsewhere, there is slight to moderate relief. Elevations range from about 125 feet mean sea level (msl) near U.S. Highway 41 to below 55 feet msl along the river channel.

Historic alterations of the natural topography, including excavated channels, borrow sites, and spoil sites, are evident throughout the park. Stream bank erosion occurs in areas where foot traffic is excessive or where storm water runoff is concentrated.

# Geology

Regionally, in descending order of youngest to oldest, the underlying geologic deposits include unnamed and undifferentiated marine terrace deposits, the Hawthorn Group, St. Marks Formation, Suwannee Limestone, Ocala Limestone, Avon Park Limestone, Lake City Limestone, Oldsmar Limestone and Cedar Keys Formation. The oldest formation visible in local outcroppings is Suwannee Limestone. This formation commonly occurs along the Withlacoochee River and on the Suwannee River between White Springs and the confluence of the two streams.

Surficial material consists of Recent Age, and then Pleistocene and Pliocene epoch, sediments deposited as terraces during periods of sea level fluctuation. Generally, these deposits consist of fine-grained to medium-grained quartz sand with minor amounts of organic material, clays and heavy minerals. These deposits cover the upper Suwannee River basin, and are only absent where weathering or surface water induced erosion has occurred.

The upper part of the Miocene epoch's Hawthorn Group normally occurs as phosphatic, clayey sands and pale blue-green, phosphatic clays. Sandy, phosphatic dolomites and limestones dominate the lower portion. The St. Marks Formation, also Miocene in origin, is a very pale orange, sandy, silty, occasionally fossiliferous and micritic limestone. A thin, discontinuous deposit, it occurs locally as erosional remnants. An Oligocene formation, the Suwannee Limestone is generally found as a very pale orange, moderately indurate, very porous calcarenite with numerous foraminifera, mollusks and echinoids present. Other minor lithologies may be associated with it as well.

The Ocala Limestone, of Eocene origin, typically consists of three limestone formations of similar character. In this region, however, only two formations can be distinguished. The upper stratum is the Crystal River Formation, a very pale orange to very light gray, moderately indurated, biogenic and very micritic limestone containing many larger foraminifera. The lower stratum is the Williston Formation, a very pale orange to very light gray, moderately indurated, biogenic and mediumgrained limestone displaying many smaller foraminifera.

Other Eocene deposits include Avon Park Limestone, Lake City Limestone and Oldsmar Limestone. Near the park, Avon Park Limestone occurs primarily as a dolomite with numerous molds and casts of foraminifera. Lake City Limestone is predominantly a gray-brown, dense microcrystalline dolomite with occasional thin beds of limestone, chert and carbonaceous material, often impregnated with anhydrite and gypsum. Oldsmar Limestone is essentially composed of dolomite and limestone with anhydrite, gypsum and glauconite in lesser amounts. The Cedar Keys Formation is the only Paleocene deposit encountered in the park. It occurs as a slightly gypsiferous and foraminiferous dolomite. Aside from changes due to natural geologic processes, geological formations within the park appear to be undisturbed.

### Soils

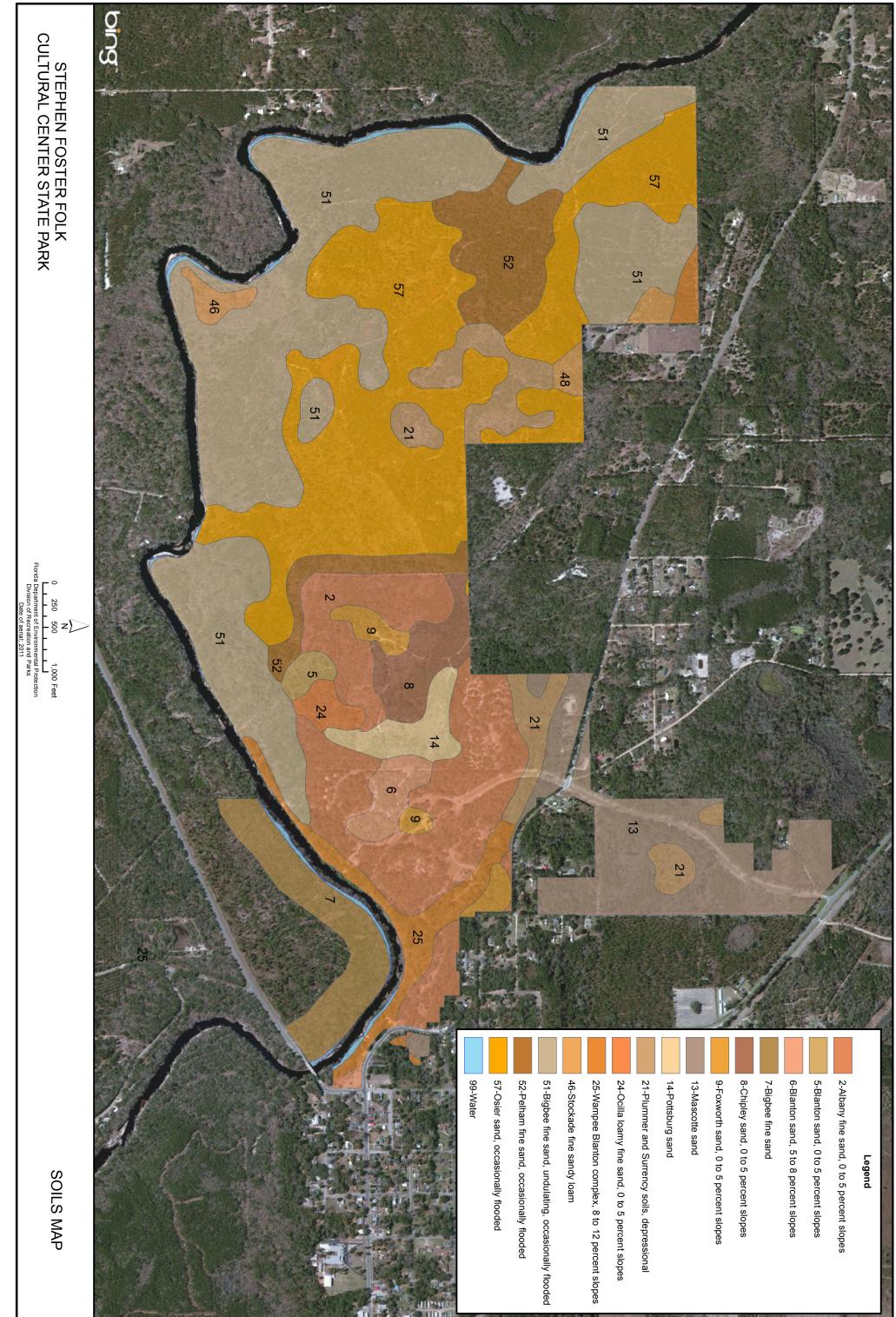
Fifteen mapped soil types occur within the park (see Soils Map). A complete description of these soils is attached in Addendum 4. Soils range from the well-drained sands of the uplands to the frequently flooded, hydric soils of the floodplains and basins.

Clear-cut operations in the 1980s disturbed the surface soils in much of the Carter-Camp Tract. Efforts to control infestations of southern pine beetles in the late 1990s also disturbed limited areas in the remainder of the park. Small borrow pits were created alongside roads in the Carter-Camp Tract to provide fill for the roads, and firebreak preparation and fire suppression activities have caused some additional soil impacts.

Significant areas of erosion still exist along the river levees where park visitors traverse the steep banks of the Suwannee River. One extreme example of this occurs at the Cable Crossing primitive camp area. This site features a very steep descent to the river where surface water runoff and visitor access trails have carved out gullies and created a serious erosion issue. Erosion is also an issue on the service roads within the Carter-Camp Tract, particularly on the slopes north of the primitive group camp. The ravine slopes along the seepage stream that runs adjacent to the Spring House have also experienced erosion. Immediately upslope of this stream is an unpaved parking area that requires periodic stabilization and erosion prevention measures.

In 2003, the park constructed a concrete ramp to stabilize a majority of the canoe launch area. However, the lower end of the launch below the concrete ramp is exposed during low water periods. Visitor access problems occur as a result. As of 2011, the walkway had also begun to show serious signs of degradation in places, with cracks and openings appearing that occasionally require repairs. The concrete ramp also appears to have been partially undermined in some areas from water runoff.

The steep slope behind the State of Florida's Nature and Heritage Tourism Center has also been vulnerable to severe erosion. In 2003, the park ameliorated erosion issues there, largely by using geo-textile stabilizing fabric, strategically located retention systems and vegetation plantings. The park monitors this location regularly to assess the need for any additional stabilization efforts.



In 2014 a similar project was completed to stabilize the river bank and slopes along the park drive at the site of the scenic overlook. Geo-textile cloth, riprap, and vegetation plantings along with a reworking of the roadside swales and drainage patterns were used to stabilize and restore the area. Management activities will follow generally accepted best management practices to prevent further soil erosion and to conserve soil and water resources on site.

### Minerals

Extensive phosphate mines are located north and northwest of the park. Whether deposits of commercial value exist within the confines of the park is unknown at this time.

# Hydrology

Stephen Foster Folk Culture Center State Park is located immediately adjacent to the Suwannee River along Reach 1 of the river's upper basin in southern Hamilton County. The Upper Suwannee River Basin begins in the Okefenokee Swamp in southeast Georgia and northeast Florida and extends just past the White Springs area, encompassing more than 2400 square miles (Hornsby et al. 2003). From its headwaters in the Okefenokee, the Suwannee River meanders along a southwesterly course for about 245 miles before emptying into the Gulf of Mexico (Ham and Hatzell 1996). The mean annual flow rate of the Suwannee River at White Springs is 2357 cubic feet per second (cfs) (USGS 2011). In the upper reaches of the Suwannee, stream flow is primarily dependent on surface water runoff. Below White Springs, the river is increasingly fed by groundwater.

Three aquifers exist in the Upper Suwannee Basin. The surficial or water table aquifer is composed of Miocene-age and younger sands and clayey sands that range in thickness from 20 feet to 150 feet. Its water level lies at or near land surface and often coincides with that of swamps, lakes and ponds. The surficial aquifer is recharged directly by rainfall. Natural discharge occurs through evapotranspiration, lateral seepage and percolation into underlying aquifers via breaches in the confining beds.

The intermediate aquifer, which sporadically underlies the surficial aquifer, ranges from about 80 feet to over 230 feet in thickness. This regional formation lies primarily within the Hawthorn Group as described above in the geology section. Seepage from the surficial aquifer recharges the intermediate aquifer, which in turn recharges the underlying Floridan aquifer through permeable or fractured beds. In addition, the intermediate aquifer discharges laterally along the Cody Scarp and within streams that have eroded through confining strata.

The Floridan aquifer, which is up to 1,100 feet thick near the park, is composed of carbonates deposited during the Tertiary Period. Recharge of the Floridan aquifer in this area is primarily by percolation through fractures in the semi-confining beds of the Hawthorn Group. Recharge also occurs during flood stage of the Suwannee River, when the stream rises above the potentiometric surface of the aquifer.

Normally, however, the river stage is lower than the potentiometric surface, resulting in a net discharge from the aquifer. Most of the discharge from the Floridan aquifer occurs through spring vents and from seepage flow along the course of the river.

According to the Suwannee River Water Management District (SRWMD), White Sulphur Springs is one of the most important surface water bodies within the park (Hornsby and Ceryak 1998; Ceryak and Mirti 1999). The spring, at one time considered second magnitude, was a popular destination for tourists seeking to restore their health in its mineral-rich waters (Rosenau et al. 1977). White Sulphur Springs is considered Florida's first tourist attraction (Verdi and Tomlinson 2009).

Throughout its early history, interrupted only by periodic inundations from the Suwannee River, White Sulphur Springs continuously produced clear running groundwater, which then immediately mixed with the adjacent tannin-stained waters of the Suwannee River. In 1906, a permanent structure, the Spring House, was built to encircle the spring vent, creating a bathing area for visitors that functioned as a health sanatorium. This springhouse constrained all of the spring's flow and channeled the discharge through an adjustable weir system. The bottom elevation at the Spring House sill is at 52.45 ft-msl.

The cave system that lies beneath White Sulphur Springs runs south and west from the cave entrance underneath the Suwannee River. Cave divers have accessed approximately the first 1000 feet of the main conduit, which extends to a depth of 147 feet (Butt and Morris 2012). At the time of the last dive in August 2012, water clarity was impaired with tannin-stained surface water. The earliest measurement of the White Sulphur Springs discharge, 72 cfs, was taken in 1907. The table below summarizes a sample of the available discharge data for White Sulphur Springs (SRWMD 2016).

Table 2: Summary of White Sulphur Springs and Suwannee River Discharge Data					
Date	White Spring Discharge (cfs)	Suwannee River Level (ft)	Suwannee River Discharge (cfs)	Comments	
2/13/1907	72	51.04	99		
5/8/1927	67.2	50.82	73		
11/4/1931	36.2	50.41	7.1	Major drought 1931-1935	
3/17/1932	46.44	50.46	31		
5/17/1946	62.7	55.41	1790		
4/25/1956	7.51	49.57	160	Major drought 1949-1957	
11/22/1960	10.3	51.00	495		
4/10/1973	no data	88.54	38100	Most severe flood	
6/6/1975	40.4	53.14	1120		

Table 2: Summary of White Sulphur Springs and Suwannee River Discharge Data				
Date	White Spring Discharge (cfs)	Suwannee River Level (ft)	Suwannee River Discharge (cfs)	Comments
Summer 1977	0			First time spring ceased flowing
3/7/1985	4.37	50.78	453	
9/26/1990	no data	49.72	2.8	Major drought 1989-1992; Second lowest historic Suwannee flow
7/1/1997	7.2	54.57	1720	Clear groundwater
9/25/1997	69.7	49.40	148	Clear groundwater
5/11/1998	84.4	53.27	1040	Clear groundwater
9/14/1998	12.8	51.24	583	Clear groundwater
2/4/1999	16.6	53.09	985	Clear groundwater
2/16/1999	4.2	52.92	938	Clear groundwater
10/15/2003	6.7	50.77	416	
4/2/2004	7.6	51.32	600	
11/23/2004	58.3	53.35	1160	Surface/ground mixture
1/31/2006	39.9	54.99	1540	Surface/ground mixture
6/14/2006	3.8	49.97	257	Surface/ground mixture
5/13/2009	9.6	54.64	973	Surface/ground mixture
7/9/2009	0	52.83	499	Surface/ground mixture
4/22/2010	8.7	53.84	754	Surface/ground mixture
5/9/2010	0	52.85	505	Surface/ground mixture
6/24/2011	0	49.28	1.7	Major drought 2010-2012; Lowest historic Suwannee flow
				Specific conductivity (SC) began in 9/2011
7/27/2012	37.7	55.72	1370	Surface/ground mixture SC= 215
8/7/2012	28.0	54.85	1080	Surface/ground mixture SC= 225
12/3/2012	0	50.87	126	Surface/ground mixture SC= 140
5/31/2013	6.46	53.90	770	Surface/ground mixture SC= 118
11/24/2013	0	51.00	171	Surface/ground mixture SC= 252
5/15/2015	30.7	52.16	365	Surface/ground mixture SC= 256
7/22/2015	1.99	53.74	726	Surface/ground mixture SC= 288
10/27/2015	17.5	52.42	404	Surface/ground mixture SC= 270
1/13/2016	0	51.94	327	Surface/ground mixture SC= 284

Anecdotal reports from local residents indicate that discharge from White Sulphur Springs steadily declined during the early 1970s. By the summer of 1977, its flow had completely ceased for the first time on record (Mirti 2001). The SRWMD significantly increased its water quantity and quality monitoring efforts at the Spring House throughout the late 1990s and early 2000s. Through 1999, the White Sulphur Springs discharge, though variable, was still high enough to gualify it as a second magnitude spring, with clear groundwater flowing from its vent (Tom Mirti, SRWMD Hydrologist personal communication; Hornsby and Ceryak 1998). From the late 2000s through the present day, however, water emerging from the spring vent has consisted of a mixture of tannic surface water and clear groundwater. Water clarity data obtained by staff at the Spring House from 2009 to the present has confirmed that discharge from the spring has not been completely clear since the 2004 assessment. In fact, the only occasions when White Sulphur Springs seems to flow anymore is when the Suwannee River floods, which causes an insurgence of tannic river water into the spring vent and a subsequent flushing, or discharge, from the spring when the river levels fall. The SRWMD is currently investigating the relative proportions of total spring discharge contributed by groundwater and surface water. Automated water quality and quantity measurements, including specific conductivity, began at the spring vent in 2011. Specific conductivity provides an indication of the relative levels of surface water and groundwater in the spring discharge. Lower values indicate a higher proportion of surface water.

Many water management experts now acknowledge that there has been a significant regional lowering of the Floridan aquifer in north Florida (Grubbs and Crandall 2007; SRWMD Director David Still letter to Governor Charlie Crist March 2010). Strong scientific evidence supports the hypothesis that the cessation of flow at White Sulphur Springs is due to an unfettered drawdown of regional groundwater levels (Grubbs 2011). Water managers also suggest that springshed boundaries can change dramatically over time and are especially dependent on the amount of consumptive use of groundwater that occurs in various parts of the springshed (Upchurch and Champion 2004). Unfortunately, the springshed of White Sulphur Springs is still unmapped. Initiation of dye trace work within the regional aquifer might help to rectify that situation.

Recent research has revealed that a significant area of groundwater supply in the eastern part of the SRWMD, considered a groundwater divide of sorts between the SRWMD and the SJRWMD, has declined to the extent that a westward shift in groundwater potentiometric contours has occurred. The shift appears to be in response to the artificial depletion of groundwater reserves caused by large-scale pumping in Duval and Nassau Counties (Grubbs and Crandall 2007). This regional drawdown may be partially responsible for shrinking springsheds and declining spring flows within parts of the SRWMD (Mirti 2001; Grubbs 2011). Both water management districts are now attempting to coordinate more closely when issuing consumptive use permits and monitoring groundwater withdrawals.

The current drought and the increasing consumptive use of groundwater resources have generated strong concerns about lowered water tables and decreased spring flows throughout the Suwannee River Basin. The SRWMD is responsible for prioritizing and establishing Minimum Flows and Levels (MFLs) for water bodies within its boundaries. It is currently developing an MFL for White Sulphur Springs, with a scheduled completion date of 2016. Once an MFL is established for the spring, it is highly likely that a recovery strategy will need to be developed and implemented.

As of 2016, water quality improvement programs along the Suwannee River have focused mainly on the Middle and Lower Basins (Hallas and Magley 2008). No Total Maximum Daily Load (TMDL) regulations have yet been developed for the Upper Suwannee River. However, there has been extensive water quality monitoring of two potentially impacted tributaries within this section, Hunter Creek and Swift Creek, since the 1960s. Increased nutrient loads have consistently been measured for both Hunter Creek, which discharges into the Suwannee above the park, and Swift Creek, which discharges below the park. The source of the excessive nutrients seems to be a major phosphate mining operation that discharges into these tributaries (FDEP 2003). The phosphate mines are located on a broad, several thousand-acre swath of land immediately north of the park.

# **Natural Communities**

This section of the management plan describes and assesses each of the natural communities found in the state park. It also describes of the desired future condition (DFC) of each natural community and identifies the actions that will be required to bring the community to its desired future condition. Specific management objectives and actions for natural community management, exotic species management, imperiled species management are discussed in the Resource Management Program section of this component.

The system of classifying natural communities employed in this plan was developed by the Florida Natural Areas Inventory (FNAI). The premise of this system is that physical factors such as climate, geology, soil, hydrology and fire frequency generally determine the species composition of an area, and that areas that are similar with respect to those factors will tend to have natural communities with similar species compositions. Obvious differences in species composition can occur, however, despite similar physical conditions. In other instances, physical factors are substantially different, yet the species compositions are quite similar. For example, coastal strand and scrub--two communities with similar species compositions-generally have quite different climatic environments, and these necessitate different management programs. Some physical influences, such as fire frequency, may vary from FNAI's descriptions for certain natural communities in this plan.

When a natural community within a park reaches the desired future condition, it is considered to be in a "maintenance condition." Required actions for sustaining a community's maintenance condition may include, maintaining optimal fire return intervals for fire dependent communities, ongoing control of non-native plant and animal species, maintaining natural hydrological functions (including historic water flows and water quality), preserving a community's biodiversity and vegetative structure, protecting viable populations of plant and animal species (including those that are imperiled or endemic), and preserving intact ecotones linking natural communities across the landscape.

The park contains fifteen distinct natural communities as well as altered land cover types and developed areas (see Natural Communities Map). A list of known plants and animals occurring in the park is contained in Addendum 5.

#### Mesic Flatwoods

*Desired Future Condition:* Dominant pines will usually be longleaf pine (*Pinus palustris*). Native herbaceous groundcover should be over at least 50% of the area and less than 3 feet in height. Saw palmetto (*Serenoa repens*) will comprise no more than 50% of total shrub species cover, and are less than 3 feet in height. Shrub species include saw palmetto, gallberry (*Ilex glabra*), fetterbush (*Lyonia lucida*), runner oak (*Quercus elliottii*), dwarf live oak (*Quercus minima*), shiny blueberry (*Vaccinium myrsinites*), and dwarf huckleberry (*Gaylussacia dumosa*). Shrubs are generally knee-high or less, and there are few if any large trunks of saw palmetto along the ground. The Optimal Fire Return Interval for this community is 2-3 years.

*Description and Assessment:* Mesic flatwoods is the predominant natural community in the park. It is also one of the most impacted by human influences. Because of past fire exclusion, various off-site species, principally loblolly pine, have invaded this community. Timbering during earlier times, and perhaps farming, have reduced and, in some instances, eliminated the natural components of this system within the park. Trash dumps occur in some portions as well.

The majority of the flatwoods in the Carter-Camp Tract were clear-cut in the mid-1980s before the SRWMD acquired the property. Approximately half of the flatwoods were roller-chopped, burned and planted with containerized longleaf pine seedlings in 1990. These areas have experienced repeated flood and drought cycles since 1990, and survivorship of the longleaf pines has been highly variable. Areas not subjected to roller-chopping or prescribed fire treatments have become dominated by loblolly pines that regenerated on-site, along with scattered slash pines. After the logging, fire-intolerant hardwoods such as laurel oak, water oak, black cherry and sweetgum invaded most of the mesic flatwoods.

The park has made substantial progress in restoring the mesic flatwoods in the Carter-Camp Tract through prescribed burning. Prescribed fires have naturally thinned many of the off-site loblolly pines, reduced competition for the longleaf pines, and stimulated the regeneration of groundcover species. The mesic flatwoods community in the Carter-Camp Tract is currently in poor to fair condition based on recent fire history and the density of loblolly pine stands.

Infestations of southern pine beetles have also affected the mesic flatwoods, primarily in the northeastern portions of the park. Control efforts entailed the clearcutting of portions of the pine canopy in the late 1990s, and again in 2001. In most cases, the trees removed were off-site loblolly pines and slash pines. Clear-cut areas have been replanted with longleaf pines where appropriate, and have been burned regularly to control hardwood invasion. The mesic flatwoods in the easternmost portions of the park are in poor to fair condition due to fire exclusion and southern pine beetle impacts.

Although the wet flatwoods natural community probably occurs in the park, it is difficult to distinguish it from mesic flatwoods because of the large-scale clear-cut operations that have taken place, as well as the extended drought conditions. The wet flatwoods community likely occurs in bands around the various basin swamps and drainage ways that lie within the mesic flatwoods, forming a transition zone between the two community types.

*General Management Measures:* Continued use of prescribed fire and additional plantings of longleaf pine should suffice to continue the restoration process in the mesic flatwoods. If necessary to improve community structure and function, off-site species, including loblolly pines and hardwoods, may be harvested. Low-water crossings may be needed in the mesic flatwoods to provide management access. Staff will need to monitor bicycle and hiking trails that pass through the mesic flatwoods for possible negative effects on the natural system.

#### Upland Hardwood Forest

*Desired Future Condition:* Upland hardwood forest is a mature, closed canopy hardwood forest typically occurring on slopes and rolling hills with generally mesic conditions. Overstory tree species may consist of southern magnolia (*Magnolia grandiflora*), pignut hickory (*Carya glabra*), sweetgum (*Liquidambar styraciflua*), live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), Florida maple (*Acer saccharinuum* subsp. floridanum), spruce pine (*Pinus glabra*) and swamp chestnut oak (*Quercus michauxii*). Understory species will include trees and shrubs such as American holly (*Ilex opaca*), flowering dogwood (*Cornus florida*), eastern hophornbeam (*Ostrya virginiana*), American hornbeam (*Carpinus caroliniana*), eastern redbud (*Cercis canadensis*), red bay (*Persea borbonia*), horse sugar (*Symplocos tinctoria*), and beautyberry (*Callicarpa americana*). Ground cover will be comprised of shade tolerant herbaceous species, sedges and vines.

Description and Assessment: Upland hardwood forest at Stephen Foster generally occurs on levees and plateaus paralleling the Suwannee River, on moderate-to-steep slopes within ravines, and on broad transitional slopes between the 100-year floodplain and adjacent uplands. A sizeable band of good quality upland hardwood forest occupies a transition slope in the eastern portion of the Carter-Camp Tract. The only apparent adverse impact to this system over the years has been erosion caused by foot traffic on some of the steeper slopes. Preventive measures such as the strategic placement of rail fencing and restorative measures such as terracing and re-vegetating may help alleviate this problem. Otherwise, this community is in relatively good condition.

*General Management Measures:* To prevent additional erosion, staff will need to implement corrective measures such as stabilizing the disturbed areas and possibly modifying visitor-use patterns.

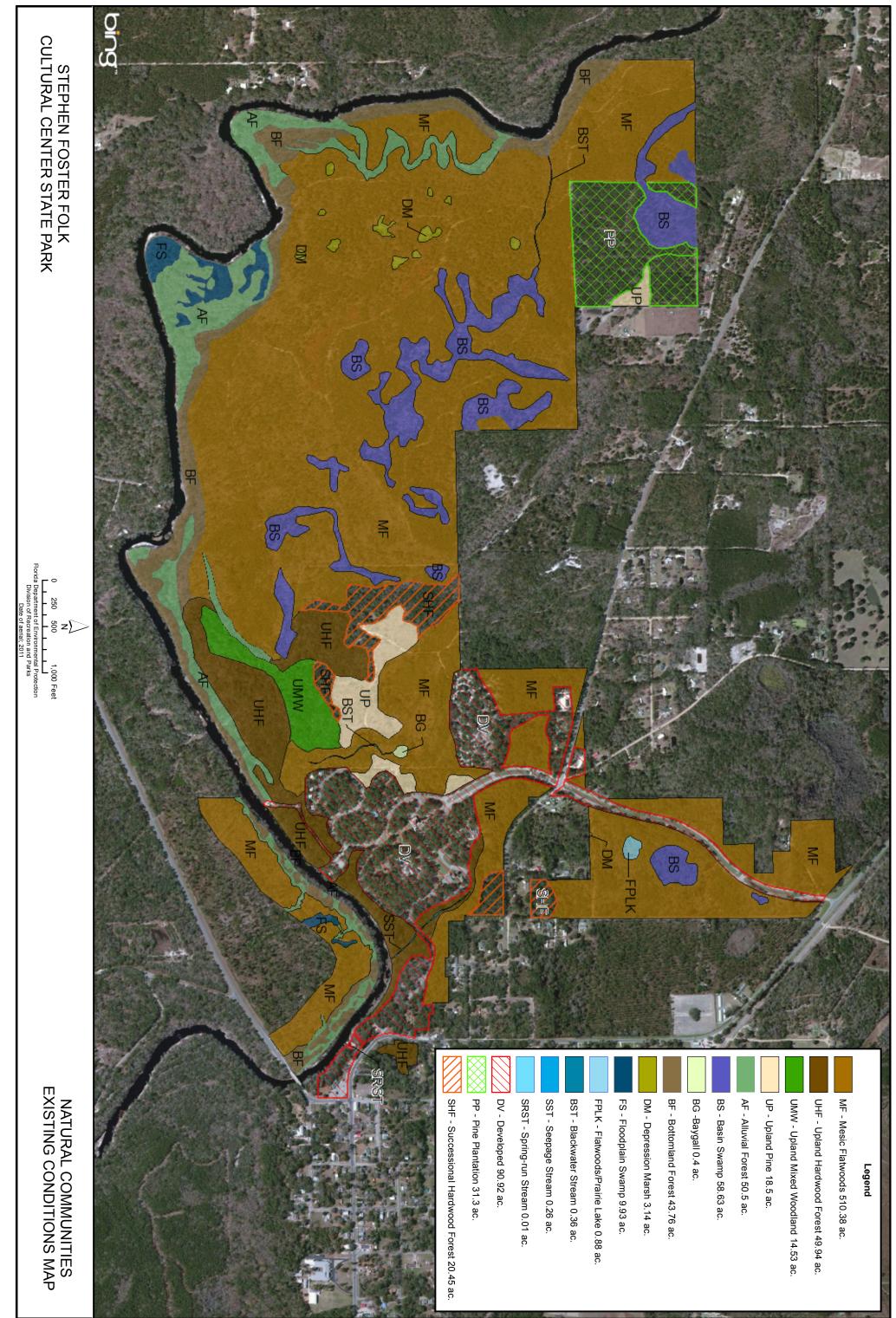
#### Upland Mixed Woodland

*Desired Future Condition:* Dominant tree species will include longleaf pine (*Pinus palustris*), southern red oak (*Quercus falcata*), sand post oak (*Quercus margaretta*), and mockernut hickory (*Carya alba*). Hardwood tree species are frequently dominant or co-dominant with pines (*Pinus spp.*). Flowering dogwoods (*Cornus florida*) and pignut hickory (*Carya glabra*) may be present. Subcanopy species include sparkleberry (*Vaccinium arboretum*), and rusty blackhaw (*Viburnum rufidulum*). Percent herbaceous cover will be comparable to sandhill and is 3-4 feet in height during spring and summer. In some areas, grasses and forbs may reach heights of 6-8 feet or more during the fall (due to blooming of taller grass species such as yellow indiangrass (*Sorghastrum nutans*), silver plumegrass (*Saccharum alopecuroides*), and big bluestem (*Andropogon gerardii*)). In old growth conditions, oaks and hickories are commonly 150-200 years old. The Optimal Fire Return Interval for this community is 2-5 years, depending on adjacent natural communities.

Description and Assessment: Upland mixed woodland often serves as a transition zone between upland pine or sandhill and adjacent upland hardwood forests or mesic hammocks. Like upland pine, upland mixed woodland is a fire-adapted community dominated by longleaf pine, with scattered southern red oak and mockernut hickory. However, upland mixed woodland typically lacks wiregrass as a dominant groundcover, and the oaks and hickories may be co-dominant with the longleaf pines. Being a transitional community, upland mixed woodland is very susceptible to succession to upland hardwood forest when there is a lack of fire. As a result, very few intact examples of upland mixed woodland exist in north central Florida.

A high ridge of upland hardwood forest parallels the Suwannee River in zone 8F. Just below the hardwood forest, along the northern slope of the ridge, is a band of upland mixed woodland that is dominated by large southern red oaks and mockernut hickories. It is likely that all of the longleaf pines were removed from this area prior to 1900, and subsequent fire suppression has caused the majority of the herbaceous species to be shaded out by hardwoods. The upland mixed woodland slopes down to an area of alluvial forest before grading into mesic flatwoods. It is likely that natural fires in the mesic flatwoods would have burned upslope into the upland mixed woodland. The upland mixed woodland appears to extend from this ridge towards the east into zone 2A. The dense hardwood growth and a lack of fire make it difficult to distinguish many of these areas from upland hardwood forest.

*General Management Measures:* Restoration of the upland mixed woodland will entail reintroducing fire and possibly removing offsite hardwood species. Planting of longleaf pines will be postponed until the canopy is sufficiently open to allow longleaf seedlings to survive. Staff will need to conduct additional field surveys to verify the extent of the upland mixed woodland and to document remnant species.



#### Upland Pine

*Desired Future Condition:* Dominant tree species will usually be longleaf pine (*Pinus palustris*). An intermittent subcanopy of smaller hardwood trees will be scattered throughout (usually southern red oak (*Quercus falcata*), sand post oak (*Quercus margaretta*), mockernut hickory (*Carya alba*), flowering dogwood (*Cornus florida*), bluejack oak (*Quercus incana*), and sassafras (*Sassafras albidum*)). In old growth conditions, oak trees and hickories are commonly 150-200 years old. Herbaceous cover will be less than 3 feet in height and is comparable to sandhill, but may have a higher density of understory shrubs and saplings. Groundcover may be dominated by wiregrass (*Aristida stricta* var. *beyrichiana*), with little bluestem (*Schizachyrium scoparium*), broomsedge bluestem (*Andropogon virginicus*), and indiangrass (*Sorghastrum* spp.). Other typical forbs include narrowleaf silkgrass (*Pityopsis graminifolia*), bracken fern (*Pteridium aquilinum*), goldenrod (*Solidago* spp.), squarehead (*Tetragonotheca helianthoides*), soft greeneyes (*Berlandiera pumila*), and yellow jessamine (*Gelsemium sempervirens*). The Optimal Fire Return Interval for this community is 2-3 years.

Description and Assessment: The upland pine natural community in the park occurs on limited areas within the uplands. Many of the areas that formerly contained upland pine either were incorporated into the developed areas of the park many years ago or are now indistinguishable from upland hardwood forest. Much of the upland pine community was logged prior to acquisition by the SRWMD, and some of the logged areas were subsequently roller-chopped before being planted with longleaf pines in 1990. Extensive restoration efforts have partially restored the upland pine areas located in management zones 2B, 2A and 8A. These areas are on a plateau that lies below a band of mesic flatwoods to the north and above the upland hardwood forest and mesic flatwoods to the south and west. Initial restoration efforts included removal of off-site hardwoods using a tree cutter and herbicides. The next steps included the application of prescribed fire and planting of longleaf pines. Native groundcover seeds, collected from a donor site outside the park, were then spread across the restoration sites, with good results. The areas are now considered to be in fair to good condition, depending on the health and diversity of the groundcover components.

*General Management Measures:* Continued application of prescribed fire and supplemental plantings of longleaf pines and groundcover species will be the primary management measures for the upland pine areas currently under restoration. Overgrown areas may need supplemental hardwood removal to make prescribed fires more effective in restoring the native components of upland pine.

#### Alluvial Forest

*Desired Future Condition:* Hardwood forests found in river floodplains on ridges or slight elevations above floodplain swamp and are flooded for one to four months of the year during the growing season. Typical overstory trees may include overcup oak (*Quercus lyrata*), laurel oak (*Q. laurifolia*), water hickory (*Carya aquatica*), American elm (*Ulmus americana*), and red maple (*Acer rubrum*). Understory species may include swamp dogwood (*Cornus foemina*), willow species (*Salix* spp.), and American hornbeam (*Carpinus caroliniana*). Presence of groundcover will be

variable. Species such as netted chain fern (*Woodwardia areolata*) and other shade tolerant herbaceous species may be present.

*Description and Assessment:* The alluvial forest occurs at lower elevations within bands and sloughs that parallel the Suwannee River. Alluvial forest is distinguished from floodplain swamp and bottomland forest by its hydroperiod. Alluvial forests flood frequently, usually on an annual basis, but they occur at slightly higher elevations than floodplain swamps, which are usually flooded for most of the year.

The alluvial forest in the park was undoubtedly impacted during early logging efforts in the Suwannee River floodplain, but most of it now appears to be in relatively good condition. Some natural erosion occurs during flood events, but erosion of a more severe nature is apparent near the various canoe camping sites along the riverbank.

*General Management Measures:* Alluvial forest requires little active management other than protection from erosion impacts and control of invasive exotic species. The park will monitor river access points and visitor use areas within the alluvial forest and will mitigate erosion impacts as they appear.

#### Basin Swamp

Desired Future Condition: Basin swamps are forested basin wetlands that are highly variable in size, shape and species composition with an extended hydroperiod, typically 200-300 days. While mixed species canopies are common, the dominant trees will be pond cypress (Taxodium ascendens) and swamp tupelo (Nyssa sylvatica biflora). Other canopy species can include slash pine (Pinus elliottii), red maple (Acer rubrum), dahoon holly (*Ilex cassine*), sweetbay (*Magnolia viginiana*), loblolly bay (Gordonia lasianthus), and sweetgum (Liquidambar styraciflua). Depending upon fire history and hydroperiod, the understory shrub component can be throughout or concentrated around the perimeter. Shrub species can include a variety of species including Virginia willow (Itea virginica), swamp dogwood (Cornus foemina), wax myrtle (Myrica cerifera), and titi (Cyrilla racemiflora). The herbaceous component is also variable and may include a wide variety of species such as maidencane (Panicum hemitomon), ferns, arrowheads (Sagittaria spp.), lizard's tail (Saururus cernuus), false nettle (Boehmeria cylindrica), and sphagnum moss (Sphagnum spp.). Soils will be typically acidic, nutrient poor peats often overlying a clay lens or other impervious layer.

*Description and Assessment:* Basin swamps are scattered throughout the park within the mesic flatwoods. The two largest basin swamps occur in the northeast and northwest corners of the park. An interconnected system of basin swamps, surrounded by wet and mesic flatwoods, occupies the central portion of the Carter-Camp Tract. Cypress and gum are the dominant trees in these swamps. Past logging activities impacted the swamps to some extent, either through the direct removal of trees or from the alteration of runoff and other hydrological influences. Loblolly pines have invaded some of the swamps since the last logging operations in the 1980s. The basin swamps are in fair to good condition.

*General Management Measures:* Prescribed fires should be allowed to burn into the edges of basin swamps to maintain the natural ecotone between them and the surrounding flatwoods. Removal of off-site loblolly pines may be necessary in some areas to improve the condition of the basin swamps. Management will also require protection of these wetlands from the impacts of erosion.

#### Baygall

*Desired Future Condition:* Consists of a wet densely forested, peat-filled depression typically near the base of a slope. Seepage from adjacent uplands will maintain saturated conditions. Medium to tall trees will mainly consist of sweetbay (*Magnolia virginiana*), loblolly bay (*Gordonia lasianthus*), and/or swamp bay (*Persea palustris*), occasionally sparse pines (*Pinus* spp.) may also exist. A thick understory consisting of gallberry (*Ilex glabra*), fetterbush (*Lyonia lucida*), dahoon (*Ilex cassine*), titi (*Cyrilla racemiflora*), and red maple (*Acer rubrum*) is typical with climbing vines such as greenbriar (*Smilax* spp.) and muscadine grape (*Vitis* spp.) is usually abundant. The Optimal Fire Return Interval for this community is 25-100 years. Frequent fires from adjacent communities should be allowed to enter baygall ecotone.

*Description and Assessment:* The one baygall identified at Stephen Foster occurs as an isolated area within a drainage way in the mesic flatwoods. Ditching along the drainage way of this baygall, located on the eastern side of the Carter-Camp Tract, has affected the natural hydrology of wetlands in the area. The baygall itself is in good condition.

*General Management Measures:* Prescribed fires should be allowed to burn into the edges of the baygall to maintain the natural ecotone between it and surrounding pyrogenic natural communities. DRP staff should assess the relative impact of the ditching and consider implementing mitigation measures if practical.

### Bottomland Forest

*Desired Future Condition:* Bottomland forest is a closed-canopy forest that can be deciduous or a mixture of deciduous and evergreen species. It is typically found on terraces and levees in river floodplains and in shallow depressions. Overstory species may consist of species such as sweetgum (*Liquidambar styraciflua*), sweetbay (*Magnolia viginiana*), swamp laurel oak (*Quercus laurifolia*), water oak (*Quercus nigra*), live oak (*Quercus virginiana*), swamp chestnut oak (*Quercus michauxii*), loblolly pine (*Pinus taeda*), and spruce pine (*Pinus glabra*). Red maple (*Acer rubrum*) and bald cypress (*Taxodium distichum*) may also be present. Understory may be open or dense. Understory species will typically include wax myrtle (*Myrica cerifera*), dwarf palmetto (*Sabal minor*), and swamp dogwood (*Cornus foemina*). Drier areas may include American holly (*Ilex opaca*), Gulf Sebastian bush (*Sebastiania fruticosa*) and sparkleberry (*Vaccinium arboreum*). Presence of groundcover is variable and may consist of witchgrass (*Dicanthelium* sp.) and various sedges (*Carex* spp.).

*Description and Assessment:* Bottomland forest at Stephen Foster is typically oriented parallel to the Suwannee River, and it is heavily influenced by and the

river's bigger flood events. This community floods less often than the adjacent alluvial forests, but more often than the mesic flatwoods or upland hardwood forests that it grades into upslope. Based on FNAI's 2010 revision of natural community descriptions, much of the primary levee along the Suwannee River is now classified as bottomland forest. It supports a diverse overstory of hardwoods and pines. The Florida National Scenic Trail passes through much of the bottomland forest in the Carter-Camp Tract.

Impacts to the bottomland forest include logging in the distant past and erosion from foot traffic and river flooding. Most of the bottomland forest is considered to be in good condition, however.

*General Management Measures:* Management measures for the bottomland forest will concentrate on mitigating the impacts of erosion caused by recreational use, where necessary. Stabilization and maintenance of the Florida National Scenic Trail will be a priority so that river flooding does not exacerbate existing erosion problems. Monitoring and removing exotic plant and animal species will also be necessary.

#### Depression Marsh

*Desired Future Condition:* Emergent herbaceous and low shrub species will be dominant over most of the area with open vistas. Trees are few and if present, will occur primarily in the deeper portions of the community. There is little accumulation of dead grassy fuels due to frequent burning; one can often see the soil surface through the vegetation when the community is not inundated. Dominant vegetation in depression marsh include maidencane (*Panicum hemitomon*), panic grasses (*Panicum* spp.), cutgrass (*Leersia* sp.), pickerelweed (*Pontederia cordata*), arrowheads (*Sagittaria* sp.), buttonbush (*Cephalanthus occidentalis*), St. John's wort (*Hypericum fasciculatum*), and coastalplain willow (*Salix caroliniana*). The Optimal Fire Return Interval for this community is 2-10 years depending on fire frequency of adjacent communities.

*Description and Assessment:* A portion of a depression marsh lies within mesic flatwoods along the park boundary in the northeast corner of the park. The edge of this marsh was impacted during efforts to control a southern pine beetle infestation. Other depression marshes are scattered amidst the flatwoods in the Carter-Camp Tract. Depression marshes are important as ephemeral wetlands for many amphibian and invertebrate species. The depression marshes in the park are in fair to good condition.

*General Management Measures:* Where appropriate, depression marshes will be allowed to burn with adjacent fire-type natural communities. Maintenance of a natural ecotone is important, as is maintaining depression marshes free of invasive exotic species.

#### Floodplain Swamp

*Desired Future Condition:* Floodplain swamps are a frequently or permanently flooded community in low-lying areas along streams and rivers. Soils will consist of

a mixture of sand, organics and alluvial materials. Closed canopy will typically be dominated by bald cypress (*Taxodium distichum*) but commonly includes tupelo species (*Nyssa* spp.) as well as water hickory (*Carya aquatica*), red maple (*Acer rubrum*) and overcup oak (*Quercus lyrata*). Trees bases are typically buttressed. Understory and groundcover will be typically sparse.

*Description and Assessment:* The floodplain swamp occurs down slope of the alluvial forest, predominately in backwaters and low areas behind the primary river levee. These areas are frequently flooded by the river and may actually funnel some of the extra river flow during high water events if connections to the river exist at more than one location. Floodplain swamp is usually flooded most of the year, and is dominated by cypress and other species that can withstand long periods of high water.

As in the alluvial forest, logging of the floodplain swamp at Stephen Foster probably occurred relatively early in history due to the proximity of the Suwannee River. Floodplain swamp is relatively resilient, and little additional management is necessary for it to recover from historical impacts. The floodplain swamps in the park are generally in good condition.

*General Management Measures:* Floodplain swamps require little active management other than protection from erosion impacts and control of invasive exotic species. Staff will monitor river access points and visitor use areas within the floodplain swamp for erosion issues and will mitigate impacts as needed.

#### Flatwoods Lake

*Desired Future Condition:* Flatwoods lakes are often associated with depression marshes, which are characterized as shallow, generally round or elliptical depressions, vegetated with concentric bands of aquatic vegetation. Depending upon the depth and slope of the depression, an open water zone, with or without floating plants, may occur at the center. The open water zone is considered a marsh lake if it is small in comparison to the surrounding marsh. Otherwise, the system is considered a flatwoods lake or a prairie lake, depending upon the surrounding community. The hydrosoil will typically be acidic sand with some peat and occasionally a clay lens. Although water levels may fluctuate significantly, water is typically present year-round.

*Description and Assessment:* A small flatwoods lake is located in the flatwoods south of the large basin swamp in the northeast part of the park. The lake is dominated by floating aquatic vegetation, including water hyacinth (*Eichornia crassipes*). The flatwoods lake is considered to be in fair condition.

*General Management Measures:* The flatwoods lake will be protected from storm water runoff from nearby park roads. Removal of any invasive exotic plants will also be an important management measure.

#### Blackwater Stream

*Desired Future Condition:* Characterized as perennial or intermittent watercourses originating in lowlands where extensive wetlands with organic soils collect rainfall and runoff, discharging it slowly to the stream. The stained waters are laden with tannins, particulates, and dissolved organic matter derived from drainage through adjacent swamps resulting in sandy bottoms overlain by organic matter. Emergent and floating vegetation (including golden club (*Orontium aquaticum*), smartweeds (*Polygonum* spp.), grasses and sedges) may occur but is often limited by steep banks and dramatic seasonal fluctuations in water levels. Desired conditions include minimizing disturbance and alterations and preserving adjacent natural communities.

*Description and Assessment:* The Suwannee River is a typical blackwater stream. The river is renowned worldwide, having both scenic and historic significance. The state park contains 3.7 miles of frontage along the river, however only one mile of it is totally within the boundaries of the park. A small, intermittent blackwater stream flows out of a basin swamp in the western part of the Carter-Camp Tract and drains into the Suwannee River. Another small, intermittent blackwater stream originates within the baygall in the eastern part of the Carter-Camp Tract and eventually seeps into the groundwater before reaching the Suwannee River. Some ditching along this stream occurred in the past.

Unfortunately, mining effluent and other pollutants are released into tributaries of the Suwannee River near the park. Regulatory agencies must continue to monitor these inputs closely to insure that the quality of the water entering the Suwannee River remains acceptable. The blackwater streams within the park are considered to be in good condition.

*General Management Measures:* Monitoring of water quality, particularly of tributaries affected by industrial operations, is an important management measure. This will be accomplished in cooperation with the FDEP and SRWMD. Monitoring and mitigation of any riverbank erosion is also a priority.

#### Seepage Stream

*Desired Future Condition:* Seepage streams are narrow, relatively short, perennial or intermittent streams formed by percolating water from adjacent uplands. Water color will be clear to slightly colored, with a fairly slow flow rate and fairly constant temperature. Bottom substrate is typically sandy, but may include gravel or limestone.

*Description and Assessment:* The courses of two seepage streams pass through the park, following the bottoms of ravines that eventually intersect with the Suwannee River. The smaller of the seepage streams is located just west of the south entrance to the park. A concrete dam in this stream, apparently constructed to create an impoundment, obstructs flow upstream from the culvert that allows the stream to pass beneath the park drive. The larger seepage stream, which originates in the town of White Springs, flows through a deep ravine before passing underneath U.S. 41 near the Spring House en route to the Suwannee. Significant

impacts to this system include inputs of stormwater runoff and treated sewage effluent, both of which originate outside the park boundary. In general, the seepage streams are in fair condition.

*General Management Measures:* Restoration of the natural channels of the seepage streams will help improve their condition. Protection from erosion and possible other effects on water quality will be important management measures.

#### Spring-Run Steam

*Desired Future Condition:* Perennial watercourses that derive most, if not all, of their water from limestone artesian openings from the underground aquifer. The waters will be typically cool, clear, and circumneutral to slightly alkaline. These factors allow for optimal sunlight penetration and minimal environmental fluctuations that promote plant and algae growth. However, the characteristics of the water can change significantly downstream as surface water runoff becomes a greater factor. Areas of high flow will typically have sandy bottoms while organic materials concentrate around fallen trees and limbs and slow moving pools. Typical vegetation will include tapegrass (*Valisneria americana*), arrowheads (*Sagittaria* spp.), southern naiad (*Najas guadalupensis*), and pondweeds (*Potamogeton* spp.).

*Description and Assessment:* A very short spring-run stream is associated with the outflow from White Sulphur Spring. The spring run was altered by the construction of the Spring House, and it lacks nearly all the components of a natural spring run due to its small size and the high level of disturbance. Based on these factors, along with the lack of natural flow, the spring-run stream is considered to be in poor condition.

*General Management Measures:* The DRP will continue to work with the SRWMD in seeking ways to improve White Sulphur Springs and potentially restore its natural flow. The park will also monitor and mitigate any erosion adjacent to the spring.

#### Aquatic Cave

*Desired Future Condition:* Characterized as cavities below the ground surface in karst areas, a cave system may contain portions classified as terrestrial caves and portions classified as aquatic caves. The latter vary from shallow pools highly susceptible to disturbance, to more stable, totally submerged systems. Desired future conditions include protecting against alterations that may increase pollution in aquatic systems.

*Description and Assessment:* An aquatic cave of undetermined size occurs in the park. The mouth of the cave serves as the vent for White Sulphur Springs. Limited information is available about the condition or extent of the cave system. The cave extends beyond 1000 feet in length and initially runs to the south and west underneath the Suwannee River to a maximum explored depth of 147 feet (Butt and Morris 2012).

*General Management Measures:* Management of the aquatic cave will mainly entail protecting the cave entrance from excessive erosion.

### **Altered Landcover Types**

#### **Developed**

Developed areas within the park include various buildings, paved roads, parking lots, a picnic area, a camping area and additional landscaped areas. A complete list of all the developed areas may be found in the Land Use Component.

Priority invasive plant species (FLEPPC Category I and II species) will be removed from all developed areas. Other management measures will include the use of proper stormwater management techniques for developed areas and the designing of future development so that it is compatible with prescribed fire management in adjacent natural areas.

#### Pine Plantation

Management zone STF-7G contains a significant area of loblolly pine and slash pine plantation. This parcel contained a young pine plantation that was partially burned by an escaped prescribed fire in 1990. The burned area was subsequently replanted with slash pines. Most of the plantation was historically mesic flatwoods, while the northeast corner was likely upland pine. The fire-return interval for the pine plantation is 2-10 years.

#### <u>Road</u>

All of the paved roads within the park have been designated as roads. In most cases, unimproved service roads and firebreaks are not labeled as roads for the purposes of natural community mapping.

#### Successional Hardwood Forest

The abandoned horticultural area on the "nursery parcel" located along the eastern boundary of the park is considered successional hardwood forest, but is likely to have once been mesic flatwoods. Another area of successional hardwood forest is located on the Carter-Camp Tract adjacent to the upland pine restoration areas. These areas are likely to have been upland pine historically, but were not rollerchopped or planted with longleaf pines in 1990. Prescribed fire will be used to restore these areas back to the native mesic flatwoods and upland pine. The Optimal Fire Return Interval in these areas should be 2-5 years.

### **Imperiled Species**

Imperiled species are those that are (1) tracked by FNAI as critically imperiled (G1, S1) or imperiled (G2, S2); or (2) listed by the U.S. Fish and Wildlife Service (USFWS), Florida Fish and Wildlife Conservation Commission (FWC) or the Florida Department of Agriculture and Consumer Services (FDACS) as endangered, threatened or of special concern.

A small population of hooded pitcherplants (*Sarracenia minor*) was reported to have occurred on the Carter-Camp Tract in the 1980s (Johnson 2001). Although these have not been observed recently, they may still occur in the flatwoods surrounding the scattered basin swamps and depression marshes. Previous field surveys

(Johnson 2001) occurred during very dry conditions and failed to locate any of the plants. Later surveys have also failed to locate hooded pitcherplants. Future surveys will be conducted under wetter conditions and will concentrate on the margins of wetlands in the mesic flatwoods. Staff will consider translocating pitcherplants to the Carter-Camp flatwoods or dispersing seeds from nearby populations at Big Shoals Public Lands, if the habitat at Stephen Foster is determined to be in good enough condition.

The yellow anisetree (*Illicium parviflorum*) has been planted as an ornamental in the developed areas of Stephen Foster, although this is well outside its natural range. No special management is necessary for these introduced plants. The southern lady-fern (*Athyrium filix-femina*) has been recorded in the park, but its current population status is unknown.

Gopher tortoises (*Gopherus polyphemus*) inhabit the drier areas of the mesic flatwoods and the upland pine areas of the park. As restoration of the upland pine community continues, the gopher tortoise population should expand. Gopher tortoises may at times also occur within developed areas of the park. Staff will continue to refer to the FWC Gopher Tortoise Management Plan (FWC 2012) to guide management of this imperiled species. Gopher frogs (*Rana capito*) may be found in association with the gopher tortoise burrows, but require ephemeral ponds for breeding. Suwannee alligator snapping turtles (*Macrochelys suwanniensis*), Suwannee cooters (*Pseudemys suwanniensis*) and Gulf sturgeons (*Acipenser oxyrinchus desotoi*) occur in the adjacent Suwannee River.

The gopher tortoise, Suwannee cooter and Suwannee alligator snapping turtle were historically harvested for meat in the region. All are currently protected from harvest, and possession is prohibited without a permit from the FWC. The harvest of all wildlife, with the exception of fish, is prohibited along the length of the Suwannee River where the river passes through, or along the boundary of, Stephen Foster Folk Culture Center State Park. The area under jurisdiction of the park includes a 400-foot zone from the edge of mean high water along sovereign submerged lands of the Suwannee River. Where emergent wetland vegetation exists, the zone extends water-ward 400 feet beyond the vegetation.

An unverified record for the frosted flatwoods salamander (*Ambystoma cingulatum*) exists for the park. While there is proper habitat for this species in the Carter-Camp Tract, logging operations prior to SRWMD acquisition of the property may have negatively impacted the adult population in the mesic flatwoods. Previous roller-chopping activities may have affected the population as well.

The timber rattlesnake (*Crotalus horridus*), while not considered an imperiled species, is near the southern limit of its natural range at Stephen Foster. This species has been observed on many occasions within the park.

FNAI records state that two species of dragonfly, the umber shadowfly (*Neurocordulia obsoleta*) and the smoky shadowfly (*Neurocordulia molesta*), were documented in the general area of the park between 1978 and 1982. FDEP staff

collected them as larvae, according to data from the Statewide Biological Database, obtained by FNAI. The collection site was presumably in the Suwannee River upstream from the park.

The DRP will conduct surveys for imperiled animal species such as the frosted flatwoods salamander and gopher frog under non-drought conditions to try to locate larvae in potential breeding ponds. Surveys of avian species are conducted annually as part of the Hamilton County Audubon Christmas Bird Count. The park is included within the limits of the count circle. No other species-specific management programs for imperiled species in the park exist at this time other than routine documentation of observations of imperiled species. However, prescribed burning of fire-adapted communities in the park will be beneficial to a number of imperiled species, including the hooded pitcherplant, gopher frog, frosted flatwoods salamander, gopher tortoise, indigo snake, Florida pine snake and Sherman's fox squirrel.

Table 3 contains a list of all known imperiled species within the park and identifies their status as defined by various entities. It also identifies the types of management actions that are currently being taken by DRP staff or others, and identifies the current level of monitoring effort. The codes used under the column headings for management actions and monitoring level are defined following the table. Explanations for federal and state status as well as FNAI global and state rank are provided in Addendum 6.

Table 3: Imperiled Species Inventory							
Common and Scientific Name	Imperiled Species Status				Management Actions	Monitoring Level	
FWC USFWS FDACS					Mana Ac	Mor L	
PLANTS							
Southern Lady-fern Athyrium filix-femina			LT		4,9	Tier 1	
Yellow Anisetree Illicium parviflorum*			LE	G2,S2			
Hooded Pitcherplant Sarracenia minor			LT		1,4,6, 7,10	Tier 2	
INVERTEBRATES							
Smoky Shadowfly <i>Neurocordulia molesta</i>				G4,S1	4,9	Tier 1	
Umber Shadowfly Neurocordulia obsoleta				G5,S2	4,9	Tier 1	
FISH							
Gulf Sturgeon Acipenser oxyrinchus desotoi	FT	Т		G3T2,S2	4,9	Tier 1	

Table 3: Imperiled Species Inventory						
Common and Scientific Name	Imperiled Species Status				Management Actions	Monitoring Level
	FWC	USFWS	FDACS	FNAI	Man A	Moi
AMPHIBIANS						
Frosted Flatwoods Salamander <i>Ambystoma cingulatum</i>	FT	Т		G2,S2	1,4,6, 7,9	Tier 2
Gopher Frog Lithobates capito	SSC			G3,S3	1,4,6, 7,9	Tier 2
REPTILES						
American Alligator Alligator mississippiensis	FT(S/A)	T(S/A)		G5,S4	4,10	Tier 1
Eastern Indigo Snake Drymarchon couperi	FT	т		G3,S3	1,6,7	Tier 1
Gopher Tortoise Gopherus polyphemus	ST			G3,S3	1,6,7, 10,12	Tier 1
Suwannee Alligator Snapping Turtle <i>Macrochelys suwanniensis</i>	SSC			G1G2, S1S2	4,9	Tier 1
Florida Pine Snake Pituophis melanoleucus mugitus	SSC			G4T3,S3	1,6,7, 12	Tier 1
Suwannee Cooter Pseudemys suwanniensis	SSC			G5T3,S3	4,9	Tier 1
BIRDS						
Limpkin <i>Aramus guarauna</i>	SSC			G5,S3	4	Tier 2
Little Blue Heron <i>Egretta caerulea</i>	SSC			G5,S4	4	Tier 2
Snowy Egret <i>Egretta thula</i>	SSC			G5,S3	4	Tier 2
Tricolored Heron Egretta tricolor	SSC			G5,S4	4	Tier 2
Swallow-tailed Kite Elanoides forficatus				G5,S2	1,6,7	Tier 1
White Ibis Eudocimus albus	SSC			G5,S4	4	Tier 2

Table 3: Imperiled Species Inventory							
Common and Scientific Name	Imperiled Species Status				nagement Actions	Monitoring Level	
	FWC	USFWS	FDACS	FNAI	Manage Actio	Moi	
Wood Stork Mycteria americana	FT	Т		G4,S2	4	Tier 2	
MAMMALS							
Sherman's Fox Squirrel <i>Sciurus niger shermani</i>	SSC			G5T3,S3	1,6,7	Tier 1	
Florida black bear Ursus americanus floridanus				G5T2,S2	1,2,6, 7,13	Tier 1	

\* Introduced species out of natural range

#### Management Actions:

- 1. Prescribed Fire
- 2. Exotic Plant Removal
- 3. Population Translocation/Augmentation/Restocking
- 4. Hydrological Maintenance/Restoration
- 5. Nest Boxes/Artificial Cavities
- 6. Hardwood Removal
- 7. Mechanical Treatment
- 8. Predator Control
- 9. Erosion Control
- 10. Protection from visitor impacts (establish buffers)/law enforcement
- 11. Decoys (shorebirds)
- 12. Vegetation planting
- 13. Outreach and Education
- 14. Other [If referenced in table, provide discussion in narrative]

#### Monitoring Level:

**Tier 1.** Non-Targeted Observation/Documentation: includes documentation of species presence through casual/passive observation during routine park activities (i.e. not conducting species-specific searches). Documentation may be in the form of Wildlife Observation Forms, or other district specific methods used to communicate observations.

**Tier 2.** Targeted Presence/Absence: includes monitoring methods/activities that are specifically intended to document presence/absence of a particular species or suite of species.

**Tier 3.** Population Estimate/Index: an approximation of the true population size or population index based on a widely accepted method of sampling.

**Tier 4.** Population Census: A complete count of an entire population with demographic analysis, including mortality, reproduction, emigration, and immigration.

**Tier 5.** Other: may include habitat assessments for a particular species or suite of species or any other specific methods used as indicators to gather information about a particular species.

Detailed management goals, objectives and actions for imperiled species in this park are discussed in the Resource Management Program section of this component and the Implementation Component of this plan.

#### Exotic and Nuisance Species

Exotic species are plants or animals not native to Florida. Invasive exotic species are able to out-compete, displace or destroy native species and their habitats, often because they have been released from the natural controls of their native range, such as diseases, predatory insects, etc. If left unchecked, invasive exotic plants and animals alter the character, productivity and conservation values of the natural areas they invade.

DRP staff routinely survey the entire park for invasive exotic plants. Most of the known invasive exotic plants at Stephen Foster occur within the grounds of the original park, especially in areas that adjoin the town of White Springs. A former nursery area in the park has a multi-species exotic infestation. Silverthorn (*Elaeagnus pungens*) is a species of concern in this area. Because of the succulent fruit that it produces, there is a potential for wildlife to carry it into the more natural areas of the park. Exotic plants also travel down the Suwannee River, and occasionally both Japanese climbing fern (*Lygodium* japonicum) and Chinese tallowtree (*Sapium sebiferum*) have appeared on the banks of the river within the park. Chinese wisteria (*Wisteria sinensis*), camphor tree (*Cinnamomum camphora*) and privet species are found on the sloping banks of the river behind the former tourism center. The ornamental azalea gardens behind the museum contain coral ardisia (*Ardisia crenata*). The Carter-Camp area of the park is mostly exotics free, but the park should practice vigilance in that area to maintain it free of invasive exotic plants.

The park has been treating invasive exotic plants since at least 2001. In 2008, the park began a retreatment program to control ardisia in the azalea garden adjacent to the museum. Since the previous management plan update in 2002, the park has treated over 100 acres of invasive exotic plants. All of this treatment has been in house. Follow-up and retreatment of the exotic plants will need to occur on an annual basis for many years. In the future, any exotics that are likely to invade natural areas of the park should be identified and prioritized for control.

Table 4 contains a list of the Florida Exotic Pest Plant Council (FLEPPC) Category I and II invasive, exotic plant species found within the park (FLEPPC, 2017). The table also identifies relative distribution for each species and the management zones in which they are known to occur. An explanation of the codes is provided following the table. For an inventory of all exotic species found within the park, see Addendum 5.

Table 4: Inventory of FLEPPC Category I and II Exotic Plant Species							
Common andFLEPPCDistributionManagementScientific NameCategoryDistributionZone (s)							
PLANTS							
Mimosa		1	STF-2F, STF-6C				
Albizia julibrissin		2	STF-2D, STF-3,				
			STF-7G				

Table 4: Inventory of FLEPPC Category I and II Exotic Plant Species						
Common and Scientific Name	FLEPPC Category	Distribution	Management Zone (s)			
Coral ardisia		2	STF-2C, STF-2F			
Ardisia crenata	I	3	STF-2B, STF-3			
Wax begonia	11	2	STF-3			
Begonia cucullata		2	511-3			
Paper mulberry	11	1	STF-2D			
Broussonetia papyrifera		I				
		1	STF-2C, STF- 2E			
Camphor-tree Cinnamomum camphora	I	2	STF-2A, STF- 2D, STF-2F, STF-3, STF-8B			
Water hyacinth Eichhornia crassipes	I	2	STF-5			
Silverthorn Elaeagnus pungens	П	1	STF-5			
Glossy privet Ligustrum lucidum	I	1	STF-2F			
Chinese privet Ligustrum sinense	I	1	STF-2E, STF-2F			
Peruvian primrosewillow Ludwigia peruviana	I	3	STF-2E			
		1	STF-2F, STF- 7D			
Japanese climbing fern <i>Lygodium japonicum</i>	I	2	STF-2B, STF- 2D, STF-2F, STF-3, STF-7G			
		3	STF-4B			
Chinaberry <i>Melia azedarach</i>	11	3	STF-2F, STF- 7G			
Kudzu Pueraria montana	I	3	STF-3			
Chinese tallow trac		1	STF-3, STF-6B, STF-6C			
Chinese tallow tree Sapium sebiferum			STF-2A, STF- 2D, STF-3, STF-8B			
Tropical soda apple <i>Solanum viarum</i>	I	2	STF-4A			
		1	STF-2F			
Chinese wisteria	II	2	STF-3			
Wisteria sinensis		3	STF-2D			

#### **Distribution Categories:**

**O** No current infestation: All known sites have been treated and no plants are currently evident.

1 Single plant or clump: One individual plant or one small clump of a single species.

**2** Scattered plants or clumps: Multiple individual plants or small clumps of a single species scattered within the gross area infested.

3 Scattered dense patches: Dense patches of a single species scattered within the gross area infested.

4 Dominant cover: Multiple plants or clumps of a single species that occupy a majority of the gross area infested.
5 Dense monoculture: Generally, a dense stand of a single dominant species that not only occupies more than a majority of the gross area infested, but also covers/excludes other plants.

**6** Linearly scattered: Plants or clumps of a single species generally scattered along a linear feature, such as a road, trail, property line, ditch, ridge, slough, etc. within the gross area infested.

Exotic animal species include non-native wildlife species, free ranging domesticated pets or livestock, and feral animals. Because of the negative impacts to natural systems attributed to exotic animals, the DRP actively removes exotic animals from state parks, with priority being given to those species causing the greatest ecological damage.

In some cases, native wildlife may also pose management problems or nuisances within state parks. A nuisance animal is an individual native animal whose presence or activities create special management problems. Examples of animal species from which nuisance cases may arise include raccoons, venomous snakes and alligators that are in public areas. Nuisance animals are dealt with on a case-by-case basis in accordance with the DRP's Nuisance and Exotic Animal Removal Standard.

Stephen Foster is fortunate because it has relatively few problems with invasive exotic or nuisance animals. Exotic species present include the nine-banded armadillo (*Dasypus novemcinctus*), feral hog (*Sus scrofa*), and an occasional feral cat or dog. Island applesnails (*Pomacea insularum*) were discovered in the Suwannee River hear the Spring House in 2010. Staff should remove egg clusters when they are found along the shoreline. Historically, feral hogs have not been much of a problem in the park; in 2010, however, eight were trapped. Staff will continue to monitor the park for signs of feral hogs, and if conditions warrant, they will use traps again in efforts to eradicate them.

In 2002, the red bay ambrosia beetle (*Xyloborus glabratus*) was first detected in the United States in southeast Georgia. The beetle carries the fungal pathogen (*Raffaelea lauricola*) which it transmits to red bay trees (*Persea borbonia*) and other species in the Lauraceae family, causing laurel wilt disease and death. The beetle and its associated pathogen spread rapidly, and by 2005 it had appeared in Duval County, Florida. By 2011, the disease was discovered in Hamilton County. Since that time, many of the adult red bays in the park have died. The beetle (and laurel wilt) has now spread throughout most of Florida and into many of the neighboring states. At Stephen Foster, although most of the adult red bays have been top-killed, the trees continue to resprout from their roots. It may be that members of the Lauraceae family will continue to survive in shrub form as the remnant tree root systems continue to resprout. At this point, much remains unknown about the long term impacts of this disease on red bays and other Lauraceae. The park should continue to restrict the movement of firewood into and out of the park and educate visitors about the issue.

Detailed management goals and objectives, and specific actions for management of invasive exotic plants and exotic and nuisance animals, are discussed in the Resource Management Program section of this component.

### Special Natural Features

Stephen Foster Folk Culture Center State Park contains some interesting and scenic natural features. The Suwannee River is the most obvious attraction. Its tree-lined and rock-studded banks combine with tannin-stained waters to create a picturesque landscape. The natural levees associated with the river provide numerous vantage points from which to view the river.

White Sulphur Springs is another interesting feature. For a hundred years or more, its mineralized spring water was heralded for its supposed curative properties. During the early 1900s, a health resort was built around the spring. However, the resort structures fell into disrepair after use of the spring waned. The Spring House superstructure burned in the 1970s, except for the concrete foundation, which still stands. When the spring's output was measured in 1907, the flow was 46 million gallons per day (mgd). Currently, the spring no longer flows consistently. When the Suwannee River is at flood stage, however, it back flows into the spring's underground conduits. Since the 1970s, the spring has undergone a significant decrease in its flow to the extent that its discharge is now primarily dependent on the river stage and the level of groundwater in the aquifer.

### Cultural Resources

This section addresses the cultural resources present in the park that may include archaeological sites, historic buildings and structures, cultural landscapes and collections. The Florida Department of State (FDOS) maintains the master inventory of such resources through the Florida Master Site File (FMSF). State law requires that all state agencies locate, inventory and evaluate cultural resources that appear to be eligible for listing in the National Register of Historic Places. Addendum 7 contains the FDOS, Division of Historical Resources (DHR) management procedures for archaeological and historical sites and properties on state-owned or controlled properties; the criteria used for evaluating eligibility for listing in the National Register of Historic Places, and the Secretary of Interior's definitions for the various preservation treatments (restoration, rehabilitation, stabilization and preservation). For the purposes of this plan, significant archaeological site, significant structure and significant landscape means those cultural resources listed or eligible for listing in the National Register of Historic Places. The terms archaeological site, historic structure or historic landscape refer to all resources that will become 50 years old during the term of this plan.

## **Condition Assessment**

Evaluating the condition of cultural resources is accomplished using a three-part evaluation scale, expressed as good, fair and poor. These terms describe the present condition, rather than comparing what exists to the ideal condition. Good describes a condition of structural stability and physical wholeness, where no obvious deterioration other than normal occurs. Fair describes a condition in which there is a discernible decline in condition between inspections, and the wholeness or physical integrity is and continues to be threatened by factors other than normal wear. A fair assessment is usually a cause for concern. Poor describes an unstable condition where there is palpable, accelerating decline, and physical integrity is being compromised quickly. A resource in poor condition suffers obvious declines in physical integrity from year to year. A poor condition suggests immediate action is needed to reestablish physical stability.

#### Level of Significance

Applying the criteria for listing in the National Register of Historic Places involves the use of contexts as well as an evaluation of integrity of the site. A cultural resource's significance derives from its historical, architectural, ethnographic or archaeological context. Evaluation of cultural resources will result in a designation of NRL (National Register or National Landmark Listed or located in an NR district), NR (National Register eligible), NE (not evaluated) or NS (not significant) as indicated in the table at the end of this section.

There are no criteria for use in determining the significance of collections or archival material. Usually, significance of a collection is based on what or whom it may represent. For instance, a collection of furniture from a single family and a particular era in connection with a significant historic site would be considered highly significant. In the same way, a high quality collection of artifacts from a significant archaeological site would be of important significance. A large herbarium collected from a specific park over many decades could be valuable to resource management efforts. Archival records are most significant as a research source. Any records depicting critical events in the park's history, including construction and resource management efforts, would all be significant.

The following is a summary of the FMSF inventory. In addition, this inventory contains an evaluation of significance for each site.

#### Pre-Historic and Historic Archaeological Sites

*Desired Future Condition:* All significant archaeological sites within the park that represent Florida's cultural periods or significant historic events or persons are preserved in good condition in perpetuity, protected from physical threats and interpreted to the public.

*Description:* Stephen Foster has seven archaeological sites. Four sites (HA00171, HA00172, HA00182 and HA00428) contain historic and prehistoric material and one (HA00432) contains historic material. The historic components are from the nineteenth and early twentieth centuries during the developmental period of the town. Site HA00171 is a nineteenth-century artifact scatter and Archaic (8500 B.C.-1000 B.C.) quarry. The multi-component site, HA00182, is a campsite and homestead. It contains deposits from the Archaic period and from the 19<sup>th</sup> and 20<sup>th</sup> centuries. It was investigated in association with the development of the modern

campground at the park (Dickinson and Wayne 1999). HA00428 and HA00432 were recorded during the completion of the predictive model for the park (Collins et al 2012). HA00428 contains 20<sup>th</sup> century and prehistoric late archaic artifacts, and HA00432 is the site of the remains of an early 20<sup>th</sup> century wooden bridge. The portion of HA00432 which extends onto park property contains an earthen area and remnants of the structural timber associated with the bridge. Two other sites (HA00346 and HA00370) are exclusively prehistoric. Both prehistoric sites are primarily lithic and/or ceramic scatter sites about which very little is known. All known archaeological sites have been submitted to the Florida Master Site File.

The Rock Island Shoals (CO00022) site is currently not mapped as being within park boundaries but is located in the bed of the Suwannee River directly adjacent to the park. While this site falls outside the jurisdiction of park management, it is important to note that the site may have a land component on park property that has not yet been identified.

*Condition Assessment:* All archaeological sites in the park are in good condition. None of the sites shows evidence of looting. The primary threat at this time is the potential for disturbance during any additional planned development in the park.

*Level of Significance:* The Stephen Foster Folk Culture Center State Park Unit Management Plan addresses the status and expected conditions of archaeological resources located in the park. The significance of each of the cultural resources located within the park is addressed separately in this overview. The sites must be monitored, any stabilization issues addressed, and additional information or data relative to any of the sites submitted to DHR/FMSF.

The unnamed site recorded in the FMSF as 8HA00171 is a 19th-century artifact scatter and Archaic (8500 B.C.-1000 B.C.) guarry and a ceramic and lithic artifact scatter that was deemed Ineligible for NRHP by the recorder and was Not Evaluated by SHPO. A notice in the Stith/Barnett Drugstore (8HA00172) site file comments, "According to James Pochurek, an isolated human tooth associated with historic debris (without evidence of it being of Native American origin) was found and reburied at this site." The prehistoric artifact scatter and historic building remains and the dumpsite's unmarked human remains will be respected, although the recorder determined the site Ineligible for NRHP and the site was Not Evaluated by SHPO. Despite evidence of occupation by people during the 19th and 20th centuries and during the American, prehistoric ceramic, and preceramic Archaic periods, Stephen Foster Campground's homestead and artifact scatter (8HA00182) was deemed Ineligible for NRHP by the recorder, and SHPO cited Insufficient Information to determine the site's eligibility for NR listing. Both the recorder and SHPO found the Cane Crusher Site's lithic and ceramic artifact scatter Ineligible for NRHP. Neither the recorder nor SHPO evaluated the Park Amphitheater Project (8HA00370) for listing on NRHP.

No NR Listed or Eligible resources warranting higher profile monitoring or measures to stabilize and mitigate deterioration and disturbance have been recorded within the park. Despite that, DRP staff will locate, visit, and regularly monitor all recorded sites and take necessary steps to conserve their integrity. Evidence of previously unrecorded sites will be documented and newly discovered sites will be recorded to DHR/FMSF standards. Boundaries of sites will be redefined as appropriate. The park has no significant collection of archaeological artifacts.

*General Management Measures:* Currently, all the archaeological sites are in Desired Future Condition. To maintain these sites in this condition, the park will continue to monitor them on at least an annual basis. This will allow the park to identify threats before they become serious issues.

#### Historic Structures

*Desired Future Condition:* All significant historic structures and landscapes that represent Florida's cultural periods or significant historic events or persons are preserved in good condition in perpetuity, protected from physical threats and interpreted to the public.

*Description:* The park contains 19 known historic structures and resource groups that are recorded in the FMSF. The town of White Springs was established prior to the Civil War. From the mid-1800s to the 1920s, the town was a popular resort and health spa because of the presence of White Sulphur Springs on the north bank of the Suwannee River. The Spring House, built around the spring circa 1901, served as the focal point for the resort and surrounding town. While there were numerous resort hotels within White Springs during the resort spa period, the sole remaining historic hotel from that era is the Telford. Many historic structures from that era remain in the town, including some that are located within the park.

In 1938, five acres of private property and 100 acres owned by the town of White Springs were donated for the creation of a memorial to Stephen Foster, composer of the famous song "Old Folks at Home." This was an attempt to revitalize the depressed tourism industry. The State of Florida opened the Stephen Foster Memorial to the public in 1950. The Florida Park Service assumed management of the Memorial in 1979.

Two National Register nominations have been prepared that indicate the entwined history of the park and the town of White Springs. The first resource group nomination encompasses the historic structures in the park that relate to the memorial (HA0005). The original nomination was never completed. The second is the White Springs Historic District (HA00316), which is on the National Register of Historic Places and represents structures in the park and in the town. In addition, individual historic structures that fall within the park boundary are recorded with the FMSF.

Within the original boundary of the Stephen Foster Memorial are the following historic structures: the South Park Entrance (8HA00287), Museum Building (8HA00288), Carillon Tower (8HA00289), Marble Stage (HA00422), Nelly Bly's Restaurant (HA00420), Shop Building (HA00423), and Toilet Building (HA00421), which were built in the 1950s. The current park boundary also includes historic structures from the era when the town was a health resort. The Delegal Service

Station (HA00244), constructed in 1912, was the first building in town built to accommodate what was then a relatively new aspect of travel, the motor vehicle. The Spring House (HA007) consists of the remaining concrete coquina walls of the original resort spring house. Originally, the structure also contained wooden bathing facilities and a cupola. These features deteriorated beyond repair after the resort era waned.

In the period from the late 1940s to the mid-1950s, a nursery was constructed in an area that is now within the park. Two wood frame nursery buildings and a pump house are still present (HA00424, HA00425 and HA00426), all of which have been recorded with the FMSF.

Five historic structures in the park either were removed with DHR permission or consist of little to no building remains (HA00192 Suwannee River Motel, HA00243 Edgewood Hotel Site, HA00286 Colonial Hotel Site, HA00415 Log Cabin and Scenic Overlook (HA00427). The Scenic Overlook, a marble bench with marble pavers perched above the Suwannee River, was constructed in the 1950s. It was undermined by erosion and destabilized to the extent that it was a safety hazard. It was removed as part of a larger project to stabilize the slopes above the Suwannee River along the park drive in 2014. All known structures have been submitted to the FMSF.

*Condition Assessment:* The White Springs Historic District (HA00316) covers the entire town of White Springs. Its overall condition will not be evaluated since the park buildings make up just a fraction of the entire district. The portion of the White Springs Historic District that is within the park is in good to fair condition.

All historic structures, unless specifically mentioned, are in good condition. The Carillon Tower (HA00289) is in fair condition due to roof leaks. An engineering assessment of the tower was done in 2011. This could serve as an important component of a Historic Structures Report. Repairs were done to address roof leaks and to repoint the masonry joints of the exterior brickwork. The Carillon Tower contains the world's largest Deagan carillon bell system. This system is original to the tower and all of its original electrical components are still intact. The bell system requires considerable maintenance on a weekly basis, as electrical parts are now uncommon. The park rebuilds electrical components and rewinds and tests bells and strikers weekly to maintain their good condition.

The Museum (HA00288), while in good condition, will soon need to be repainted. The Spring House (HA007), which was reroofed in 2011, is in good condition. However, it needs a structural analysis, particularly with regard to the roof supports. The interior of the Nelly Bly Restaurant (HA00420) was recently remodeled, and the building is in good condition overall. The Marble Stage (HA00422) and the Toilet Building (HA00421) are both in good condition.

There are no plans to demolish any of the historic structures at this time. However, the poor condition of Nursery Buildings 1 and 2 and of the Nursery Pumphouse

(HA00424, HA00425 and HA00426) indicates that the DRP should document them before they deteriorate further, and then consider their removal.

Level of Significance: Four historic structures within the park are listed on the National Register of Historic Places as contributing structures to the White Springs Historic District (8HA00316) under National Register Criteria A (Event) and C (Design/ Construction). They are the Delegal Service Station (8HA00244), the South Park Entrance (8HA00287), the Museum Building (8HA00288) and the Carillon Tower (8HA00289). All of these buildings represent the growth of the resort and tourism trade in White Springs from the late 19th to mid-20th centuries. The Delegal Service Station (8HA00244), located near the park's south entrance, was built in 1912 and is significant as one of the earliest buildings constructed in White Springs to accommodate motorists. The South Park Entrance (8HA00287), the Museum Building (8HA00288) and the Carillon Tower (8HA00289), all of which are located within the original boundary of Stephen Foster Memorial, are significant examples of later tourism development in White Springs. They are also notable for the high quality of their unified architectural design. The Carillon Tower (8HA00289) is considered individually eligible for the National Register as it has the unique distinction of housing the largest and last tubular bell carillon built by J.C. Deagan, Inc., a noted builder, nationally and internationally, of tubular bell carillons from 1916-1958.

The Suwannee River Motel (8HA00192) was also listed as a contributing building to the White Springs Historic District (8HA00316), but was demolished in 1999 in order to build the Nature and Heritage Tourism Center. Two sites, the Edgewood Hotel Site (8HA00243) and the Colonial Hotel Site (8HA00286), which were recorded on FMSF Historic Structure forms as part of the White Springs Survey in 1990, were believed by the recorder to contribute to the historic district. However, these two hotel sites were removed from the White Springs Historic District (8HA00316) National Register nomination as they contained little to no building remains. Since the Edgewood Hotel Site (8HA00243) and the Colonial Hotel Site (8HA00286) were recorded as part of an historic structures survey and were not actually evaluated by a registered professional archaeologist, they should be considered as not evaluated for the purposes of this plan.

A National Register nomination was prepared for Stephen Foster Memorial (8HA00005) in 1970 but never submitted for evaluation. DRP Bureau of Natural and Cultural Resources (BNCR) is currently in the process of updating the FMSF for Stephen Foster Memorial (8HA00005) in order to delineate the district's boundaries better, establish a period of significance, and define the context and criteria for National Register significance.

Three historic structures associated with Stephen Foster Memorial were constructed in the mid-1950s and thus were less than fifty years old in 1990 when the White Springs Historic District (8HA316) nomination was prepared. They therefore were considered noncontributing structures to the district. The Toilet Building (8HA00421) and the Nelly Bly Restaurant (8HA00420), both constructed in 1956, were included in a 1950 plan for the park and were built to reflect the architecture of the nearby Museum Building (8HA00288). The Marble Stage (8HA00422), constructed in 1953, was the first planned outdoor performance area in the park and the site of the earliest Florida Folk Festival events. As a group, these structures should now be considered potentially eligible for the National Register as contributing structures to the Stephen Foster Memorial (8HA00005), along with the South Park Entrance (8HA00287), the Museum Building (8HA00288) and the Carillon Tower (8HA00289).

The Log Cabin (8HA00415), a 1870s structure that was moved to the park in 1978, was recorded in the FMSF in 2009 but subsequently removed with approval from DHR. Because the building had been moved from its original location and was in ruinous condition, the recorder considered the building ineligible for the National Register. Four additional structures, Garage/Storage (8HA00423), Nursery Building # 1 (8HA00424), Nursery Building #2 (8HA00425) and Nursery Pumphouse (HA00426) are in the process of being recorded and evaluated by BNCR staff for potential significance.

*General Management Measures:* The park manager has implemented a routine preventative and corrective maintenance program for all the buildings in the park. This includes a monthly building inspection checklist for each building's maintenance needs. The buildings are in everyday use by staff or the public, so rigorous preventative maintenance is very important. In that respect, the park has been maintaining the buildings in their existing condition or better.

From 2006 to 2016, the park completed corrective maintenance on multiple historic buildings. The Old Shop (HA00423) has been cleaned, received a new roof and was repainted. The roof of the Nelly Bly Restaurant (HA00420) was replaced and the interior was remodeled. The bathrooms in Nelly Bly, the Museum Building (HA00288) and the Carillon Tower (HA00289) were remodeled to be ADA compliant. Replacement of the Spring House (HA007) roof was completed in 2011. A conservation assessment of the Carillon Tower (HA00289) was done in 2011 to enable and guide restoration of the tower to its original condition. Roof leaks were repaired and the brick masonry joints were also repointed.

Current historic structure needs include the repainting of the Museum Building (HA00288), and the completion of repairs in the Carillon Tower (HA00289). Nursery Buildings 1 and 2 (HA00424 and HA00425) and the Nursery Pump House (HA00426) should be documented and removed.

#### **Collections**

*Desired Future Condition:* All historic, natural history and archaeological objects within the park that represent Florida's cultural periods, significant historic events or persons, or natural history specimens are preserved in good condition in perpetuity, protected from physical threats and interpreted to the public.

*Description:* Stephen Foster Folk Cultural Center State Park has a large and diverse collection relating to Stephen Foster memorabilia, items from the resort tourism era

centered on White Sulphur Springs, archives from events at the park including the Florida Folk Festival and archives detailing park operations.

Objects in the collection include large mechanical dioramas depicting songs written by Stephen Foster, original watercolors of each of the dioramas, paintings by Howard Chandler Christie, Stephen Foster's desk, sheet music and other Foster memorabilia, antique pianos, a wheelchair original to the Spring House, items retrieved from the river near the Spring House, minstrel items, postcards from the resort era, photographs, films and posters, documents from the creation of the Stephen Foster Memorial to the present and documents detailing park operations. The objects are representative of the period ranging from the late 1800s to the present.

The formal collections of the park are housed in the Museum Building and the main area of the Carillon Tower. Dioramas depicting Stephen Foster's songs are displayed in both areas. Four of the dioramas are in storage. Stephen Foster's sheet music and other paper memorabilia are also displayed in both locations. The pianos are in the Museum.

In addition, there are two archive rooms, one in the administration building, approximately 900 square feet and one in the Carillon Tower, approximately 500 square feet. While these areas are climate controlled to varying degrees, the reliability and effectiveness of the climate control system probably needs closer monitoring. At least a few collection items are stored informally in the museum attic.

Items in the collection are from various sources. The Stephen Foster Citizen Support Organization, Inc. purchased the wheelchair original to the Spring House. Pianos have been donated to the museum. The dioramas were constructed specifically for the original memorial. The park documents have been archived by park staff. Any items that are on loan to the collection need to be identified as such.

The collection has accumulated over many years. It is now quite large and includes detailed documents about the park's daily operations. The park has developed a schedule to sort, catalogue and clean the archives and collection. The collection information is currently maintained using the Past Perfect collection software.

*Condition Assessment:* The condition of the collection items varies widely from poor to good. Some stored objects need to have their condition evaluated as it is currently unknown. The displayed dioramas are in good condition. Four dioramas are not displayed. Two of these are in good condition, one is in poor condition and the condition of the fourth is unknown. The original watercolors depicting the dioramas are in good condition. The condition of the two Howard Chandler Christy paintings is good. The pianos, while old, are in good condition for their age and have recently been assessed, cleaned and tuned. The photographs and paper memorabilia range from good to poor condition. Some of the paper memorabilia have sustained water damage. The collection of minstrel items is in poor condition.

The two archive storage areas are climate controlled, but their temperature and relative humidity may vary too widely at this time. The Carillon Tower is not as cool as the archive room in the administration building. There may be a ductwork problem. A dehumidifier might help with the moisture. Photographs and paper memorabilia are not currently stored in acid-free archival material. This threatens their long-term preservation. Leaks in the Carillon Tower threaten some of the archived collection, and some water damage has already occurred. The displays do have UV light filtering film to protect them, but the film is about 15 years old and may no longer be very functional.

While the paintings and the dioramas are in good condition, a professional conservator should examine them. This would identify any needed repairs to keep them in good condition.

The two stored dioramas that are in good condition need to be cleaned and displayed in their original intended locations, which are the South Park Entrance ranger station and the Carillon Tower. They are currently stored in the new and old shops. A fourth diorama, condition unknown, is in the attic of the museum.

*Level of Significance:* The significance of the current collection varies greatly. Items that are original to the Spring House, the Stephen Foster Memorial and the state park are the most significant. The dioramas of Stephen Foster's songs and the original watercolors, his desk, the Howard Chandler Christy paintings, the wheelchair original to the Spring House, and original photographs and posters all fall into the significant category. The pianos probably vary in their significance and should be assessed. Copies of original photographs and much of the paper memorabilia relating to daily park operations probably are not significant.

*General Management Measures:* The park is in the process of developing a statement of collections, which will help determine the significance of specific items. It is also reviewing its current collection and determining what items should be part of the park collection. After the archives and collection have been assessed, the collections administrator should work with BNCR to develop a decision plan for objects not pertinent to the park or its interpretive mission.

In July 2011, the park implemented a new schedule to sort, catalogue and clean the archives and collection. This supplemented their existing collection management measures, and aided the transfer of the collection information and inventory scheduling to the Past Perfect collection software.

The park has a great deal of experience maintaining the collection, including repairing the intricate mechanisms of the dioramas. This knowledge should be compiled into a written housekeeping manual to provide future guidance. Guidelines on long-term periodic maintenance are also needed. The park also needs an updated disaster plan to protect key items in the collection in the event of hurricanes, fires or other catastrophes. It is important to develop a needs list for regular and periodic maintenance.

The ideal temperature and humidity for climate-controlled collections is 70° F and an RH of 50%. The climate-controlled area ideally should fluctuate no more than about 5% from this target. The temperature and RH should be checked daily in the archive rooms, the museum and the carillon tower display area.

The dioramas, watercolors, Christy paintings and pianos need to be professionally evaluated for both management needs and insurance purposes.

Detailed management goals, objectives and actions for the management of cultural resources in this park are discussed in the Cultural Resource Management Program section of this component. Table 5 contains the name, reference number, culture or period, and brief description of all the cultural sites within the park that are listed in the Florida Master Site File. The table also summarizes each site's level of significance, existing condition and recommended management treatment. An explanation of the codes is provided in the following table.

Table 5: Cultural Sites Listed in the Florida Master Site File					
Site Name and FMSF #	Culture/Period	Description	Significance	Condition	Treatment
HA005 Stephen Foster Memorial Park	Historic, mid-20 <sup>th</sup> Century	Resource Group	NR	G	RH
HA007 Spring House	Historic, 1901- 1904, 1973	Historic Structure	NR	G	Ρ
HA00171 NN	19 <sup>th</sup> Century and Archaic	Archaeological Site	NE	G	Ρ
HA00172 Stith/Barnett Drugstore	19 <sup>th</sup> & 20 <sup>th</sup> Century & Prehistoric Middle Archaic	Archaeological Site	NE	G	Ρ
HA00182 Stephen Foster Campground	Historic and Prehistoric	Archaeological Site	NE	G	Ρ
HA00192 Suwannee River Motel	Historic circa 1943	Historic Structure Demolished 1999	NE	Ρ	NA
HA00243 Edgewood Hotel Site	Historic circa 1910	Historic Structure Only remnants remain	NE	Ρ	NA

Table 5: Cultural Sites Listed in the Florida Master Site File					
Site Name and FMSF #	Culture/Period	Description	Significance	Condition	Treatment
HA00244 Delegal Service Station	Historic circa 1912	Historic Structure	NRL	G	RH
HA00286 Colonial Hotel Site	Historic circa 1912	Historic Structure Only remnants remain	NE	Ρ	NA
HA00287 South Park Entrance	Historic circa 1948	Historic Structure	NRL	G	RH
HA00288 Museum Building	Historic 1950	Historic Structure	NRL	G	RH
HA00289 Carillon Tower	Historic 1957	Historic Structure	NRL	F	RH
HA00316 White Springs Historic District	Historic - American Acquisition & American Civil War	Resource Group	NRL	NE	RH
HA00346 Cane Crusher Site	Prehistoric – Late Archaic	Archaeological Site	NS	G	Р
HA00370 Park Amphitheater Project	Prehistoric	Archaeological Site	NE	G	Р
HA00415 Log Cabin	Historic circa 1870	Historic Structure Removed with DHR approval 2009	NS	Р	NA
HA00420 Nelly Bly Restaurant	Historic 1956	Historic Structure	NR	G	RH
HA00421 Toilet Building	Historic 1956	Historic Structure	NR	G	RH

Table 5: Cultural Sites Listed in the Florida Master Site File					
Site Name and FMSF #	Culture/Period	Description	Significance	Condition	Treatment
HA00422 Marble Stage	Historic circa 1952	Historic Structure	NR	G	RH
HA00423 Shop Building	Historic circa 1957	Historic Structure	NS	G	RH
HA00424 Nursery Building #1	Historic mid-1950s	Historic Structure	NE	Ρ	R
HA00425 Nursery Building #2	Historic mid-1950s	Historic Structure	NE	Ρ	R
HA00426 Nursery Pumphouse	Historic mid-1950s	Historic Structure	NE	Ρ	R
HA00427 Scenic Overlook	Historic circa 1952	Historic Structure Removed 2014	NR	Ρ	NA
HA00428 Way Down Upon	20 <sup>th</sup> Century and Prehistoric – Late Archaic	Archaeological Site	NE	G	Р
HA00432 Suwannee River Rustic Bridge	Historic 20 <sup>th</sup> Century	Archaeological Site	NE	G	Ρ

#### Significance:

NRL National Register listed NR National Register eligible NE not evaluated NS not significant

#### Condition G Good

F Fair P Poor NA Not accessible NE Not evaluated

#### **Recommended Treatment:**

- RS Restoration RH Rehabilitation
- ST Stabilization
- P Preservation
- R Removal
- N/A Not applicable

#### **Resource Management Program**

#### Management Goals, Objectives and Actions

Measurable objectives and actions have been identified for each of the DRP's management goals for Stephen Foster Folk Culture Center State Park. Please refer to the Implementation Schedule and Cost Estimates in the Implementation Component of this plan for a consolidated spreadsheet of the recommended

actions, measures of progress, target year for completion and estimated costs to fulfill the management goals and objectives of this park.

While the DRP utilizes the ten-year management plan to serve as the basic statement of policy and future direction for each park, a number of annual work plans provide more specific guidance for DRP staff to accomplish many of the resource management goals and objectives of the park. Where such detailed planning is appropriate to the character and scale of the park's natural resources, annual work plans are developed for prescribed fire management, exotic plant management and imperiled species management. Annual or longer- term work plans are developed for natural community restoration and hydrological restoration. The work plans provide the DRP with crucial flexibility in its efforts to generate and implement adaptive resource management practices in the state park system.

The work plans are reviewed and updated annually. Through this process, the DRP's resource management strategies are systematically evaluated to determine their effectiveness. The process and the information collected is used to refine techniques, methodologies and strategies, and ensures that each park's prescribed management actions are monitored and reported as required by Sections 253.034 and 259.037, Florida Statutes.

The goals, objectives and actions identified in this management plan will serve as the basis for developing annual work plans for the park. The ten-year management plan is based on conditions that exist at the time the plan is developed, and the annual work provide the flexibility needed to adapt to future conditions as they change during the ten-year management planning cycle. As the park's annual work plans are implemented through the ten-year cycle, it may become necessary to adjust the management plan's priority schedules and cost estimates to reflect these changing conditions.

#### Natural Resource Management

#### Hydrological Management

# Goal: Protect water quality and quantity in the park, restore hydrology to the extent feasible and maintain the restored condition.

The natural hydrology of most state parks has been impaired prior to acquisition to one degree or another. Florida's native habitats are precisely adapted to natural drainage patterns and seasonal water level fluctuations, and variations in these factors frequently determine the types of natural communities that occur on a particular site. Even minor changes to natural hydrology can result in the loss of plant and animal species from a landscape. Restoring state park lands to original natural conditions often depends on returning natural hydrological processes and conditions to the park. This is done primarily by filling or plugging ditches, removing obstructions to surface water "sheet flow," installing culverts or low-water crossings on roads, and installing water control structures to manage water levels.

# Objective: Conduct/obtain an assessment of the park's hydrological restoration needs.

The two most significant hydrological features at Stephen Foster are the Suwannee River and White Sulphur Springs, which was once a flowing, second magnitude spring. The following are hydrological assessment actions recommended for the park.

The DRP will continue its tradition of close cooperation with state and federal agencies and independent researchers engaged in hydrological research and monitoring programs within the park and the adjacent Suwannee River, and it will encourage and facilitate additional research in those areas. Agencies such as the SRWMD, USGS and DEP will be relied upon to keep DRP apprised of any declines in surface water quality or any suspected contamination of groundwater in the region. Additional cooperative efforts may include facilitating the review and approval of research permits and providing researchers with assistance in the field, including orientation to park resources. Recommendations derived from these monitoring and research activities will be essential to the decision making process during management planning.

DRP will encourage appropriate hydrological experts to work toward a goal of complete delineation of the springshed of White Sulphur Springs. In that respect, DRP will seek funding for dye trace studies to determine the groundwater sources of the White Springs system. The proximal source of flow from the Floridan aquifer to the spring is still unknown. If the SRWMD is to establish a meaningful MFL for White Springs, it must identify up-gradient sources of the spring. In order to protect water quality and potentially restore the flow of the spring to its historic volume, it will be critically important to understand the extent of the springshed. Previous dye trace studies in other managed springsheds in Florida have provided park management with invaluable information about the various sources of springs and the timing of surface to groundwater interactions that potentially affect important surface water bodies.

Staff will continue to monitor land use or zoning changes within the landscape bordering the park. Major ground disturbances in that area or inadequate treatment of runoff into local streams could seriously degrade the quality of the park's resources. When appropriate, District 2 staff will provide comments to other agencies regarding proposed changes in land use or zoning. In addition, district staff will closely monitor the major phosphate mining operations north of the park for significant changes that may adversely affect the park's natural resources.

The DRP will continue to work closely with the SRWMD to ensure that MFLs developed for the Upper Suwannee River and White Sulphur Springs are implemented conscientiously and that spring flows are restored to their historic levels.

# *Objective: Restore natural hydrological conditions and functions to approximately 0.3 acres of Seepage Stream natural community.*

DRP staff will assess the hydrological impacts of a remnant concrete dam impoundment located in one of the seepage streams in the park. If the assessment indicates that restoration is needed, then the dam will be removed and the ephemeral discharge of the system restored. The park will explore alternative options for providing visitors with access to the far side of the stream by developing plans for a bridge and trail system that would enable proper interpretation of this resource.

Staff will initiate hydrological restoration measures for other natural systems in the park where necessary. Restoration actions may include the backfilling of old fire plow scars that appear to disrupt the natural hydrological regimes of wetland communities in the park. If the DRP determines that roads that cut through wetlands or mesic flatwoods are significantly altering natural hydrological patterns, staff will initiate corrective actions such as the installation of fording mats or culverts in appropriate locations.

### Objective: Evaluate and mitigate the impacts of soil erosion in the park.

Several areas in the park that are popular with visitors continue to have significant erosion issues despite past corrective measures. In that respect, the DRP will investigate best management options for additional mitigation of erosion at public access points such as the primitive camping, canoe launch and Carter-Camp restoration areas. Following are erosion control actions recommended for the park.

Staff will regularly monitor areas of the park that are subject to significant erosion. Wherever necessary, the park will implement corrective measures that reduce the impact of soil erosion on water resources. Unauthorized hiking trails along the river levees may lead to a significant increase in soil disturbance there. Park staff will identify such unauthorized trails and eliminate visitor access to them where necessary. In the canoe launch area, despite significant progress by the park in rectifying key erosion issues, additional stabilization measures will be needed in certain spots.

The park will assess the extent of erosion attributable to visitor access trails and surface water runoff associated with the unpaved parking area west of the Spring House and upslope of the seepage stream. The parking area may need additional water bars designed to slow runoff and minimize erosion during strong storm events. The objective will be to divert storm water as much as possible into surrounding woodlands to encourage natural infiltration.

#### Natural Communities Management

#### Goal: Restore and maintain the natural communities/habitats of the park.

As discussed above, DRP practices natural systems management. In most cases, this entails returning fire to its natural role in fire-dependent natural communities. Other methods to implement this goal include large-scale restoration projects as well as smaller scale natural communities' improvements. Following are the natural community management objectives and actions recommended for the state park.

#### Prescribed Fire Management

Prescribed fire is used to mimic natural lightning-set fires, which are one of the primary natural forces that shaped Florida's ecosystem. Prescribed burning increases the abundance and health of many wildlife species. A large number of Florida's imperiled species of plants and animals are dependent on periodic fire for their continued existence. Fire-dependent natural communities gradually accumulate flammable vegetation; therefore, prescribed fire reduces wildfire hazards by reducing these wild land fuels.

All prescribed burns in the Florida state park system are conducted with authorization from the FDACS, Florida Forest Service (FFS). Wildfire suppression activities in the park are coordinated with the FFS.

# *Objective: Within 10 years, have 450 acres of the park maintained within the optimum fire return interval.*

Table 6 contains a list of all fire-dependent natural communities found within the park, their associated acreage and optimal fire return interval, and the annual average target for acres to be burned.

Table 6: Prescribed Fire Management						
Natural Community	Acres	Optimal Fire Return Interval (Years)				
Mesic Flatwoods	501.49	2-3				
Pine Plantation	29.87	2-10				
Upland Pine	18.19	2-3				
Upland Mixed Woodland	14.53	2-5				
Depression Marsh	3.16	2-10				
Baygall	0.40	25-100				
Altered Landcover Type	Acres	Optimal Fire Return Interval (Years)				
Successional Hardwood Forest	20.45	2-5				
Annual Target Acreage*	180 - 300					

The park is partitioned into management zones including those designated as burn zones (see Management Zones Table). Prescribed fire is planned for each burn zone on the appropriate interval. The park's burn plan is updated annually because fire management is a dynamic process. To provide adaptive responses to changing conditions, fire management requires careful planning based on annual and very specific burn objectives. Each annual burn plan is developed to support and implement the broader objectives and actions outlined in this ten-year management plan.

Fire-maintained and fire-dependent communities within Stephen Foster Folk Culture Center State Park include mesic flatwoods, upland pine, upland mixed woodland, depression marsh, baygall and basin swamp. Portions of the mesic flatwoods, especially in areas outside the Carter-Camp Tract, have been impacted by prolonged fire exclusion. Effects include extensive invasion by off-site hardwoods and increased fuel loading. Burning has become more difficult and potentially more hazardous. In other areas, harvest of the pine canopy during efforts to control southern pine beetle infestations has removed the major fuel source from the site. The flatwoods in the Carter-Camp Tract were clear-cut just before the purchase by the SRWMD. Seven zones in the tract were roller-chopped and then prescribed burned in 1990 before being planted with longleaf pines. A series of floods and droughts, coupled with southern pine beetle outbreaks, reduced the windows of opportunity for conducting effective burns in the 1990s. Prescribed fires in more recent years have made significant progress in decreasing the coverage of volunteer loblolly pines, thereby reducing their competition with the restocked longleaf pines.

A lack of adequate perimeter firebreaks had also slowed the progress of the prescribed fire program. Once the park had established or improved additional perimeter firebreaks, prescribed fires became much safer to conduct. In most cases, fire return intervals will follow the guidelines of the Florida Natural Areas Inventory (FNAI 2010). Winter burns and shorter return intervals may be used during some phases of restoration.

The transition from one natural community to another is often gradual and indistinct. In order to eliminate false boundaries that are caused by artificial internal firebreaks, adjoining communities usually are burned at the same time. Whenever possible, the park uses natural firebreaks instead of hard firebreaks, particularly near ecotones.

The park manager and district staff revise the burn plan of the park annually and determine priorities based on a variety of parameters. The annual targeted burn acreage for the park is approximately 180 to 300 acres. Several areas within the park, including the southern pine beetle control areas, will require additional effort if restoration goals are to be met. Some of the clear-cut sites will need repeated burning and subsequent replanting with appropriate pine and groundcover species to prevent a recurrence of the loblolly pine invasions that made the sites so vulnerable to southern pine beetle infestations in the recent past.

Preparation and planning for wildfires or escaped prescribed burns within the park will also be a component of the park's prescribed burn plan. Park management will identify preferred fire suppression techniques and develop suppression guidelines to be discussed with local staff of the FFS before the need for fire suppression actually arises within the park. An element of the wildfire suppression plan may pertain to rehabilitation of fire lines and any other related impacts. Staff will identify and map sensitive resources such as wetlands, imperiled species, and cultural sites, and will convey that information to the FFS well in advance of any suppression activities. The park will contact residences along the park boundary before conducting prescribed burns in zones adjacent to the boundary. The park should also emphasize education of the public about the benefits of prescribed fire in order to curtail future efforts to restrict prescribed burning of natural areas.

Many species of wildlife and plants are adapted to natural communities that periodically burn. Species such as the gopher tortoise and the many commensals that share their burrows require fire-maintained habitats. At Stephen Foster, these areas include the upland pine and mesic flatwoods natural communities. Maintenance of the gopher tortoise population in the park requires regular prescribed fire to manage the preferred habitat of abundant herbaceous groundcover under an open canopy forest. Certain amphibian species also depend on fire. One of these, the imperiled flatwoods salamander (*Ambystoma cingulatum*), may exist within the park. A priority for the park will be to use prescribed fire to maintain the natural ecotone around potential breeding wetlands in the mesic flatwoods. To avoid possible impacts to adult salamanders, the park should not roller-chop or disk near basin swamps and depression marshes in the mesic flatwoods. The park will also use prescribed fire to maintain depression marshes near gopher tortoise burrows, since they may serve as breeding sites for the gopher frog.

In order to track fire management activities, the DRP maintains a statewide burn database. The database allows staff to track various aspects of each park's fire management program, including individual burn zone histories and fire return intervals, staff training/experience, backlogged zones, whether burn objectives have been met, etc. The database is also used for annual burn planning, which allows DRP to document fire management goals and objectives on an annual basis. Each quarter, the database is updated and reports are produced that track progress towards meeting annual burn objectives.

#### Natural Communities Restoration

In some cases, the reintroduction and maintenance of natural processes is not enough to reach the natural community desired future conditions in the park, and active restoration programs are required. Restoration of altered natural communities to healthy, fully functioning natural landscapes often requires substantial efforts that may include mechanical treatment of vegetation or soils and reintroduction or augmentation of native plants and animals. For the purposes of this management plan, restoration is defined as the process of assisting the recovery and natural functioning of degraded natural communities to desired future condition, including the re-establishment of biodiversity, ecological processes, vegetation structure and physical characters.

Examples that would qualify as natural community restoration, requiring annual restoration plans, include large mitigation projects, large-scale hardwood removal and timbering activities, roller-chopping and other large-scale vegetative modifications. The key concept is that restoration projects will go beyond management activities routinely done as standard operating procedures such as routine mowing, the reintroduction of fire as a natural process, spot treatments of exotic plants, small-scale vegetation management and so forth.

Following are the natural community/habitat restoration and maintenance actions recommended to create the desired future conditions in the upland pine, mesic flatwoods, and basin swamp communities.

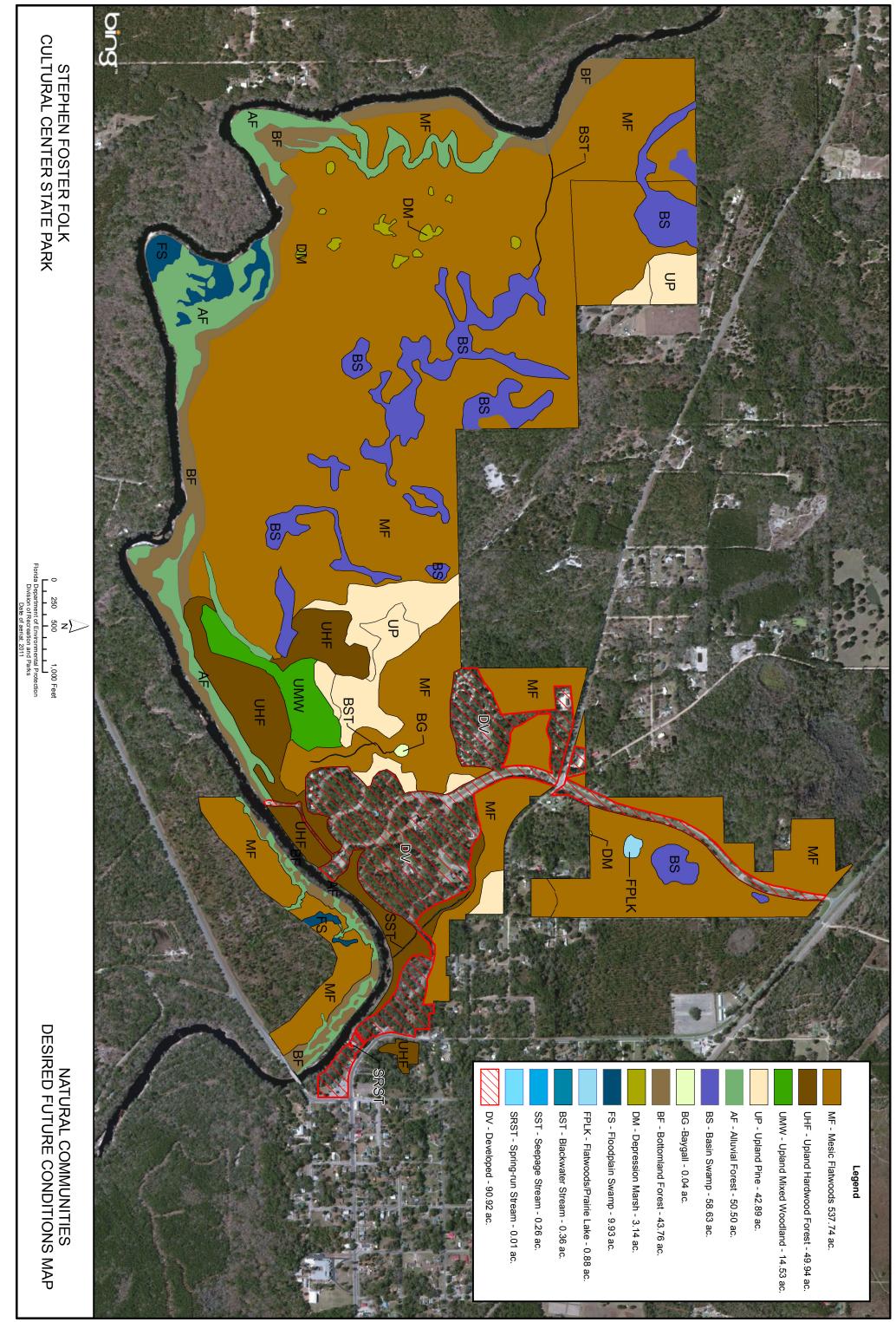
# *Objective: Conduct habitat/natural community restoration activities on 38.5 acres of upland pine, pine plantation and basin swamp communities.*

Management zone STF-7G contains basin swamp and upland pine, plus 28 acres of pine plantation, most of which had historically been mesic flatwoods. The plantation consists of 16 acres of slash pine and 12 acres of loblolly pine. This area will need a timber harvest to begin the restoration process. The loblolly pines will be removed while the slash pine could be thinned. Any longleaf pines present on the site will be retained. The park will reintroduce prescribed fire to the area one year after timber removal.

Staff will evaluate the upland pine area to determine how much hardwood tree removal will be necessary to achieve restoration goals. Mechanical and/or chemical treatment of invading hardwoods such as laurel oak may be needed. Fire will be an important part of the process to determine which, if any, groundcover species are still present in the plantation. It is highly likely that the park will have to plant native groundcover species in the zone, along with longleaf pines and additional southern red oak and mockernut hickory seedlings.

No sooner than one year after harvesting the pine plantation, the park will plant longleaf pines in the flatwoods and upland pine portions. District 2 staff will monitor pine seedling survival for one year after planting.

Two years after planting, longleaf pine maintenance activities will include prescribed burning and supplemental planting of additional pines if needed. Restoration of a natural fire regime will serve to restore the natural ecotone between the firedependent natural communities and the basin swamp within this management zone.



#### Natural Communities Improvement

Improvements are similar to restoration but on a smaller, less intense scale. This typically includes small-scale vegetative management activities or minor habitat manipulation. Following are the natural community/habitat improvement actions recommended at the park.

## Objective: Conduct natural community/habitat improvement activities on at least 10 acres of the mesic flatwoods community.

Concurrent with the timber harvest of the pine plantation mentioned above, off-site loblolly pines should be selectively removed from the mesic flatwoods in several additional zones in the Carter-Camp Tract. Any longleaf pines present in those zones will be protected from harvest. This particular timbering operation will need to be more selective and sensitively done than the timber harvest described above for the plantation restoration project.

## Objective: Conduct natural community/habitat improvement activities on at least 1 acre of depression marsh community.

Depression marshes in the Carter-Camp Tract have slash pines and loblolly pines distributed throughout them, a result of either direct planting or natural seeding. These pines need to be removed from the depression marshes. Chainsaws will be the tools of choice rather than logging equipment. Subsequent maintenance activities will include prescribed fires that are allowed to burn through the depression marshes.

# Objective: Conduct natural community/habitat improvement activities on at least 1 acre of upland pine community.

Most of the upland pine community in the Carter-Camp Tract has been invaded by hardwood species such as laurel oak because of a lack of fire. The park will remove these invading hardwoods mechanically and/or chemically. Maintenance activities will include follow-up retreatment of invading off-site hardwoods and their sprouts, as well as periodic prescribed fires.

#### **Imperiled Species Management**

## Goal: Maintain, improve or restore imperiled species populations and habitats in the park.

The DRP strives to maintain and restore viable populations of imperiled plant and animal species primarily by implementing effective management of natural systems. Single species management is appropriate in state parks when the maintenance, recovery or restoration of a species or population is complicated due to constraints associated with long-term restoration efforts, unnaturally high mortality or insufficient habitat. Single species management should be compatible with the maintenance and restoration of natural processes, and should not imperil other native species or seriously compromise park values.

In the preparation of this management plan, DRP staff consulted with staff of the FWC's Imperiled Species Management or that agency's Regional Biologist and other appropriate federal, state and local agencies for assistance in developing imperiled animal species management objectives and actions. Likewise, for imperiled plant species, DRP staff consulted with FDACS. Data collected by the USFWS, FWC, FDACS and FNAI as part of their ongoing research and monitoring programs will be reviewed by park staff periodically to inform management of decisions that may have an impact on imperiled species at the park.

Ongoing inventory and monitoring of imperiled species in the state park system is necessary to meet the DRP's mission. Long-term monitoring is also essential to ensure the effectiveness of resource management programs. Monitoring efforts must be prioritized so that the data collected provides information that can be used to improve or confirm the effectiveness of management actions on conservation priorities. Monitoring intensity must at least be at a level that provides the minimum data needed to make informed decisions to meet conservation goals. Not all imperiled species require intensive monitoring efforts on a regular interval. Priority must be given to those species that can provide valuable data to guide adaptive management practices. Those species selected for specific management action and those that will provide management guidance through regular monitoring are addressed in the objectives below.

## *Objective: Update baseline imperiled species occurrence inventory lists for plants and animals.*

Additional surveys for imperiled plant and animal species are needed for Stephen Foster Folk Culture Center State Park to ensure that all imperiled species are documented. The DRP will enlist the assistance of academic researchers and staff from other agencies during development of species occurrence inventory lists, especially where necessary for certain taxonomic groups.

## *Objective: Monitor and document 2 selected imperiled animal species in the park.*

DRP will attempt to confirm the population status of gopher frogs and frosted flatwoods salamanders within the park. Surveying of ephemeral ponds used as breeding sites is one of the more effective ways to locate populations of these cryptic amphibians. Survey methods will use standard FWC survey techniques for amphibian larvae that were developed for frosted flatwoods salamanders and other pond breeding species. If necessary, assistance from FWC will be requested.

# *Objective: Monitor and document 1 selected imperiled plant species in the park.*

Staff will conduct additional surveys for hooded pitcherplants during non-drought conditions. Timing of the surveys will coincide with the spring flowering season to aid in the detection of the pitcherplants. Surveys should be conducted in the spring following growing season burns along the ecotones between the mesic flatwoods and basin swamps or depression marshes.

#### Exotic Species Management

# Goal: Remove exotic and invasive plants and animals from the park and conduct needed maintenance control.

The DRP actively removes invasive exotic species from state parks, with priority being given to those causing the ecological damage. Removal techniques may include mechanical treatment, herbicides or biocontrol agents.

## Objective: Annually treat 3.5 acres of exotic plant species in the park.

The park will survey and treat populations of invasive exotic plants annually. The populations that are in maintenance condition will be visited frequently enough to keep them in maintenance condition. Park staff will familiarize themselves with all the exotic species on the park list so that they can identify them as they go about their regular duties.

The park will quickly treat any invasive plant species found in the Carter-Camp Tract so that this area remains as exotic free as possible. Chinese tallowtree and Japanese climbing fern are likely invaders of this area.

Staff should attempt to eradicate silverthorn from infested areas. While this species is a Category II plant on the Florida Exotic Pest Plant Council list, it has recently appeared in other parts of north Florida as isolated individuals. This is indicative of animal dispersion. The park has achieved significant control of ardisia, and treatment of this species should continue on an annual basis.

# *Objective: Implement control measures on three nuisance and exotic animal species in the park.*

Feral cats and dogs will be removed from the park as they are encountered. At this time, the park has few feral hogs. The park will continue to trap feral hogs and will continue to monitor for signs of hog damage. If damage increases, the park will augment control measures.

#### Cultural Resource Management

Cultural resources are individually unique, and collectively, very challenging for the public land manager whose goal is to preserve and protect them in perpetuity. The

DRP is implementing the following goals, objectives and actions, as funding becomes available, to preserve the cultural resources found in Stephen Foster Folk Culture Center State Park.

#### Goal: Protect, preserve and maintain the cultural resources of the park.

The management of cultural resources is often complicated because these resources are irreplaceable and extremely vulnerable to disturbances. The advice of historical and archaeological experts is required in this effort. All activities related to land clearing, ground disturbing activities, major repairs or additions to historic structures listed or eligible for listing in the National Register of Historic Places and collections care must be submitted to the FDOS, Division of Historical Resources (DHR) for review and comment prior to undertaking the proposed project. Recommendations may include, but are not limited to concurrence with the project as submitted, pre-testing of the project site by a certified archaeological monitor, cultural resource assessment survey by a qualified professional archaeologist, modifications to the proposed project to avoid or mitigate potential adverse effect. In addition, any demolition or substantial alteration to any historic structure or resource must be submitted to DHR for consultation and the DRP must demonstrate that there is no feasible alternative to removal and must provide a strategy for documentation or salvage of the resource. Florida law further requires that the DRP consider the reuse of historic buildings in the park in lieu of new construction and must undertake a cost comparison of new development versus rehabilitation of a building before electing to construct a new or replacement building. This comparison must be accomplished with the assistance of DHR.

# *Objective: Assess and evaluate 21 of 26 recorded cultural resources in the park.*

The park currently assesses its archaeological resources regularly. The seven archaeological sites are in good condition.

The park will continue its regular program of cultural site assessment. If stabilization or preservation needs arise during the course of assessing these sites, the park will identify and prioritize those needs.

Most of the historic structures are currently in use by the park during daily operations. No buildings within the park have yet had a Historic Structures Report prepared. Historic Structures Reports are recommended for the historic structures in the following priority order: the Carillon Tower (HA00289), the Spring House (HA007), the Museum (HA00288), the Delegal Service Station (HA00244), the South Park Entrance (HA00287), and the Nelly Bly Restaurant (HA00420). The park will have two Historic Structures Reports prepared.

## *Objective: Compile reliable documentation for all recorded historic and archaeological resources.*

All known archaeological sites and historic structures have been recorded with the FMSF. A predictive model for the park was completed in 2012 (Collins et al 2012).

The park needs to adopt a Scope of Collections and clarify the themes that the collections will interpret. This will provide guidance in the development of any future collections and in the acceptance of donations. It will also guide the deaccession process if portions of the collections are not retained. The scope will be reviewed on an annual basis.

There is a large amount of information in the park collection relating to the park's administrative history. These memorabilia need to be winnowed down to the most important items, but not include all of the daily park records. The Scope of Collections Statement will help guide this process.

A Disaster Plan is needed to identify and protect key items in the collection. The significance and value of some the collection items, such as the pianos and dioramas, need to be assessed and researched.

#### Objective: Bring 1 of 26 recorded cultural resources into good condition.

Staff will continue to monitor the park's cultural resources and implement a routine preventative and corrective maintenance program for all of the buildings in the park. This includes a monthly building inspection checklist for each building's maintenance needs.

Most of the park's cultural resources are currently in good condition. The exceptions are those historic structures that include building remnants or that were demolished, the Nursery Buildings #1 (HA00424) and #2 (HA00425) and the Nursery Pumphouse (HA00426), which are in poor condition, and the Carillon Tower (HA00289), which is in fair condition.

The Carillon Tower (HA00289) will be improved to good condition. The 2011 conservation assessment for the Carillon Tower will guide what other repairs are needed besides the repairing of leaks. The other structures will be maintained in their current good condition.

The Nursery Buildings #1 (HA00424) and #2 (HA00425) and the Nursery Pumphouse (HA00426) should be documented and removed.

#### Special Management Considerations

#### **Timber Management Analysis**

Chapters 253 and 259, Florida Statutes, require an assessment of the feasibility of managing timber in land management plans for parcels greater than 1,000 acres if the lead agency determines that timber management is not in conflict with the primary management objectives of the land. The feasibility of harvesting timber at this park during the period covered by this plan was considered in context of the DRP's statutory responsibilities and an analysis of the park's resource needs and values. The long-term management goal for forest communities in the state park system is to maintain or re-establish old-growth characteristics to the degree practicable, with the exception of those communities specifically managed as early successional.

A timber management assessment (see Addendum 8) was conducted at the park in 2011. The primary focus of the assessment is management zone STF-7G, which contains planted slash pines and volunteer loblolly pines in an area that was windrowed and bedded. However, timber management may be an efficient restoration method to remove volunteer loblolly pines in other parts of the Carter-Camp Tract as well. The loblolly pines are intermixed with the longleaf pines that were planted in 1990.

#### Arthropod Control Plan

All DRP lands are designated as "environmentally sensitive and biologically highly productive" in accordance with Ch. 388 and Ch. 388.4111 Florida Statutes. If a local mosquito control district proposes a treatment plan, the DRP works with the local mosquito control district to achieve consensus. Treatment methods including larviciding and ground adulticiding (truck spraying in public use areas) are typically allowed. Aerial adulticiding can be allowed through an agreed upon control plan. The DRP does not authorize new physical alterations of marshes through ditching or water control structures. Mosquito control plans temporarily may be set aside under declared threats to public or animal health, or during a Governor's Emergency Proclamation.

#### Additional Considerations

DRP has management authority over a 400-foot zone from the edge of mean high water along the Suwannee River where it passes through or alongside the park. Where emergent wetland vegetation exists, the zone extends waterward 400 feet beyond the vegetation. Within this zone, the park staff will enforce the DRP regulations. All wildlife within this zone, with the exception of fish, is protected from harvest, as stated in the Imperiled Species section, above. In addition, pre-cut timber harvesting (dead head logging) is prohibited within this zone.

#### **Resource Management Schedule**

A priority schedule for conducting all management activities that is based on the purposes for which these lands were acquired, and to enhance the resource values, is located in the Implementation Component of this management plan.

#### Land Management Review

Section 259.036, Florida Statutes, established land management review teams to determine whether conservation, preservation and recreation lands titled in the name of the Board of Trustees are being managed for the purposes for which they were acquired and in accordance with their approved land management plans. The managing agency shall consider the findings and recommendations of the land management review team in finalizing the required update of its management plan.

The park has not been the subject of a land management review during the current ten-year approved plan cycle.

#### LAND USE COMPONENT

#### Introduction

Land use planning and park development decisions for the state park system are based on the dual responsibilities of the Florida Department of Environmental Protection (DEP), Division of Recreation and Parks (DRP). These responsibilities are to preserve representative examples of original natural Florida and its cultural resources, and to provide outdoor recreation opportunities for Florida's citizens and visitors.

The general planning and design process begins with an analysis of the natural and cultural resources of the unit, and then proceeds through the creation of a conceptual land use plan that culminates in the actual design and construction of park facilities. Input to the plan is provided by experts in environmental sciences, cultural resources, park operation and management. Additional input is received through public workshops, and through environmental and recreational-user groups. With this approach, the DRP objective is to provide quality development for resource-based recreation throughout the state with a high level of sensitivity to the natural and cultural resources at each park.

This component of the unit plan includes a brief inventory of the external conditions and the recreational potential of the unit. Existing uses, facilities, special conditions on use, and specific areas within the park that will be given special protection, are identified. The land use component then summarizes the current conceptual land use plan for the park, identifying the existing or proposed activities suited to the resource base of the park. Any new facilities needed to support the proposed activities are expressed in general terms.

#### **External Conditions**

An assessment of the conditions that exist beyond the boundaries of the unit can identify any special development problems or opportunities that exist because of the unit's unique setting or environment. This also provides an opportunity to deal systematically with various planning issues such as location, regional demographics, adjacent land uses and park interaction with other facilities

Stephen Foster Folk Culture Center State Park is located within Hamilton County and the northwestern tip of Columbia County less than one mile west of White Springs and 13 miles north of Lake City near the junction of Interstate 10 and Interstate 75 in the north central part of the state. The Suwannee River bisects the park. Approximately 144,000 people live within 30 miles of the park (U.S. Census 2010).

The population of Columbia and Hamilton County are relatively diverse. According to the U.S. Census data (2010), approximately one-fifth of residents in Columbia County and half of residents in Hamilton County identify as black, Hispanic or Latino or another minority group. Nearly half of residents can be described as youth or seniors in both counties (U.S. Census 2010). In 2013, Columbia County's per capita personal income was \$29,315 and Hamilton County's was \$20,807 (below the statewide average of \$41,497) (U.S. Bureau of Economic Analysis 2013).

Suwannee County, less than a mile west of the park, has a quarter of residents who identify as black, Hispanic or Latino or another minority group. 62% of the population is of working age (16 to 65) (U.S. Census Bureau 2010). Suwannee County's per capita personal income was \$28,501 in 2013 (below the statewide average of \$41,497) (U.S. Bureau of Economic Analysis 2013).

Significant conservation lands lie within 15 miles of Stephen Foster Folk Culture Center State Park including a variety of Suwannee River Water Management District Conservation Areas (Fort Union, Bay Creek, Cypress Creek, Deep Creek, Swift Creek, Suwannee Valley, Woods Ferry, Camp Branch, Benton and Belmont). District lands offer opportunities for hiking, biking, fishing horseback riding, and wildlife viewing. Some tracts also allow hunting. Big Shoals Public Lands, 6 miles to the east, provides hiking and equestrian trails, biking, canoeing and kayaking, fishing, and wildlife viewing. John M. Bethea State Forest offers hiking, primitive camping, fishing, hunting, and a canoe launch. The forest allows a continuous wildlife corridor connecting the Okefenokee National Wildlife Refuge and Osceola National Forest. Osceola National Forest contains a section of the Florida National Scenic Trail, hunt camps, and camping. Many recreation-based opportunities exist in the area to take advantage of the Suwannee River.

The park is located in the North Central Vacation Region, which includes Alachua, Bradford, Columbia, Dixie, Gadsden, Gilchrist, Hamilton, Jefferson, Lafayette, Leon, Levy, Madison, Suwanee, Taylor, Union, and Wakulla counties (Visit Florida 2013). According to the 2013 Florida Visitor Survey, approximately 2% of domestic visitors to Florida visited this region. Roughly 95% visitors to the region traveled to the North Central Region for leisure purposes. The top activities for domestic visitors were visiting friends or relatives and shopping. Summer was the most popular travel season, but visitation was generally spread throughout the year. Most visitors traveled by non-air (85%), reporting an average of 3 nights and spending an average of \$79 per person per day (Visit Florida 2013).

Florida's Statewide Comprehensive Outdoor Recreation Plan (SCORP) indicates that participation rates in this region for freshwater beach activities, saltwater boat fishing, saltwater and freshwater boat ramp use, freshwater fishing, canoeing/kayaking, visiting archaeological and historic sites, wildlife viewing, picnicking, hiking, camping, off-highway vehicle riding, horseback riding, and hunting are higher than the state average with demand for additional facilities increasing through 2020 (FDEP 2013).

#### Existing Use of Adjacent Lands

The downtown section of White Springs and associated residential areas are located immediately east of the State Folk Culture Center. Agricultural lands, mainly pine plantations, and scattered rural residences surround the unit on the other three sides. The Suwannee River flows through the property just north of the southern boundary.

#### Planned Use of Adjacent Lands

Adjacent lands in Hamilton and Columbia County are designated for agriculture to maintain the rural nature of the area. Surrounding parcels in Columbia County are identified environmentally sensitive areas. The Hamilton County Comprehensive Plan encourages the multiple use of forest resources to include timber production, recreation, and wildlife habitat protection.

Adjacent lands are zoned for agriculture and low-density residential development. Agriculture lands surrounding the park are mainly pine plantations and scattered rural residences. Park lands within Columbia County are zoned as an environmentally sensitive area, requiring special planning and treatment for land development. Measures must be taken to protect the natural functions within this district. The surrounding lands have a predominantly rural character. White Springs, immediately to the east of the park, is the nearest developed area and allows medium density residential and commercial development concentrated along State Road 41. The Suwannee River and its floodplain serve to buffer the west and southern boundaries of the property.

## Property Analysis

Effective planning requires a thorough understanding of the unit's natural and cultural resources. This section describes the resource characteristics and existing uses of the property. The unit's recreation resource elements are examined to identify the opportunities and constraints they present for recreational development. Past and present uses are assessed for their effects on the property, compatibility with the site, and relation to the unit's classification.

#### **Recreational Resource Elements**

This section assesses the park's recreational resource elements, those physical qualities that, either singly or in certain combinations, can support various resource-based recreation activities. Breaking down the property into such elements provides a means for measuring the property's capability to support potential recreational activities. This process also analyzes the existing spatial factors that either favor or limit the provision of each activity.

#### Land Area

Stephen Foster Folk Culture Center State Park is a 907-acre park located along the Suwannee River. The park contains diverse natural communities, allowing a wide range of natural and recreational experiences for park visitors. These activities can include camping, hiking, bird watching, nature study, and picnicking.

#### Water Area

The Suwannee River is the most significant natural feature of the park. Designated an Outstanding Florida Waters in 1980, this blackwater stream provides several miles of scenic shoreline within the park alone. Along its banks, numerous small springs contribute water to the river, and rock outcroppings demonstrate the ancient history of the river. The river creates scenic vistas and an opportunity for many water-based recreation opportunities such as paddling and fishing.

#### Shoreline

Stephen Foster Folk Culture Center State Park has 3.5 miles of shoreline along the Suwannee River. High banks provide areas for wildlife viewing and an opportunity for land-based recreation, such as fishing.

#### **Natural Scenery**

The natural scenery of the park is accentuated not only by scenic river views and high bluffs, but also by the variety of natural communities located within the park. These views create opportunities for photography, nature study, picnicking, and wildlife viewing.

#### Significant Habitat

Many of the 17 natural communities located throughout the park provide significant habitat. Over twenty state or federally designated plant and animal species have been found within the boundaries of Stephen Foster Folk Culture Center State Park, allowing unique opportunities for birding, wildlife viewing, and nature study. These species include the gopher tortoise, Suwannee cooter, and numerous others.

#### **Special Natural Features**

The primary natural features in the park are the Suwannee River and White Sulphur Springs. The Suwannee River is a world-renowned blackwater stream that forms in the Okefenokee Swamp in Georgia and travels 167 winding miles until it empties into the Gulf of Mexico. The spring and its mineral-rich waters were once a major tourist draw for the region. These natural features can be interpreted through educational tours and programming.

#### Archaeological and Historical Features

Seven archaeological sites and 19 historic structures and resource groups are currently known to occur in the park. They include a quarry, campsite or homestead, Nelly Bly's restaurant, the south park entrance, Carillon tower, and more. These elements can be features of interpretive material for visitor programming.

#### Assessment of Use

All legal boundaries, significant natural features, structures, facilities, roads and trails existing in the unit are delineated on the base map (see Base Map). Specific uses made of the unit are briefly described in the following sections.

#### Past Uses

The land within the Stephen Foster Memorial site was used for agriculture before its development as a memorial site. The Carter-Camp Tract was primarily used for forestry purposes. The Springhouse and surrounding property were important elements of the resort industry in White Springs. A hotel once stood on this site drawing in tourists. The unit has also been the location of the annual Florida Folk Festival, the nation's oldest state folk festival since 1953.

#### Future Land Use and Zoning

The DRP works with local governments to establish designations that provide both consistency between comprehensive plans and zoning codes and permit typical state park uses and facilities necessary for the provision of resourcebased recreation.

The current future land use designation in both counties is Conservation. Permitted uses include public access and residential uses required to manage conservation lands, such as ranger stations, research stations, and park amenities. The current zoning designation for the entire park is also Conservation. There are no expected conflicts between the future land use or zoning designations and typical state park land uses.

#### **Current Recreational Use and Visitor Programs**

Interpretation of the music of Stephen Foster, Florida folklife and contemporary and traditional Florida arts and crafts are offered at the State Folk Culture Center. Picnicking, hiking, camping, canoeing and kayaking, and nature appreciation are also available at the center. Participants in the sponsored events are allowed to camp in a designated area near the northern park entrance.

Stephen Foster Folk Culture Center State Park recorded 108,148 visitors in FY 2014/2015. By DRP estimates, the FY 2014/2015 visitors contributed

\$10,786,123 in direct economic impact, the equivalent of adding 173 jobs to the local economy (FDEP 2015).

Stephen Foster State Folk Culture Center is one of nine Florida State Parks that contains a certified segment of the Florida National Scenic Trail (FNST). Formerly the Florida Trail, the FNST was designated in the park in June 2005, as part of the three-party certification agreement between DRP, the U.S. Forest Service and the Florida Trail Association. As prescribed by the agreement, the DRP and the FTA coordinate all programs and activities related to the trail. The beginning of the trail in this section is at the western boundary of the Culture Center.

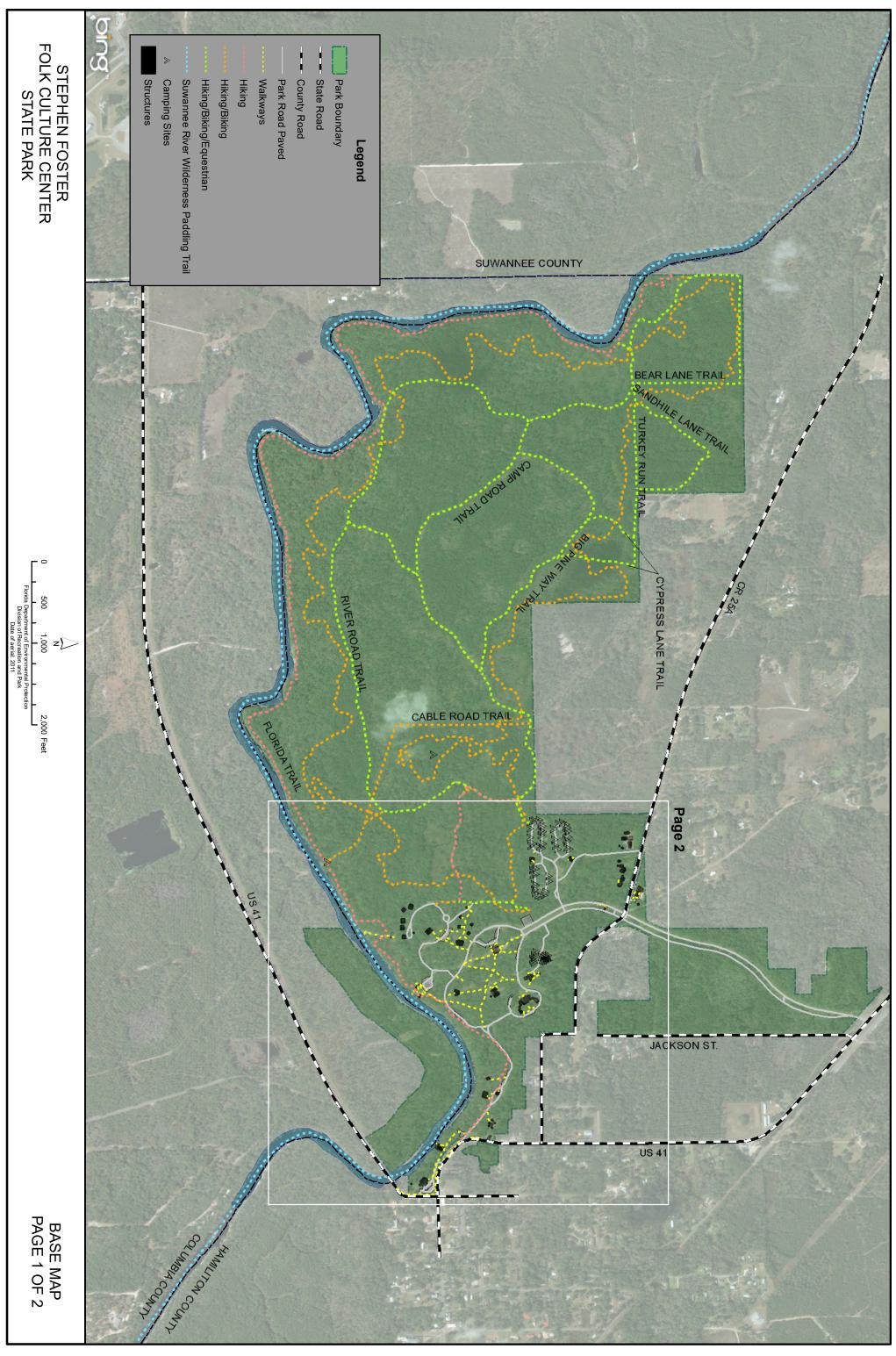
#### **Protected Zones**

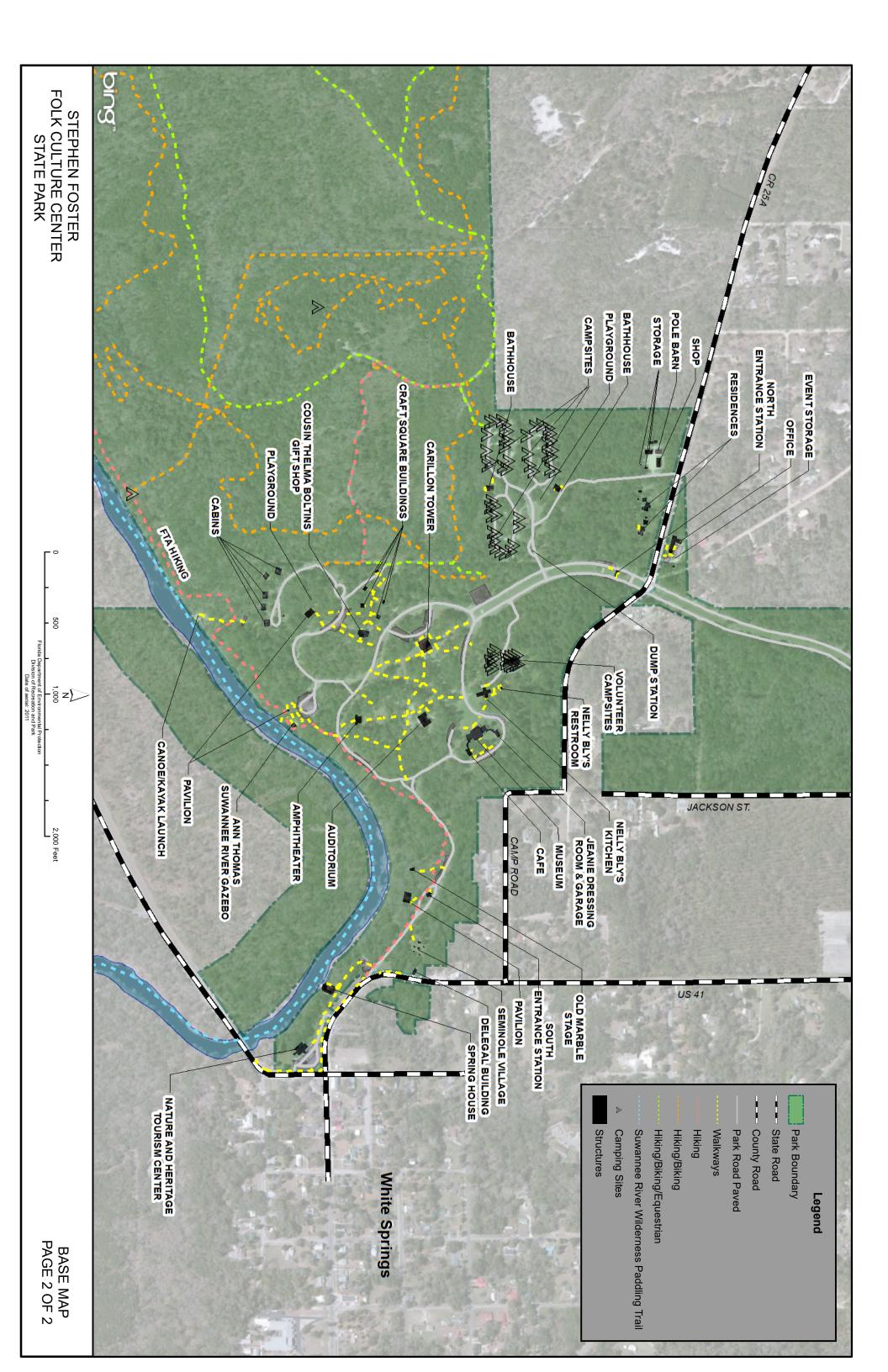
A protected zone is an area of high sensitivity or outstanding character from which most types of development are excluded as a protective measure. Generally, facilities requiring extensive land alteration or resulting in intensive resource use, such as parking lots, camping areas, shops or maintenance areas, are not permitted in protected zones. Facilities with minimal resource impacts, such as trails, interpretive signs and boardwalks are generally allowed. All decisions involving the use of protected zones are made on a case-by-case basis after careful site planning and analysis.

At Stephen Foster State Folk Culture Center, the Suwannee River and the river bluffs, a small ravine system located in the southeast portion of the original property, and all wetlands have been designated as protected zones as delineated on the Conceptual Land Use Plan.

## **Existing Facilities**

Activities at Stephen Foster Folk Culture Center State Park are centered in nine main use areas. These include the main use area, campground, cabin area, primitive camping area, picnic area, canoe/kayak launch, Springhouse, river gazebo, a primitive campsite, and primitive group camp. Support facilities are located in five main support areas: the south entrance area, shop area, residence area, volunteer residence area, and administrative area to the north of the park (see Base Map). The south entrance area functions as the primary access point for day-use visitors. The north entrance area is utilized as an entrance for special events. An extensive trail network winds throughout the park, providing over twenty miles for hiking, biking, and equestrian use.





#### **Recreation Facilities**

Main Use Area Auditorium Amphitheater Museum Seminole Village Carillon Tower Nelly Bly's Kitchen Gift Shop Craft Square

<u>Camping Area</u> Standard campground (45) Playground Dump Station Bathhouse (2)

<u>Cabin Area</u> Cabins (5) Playground Cane-Grinding Exhibit

#### <u>Primitive Camping Areas</u> Primitive Group Camp Primitive Campsite Campfire Circle

Parkwide River Gazebo Springhouse Canoe/Kayak Launch Seminole Village Interpretive Kiosks (2) Restrooms (3) Florida National Scenic Trail (4.86 miles) Hiking Trails (4.15 miles) Paddling Trails (4.36 miles) Multi-Use Trails (14.21 miles)

#### **Support Facilities**

Shop Area Sheds (2)

Barn

Buildings (3)

Entrance Area South Ranger Station Special Events Pavilion Old Marble Stage

<u>Residence Areas</u> Staff Residences (2) Volunteer Campsites (17)

Administrative Area Administrative Office North Ranger Station

Parkwide Parking (118 spaces)

#### **Conceptual Land Use Plan**

The following narrative represents the current conceptual land use proposal for this park. The conceptual land use plan is the long-term, optimal development plan for the park, based on current conditions and knowledge of the park's resources, landscape and social setting (see Conceptual Land Use Plan). The conceptual land use plan is modified or amended, as new information becomes available regarding the park's natural and cultural resources or trends in recreational uses, in order to adapt to changing conditions. Additionally, the acquisition of new parkland may provide opportunities for alternative or expanded land uses. The DRP develops a detailed development plan for the park and a site plan for specific facilities based on this conceptual land use plan, as funding becomes available.

During the development of the conceptual land use plan, the DRP assessed the potential impact of proposed uses or development on the park resources and applied that analysis to determine the future physical plan of the park as well as the scale and character of proposed development. Potential resource impacts are also identified and assessed as part of the site planning process once funding is available for facility development. At that stage, design elements (such as existing topography and vegetation, sewage disposal and stormwater management) and design constraints (such as imperiled species or cultural site locations) are investigated in greater detail. Municipal sewer connections, advanced wastewater treatment or best available technology systems are applied for on-site sewage disposal. Creation of impervious surfaces is minimized to the greatest extent feasible in order to limit the need for stormwater management systems, and all facilities are designed and constructed using best management practices to limit and avoid resource impacts. Federal, state and local permit and regulatory requirements are addressed during facility development. This includes the design of all new park facilities consistent with the universal access requirements of the Americans with Disabilities Act (ADA). After new facilities are constructed, park staff monitors conditions to ensure that impacts remain within acceptable levels.

#### Potential Uses

#### **Public Access and Recreational Opportunities**

#### Goal: Provide public access and recreational opportunities in the park.

The existing recreational activities and programs of this state park are appropriate to the natural and cultural resources contained in the park and should be continued. New and improved activities and programs are also recommended and discussed below.

# *Objective: Maintain the park's current recreational carrying capacity of 5,495 users per day.*

Stephen Foster Folk Culture Center State Park is visited for its memorial area, including the museum and accompanying historic structures, as well as the ideal location along the Suwannee River. Camping is a popular activity at the park, both in the family camping area, cabin area, and primitive group camp. The folk festival annually draws in hundreds of visitors appreciated the folk history of the region.

# *Objective: Expand the park's recreational carrying capacity by 270 users per day.*

The additional primitive, tent-only, and family camping campsites will allow increased overnight visitation to the park. Adding five new cabins also increases accommodations for park visitors. Picnicking opportunities will also be expanded with the construction of a large multi-purpose shelter.

# *Objective: Continue to provide the current repertoire of 16 interpretive, educational and recreational programs on a regular basis.*

Interpretive programs include pumpkin festivals, antique and craft days, classic movie nights, the old-time music weekend, and coffee house events. Visitors have the opportunity to learn or improve their outdoor skills and education by attending the campfire program series. Educational programming promoting the understanding of the park and its resources consists of ranger-led talks about Native Americans in Florida and folk life days. The park also hosts races and community events. Self-guided interpretive signs and kiosks educate visitors about natural and cultural resources within the park.

# *Objective: Develop 2 new interpretive, educational and recreational programs.*

Interpretive facilities for day-use visitors and festival goes should be installed at the Seminole Village. Additional interpretive programs detailing the history of the Spring House would allow visitor insight of the significance of the site to White Springs.

#### Proposed Facilities

#### Capital Facilities and Infrastructure

# Goal: Develop and maintain the capital facilities and infrastructure necessary to implement the recommendations of the management plan.

The existing facilities of this state park are appropriate to the natural and cultural resources contained in the park and should be maintained. New construction, as discussed further below, is recommended to improve the quality and safety of the recreational opportunities, to improve the protection of park resources, and to streamline the efficiency of park operations. The following is a summary of improved and/or new facilities needed to implement the conceptual land use plan for Stephen Foster Folk Culture Center State Park:

## *Objective: Maintain all public and support facilities in the park.*

All capital facilities, trails and roads within the park will be kept in proper condition through the daily or regular work of park staff and/or contracted help.

#### Objective: Improve/repair 9 existing facilities.

Major repair projects for park facilities may be accomplished within the ten-year term of this management plan, if funding is made available. These include the modification of existing park facilities to bring them into compliance with the Americans with Disabilities Act (a top priority for all facilities maintained by DRP). The following discussion of other recommended improvements and repairs are organized by use area within the park.

#### **Recreation Facilities**

#### Main Use Area

The amphitheater should be modified for accessibility, with electrical/utility upgrades and showers. Sidewalks and access points outside of the museum should be improved for accessibility. The café should also be considered for concession opportunities.

#### Camping Areas

Up to five new campsites should be added within the existing footprint of the campground. Vegetated buffers should be planted around existing sites to offer campers more privacy within their sites. All sites within the campground should be studied for accessibility improvements. Eight tent-only campsites should be constructed to the northeast of the campground, as indicated on the Conceptual Land Use Plan. The campsites should be serviced by a stabilized parking area. Users of the tent-only sites would be able to utilize the existing bathhouse.

#### Cabin Area

The cabin area should be expanded for five more cabins and a cabin support facility, which would include a laundry facility for park staff and volunteers. The cane grinding exhibit should be relocated with the Crafts Square and the existing site should be repurposed as a cabin entrance to allow better circulation to the cabins.

#### Carter Primitive Group Camp

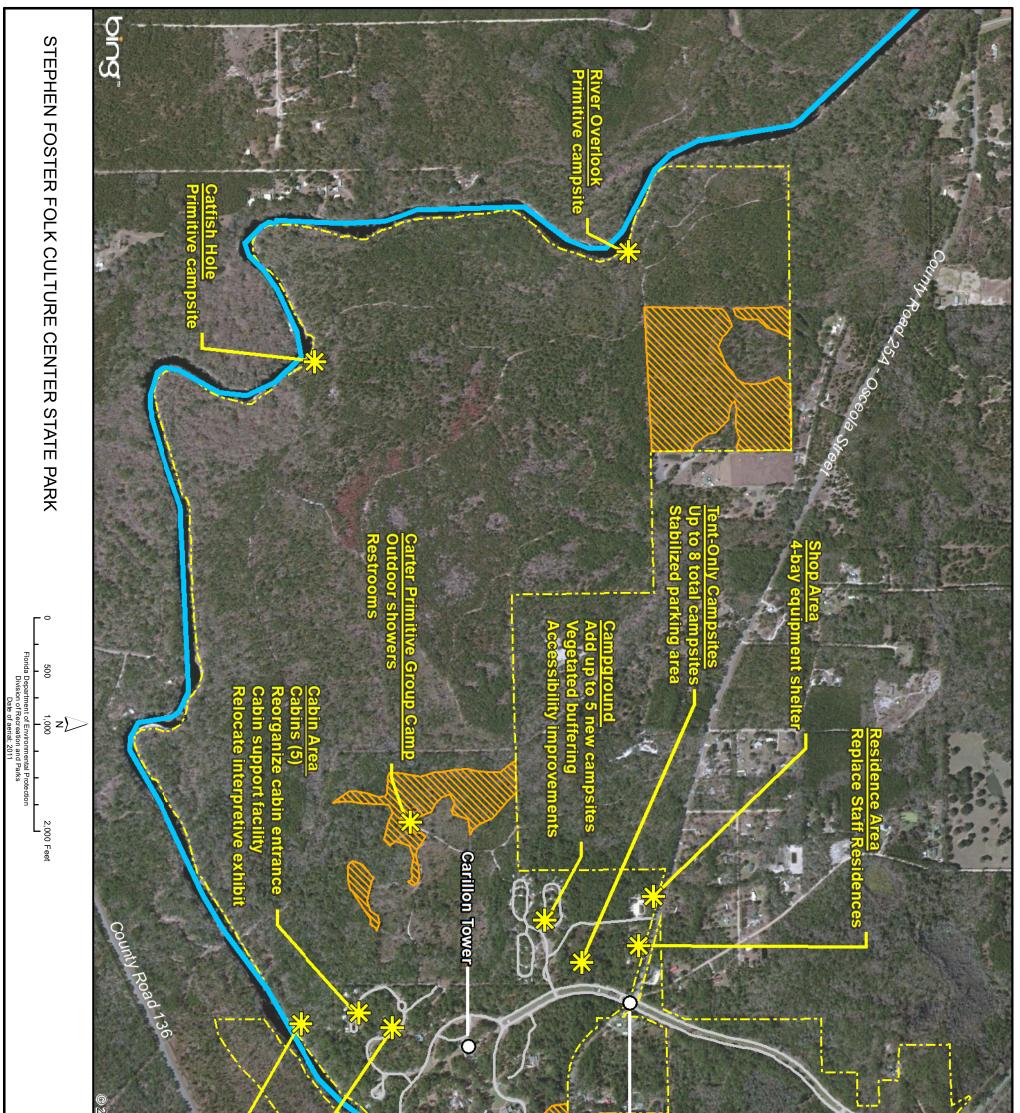
Utilities should be extended to the Carter Primitive Group Camp for sewer and potable water. Once connected, outdoor showers and a restroom should be constructed to serve groups.

#### Picnic Area

A small restroom should be constructed in the picnic area to serve visitors picnicking. The restroom should be built with staff needs in mind, containing room for laundry facilities, if a cabin support facility is not constructed.

#### Canoe/Kayak Launch

The existing canoe/kayak launch needs accessibility improvements to make it suitable to all visitors. An engineering study should be completed to ensure stable ramps to access the river.



# CONCEPTUAL LAND USE PLAN

017 DigitelGioles (CCNES (2017) Dis <u>D</u>S © 2017

Eng Cano e/Kayak Launch

Picnic Are estroom

White Springs

picnic she ve event pavili

Te l

Folk Festival Entran

**Proposed Facilities** 

Park Boundary

Legend

Suwannee River

Park Road

**Restoration Areas** 

#### **Support Facilities**

#### Entrance Area

The south ranger station should be modified to better serve the needs of park staff handling visitor services. Within preservation guidelines, the alcove of the ranger station should be extended to allow faster check-in of park visitors. The event pavilion located outside of the park's south entrance should be removed. A large multi-purpose shelter should be constructed within the park boundary by the marble stage to accommodate the uses of the event pavilion. This structure should include utility hookups for food vendors and allow picnicking opportunities year-round. The existing parking area should be expanded to fit the increased capacity.

#### Shop Area

A new four-bay equipment shelter should be constructed in the shop area to provide more storage for the park.

#### Residence Areas

Existing staff residences should be replaced with permanent structures. At the volunteer campground, additional sites should be constructed where feasible. All sites, existing and new, should be connected to utilities and a vegetated screen should be planted to buffer sites from the main park drive and Nelly Bly's Kitchen.

#### **Objective:** Construct 2 new facilities.

Two primitive campsites will be developed along the western and southwestern edge of the park boundary along the Suwannee River. The River Overlook primitive campsite and the Catfish Hole primitive campsite will allow a primitive camping experience along the waterway. These campsites should be hike-in only and development should be minimized.

#### Facilities Development

Preliminary cost estimates for these recommended facilities and improvements are provided in the Ten-Year Implementation Schedule and Cost Estimates (Table 8) located in the Implementation Component of this plan. These cost estimates are based on the most cost-effective construction standards available at this time. The preliminary estimates are provided to assist DRP in budgeting future park improvements, and may be revised as more information is collected through the planning and design processes. New facilities and improvements to existing facilities recommended by the plan include:

#### **Proposed Facilities**

Main Use Area Museum Accessibility Improvements Amphitheater Upgrades

<u>Camping Areas</u> Standard Campsites (5) Tent-Only Campsites (8)

<u>Picnic Area</u> Restroom <u>Cabin Area</u> Cabins (5) Cabin Support Facility Relocate Cane Grinding Exhibit Reorganize Cabin Entrance

<u>Primitive Camping Areas</u> Primitive Campsites (2) Extend Utilities to Carter Camp Primitive Group Camp

#### Entrance Area Remove Event Pavilion Large Picnic Pavilion

**Support Facilities** 

Shop Area 4-Bay Equipment Shelter

<u>Residence Areas</u> Volunteer Sites (5) Extend Utilities to Volunteer Sites Replace Staff Residences with Permanent Structures

#### **Recreational Carrying Capacity**

Carrying capacity is an estimate of the number of users a recreation resource or facility can accommodate and still provide a high quality recreational experience and preserve the natural values of the site. The carrying capacity of a unit is determined by identifying the land and water requirements for each recreation activity at the unit, and then applying these requirements to the unit's land and water base. Next, guidelines are applied which estimate the physical capacity of the unit's natural communities to withstand recreational uses without significant degradation. This analysis identifies a range within which the carrying capacity most appropriate to the specific activity, the activity site and the unit's classification is selected (see Table 7).

The recreational carrying capacity for this park is a preliminary estimate of the number of users the unit could accommodate after the current conceptual development program has been implemented. When developed, the proposed new facilities would approximately increase the unit's carrying capacity as shown in Table 7.

	Exist Capac	-	Propo Addit Capa	ional	Estim Recrea Capa	tional
Activity/Facility	One Time	Daily	One Time	Daily	One Time	Daily
		<u> </u>		<u> </u>		
Trails						
Hiking	42	166			42	166
Shared Use	142	568			142	568
Camping					0	0
Standard Facility	360	360	40	40	400	400
Tent Sites			64	64	64	64
Cabins	30	30	30	30	60	60
Primitive Campsite	8	8	16	16	24	24
Primitive Group Cam	30	30			30	30
Campfire Circle	180	180			180	180
Picnicking	80	160	60	120	140	280
Shoreline Fishing	185	370	00	120	185	370
8						
Paddling	26	52			26	52
Museum	934	3,737			934	3,737
TOTAL	1,975	5,495	210	270	2,185	5,765

#### Table 7: Recreational Carrying Capacity

\*Existing capacity revised from approved plan according to DRP guidelines.

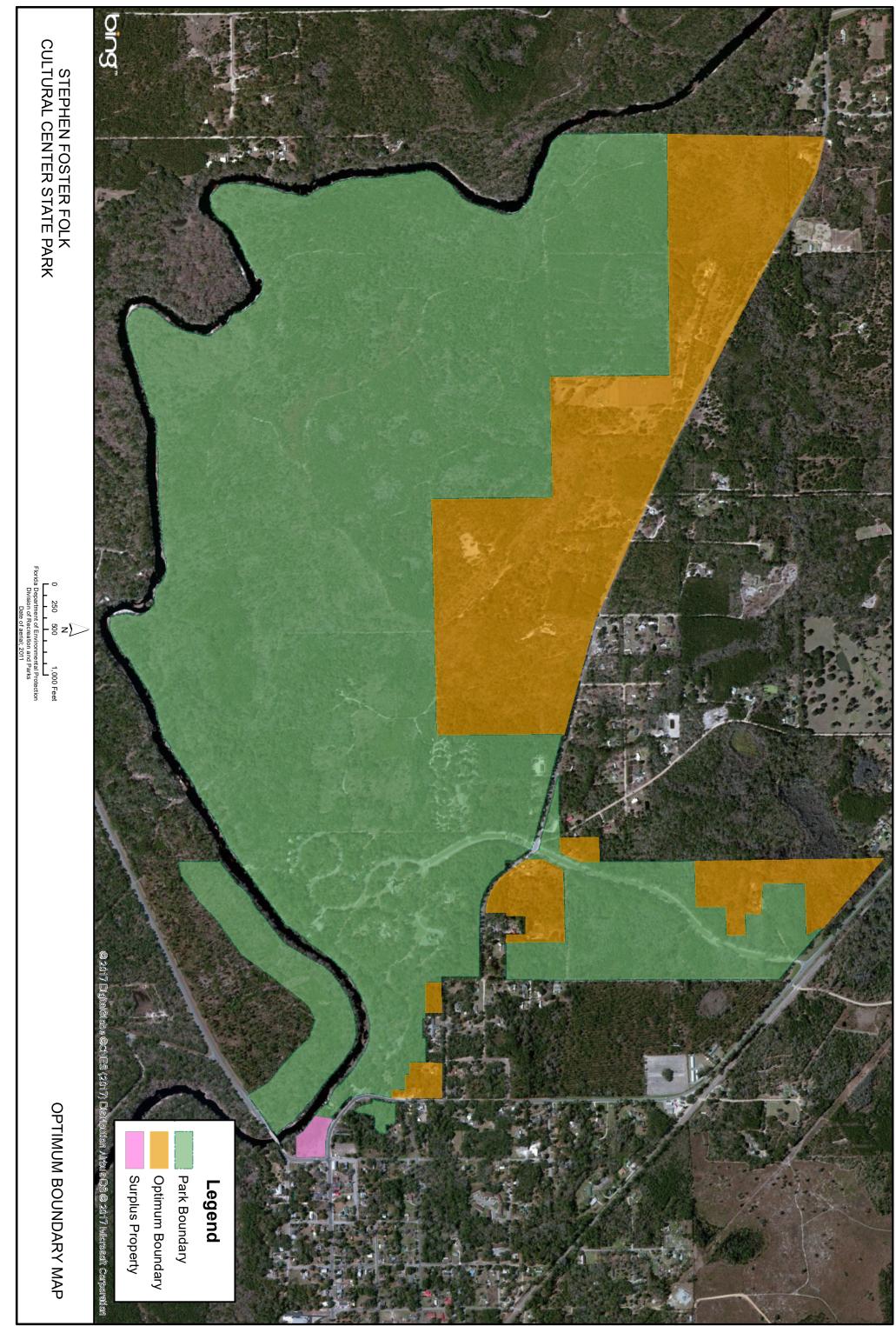
#### **Optimum Boundary**

The optimum boundary map reflects lands considered desirable for direct management by the DRP as part of the state park. These parcels may include public or privately-owned land that would improve the continuity of existing parklands, provide the most efficient boundary configuration, improve access to the park, provide additional natural and cultural resource protection or allow for future expansion of recreational activities. Parklands that are potentially surplus to the management needs of DRP are also identified. As additional needs are identified through park use, development, and research, and as land use changes on adjacent property, modification of the park's optimum boundary may be necessary.

Identification of parcels on the optimum boundary map is intended solely for planning purposes. It is not to be used in connection with any regulatory purposes. Any party or governmental entity should not use a property's identification on the optimum boundary map to reduce or restrict the lawful rights of private landowners. Identification on the map does not empower or suggest that any government entity should impose additional or more restrictive environmental land use or zoning regulations. Identification should not be used as the basis for permit denial or the imposition of permit conditions.

Over 250 acres of undeveloped or rural parcels around Stephen Foster Folk Culture Center State Park have been identified as desirable for acquisition (see Optimum Boundary map). This includes a large portion of land between the park and County Road 25A. Parcels north of County Road 25A include land bordering existing park property up to U.S. 41. Property north of the park's south entrance is also included. The acquisition of these lands will add desirable natural resources and will enhance the unit's boundaries for management purposes. Acquisition of these lands will provide opportunities for expanded public recreational use and will help to maintain an adequate buffer from future private development.

The parcel that contains the Nature and Heritage Tourism Center has been determined to be surplus to the management needs of the park.



#### IMPLEMENTATION COMPONENT

The resource management and land use components of this management plan provide a thorough inventory of the park's natural, cultural and recreational resources. They outline the park's management needs and problems, and recommend both short and long-term objectives and actions to meet those needs. The implementation component addresses the administrative goal for the park and reports on the Division of Recreation and Parks (DRP) progress toward achieving resource management, operational and capital improvement goals and objectives since approval of the previous management plan for this park. This component also compiles the management goals, objectives and actions expressed in the separate parts of this management plan for easy review. Estimated costs for the ten-year period of this plan are provided for each action and objective, and the costs are summarized under standard categories of land management activities.

#### **Management Progress**

Since the approval of the last management plan for Stephen Foster Folk Culture Center State Park in 2002, significant work has been accomplished and progress made towards meeting the DRP's management objectives for the park. These accomplishments fall within three of the five general categories that encompass the mission of the park and the DRP.

#### **Acquisition**

• 2.56 acres added to the park in 2011 through the Additions and Inholdings program.

#### Park Administration and Operations

- Since 2002 the park has nearly doubled volunteer hours to more than 250,000 hrs.
- Developed and implemented Florida Folk App. With this app, you can search for your favorite artists or stage to build your custom schedule, post your festival photos to our Facebook and twitter, and check the map to find your way around the park.
- CSO secured funding to build picnic area pavilion.
- Through increased marketing of events the park has increased yearly attendance to over 100,000.
- Began online tickets sells for Florida Folk Festival, which has increased event revenue.

#### Resource Management

#### Natural Resources

- Carter Camp Road erosion repair
- Springhouse exploration of cave system by divers and installation of water level monitoring system

- 20 acres of in Carter Camp has been restored The habitat is a mix of Flatwoods, upland pine and upland mixed woodland
- Treated 128 acres of exotic invasive plants
- Conducted prescribed burns totaling 1306 acres

#### Cultural Resources

- Carillon tower restoration grant tuck and pointing of brickwork and stair repairs in upper section
- Re-roofing the Spring House

#### **Recreation and Visitor Services**

- The park staff has begun doing interpretation. Partnering with other public and private agencies the park is going to local schools.
- Fosters hammock trail added

## Park Facilities

- Progress Energy Linework (Project 203933)
- Replace cove lighting inside the Stephen Foster Memorial Museum.
- Replaced mattress, couches and chairs in cabins
- Reroof Admin (BL137031) to include Asbestos Assessment
- Relocation of Seminole Village from front entrance to Craft Square area
- WP 20230/ADA 14213-03 River Overlooks and Outdoor Shower ADA Repairs
- Old shop remodeling and restoration (including new roof)
- Upgrades to River Gazebo access and seating (new stairs, new seating area)
- Accessible pathways added throughout park.
- New Camping Area Playground
- Nelly Blys improvements- new roof and remodel interior
- New picnic pavilion at Picnic area
- Improvements to Amphitheatre Lighting and electrical for special events

## Management Plan Implementation

This management plan is written for a timeframe of ten years, as required by Section 253.034 Florida Statutes. The Ten-Year Implementation Schedule and Cost Estimates (Table 7) summarizes the management goals, objectives and actions that are recommended for implementation over this period, and beyond. Measures are identified for assessing progress toward completing each objective and action. A time frame for completing each objective and action is provided. Preliminary cost estimates for each action are provided and the estimated total costs to complete each objective are computed. Finally, all costs are consolidated under the following five standard land management categories: Resource Management, Administration and Support, Capital Improvements, Recreation Visitor Services and Law Enforcement.

Many of the actions identified in the plan can be implemented using existing staff and funding. However, a number of continuing activities and new activities with measurable quantity targets and projected completion dates are identified that cannot be completed during the life of this plan unless additional resources for these purposes are provided. The plan's recommended actions, time frames and cost estimates will guide the DRP's planning and budgeting activities over the period of this plan. It must be noted that these recommendations are based on the information that exists at the time the plan was prepared. A high degree of adaptability and flexibility must be built into this process to ensure that the DRP can adjust to changes in the availability of funds, improved understanding of the park's natural and cultural resources, and changes in statewide land management issues, priorities and policies.

Statewide priorities for all aspects of land management are evaluated each year as part of the process for developing the DRP's annual legislative budget requests. When preparing these annual requests, the DRP considers the needs and priorities of the entire state park system and the projected availability of funding from all sources during the upcoming fiscal year. In addition to annual legislative appropriations, the DRP pursues supplemental sources of funds and staff resources wherever possible, including grants, volunteers and partnerships with other entities. The DRP's ability to accomplish the specific actions identified in the plan will be determined largely by the availability of funds and staff for these purposes, which may vary from year to year. Consequently, the target schedules and estimated costs identified in Table 7 may need to be adjusted during the ten-year management planning cycle.

 Table 8

 Stephen Foster Folk Culture Center State Park

 Ten-Year Implementation Schedule and Cost Estimates

 Page 99

<b>Objective A</b>	Conduct/obtain an assessment of the park's hydrological needs.	Assessment conducte
<b>Objective B</b>	Restore natural hydrological connections and functions to approximately 0.3 acres of	# Acres restored or v
	Seepage Stream natural community.	restoration underway
<b>Objective C</b>	Evaluate and mitigate the impacts of soil erosion in the park.	
Goal III: Res	Goal III: Restore and maintain the natural communities/habitats of the park.	Measure
<b>Objective A</b>	Within 10 years have 450 acres of the park maintained within optimal fire return interval. # Acres within fire re	# Acres within fire re

		restoration underway	pine community.	
\$2,000	LT	# Acres with	ojective E Conduct habitat/natural community restoration activities on at least 1 acres of upland	<b>Objective</b>
		restoration underway	depression marsh community.	
\$800	ĽŢ	# Acres with		<b>Objective D</b>
\$3,000	ST	Plan developed/updated		<b>Objective C</b>
		restoration underway	pine plantation, and basin swamp communities.	
\$11,000	ST, LT	# Acres restored or with	ojective B Conduct habitat/natural community restoration activities on 38.5 acres of upland pine,	<b>Objective B</b>
*	[ -	interval target		
\$166 DOD		I # Acres within fire return	Diactive $\Delta$ Within 10 years have 450 acres of the nark maintained within ontimal fire return interval $\frac{1}{4}$ Acres within fire return	Ohiertive A
Estimated Manpower and Expense Cost* (10-years)	Planning Period	Measure	Goal III: Restore and maintain the natural communities/habitats of the park.	Goal III: F
Ectimated	( - -			
\$12,900	T T			Objective C
\$106,000	UFN	# Acres restored or with restoration underway	ojective B Restore natural hydrological connections and functions to approximately 0.3 acres of Seepage Stream natural community.	Objective B
\$41,660	ST, LT	Assessment conducted	jective A Conduct/obtain an assessment of the park's hydrological needs.	<b>Objective</b> /
Estimated Manpower and Expense Cost* (10-years)	Planning Period	Measure	Goal II: Protect water quality and quantity in the park, restore hydrology to the extent feasible, and maintain the restored condition.	Goal II: Pr maintain tl
\$4,680	С		ojective B Expand administrative support as new lands are acquired, new facilities are developed, or as other needs arise.	Objective E
\$95,242	С	Administrative support ongoing	ojective A Continue day-to-day administrative support at current levels.	Objective A
Estimated Manpower and Expense Cost* (10-years)	Planning Period	Measure	oal I: Provide administrative support for all park functions.	Goal I: Pro
	F PLAN IS	Y THE MANAGEMENT	NOTE: THE DIVISION'S ABILITY TO COMPLETE THE OBJECTIVES OUTLINED BY THE MANAGEMENT CONTINGENT ON THE AVAILABILITY OF FUNDING AND OTHER RESOURCES FOR THESE PURPOSES.	NOTE: CONTIN

C = long term or short term actions that are continuous or cyclical UFN = currently unfunded need \* 2017 Dollars ST = actions within 2 years LT = actions within 10 years

Table 8 Stephen Foster Folk Culture Center State Park Ten-Year Implementation Schedule and Cost Estimates Page 100

# CONTINGENT ON THE AVAILABILITY OF FUNDING AND OTHER RESOURCES FOR THESE PURI NOTE: THE DIVISION'S ABILITY TO COMPLETE THE OBJECTIVES OUTLINED BY THE MANAG

Goal IV: Maii	Goal IV: Maintain, improve or restore imperiled species populations and habitats in the park.	Measure
Objective A	Update baseline imperiled species occurrence inventory lists for plants and animals, as needed.	List updated
<b>Objective B</b>	Monitor and document 2 selected imperiled animal species in the park.	# Species monitor
Objective C	Monitor and document 1 selected imperiled plant species in the park.	# Species monitor
Goal V: Remo control.	Goal V: Remove exotic and invasive plants and animals from the park and conduct needed maintenance- control.	Measure
<b>Objective A</b>	Annually treat 3.5 acres of exotic plant species in the park.	# Acres treated
Objective B	Implement control measures on 3 exotic and nuisance animal species in the park.	# Species for whic measures impleme
Goal VI: Prot	Goal VI: Protect, preserve and maintain the cultural resources of the park.	Measure
<b>Objective A</b>	Assess and evaluate 21 of 26 recorded cultural resources in the park.	Documentation co
<b>Objective B</b>	Compile reliable documentation for all recorded historic and archaeological sites.	Documentation co

**Objective C** 

resources.

Bring 1 of 26 recorded cultural resources into good condition, maintain all cultural

UFN = currently unfunded need
n or short term actions that are continuous or cyclical
LT = actions within 10 years
ST = actions within 2 years
* 2017 Dollars

\$100,000	ГТ	# Sites in good condition
\$10,000	ГТ	Documentation complete
\$10,000	LT	Documentation complete
Estimated Manpower and Expense Cost* (10-years)	Planning Period	Measure
\$17,000	C	# Species for which control measures implemented
\$8,000	C	# Acres treated
Estimated Manpower and Expense Cost* (10-years)	Planning Period	Measure
\$400	C	# Species monitored
\$800	С	# Species monitored
\$2,000	C	List updated
Estimated Manpower and Expense Cost* (10-years)	Planning Period	Measure
	PLAN IS	THE MANAGEMENT PLAN IS R THESE PURPOSES.

 Table 8

 Stephen Foster Folk Culture Center State Park

 Ten-Year Implementation Schedule and Cost Estimates

 Page 101

ent repertoire of 16 interpretive, educational and recreational # Interpretive/educa programs educational and recreational programs. # Interpretive/educa programs	Develop 2 new interpretive, educational and recreational programs.	
tional and recreational		
ent repertoire of 16 interpretive, educational and recreational # Interpretive/educational programs		<b>Objective D</b>
ent repertoire of 16 interpretive, educational and recreational # Interpretive/educa	programs on a regular basis.	
	Continue to provide the current repertoire of 16 i	<b>Objective C</b>
hal carrying capacity by 270 users per day. # Recreation/visitor	Expand the park's recreational carrying capacity	<b>Objective B</b>
<b>recreational carrying capacity of 5,495 users per day.</b> # Recreation/visitor	Maintain the park's current recreational carrying	<b>Objective A</b>

\$102,955	С	Facilities maintained	Objective E Expand maintenance activities as existing facilities are improved and new facilities are developed.
\$2,600	LT	# Facilities/Miles of Trail/Miles of Road	Objective D Construct 2 new facilites as identified in the Land Use Component.
\$2,770,490	LT	# Facilities/Miles of Trail/Miles of Road	Objective C Improve and/or repair 9 existing facilities as identified in the Land Use Component.
\$50,000	ST, LT	Plan implemented	Objective B Continue to implement the park's transition plan to ensure facilities are accessible in accordance with the American with Disabilities Act of 1990.
\$2,095,330	C	Facilities maintained	Objective A Maintain all public and support facilities in the park.
Estimated Manpower and Expense Cost* (10-years)	Planning Period	Measure	Goal VIII: Develop and maintain the capital facilities and infrastructure necessary to meet the goals and objectives of this management plan.
\$14,000	ST, LT	# Interpretive/education programs	Objective D Develop 2 new interpretive, educational and recreational programs.
\$80,000	С	# Interpretive/education programs	Objective C Continue to provide the current repertoire of 16 interpretive, educational and recreational programs on a regular basis.
\$350,984	ST, LT	# Recreation/visitor	Objective B Expand the park's recreational carrying capacity by 270 users per day.
\$7,143,170	С	# Recreation/visitor	Objective A Maintain the park's current recreational carrying capacity of 5,495 users per day.
Estimated Manpower and Expense Cost* (10-years)	Planning Period	Measure	Goal VII: Provide public access and recreational opportunities in the park.
	r plan is	<pre>r THE MANAGEMENT R THESE PURPOSES</pre>	NOTE: THE DIVISION'S ABILITY TO COMPLETE THE OBJECTIVES OUTLINED BY THE MANAGEMENT CONTINGENT ON THE AVAILABILITY OF FUNDING AND OTHER RESOURCES FOR THESE PURPOSES.

C = long term or short term actions that are continuous or cyclical UFN = currently unfunded need \* 2017 Dollars ST = actions within 2 years LT = actions within 10 years

## Ten-Year Implementation Schedule and Cost Estimates Page 102 Table 8 Stephen Foster Folk Culture Center State Park

## J 7 ) 210 > J ł ) ) ) ٦ ) J 1 )

	local law enforcement agencies.
forcement and by	Law Enforcement Activities Note: Law enforcement Activities conducted by the FWC Division of Law Enforcement and by
\$9,786,438	Recreation Visitor Services
\$2,823,090	Capital Improvements
\$99,922	Administration and Support
\$491,560	Resource Management
Total Estimated Manpower and Expense Cost* (10-years)	Management Categories
	Summary of Estimated Costs
	NOTE: THE DIVISION'S ABILITY TO COMPLETE THE OBJECTIVES OUTLINED BY THE MANAGEMENT PLAN IS CONTINGENT ON THE AVAILABILITY OF FUNDING AND OTHER RESOURCES FOR THESE PURPOSES.

C = long term or short term actions that are continuous or cyclical UFN = currently unfunded need \* 2017 Dollars ST = actions within 2 years LT = actions within 10 years

Addendum 1—Acquisition History

LAND ACQUISITION HISTORY REPORT							
Park Name	Stephen Foster Folk Culture center State Park						
Date Updated	3/24/2016						
County	Hamilton Count	y, Florida					
Trustees Lease Number	Lease No. 3346						
Current Park Size	907.08 acres						
Purpose of Acquisition	<b>rpose of Acquisition</b> Collins Foster, America's first fully professional songwriter, along the Suwannee River.						
Acquisition History							
Parcel Name or Parcel DM-ID	Date Acquired	Initial Seller	Initial Purchaser	Size in acres	Instrument Type		
MDID 3135	8/20/2016	Stephen Foster Memorial Commission	The Board of Trustees of the Internal Improvement Trust Fund of the State of Florida.	107.268	Deed		
Management Lease							
Parcel Name or Lease Number	Date Leased	Initial Lessor	Initial Lessee	Current Term	Expiration Date		
Lease No. 3346	4/26/1984 <b>Type of</b>	The Board of Trustees of the Internal Improvement Trust Fund of the State of Florida.	Florida Department of Natural Resources	50 years	4/5/2034		
Outstanding Issue	Instrument	Brief Description of the Outstanding Issue		Term of the Outstanding Issue			
There is no known deed related restriction on use of Stephen Foster Folk Cunture Center State Park							

Addendum 2—Advisory Group Members and Report

### Local Government Representative

The Honorable Rhett Bullard, Mayor Town of White Springs

The Honorable Josh Smith, Chair Hamilton County Board of County Commissioners

The Honorable Ronald Williams Columbia County Board of County Commissioners

The Honorable Ricky Gamble, Chair Suwannee County Board of County Commissioners

### Agency Representatives

Manny Perez, Park Manager Division of Recreation and Parks Stephen Foster Folk Culture Center State Park

Doug Longshore Florida Forest Service

Megan Wallrichs Florida Fish and Wildlife Conservation Commission

Tom Mirti Suwannee River Water Management District

Julia Duggins, Archaeologist Florida Department of State Division of Historical Resources

### Environmental and Conservation Group Representative

Jacqui Sulek Four Rivers Audubon Society

### Local Private Property Owners

Jerry Bullard Local Resident

### Cultural and Historical Group Representative

Margaret Lewis, Vice President Hamilton County Historical Society

### Recreational User Group Representatives

Jeff Glenn Florida Trail Association

Michael Toffolo Suwannee Bicycle Association

### Tourism and Economic Development Representative

Randy Ogburn Hamilton County Tourist Development Council

### **Citizen Support Organization**

Carol Stob, President Stephen Foster Citizen Support Organization The advisory group meeting to review the proposed unit management plan (UMP) for Stephen Foster Folk Culture Center State Park was held at the Stephen Foster Park Auditorium on October 25, 2017 at 9:00 am.

Greg Scott represented Ricky Gamble. Rhett Bullard, Josh Smith, Ronald Williams, Jerry Bullard, Margaret Lewis, and Randy Ogburn were not in attendance. All other appointed advisory group members were present, as well as Deena Woodward. Attending staff were Clif Maxwell, Dan Pearson, Manny Perez, Elaine McGrath, Teri Graves-McKinstry, and Tyler Maldonado.

Mr. Maldonado began the meeting by explaining the purpose of the advisory group and reviewing the meeting agenda. He provided a brief overview of the Division of Recreation and Parks' (DRP) planning process, and Mr. Perez summarized public comments received during the previous evening's public meeting. Mr. Maldonado then asked each member of the advisory group to express his or her comments on the plan.

### Summary of Advisory Group Comments

**Doug Longshore** (Florida Forest Service) asked about how the current timber operations in the Carter Camp Tract of the park would affect the natural resource goals and objectives that are stated in the plan. He suggested revising the natural communities management section to reflect the condition of the resource after the timber operations are completed. It was stated that the plan will be revised to include updated goals and objectives related to longleaf pine planting and the prescribed fire program. An expanded scope of restoration and a more aggressive timetable could be pursued as a part of these updated goals and objectives.

**Jeff Glenn** (Florida Trail Association) commented that the portion of the Florida National Scenic Trail that runs through the park is heavily used given the easily accessible trailhead and safe parking area. He asked about the primitive campsites that are proposed along the Florida National Scenic Trail and was worried about negative impacts associated with developing impervious infrastructure in this area of the park. It was explained that these primitive campsites are intended to be hike-in only and no impervious infrastructure is proposed to be included. Mr. Glenn pointed out that the plan had only budgeted \$2,600 for the proposed primitive campsites. He offered the assistance of Florida Trail Association volunteers to help implement this proposal. He stated that this type of project would be ideal for Eagle Scouts to complete, who could also help with fundraising. Lastly, he recommended that one of the proposed primitive campsites should be a trail shelter area as opposed to a campsite. This shelter could include a small covered pavilion with picnic tables. He suggested that this type of facility would encourage increased use of the trail.

**Jacqui Sulek** (Four River Audubon Society) stated that she did not see any downsides to the proposed recreational facilities outlined in the management plan. She asked whether these additional facilities would be attached to additional funding for increased staffing. She commented that the park must have the

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capacity to manage additional facilities, which would more than likely require additional park staff. She mentioned that the Audubon Society could use more volunteers for the Christmas Bird Count that takes places every year and is the largest citizen science program of its kind. She cited the importance of this bird count in providing a snapshot of bird life in the area. She noted a discrepancy in the number of bird species documented in Plant and Animal Species Addendum. She stated that birding is considered one of the most popular recreational activities and contributes significant economic impact to local communities. She suggested creating a handout that would focus on birding and could be distributed at the park as an educational brochure. She also recommended improving the environmental and natural history aspect of the Florida Folk Festival.

**Megan Wallrichs** (Florida Fish and Wildlife Conservation Commission) noted that FWC has updated the status for certain animal species, and the imperiled species table in the management plan should be updated to reflect those status changes. The species of special concern definition has also been revised, and she provided the DRP with the updated definition. She commented on the monitoring level for the gopher frog, frosted flatwoods salamander, and wading birds. Given that the gopher frog has been delisted from the imperiled species list, she suggested updating the imperiled species monitoring objective to replace gopher frog monitoring with a wading bird survey.

Julia Duggins (Florida Department of State, Division of Historical Resources) commented on the importance of the Florida Folk Festival and inquired about the level of interest that was expressed at the public meeting. She stated that a dedicated folklorist would be beneficial and suggested engaging the Department of State for assistance on the folk culture aspect of the park and festival. She was concerned about sustainable funding sources for the Florida Folk Festival and recommended working with the citizen support organization to secure broader sponsorship to help with the continued funding of the festival. She offered DHR's assistance in applying for grants. She asked about the National Register nomination application that was started but never completed. It was stated that at the time of the application process the structures in question were not yet 50 years old. The structures are now eligible, and the application will be completed. She also asked about the progress being made to repair the Carillon Tower. It was stated that the DRP has received a grant from DHR and is currently developing a scope of work to begin work on the tower. She concluded by reminding the DRP that cultural sites should be monitored on an annual basis. Ms. Duggins also submitted written comments, which can be seen starting on page A 2 - 6.

**Deena Woodward** (Florida Department of State, Division of Historical Resources) represented DHR from a historic preservation perspective. She stated that DRP should ensure compliance reviews have been completed for the Carillon Tower to receive funding. This compliance is necessary for any group, including the citizen support organization, to secure funding to repair the tower.

**Michael Toffolo** (Suwannee Bicycle Association) asked about when the timber operations contract is scheduled to be completed. It was stated that the contract is supposed to be completed by June 2018. He was concerned with the biking trails in the vicinity of the timber operations. The Suwannee Bicycle Association sponsors several bike rides on the trails in the park, and these events are disrupted by the timbering. It was explained that the DRP intends on repairing the trails once the operations are complete and will reroute some of the trails to avoid sensitive wetland areas. These trails will be relocated slightly upland to more appropriate soil types and natural communities.

**Greg Scott** (Suwannee County Parks and Recreation) expressed his belief that Stephen Foster Folk Culture Center State Park is a special place for people in the local community and commended the DRP on the work they have done at the park. He stated there is a renewed attention being given to using Amendment 1 funding to acquire additional conservation land, and he suggested the time is ripe to request funding if there are any properties identified that should be added to the boundary of the park. He recommended the DRP should lean on its volunteers and citizen support organization to help secure additional funding for the park. He noted that Suwannee County is pursuing the expansion of its sewer system to incentivize new business development. He commented that this expansion could result in an influx of activity that could increase the economic activity occurring around White Springs and the park. He suggested this increased activity could have an economic spillover effect that could foreseeably increase park usage and attendance.

**Carol Stob** (Stephen Foster Citizen Support Organization) was concerned with the need to repair the Carillon Tower and wanted to know how quickly work could begin on the much-needed repairs. The Carillon Tower has the world's largest tubular bell system in the world and the bells are not currently ringing. She stated that the citizen support organization has the money to begin phase 1 of the repair process, but needs to be able to apply for grants for the next phases of the project to ensure a scheduled and timely repair process. She suggested that the park should hire a curator for the museums to evaluate and update the dioramas and exhibits. These dioramas and exhibits need content updates, as well as upgrades to the inner mechanics of the displays.

**Tom Mirti** (Suwannee River Water Management District) commented that the outflow of the Spring House needs to be restored. He stated that the Suwannee River Water Management District expects the Minimum Flows and Levels (MFLs) to be set relatively soon, and these MFLs should inform restoration efforts that take place at the Spring House. He was also concerned with the soil erosion objective in the management plan. He suggested that the objective should state specific ways in which the DRP plans to address soil erosion, as opposed to simply evaluating and assessing the situation.

### Staff Recommendations

The staff recommends approval of the proposed management plans for Stephen Foster Folk Culture State Park as presented, with the following significant changes:

- The natural communities management goals and objectives for restoration and improvement activities will be updated to reflect the new conditions of the Carter Camp Tract as a result of the timber operations currently taking place at the park.
- The imperiled species table will be updated given that some species have been reclassified or delisted by FWC. The species of special concern definition will also be updated.
- The soil erosion resource management objective will be revised to include more specifics on erosion control techniques that are needed at two existing sites: the South Entrance area and the Cable Crossing Primitive Camp.
- The previously sub-leased Nature and Heritage Tourism Center parcel will be added to the optimum boundary map as property that has been identified as surplus to the conservation needs of the park.

### Notes on Composition of the Advisory Group

Florida Statutes Chapter 259.032 Paragraph 10(b) establishes a requirement that all state land management plans for properties greater than 160 acres will be reviewed by an advisory group:

"Individual management plans required by s. 253.034(5), for parcels over 160 acres, shall be developed with input from an advisory group. Members of this advisory group shall include, at a minimum, representatives of the lead land managing agency, co-managing entities, local private property owners, the appropriate soil and water conservation district, a local conservation organization, and a local elected official."

Advisory groups that are composed in compliance with these requirements complete the review of State park management plans. Additional members may be appointed to the groups, such as a representative of the park's Citizen Support Organization (if one exists), representatives of the recreational activities that exist in or are planned for the park, or representatives of any agency with an ownership interest in the property. Special issues or conditions that require a broader representation for adequate review of the management plan may require the appointment of additional members. The Division's intent in making these appointments is to create a group that represents a balanced cross-section of the park's stakeholders. Decisions on appointments are made on a case-by-case basis by Division of Recreation and Parks staff.



Governor

KEN DETZNER Secretary of State

Julie B. Duggins Bureau of Archaeological Research Florida Division of Historical Resources 1001 de Soto Park Drive Tallahassee, Florida 32301 Julia.Duggins@dos.myflorida.com

October 30, 2017

Tyler Maldonado Florida Park Service Office of Park Planning 3900 Commonwealth Blvd., M.S. 525 Tallahassee, Florida 32399-3000 Tyler.maldonado@dep.state.fl.us

Mr. Maldonado:

The Division of Historical Resources (DHR) has completed its review of the draft unit management plan for Stephen Foster Folk Culture Center State Park, considered at the recent Management Advisory Group (MAG) meeting. Two representatives from DHR participated in the MAG, and we offered comments from the perspective of Compliance Review, Public Lands Archaeology, and Folklife. We shared thoughts on four main topics: The Folk Festival, an unfinished National Register nomination, the Carillon tower, and Compliance Review.

First, the Folk Festival is a significant part of the park's mission (p. 1), and DHR wholeheartedly supports continuation and growth of the festival. To that end, a long-term funding plan will be necessary to sustain the Folk Festival. The State's Folklife program highly recommends applying for a DCA grant and an NEA grant. This funding would enable the park to pay artists more and diversify attendance through stronger artist recruitment. Please work with <u>Amanda Hardeman</u> in our Folklife section so you can prepare documents before the Folk Festival planning ramps up in spring.

The draft Management Plan mentions an unfinished National Register nomination for Stephen Foster memorial resources (p.47). We want to offer our help in resurrecting the nomination, now

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that the memorials are over 50 years old. Please work with <u>Ruben Acosta</u> in the NR section of DHR on this.

It was great to learn during the advisory meeting that the park has been successful in grant funding from DHR for repairs of the carillon tower. As for the future work contemplated in the plan (p.48), including upgrades to the bells, please consult <u>Yasha Rodriguez</u> in our Grants section. We support maintaining functional bells as well as the structure of this National Register-listed resource.

Lastly, Deena Woodward commended the park for diligently contacting Compliance Review prior to ground disturbance and historic structure alterations. In our opinion, it is appropriate to include some of these major projects in the summary of achievements during the past planning phase. Please continue to work with Deena, particularly for plans related to the nursery buildings.

The draft plan does a sound job of addressing cultural resources, and we note that the park aims to go above and beyond by managing the resources in the adjacent river, even though the management boundary excludes the river. As for specific comments on the draft plan, we have a few minor edits to recommend:

- On page 45, Paragraph 5 would read more clearly if the second sentence ended with "while three other sites (HA346, HA370, and CO22) are exclusively prehistoric." Additional paragraph breaks in the *Description* section would make it easier to follow.
- Also in paragraph 5 on page 45, it appears that the fifth sentence should read "HA182 is a campsite and homestead."
- In the third paragraph on page 46, please change "ceramic lithic artifact scatter" to "ceramic and lithic artifact scatter."
- 4) On page 45 and in the table on page 53, CO22 is noted as being outside the park boundaries but also one of the resources listed for management. It is possible that the site does extend from the river into the park, but we would note that this probability currently confers no management obligations other than awareness. Please record a terrestrial component with the Florida Master Site File, if you can identify one.
- 5) On pages 68 and 77, six archaeological sites are noted, while elsewhere in the plan eight archaeological sites are noted. Florida Master Site File records show six, and it appears the discrepancy lies in HA432 and CO22 being included in the management plan despite their locations in the Suwannee River outside official park boundaries. It is great that the park is committed to managing the resources in the river. But, please make sure the counts are consistent within the document. It may be helpful to make this note in Table 5 on page 53.

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We appreciate the invitation to the MAG meeting, and we hope you found that our in-person participation was useful. Please contact me with any questions regarding DHR's comments on the plan.

Sincerely,

Juli B. Dypi

Julie B. Duggins

CC: Hank Vinson James Parker Jason O'Donoughue Paulette McFadden Mary Glowacki Josh Goodwin Deena Woodward

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Addendum 4—Soils Descriptions

According to a recent NRCS soil survey, in Hamilton County, sixteen soil types can be identified within Stephen Foster Folk Culture Center State Park. Bigbee fine sand is the only soil located within Columbia County.

(2) Albany fine sand, 0 to 5 percent slopes - This very deep, somewhat poorly drained soil is in low areas of uplands and low ridges of the Southern Coastal Plain. Slopes range from 0 to 5 percent. Individual areas are irregular or elongated in shape. They range from 3 to 100 acres in size.

Typically, the surface layer is dark grayish brown fine sand about 9 inches thick. The subsurface, to a depth of 57 inches, is light yellowish brown fine sand in the upper part, pale yellow fine sand with strong brown and white mottles in the middle part, and pale yellow fine sand with yellowish red and white mottles in the lower part. The subsoil, to a depth of 80 inches, is light yellowish brown fine sandy loam with brown and light gray mottles in the upper part and gray sandy clay loam with strong brown mottles in the lower part.

In 80 percent of areas mapped as Albany fine sand, 0 to 5 percent slopes, Albany and similar soils make up 80 to 99 percent of the map unit. Dissimilar soils make up 1 to 20 percent.

Included in mapping are Blanton and Plummer soils. The moderately well drained Blanton soils are on slightly higher positions. The poorly drained Plummer soils are on slightly lower positions. Also included are small areas that have slopes ranging from 5 to 10 percent.

### Important Properties of Albany soil:

- 1. Seasonal high water table: Apparent; 1.0 to 2.5 feet; December through March.
- 2. Permeability: Moderate or moderately slow
- 3. Available water capacity: Low
- 4. Flooding: None

**(5) Blanton sand, 0 to 5 percent slopes** - This very deep, moderately well drained soil is on broad upland areas of the Southern Coastal Plain. Slopes are smooth and convex. Individual areas are irregular or elongated in shape. They range from about 3 to 80 acres in size.

The surface layer is dark grayish brown sand about 9 inches thick. The subsurface layer, to a depth of 54 inches, is yellowish brown sand in the upper part, light yellowish brown sand in the middle apart, and very pale brown sand with brownish yellow mottles in the lower part. The subsoil, to a depth of 80 inches, is yellowish brown sandy clay loam with strong brown and gray mottles in the upper part, light brownish gray sandy clay loam with strong brown mottles in the middle part, and gray sand clay loam in the lower part.

In 80 percent of areas mapped as Blanton sand, 0 to 5 percent slope, Blanton and similar soils make up 87 to 99 percent of the map unit. Dissimilar soils make up 1 to 13 percent.

Included in mapping are some small areas of Albany soils. The somewhat poorly drained Albany soils are on lower positions. Also included are small areas of soils that have a water table at depths of 30 to 48 inches. Soils with an organic matter stained subsoil layer below depths of 60 inches are also included.

### Important properties of Blanton soil:

- 1. Seasonal high water table: perched; 4.0 to 6.0 feet; March through August.
- 2. Permeability: Moderate
- 3. Available water capacity: Low
- 4. Flooding: None

(6) Blanton sand, 5 to 8 percent slopes – This very deep, moderately well drained soil is on upland side slopes of the Southern Coastal Plain. Slopes are concave or convex. Individual areas are irregular or elongated in shape. They range from about 3 to 50 acres in size.

The surface layer of dark grayish brown sand about 9 inches thick. The subsurface layer, to a depth of 54 inches, is yellowish brown sand in the upper part, light yellowish brown sand in the middle part, and very pale brown sand with brownish yellow mottles in the lower part. The subsoil, to a depth of 80 inches, is yellowish brown sandy clay loam with strong brown and gray mottles in the upper part, light brownish gray sandy clay loam with strong brown mottles in the middle part, and gray sandy clay loam in the lower part.

In 90 percent of areas mapped as Blanton sand, 5 to 8 percent slopes, Blanton and similar soils make up 75 to 99 percent of the map unit. Dissimilar soils make up 1 to 25 percent.

Included in mapping are small areas of Albany and Alpin soils. The somewhat poorly drained Albany soils are on lower positions. Also included are small areas of soils that have a water table at depths of 30 to 48 inches. Soils with phosphatic limestone fragments in and above the subsoil layer are also included.

### Important properties of Blanton soil:

- 1. Seasonal high water table: Perched; 4.0 to 6.0 feet; March through August.
- 2. Permeability: Moderately slow
- 3. Available water capacity: Low
- 4. Flooding: None

**(7) Bigbee fine sand** – This is a nearly level, excessively drained soil on low terraces along rivers. The areas of this soil range from 10 to 80 acres and are circular to irregularly elongated.

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Typically, the surface layer is dark grayish brown fine sand about 7 inches thick. The substratum is fine sand and extends to a depth of 80 inches or more. In the upper 7 inches, it is yellowish brown; in the next 16 inches, it is light yellowish brown with common uncoated sand grains; and in the next 18 inches, it is yellow with faint brownish yellow mottles and uncoated sand grains. In the lower 32 inches, the substratum is white with light yellowish brown and brownish yellow mottles.

Included with this soil in mapping are small areas of the occasionally flooded Electra Variant, Leon, Alpin and Blanton soils. Also included are soils that are similar to the Bigbee soil but have weakly cemented, organic-coated layers that have tongues of white sand. These soils make up about 20 percent of the map unit.

The Bigbee soil has a water table at a depth of 20 to 40 inches for brief periods and at a depth of 40 to 70 inches for 1 to 2 months. A permanent water table is at a depth of more than 80 inches during the rest of the year. The soil is flooded occasionally for long periods during seasons of high rainfall. The available water capacity is low. Permeability is rapid. Natural fertility and the organic matter content are low.

(8) Chipley sand, 0 to 5 percent slopes – This very deep, somewhat poorly drained soil is in broad low areas on uplands and on low ridges in areas of flatwoods. Individual areas are irregular in shape. They range from about 20 to 200 acres in size.

Typically, the surface layer is very dark gray sand about 8 inches thick. The underlying material is brown sand in the upper part, pale brown sand in the next part, and light brownish gray sand to a depth of 80 inches or more.

In 80 percent of the areas mapped as Chipley sand, 0 to 5 percent slopes, the Chipley soil and similar soils make up 80 to 99 percent of the unit. Dissimilar soils make up the other 1 to 20 percent. Included in mapping are small areas of Mascotte and Pottsburg soils. These poorly drained soils are in the lower positions and have organic-stained subsoil.

### Important properties of the Chipley soil:

- 1. Depth to the seasonal high water table: 2 to 3 feet from December through April.
- 2. Permeability: Rapid
- 3. Available water capacity: Very low or low
- 4. Flooding: None

(9) Foxworth sand, 0 to 5 percent slopes - This very deep, moderately well drained soil is on the flatwoods of the Southern Coastal Plain. Individual areas are irregular in shape. They range from about 3 to 75 acres in size. Slopes range from 0 to 5 percent.

The surface layer is dark brown sand about 7 inches thick. The subsurface layers to a depth of 55 inches are yellowish brown sand in the upper part and brownish yellow sand in the lower part. Next is very pale brown sand and white sand to 80 inches or more.

In 80 percent of areas mapped as Foxworth sand, 0 to 5 percent slopes, Foxworth and similar soils make up 80 to 99 percent of the map unit. Dissimilar soils make up 1 to 20 percent.

Included with this soil in mapping are small areas of Albany soils. The somewhat poorly drained Albany soils have loamy subsoils below 40 inches.

### Important properties of Foxworth soil:

- 1. Seasonal high water table: At 4.0 feet to 6 feet from June through October.
- 2. Available water capacity: Very low to low
- 3. Flooding: None

(13) Mascotte sand – This very deep, poorly drained soil is on flatwoods on low stream terraces and areas bordering swamps and depressions of the Southern Coastal Plain. Individual areas are irregular in shape and range from 10 to 200 acres. Slopes range from 0 to 2 percent.

The surface layer is black sand about 5 inches thick. The subsurface layer is light brownish gray sand about 8 inches thick. The upper subsoil is stained with organic matter. It is 2 inches of very dark brown loamy sand, and 2 inches of dark reddish brown loamy sand. The transitional layer between the subsoils is light gray sand 19 inches thick. The lower subsoil is gray fine sandy loam. The underlying material is reddish gray loamy sand that extends to depths greater than 80 inches.

In 90 percent of areas mapped as Mascotte sand, Mascotte and similar soils make up 80 to 99 percent of the unit. Dissimilar soils make up 1 to 20 percent.

Included in mapping are small areas of Pottsburg and Sapelo soils. These included soils occur on slightly higher positions on the landscape and the Pottsburg soil lack loamy subsoil horizons.

### Important properties of Mascotte soil:

- 1. High water table: At a depth of .5 to 1.5 feet from March through September.
- 2. Permeability: Moderate
- 3. Available water capacity: Low
- 4. Flooding: None

**(14) Pottsburg sand -** This very deep, poorly drained soil is on flatwoods of the Southern Coastal Plain. Individual areas are irregular in shape and range from about 10 to 40 acres. Slopes range from 0 to 2 percent.

A 4 - 4

The surface layer is very dark gray sand about 7 inches thick. The subsurface layer is dark grayish brown sand to a depth of 19 inches, and light brownish gray sand to 51 inches. The subsoil layer is grayish brown loamy sand to 65 inches, and dark reddish brown sand to 80 inches or more.

In 90 percent of areas mapped as Pottsburg sand, Pottsburg and similar soils make up 87 to 99 percent of the map unit. Dissimilar soils make up 1 to 13 percent.

Included in mapping are small areas of Albany, Mascotte and Plummer soils. Albany soils are on slightly higher position in the landscape. Mascotte soils have loamy subsoil horizons below the stained subsoil. Plummer soils are on slightly lower positions and have loamy subsoil horizons.

### Important properties of Pottsburg soil:

- 1. High water table: At a depth of .5 feet to 1.0 feet from March through September.
- 2. Permeability: Moderate
- 3. Available water capacity: Low
- 4. Flooding: None

**(21) Plummer and Surrency soils, depressional** - These very deep, very poorly drained soils are in swamps and depressions. Individual areas are irregular in shape and range from about 10 to 75 acres.

The Plummer soil has a surface layer of very dark gray sand about 9 inches thick. The subsurface layer is grayish brown grading to light brownish gray sand to a depth of 36 inches, and light gray sand to 52 inches. The subsoil layer is light gray sandy loam grading to sandy clay loam to 80 inches or more.

Typically, Surrency soil has a surface layer of undecomposed litter consisting mostly of roots and leaves, below to a depth of 10 inches is black mucky fine sand. The subsurface layer is light gray sand to a depth of 22 inches and below to a depth of 24 inches is grayish brown loamy sand. The subsoil layer is dark gray fine sandy loam and dark gray loamy to 80 inches or more.

Included in mapping are small areas of Mascotte and Pottsburg soils. Mascotte and Pottsburg soils have stained organic subsoil horizons. In addition, Pottsburg soils lack loamy subsoil horizons.

In 95 percent of areas mapped as Plummer and Surrency soils, depressional, Plummer and Surrency soils, depressional, and similar soils make up 80 to 99 percent of the map unit. Dissimilar soils make up 1 to 20 percent.

### Important properties of Plummer and Surrency soils depressional, soil:

1. Seasonal high water table: Ponded for long duration following high amounts of rainfall.

- 2. Permeability: Moderate
- 3. Available water capacity: High
- 4. Flooding: None

(24) Ocilla loamy fine sand, 0 to 5 percent slopes - This very deep, somewhat poorly drained soil is on low uplands of the Southern Coastal Plain. Individual areas are irregular in shape and range from about 3 to 75 acres.

The surface layer is dark gray loamy fine sand about 10 inches thick. The subsurface layer, to a depth of 34 inches, is light yellowish brown loamy fine sand grading to pale yellow fine sand that grades to brownish yellow loamy fine sand. The upper part of the subsoil, to a depth of 52 inches, is mottled dark yellowish brown and red fine sandy loam. The lower part to a depth of 80 inches is gray sandy clay.

In 80 percent of areas mapped as Ocilla loamy fine sand, 0 to 5 percent slopes, Ocilla and similar soils make up 80 to 99 percent of the map unit. Dissimilar soils make up 1 to 20 percent.

Included with this soil in mapping are small areas of Blanton and Pelham soils. Blanton soils are on slightly higher landscape positions and are better drained. Pelham soils are on slightly lower positions and are poorly drained.

### Important properties of Ocilla soil:

- 1. Seasonal high water table: At a depth of 1 foot to 2.5 feet from December through April.
- 2. Permeability: Moderate
- 3. Available water capacity: Low
- 4. Flooding: None

(25) Wampee-Blanton sands, 8 to 12 percent slopes - These very deep, somewhat poorly to moderately well drained soils are on side slopes on uplands of the Southern Coastal Plain. Individual areas are irregular in shape and range from about 5 to 40 acres. Slopes range from 8 to 12 percent.

The Wampee soil has a surface layer of dark gray loamy sand about 6 inches thick. The subsurface layer, to a depth of 26 inches, is brown grading to light brownish gray loamy sand. The subsoil, to a depth of 51 inches, is light brownish gray gravelly sandy clay loam. The substratum, to a depth of 80 inches, is pale yellow sandy clay.

Typically, the Blanton soil has surface layer of dark grayish brown sand about 9 inches thick. The subsurface layer, to a depth of 54 inches, is yellowish brown grading to very pale brown sand. The upper part of the subsoil, to a depth of 63 inches, is yellowish brown sandy clay loam. The lower part, to a depth of 80 inches, is light brownish gray-to-gray sandy clay loam. The subsoil has brown and gray mottles.

In 80 percent of areas mapped as Wampee-Blanton Complex, 8 to 12 percent slopes, Wampee-Blanton soils and similar soils make up 75 to 99 percent of the map unit. Dissimilar soils make up 1 to 25 percent.

Mapped areas of these soils are about 40 percent Wampee and similar soils, and about 27 percent Blanton and similar soils. Dissimilar soils make up about 33 percent of the map unit. The components of this complex occur in a regularly repeating pattern. Wampee soils are on the shoulder slope and back slope positions within the unit. Blanton soils are on the summit and foot slope positions. The individual areas of Wampee soil and Blanton soil in this map unit are too small to map separately at the scale selected for this survey.

Included with this soil in mapping are small areas of Albany, Mascotte and Plummer soils. Albany soils have loamy subsoil horizons below 40 inches, Mascotte soils have organic stained subsoil horizons, Plummer soils occur on slightly lower positions in the land and are poorly drained.

### Important properties of Wampee-Blanton soils:

- 1. Seasonal high water table: Wampee; at a depth of 1 to 3 feet from June through December.
- 2. Blanton at a depth of 4 feet to 6 feet from March through August.
- 3. Permeability: Blanton; Moderate. Wampee; moderately slow
- 4. Available water capacity: Low
- 5. Flooding: None

(46) Stockade fine sandy loam - This very deep, poorly drained soil is in lowland flats near drainageways and in shallow depressions of the Southern Coastal Plain. Individual areas are irregular in shape. They range from about 5 to 80 acres in size. Slopes range from 0 to 2 percent.

The surface layer is very dark gray fine sandy loam about 10 inches thick. The subsoil layer extends to a depth of 54 inches. It is gray and very dark gray sandy clay loam in the upper part and very dark gray and light gray sandy clay loam in the lower part. The underlying material is stratified sandy clay loam and fine sandy loam with colors of very dark gray and light gray to 80 inches or more.

In 80 percent of areas mapped Stockade fine sandy loam, Stockade and similar soils make up 79 to 99 percent of the map unit. Dissimilar soils make up 1 to 21 percent.

Included with this soil in mapping are the Pelham and Surrency soils. Pelham soils have sandy surface and subsurface horizons. Surrency soils are in lower positions in the landscape and have black surface horizons.

### Important properties of Stockade soil:

1. Seasonal high water table: At a depth of 0 feet to 1 feet June through March.

- 2. Permeability: Slow
- 3. Available water capacity: Moderate
- 4. Flooding: None

(48) Bivans loamy sand, 8 to 12 percent slopes - This very deep, poorly drained soil is on narrow side slopes on uplands. Individual areas are irregular in shape. They range from about 5 to 25 acres in size.

Typically, the surface layer is dark gray loamy sand, about 4 inches thick. The subsurface layer, which extends to a depth of 16 inches, is dark grayish brown loamy sand. The subsoil, which extends to a depth of 60 inches, is dark gray and grayish brown sandy clay grading to grayish brown sandy clay loam. The substratum is massive, gray clay extending to a depth of 80 inches or more.

In 80 percent of the areas mapped as Bivans loamy sand, 8 to 12 percent slopes, the Bivans soil and similar soils make up 79 to 99 percent of the unit. Dissimilar soils make up the other 1 to 21 percent.

Included in mapping are areas of Pelham, Plummer and Wampee soils. Pelham and Plummer soils are in the lower positions and have loamy subsoil. Wampee soils are better drained than the Bivans soil and have ironstone nodules in the subsoil.

### Important properties of Bivans soil:

- 1. Seasonal high water table: At a depth of 1 to 1<sup>1</sup>/<sub>2</sub> feet from June through September, perched.
- 2. Permeability: Slow
- 3. Available water capacity: Moderate
- 4. Flooding: None

**(51) Bigbee fine sand, undulating, occasionally flooded** - This very deep, excessively drained soil is on river and creek terraces of the Southern Coastal Plain. Individual areas are irregular or elongate in shape. They range from about 20 to 100 acres. Slopes range from 0 to 10 percent.

The surface layer is light brownish gray fine sand about 9 inches thick. The underlying layers are fine sand. The upper part, to a depth of 20 inches, is dark yellowish brown. The middle part, to a depth of 55 inches, is pale brown grading to brown. The lower part to a depth of 80 inches is light gray.

In 95 percent of areas mapped as Bigbee fine sand, undulating, occasionally flooded, Bigbee soil and soils of similar characteristics make up 80 to 99 percent of the map unit. Dissimilar soils make up 1 to 20 percent.

Included with this soil in mapping are some small areas of Blanton soils. Blanton soils have a seasonal high water table and loamy subsoil.

### Important properties of Bigbee soil:

- **1.** Seasonal high water table: None within 80 inches.
- 2. Permeability: Rapid
- 3. Available water capacity: Low
- 4. Flooding: Occasional (2 in 10 years)

**(52) Pelham fine sand occasionally flooded -** deep poorly drained soil is in wet lowland positions on the floodplains of streams of the Southern Coastal Plain. Individual areas are irregular in shape. They range from about 10 to 40 acres. Slopes range from 0 to 2 percent.

The surface layer is very dark gray fine sand about 7 inches thick. The subsurface layer is dark gray grading to grayish brown fine sand to a depth of 25 inches. The subsoil layer is grayish brown sandy loam grading to gray and dark gray sandy clay loam to 80 inches or more.

In 80 percent of areas mapped Pelham sand occasionally flooded, Pelham and similar soils make up 79 to 99 percent of the map unit. Dissimilar soils make up 1 to 21 percent.

Included with this soil in mapping are Albany and Stockade soils. Albany soils are on slightly higher positions in the landscape and are better drained. Stockade soils have loamy surface and subsurface horizons.

### Important properties of Pelham soil:

- 1. Seasonal high water table: At a depth of 0 feet to 1.0 foot January through April.
- 2. Permeability: Moderately slow
- 3. Available water capacity: Low
- 4. Flooding: Occasional

**(57) Osier sand, occasionally flooded -** This deep, poorly drained soil is in wet lowland positions on the floodplains of streams in the Southern Coastal Plain. Individual areas are irregular in shape. They range from about 10 to 40 acres. Slopes range from 0 to 2 percent.

The surface layer is very dark brown sand grading to dark grayish brown fine sand about 8 inches thick. The underlying layer is light brownish gray to light gray sand to 80 inches or more.

In 80 percent of areas mapped Osier sand, occasionally flooded, Osier and similar soils make up 79 to 99 percent of the map unit. Dissimilar soils make up 1 to 21 percent.

Included with this soil in mapping are Plummer and Pottsburg soils. Plummer soils have loamy layers below 40 inches of the surface. Pottsburg soils have dark colored stained horizons below 51 inches of the surface.

### Important properties of Osier soil:

- 1. Seasonal high water table: At a depth of 0 to 0.5 foot November through March.
- 2. Permeability: Very rapid
- 3. Available water capacity: Very low
- 4. Flooding: Occasional

Addendum 5–Plant and Animal List

		Primary Habitat Codes
Common Name	Scientific Name	(for imperiled species)

#### BRYOPHYTES

Peat moss ...... Sphagnum sp.

# **PTERIDOPHYTES**

Ebony spleenwort	Asplenium platyneuron
Southern lady fern	Athyrium filix-femina subsp. asplenioidesUHF
Japanese climbing fern	Lygodium japonicum *
Cinnamon fern	Osmunda cinnamomea
	Osmunda regalis L. var. spectabilis
	Pleopeltis polypodioides var. michauxiana
Tailed bracken	Pteridium aquilinum var. pseudocaudatum
Netted chain fern	Woodwardia areolata
Virginia chain fern	Woodwardia virginica

#### **GYMNOSPERMS**

Slash pine	Pinus elliottii
Longleaf pine	Pinus palustris
Loblolly pine	Pinus taeda
Bald-cypress	Taxodium distichum

#### ANGIOSPERMS

## MONOCOTS

Bushy bluestemAndropogon gloCorkscrew threeawnAristida gyransWiregrassAristida stricta vSwitchcaneArundinaria gigaLittle quakinggrassBriza minor *RescuegrassBromus cathartaFescue sedgeCarex festucaceWalter's sedgeCarex striataVirginia dayflowerCommelina virgBermudagrassCyperus odorataNutgrassDichanthelium aDeertongue witchgrassDichanthelium aOpenflower witchgrassDichanthelium aFlorida yamDioscorea floridCommon water-hyacinthEichhornia crassCentipedegrassFremochloa oph	var. beyrichiana antea icus * ea inica on * us us * aciculare clandestinum dichotomum dichotomum axiflorum sphaerocarpon ana sipes *
Centipedegrass Eremochloa oph Little barley	niuroides *

Common Name	Scientific Name	Primary Habitat Codes (for imperiled species)
Rush		
Little duckweed	. Lemna obscura	
Italian ryegrass	. Lolium perenne *	
Beaked panicum	. Panicum anceps	
Maidencane	. Panicum hemitomon	
Bahiagrass		
Thin paspalum	. Paspalum setaceum	
Golden bamboo	. Phyllostchys aurea *	
Blackseed needlegrass	. Piptochaetium avenaceun	ר
Annual bluegrass		
Arrow bamboo	. Pseudosasa japonica	
Cabbage palm	. Sabal palmetto	
Narrow plumegrass	. Saccharum baldwinii	
Tall nutgrass		
Saw palmetto	. Serenoa repens	
Nash's blue-eyed grass		
Annual blue-eyed grass		
Saw greenbrier	. Smilax bona-nox	
Cat greenbrier		
Laurel greenbrier	. Smilax laurifolia	
Sarsaparilla vine	. Smilax pumila	
Prairie wedgescale	. Sphenopholis obtusata	
Ladiestresses		
Pineywoods dropseed	. Sporobolus junceus	
Spanish moss	. Tillandsia usneoides	
Yelloweyed grass	. <i>Xyris</i> sp.	
Adam's needle	. Yucca filamentosa	
DICOTS		
Red maple	. Acer rubrum	
Hammock snakeroot	. Ageratina jucunda	
Silktree; Mimosa	. Albizia julibrissin *	
Bastard false indigo	. Amorpha fruticosa	
Peppervine	. Ampelopsis arborea	
Devil's walkingstick		
Scratchthroat; Coral ardisia	. Ardisia crenata *	
Bluestem pricklypoppy	. Argemone albiflora	
Savannah milkweed		
Slimleaf pawpaw		
Smallflower pawpaw		
Fernleaf yellow false foxglove		
Groundsel tree; Sea-myrtle	•	
Wax begonia		
Dhuan Islanda	Detuile along	

Spanish needles...... Bidens bipinnata Crossvine...... Bignonia capreolata

River birch ...... Betula nigra

#### **Primary Habitat Codes** (for imperiled species) Scientific Name **Common Name** False nettle; Bog hemp...... Boehmeria cylindrica American beautyberry ..... Callicarpa americana Trumpet creeper ...... Campsis radicans Coastalplain chaffhead...... Carphephorus corymbosus Vanillaleaf ...... Carphephorus odoratissimus Hairy chaffhead ..... Carphephorus paniculatus Water hickory ...... Carya aquatica Pignut hickory ..... Carya glabra Mockernut hickory..... Carya tomentosa Southern catalpa..... Catalpa bignonioides Spadeleaf..... Centella asiatica Spurred butterfly pea ..... Centrosema virginianum Common buttonbush ..... Cephalanthus occidentalis Mouse-ear chickweed ..... Cerastium alomeratum \* White fringetree..... Chionanthus virginicus Camphortree ..... Cinnamomum camphora \* Satincurls...... Clematis catesbyana Tread-softly..... Cnidoscolus stimulosus Carolina coralbead ..... Cocculus carolinus Blue mistflower...... Conoclinium coelestinum Goldenmane tickseed ..... Coreopsis basalis \* Flowering dogwood ..... Cornus florida Yellowleaf hawthorne..... Crataegus flava Rabbitbells ..... Crotalaria rotundifolia Titi ..... Cyrilla racemiflora Carolina ponysfoot ..... Dichondra carolinensis Common persimmon ..... Diospyros virginiana Swamp twinflower...... Dyschoriste humistrata Silverthorn ..... Elaeagnus pungens \* Smooth elephantsfoot..... Elephantopus nudatus Philadelphia fleabane ..... Erigeron philadelphicus Coralbean; Cherokee bean ...... Erythrina herbacea White thoroughwort ..... Eupatorium album Dogfennel ..... Eupatorium capillifolium Common boneset ..... Eupatorium perfoliatum Carolina ash; pop ash..... Fraxinus caroliniana Elliott's milkpea ..... Galactia elliottii Downy milkpea ..... Galactia regularis Caribbean purple everlasting .... Gamochaeta antillana Pennsylvania everlasting...... Gamochaeta pensylvanicum Dwarf huckleberry..... Gaylussacia dumosa Yellow jessamine ..... Gelsemium sempervirens Carolina cranesbill...... Geranium carolinianum American witchhazel..... Hamamelis virginiana Pinebarren frostweed...... Helianthemum corymbosum Clasping heliotrope...... Heliotropium amplexicaule \*

#### Stephen Foster Folk Culture Center State Park Plants

#### **Primary Habitat Codes** (for imperiled species) Scientific Name **Common Name** Comfortroot ...... Hibiscus aculeatus Manyflower marshpennywort .... Hydrocotyle umbellata Peelbark St. John's-wort ..... Hypericum fasciculatum Pineweeds...... Hypericum gentianoides St. Andrew's-cross ...... Hypericum hypericoides Myrtleleaf St. John's-wort ...... Hypericum myrtifolium Tropical bushmint ...... Hyptis mutabilis \* Carolina holly; Sand holly ...... Ilex ambigua Large gallberry ..... Ilex coriacea Inkberry; Gallberry ..... Ilex glabra American holly...... Ilex opaca Yaupon ..... Ilex vomitoria Yellow anisetree......DEV Hairy indigo..... Indigofera hirsuta \* Virginia willow ..... Itea virginica Wicky ...... Kalmia hirsuta Virginia dwarfdandelion ..... Krigia virginica Grassleaf lettuce ...... Lactuca graminifolia Virginia pepperweed...... Lepidium virginicum Hairy lespedeza ..... Lespedeza hirta Doghobble ..... Leucothoe sp. Pinkscale gayfeather..... Liatris elegans Glossy privet ..... Ligustrum lucidum \* Chinese privet ..... Ligustrum sinense \* Toadflax ..... Linaria sp. Sweetgum...... Liquidambar styraciflua Japanese honeysuckle ..... Lonicera japonica \* Coral honeysuckle...... Lonicera sempervirens Mexican primrosewillow ..... Ludwigia octovalvis Peruvian primrosewillow ...... Ludwigia peruviana Creeping primrosewillow ...... Ludwigia repens Fetterbush ..... Lyonia lucida Southern magnolia ...... Magnolia grandiflora Sweetbay...... Magnolia virginiana Black medick ...... Medicago lupulina \* Chinaberrytree ...... Melia azedarach \* Chocolateweed ...... Melochia corchorifolila Creeping cucumber ..... Melothria pendula Climbing hempvine...... Mikania scandens Partridgeberry ..... Mitchella repens Indianpipe...... Monotropa uniflora Red mulberry ..... Morus rubra Southern bayberry; Wax myrtle Myrica cerifera Nandina ...... Nandina domestica \* Blackgum......Nyssa sylvatica Common eveningprimrose...... Oenothera biennis

#### Stephen Foster Folk Culture Center State Park Plants

Common Name	Scientific Name	Primary Habitat Codes (for imperiled species)
Pricklypear	Opuntia humifusa	
Wild olive		
Eastern hophornbeam		
Common yellow woodsorrel		
Virginia creeper		la
Red bay		
Swamp bay		
Red chokeberry		
Narrowleaf silkgrass		
Waterelm	•	
Virginia plantain		
Milkwort		
Rustweed		
Carolina laurelcherry	Prunus caroliniana	
Black cherry		
Flatwoods plum; Hog plum		
Blackroot		m
Kudzu	Pueraria montana *	
Carolina desertchicory		5
Spanish oak; Southern red oak.	Quercus falcata	
Sand live oak	Quercus geminata	
Bluejack oak	Quercus incana	
Turkey oak	Quercus laevis	
Laurel oak; Diamond oak	Quercus laurifolia	
Overcup oak	Quercus lyrata	
Sand post oak	Quercus margaretta	
Basket oak; Swamp chestnut oa	ak	Quercus michauxii
Myrtle oak	Quercus myrtifolia	
Water oak	Quercus nigra	
Live oak	Quercus virginiana	
Pale meadowbeauty	Rhexia mariana	
Sweet pinxter azalea		
Winged sumac	Rhus copallinum	
Tropical Mexican clover		
Southern marsh yellowcress	Rorippa teres	
Sand blackberry	Rubus cuneifolius	
Sawtooth blackberry	Rubus pensilvanicus	
Southern dewberry		
Dock		
Dwarf palmetto; Bluestem palm	•	
Shortleaf rosegentian		
Carolina willow		
Black willow		
Azure blue sage		
Lyreleaf sage		
American elder; Elderberry		anadensis
-	- ·	

Common Name	Scientific Name	Primary Habitat Codes (for imperiled species)
Hooded pitcherplant Lizard's tail Sweetbroom	Sarracenia minor Saururus cernuus Scoparia dulcis Sebastiana fruticose Sesbania punicea * Silene sp. Solidago canadensis var. Sonchus asper * Spermolepis divaricata Stachys floridana Stipulicida setacea Symplocos tinctoria Thyrsanthella difformis Tilia americana Toxicodendron radicans Tradescantia ohiensis Trifolium carolinianum Trifolium repens * Triodanis sp. Ulmus crassifolia Vaccinium arboreum Vaccinium arboreum Vaccinium stamineum Veronica arvensis * Viburnum nudum Viburnum obovatum Viburnum obovatum Viburnum obovatum Viola palmata Vitis cinerea var. floridana Wisteria sinensis *	m MF, DM
Oriental false hawksbeard	. cengra japonioa	

Common Name	Scientific Name	Primary Habitat Codes (for imperiled species)
	INVERTEBRATES	
Mollusks Island applesnails	. Pomacea insularum *	BST
Dragonflies		
Smoky Shadowfly Umber Shadowfly		
Moths		
Luna Moth	. Actias luna	MTC
Graceful Underwing	. Cotocala gracilis	MTC
Placentia Tiger Moth	. Grammia placentia	MTC
Looper Moth	. Lambdina sp	MTC
Southern Nepytia	. Nepytia semiclusaria	МТС
Butterflies		
Gulf Fritillary	Agraulis vanillae	MTC
Sachem		
Red Banded Hairstreak		
Horaces Duskywing		
Sleepy Orange		
Firey Skipper		
Clouded Skipper		
Yucca Giant-Skipper		
Eastern Tiger Swallowtail		
Cloudless Sulfur		
Long-tailed Skipper	. Urbanus proteus	MTC
Red Admiral	. Vanessa atalanta	MTC
	FISH	
Gulf Sturgeon		
Yellow Bullhead		
Spotted Bullhead		
Bowfin		
American Eel		
Pirate Perch	,	
Flier Bapperfin Shiper	•	
Bannerfin Shiner Blacktail Shiner	51	
Lake Chubsucker		
Brown Darter	-	
Lined Topinnow		
Mosquitofish		
Channel Catfish		

Common Name	Scientific Name	Primary Habitat Codes (for imperiled species)
Brook Silverside Florida Gar Redbreast Sunfish Warmouth Bluegill Redear Sunfish	. Labidesthes sicculus . Lepisosteus platyrhincus . Lepomis auritus . Lepomis gulosus . Lepomis macrochirus	BST BST BST BST BST BST
Spotted Sunfish Suwannee Bass Largemouth Bass Spotted Sucker Golden Shiner Sailfin Shiner Weed Shiner	<ul> <li>Lepomis punctatus</li> <li>Micropterus notius</li> <li>Micropterus salmoides</li> <li>Minytrema melanops</li> <li>Notemigonus crysoleucas</li> <li>Notropis hypselopterus</li> <li>Notropis texanus</li> </ul>	BST BST BST BST BST BST BST BST
Tadpole MadtomSpeckled MadtomBlackbanded DarterHogchoker	. Noturus leptacanthus . Percina nigrofasciata	BST BST

#### AMPHIBIANS

# Frogs and Toads

Florida Cricket Frog	. Acris gryllus dorsalis	MF,BS
Oak Toad	. Anaxyrus quercicus	MF
Southern Toad	. Anaxyrus terrestris	MF,UMW
Narrowmouth Toad	. Gastrophryne carolinensis	MF, DM
Green Treefrog	. Hyla cinerea	MF , UHF
Squirrel Treefrog	. Hyla squirella	MF , UHF
Gopher Frog	. Lithobates capito	MF,UP
American Bullfrog	. Lithobates catesbeiana	BS,BST
Southern Leopard Frog	. Lithobates sphenocephala	BS,BST
Spring Peeper	. Pseudacris crucifer	MF,BS,DM
Spadefoot Toad	. Scaphiopus holbrooki	MF, UP

#### Salamanders

Frosted Flatwoods Salamander . Ambystoma cingulatum ...... MF,BS

#### REPTILES

#### Crocodilians

American Alligator	Alligator miss	issippiensis	BST
3	3		

#### Turtles

Florida Softshell Turtle	. Apalone ferox	BST
	. Chelydra serpentina osceola	
Chicken Turtle	. Deirochelys reticularia	BS,DM
Gopher Tortoise	. Gopherus polyphemus	MF,UP

Common Name	Scientific Name	Primary Habitat Codes (for imperiled species)
Suwannee Alligator Snapping Turtle Suwannee Cooter Florida Cooter	. Pseudemys suwanniensis	BST
Lizards Green Anole Six-lined Racerunner Eastern Fence Lizard Ground Skink	. Aspidoscelis sexlineata . Sceloporus undulatus	MF, UP MF, UP
Snakes Florida Cottonmouth Southern Black Racer Eastern Coachwhip Eastern Diamondback Rattlesnake Timber Rattlesnake Eastern Indigo Snake Eastern Mud Snake Eastern Coral Snake Florida Water Snake Gray Ratsnake Florida Pine Snake Eastern Garter Snake	<ul> <li>Coluber constrictor priapu</li> <li>Coluber flagellum flagellu</li> <li>Crotalus adamanteus</li> <li>Crotalus horridus</li> <li>Drymarchon couperi</li> <li>Farancia abacura abacura</li> <li>Micrurus fulvius</li> <li>Nerodia fasciata pictivent</li> <li>Pantherophis spiloides</li> <li>Pituophis melanoleucus m</li> </ul>	US MF, UP m MF, UP MF, UHF MF, UHF MF, UP a BS MF, UP ris BS, BST MF, UHF nugitus UP
Waterfowl American Black Duck Mallard	. Anas rubripes	
<b>Turkeys</b> Wild Turkey	. Meleagris gallopavo	MF,BF,UMW
New World Quails Northern Bobwhite	. Colinus virginianus	MF,UP
<b>Cormorants</b> Double-crested Cormorant	. Phalocrocorax auritus	OF
Anhingas Anhinga Herons,Egrets,and Bitterns	. Anhinga anhinga	BST

# Primary Habitat Codes Scientific Name (for imperiled species) **Common Name** Great Blue Heron ......BST, FPLK Great Egret ......BST Snowy Egret......BST Little Blue Heron ......BST, FPLK Tricolored Heron ......BST Ibis White Ibis ...... BS,BST,DM,FPLK Storks Wood Stork ...... BS,BST,DM **New World Vultures** Black Vulture ...... MTC, OF Turkey Vulture...... MTC, OF Hawks, Eagles, and Kites Osprey ...... Pandion haliaetus ...... BST,OF Swallow-tailed Kite......MF,UMW,OF Mississippi Kite ...... MF, UMW, OF Bald Eagle......MF,BST,OF Cooper's Hawk...... Accipiter cooperi..... MTC Red-shouldered Hawk......Buteo lineatus.....BF,BS,MF,UMW,OF Red-tailed Hawk ...... MF, OF Limpkins Limpkin ......BST Cranes Sandhill Crane .....OF **Pigeons and Doves** Mourning Dove ...... Zenaida macroura ...... MTC Common Ground-Dove ...... Columbina passerina ...... MF Cuckoos Yellow-billed Cuckoo ...... UHF, UMW **Owls** Great Horned Owl ...... Bubo virginianus...... UHF, MF Barred Owl......BS,FS,BF,AF,UHF Eastern Screech-Owl ...... Megascops asio ...... MF, UHF

#### Stephen Foster Folk Culture Center State Park Animals

## Nightjars

Common Name	Scientific Name	Primary Habitat Codes (for imperiled species)
Chuck-will's-widow	. Caprimulgus carolinensis	MF,UMW,UP
<b>Swifts</b> Chimney Swift	. Chaetura pelagica	MTC,OF
Hummingbirds Ruby-throated Hummingbird	. Archilochus colubris	MF,UMW,DV
Kingfishers Belted Kingfisher	. Ceryle alcyon	BST
Woodpeckers Redheaded Woodpecker Red-bellied Woodpecker Yellow-bellied Sapsucker Downy Woodpecker Northern Flicker Pileated Woodpecker	. Melanerpes carolinus . Sphyrapicus varius . Picoides pubescens . Colaptes auratus	MTC BF,UHF,UMW MTC MF,UP
<b>Tyrant Flycatchers</b> Eastern Wood-Pewee Great Crested Flycatcher		
Vireos White-eyed Vireo Yellow-throated Vireo Blue-headed Vireo Red-eyed Vireo	. Vireo flavifrons	MF,UP,UMW MF,UHF,UMW
<b>Crows and Jays</b> Blue Jay American Crow		
<b>Tits and Allies</b> Carolina Chickadee Tufted Titmouse		
Nuthatches Red-breasted Nuthatch	. Sitta canadensis	MF,UMW,UHF
<b>Wrens</b> Carolina Wren	. Thryothorus ludovicianus	MTC
Kinglets Ruby-crowned Kinglet	. Regulus calendula	MTC

Common Name	Scientific Name	Primary Habitat Codes (for imperiled species)
Old World Warblers Blue-gray Gnatcatcher	. Polioptila caerulea	MTC
<b>Thrushes</b> Eastern Bluebird American Robin Hermit Thrush	. Turdus migratorius	MTC
Mockingbirds and Thrashers Northern Mockingbird Brown Thrasher	. Mimus polyglottos	
<b>Waxwings</b> Cedar Waxwing	. Bombycilla cedrorum	MTC
New World WarblersOrange-crowned WarblerNorthern ParulaYellow-rumped WarblerPine WarblerBlack-and-white WarblerHooded WarblerOvenbirdYellow-throated WarblerPalm WarblerNorthern WaterthrushCommon YellowthroatTanagersSummer TanagerSparrows and AlliesEastern TowheeChipping Sparrow	<ul> <li>Parula americana</li> <li>Dendroica coronata</li> <li>Dendroica pinus</li> <li>Mniotilta varia</li> <li>Wilsonia citrina</li> <li>Wilsonia citrina</li> <li>Seiurus aurocapillus</li> <li>Setophaga dominica</li> <li>Setophaga palmarum</li> <li>Parkesia noveboracensis.</li> <li>Geothlypis trichas</li> <li>Piranga rubra</li> <li>Pipilo erythrophthalmus</li> </ul>	
<b>Cardinals</b> Northern Cardinal	. Cardinalis cardinalis	MTC
Blackbirds and Allies Red-winged Blackbird Boat-tailed Grackle Brown-headed Cowbird	. Quiscalus major	MTC
Finches American Goldfinch	. Spinus tristis	MTC
* Non-native Species	A 5 - 12	

Common Name	Scientific Name	Primary Habitat Codes (for imperiled species)
House Finch	. Haemorhous mexicanus .	MTC
Old World Sparrows House Sparrow	. Passer domesticus *	DV
	MAMMALS	
<b>Didelphids</b> Virginia Opossum	. Didelphis virginiana	MTC
Insectivores Eastern Mole	. Scalopus aquaticus	MF, UP
Edentates Nine-banded Armadillo	. Dasypus novemcinctus *	MTC
Lagomorphs Eastern Cottontail	. Sylvilagus floridanus	MF
RodentsBeaverSoutheastern Pocket GopherSouthern Flying SquirrelRound-tailed MuskratEastern WoodratMarsh Rice RatEastern Gray SquirrelSherman's Fox SquirrelSherman's Fox SquirrelBobcatStriped Skunk	<ul> <li>Geomys pinetis</li> <li>Glaucomys volans</li> <li>Neofiber alleni</li> <li>Neotoma floridana</li> <li>Oryzomys palustris</li> <li>Sciurus carolinensis</li> <li>Sciurus niger shermani</li> <li>Lutra canadensis</li> <li>Lynx rufus</li> </ul>	
Raccoon Gray Fox Florida Black Bear	. Procyon lotor . Urocyon cinereoargenteu	MTC <i>s</i> MF
<b>Artiodactyls</b> White-tailed Deer Feral Hog	. Odocoileus virginianus . Sus scrofa *	MTC MTC

# TERRESTRIAL

Beach Dune	BD
Coastal Berm	СВ
Coastal Grassland	CG
Coastal Strand	CS
Dry Prairie	DP
Keys Cactus Barren	КСВ
Limestone Outcrop	LO
Maritime Hammock	MAH
Mesic Flatwoods	MF
Mesic Hammock	MEH
Pine Rockland	PR
Rockland Hammock	RH
Sandhill	SH
Scrub	SC
Scrubby Flatwoods	SCF
Shell Mound	SHM
Sinkhole	SK
Slope Forest	SPF
Upland Glade	UG
Upland Hardwood Forest	
Upland Mixed Woodland	UMW
Upland Pine	UP
Wet Flatwoods	WF
Xeric Hammock	XH

## PALUSTRINE

Alluvial Forest	AF
Basin Marsh	BM
Basin Swamp	BS
Baygall	BG
Bottomland Forest	BF
Coastal Interdunal Swale	CIS
Depression Marsh	DM
Dome Swamp	DS
Floodplain Marsh	FM
Floodplain Swamp	FS
Glades Marsh	GM
Hydric Hammock	HH
Keys Tidal Rock Barren	KTRB
Mangrove Swamp	MS
Marl Prairie	MP
Salt Marsh	SAM
Seepage Slope	SSL
Shrub Bog	SHB
Slough	SLO
Slough Marsh	SLM
Strand Swamp	STS

Wet Prairie W	Prairie WP
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## LACUSTRINE

Clastic Upland Lake	CULK
Coastal Dune Lake	CDLK
Coastal Rockland Lake	CRLK
Flatwoods/Prairie	FPLK
Marsh Lake	MLK
River Floodplain Lake	RFLK
Sandhill Upland Lake	SULK
Sinkhole Lake	SKLK
Swamp Lake	SWLK

#### RIVERINE

Alluvial Stream	AST
Blackwater Stream	BST
Seepage Stream	SST
Spring-run Stream	SRST

# SUBTERRANEAN

Aquatic Cave	ACV
Terrestrial Cave	TCV

#### ESTUARINE

Algal Bed	EAB
Composite Substrate	ECPS
Consolidated Substrate	ECNS
Coral Reef	ECR
Mollusk Reef	EMR
Octocoral Bed	EOB
Seagrass Bed	ESGB
Sponge Bed	ESPB
Unconsolidated Substrate	EUS
Worm Reef	EWR

# MARINE

Algal Bed	MAB
Composite Substrate	MCPS
Consolidated Substrate	MCNS
Coral Reef	MCR
Mollusk Reef	MMR
Octocoral Bed	
Seagrass Bed	MSGB
Sponge Bed	MSPB
Unconsolidated Substrate	MUS
Worm Reef	MWR

# ALTERED LANDCOVER TYPES

Abandoned field	ABF
Abandoned pasture	ABP
Agriculture	AG
Canal/ditch	CD
Clearcut pine plantation	CPP
Clearing	CL
Developed	DV
Impoundment/artificial pond	IAP
Invasive exotic monoculture	IEM
Pasture - improved	PI
Pasture - semi-improved	PSI
Pine plantation	PP
Road	RD
Spoil area	SA
Successional hardwood forest	SHF
Utility corridor	UC

# MISCELLANEOUS

Many Types of Communities M	ITC
Overflying	OF

Addendum 6—Imperiled Species Ranking Definitions

The Nature Conservancy and the Natural Heritage Program Network (of which FNAI is a part) define an <u>element</u> as any exemplary or rare component of the natural environment, such as a species, natural community, bird rookery, spring, sinkhole, cave or other ecological feature. An <u>element occurrence</u> (EO) is a single extant habitat that sustains or otherwise contributes to the survival of a population or a distinct, self-sustaining example of a particular element.

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

Federal and State status information is from the U.S. Fish and Wildlife Service; and the Florida Fish and Wildlife Conservation Commission (animals), and the Florida Department of Agriculture and Consumer Services (plants), respectively.

## FNAI GLOBAL RANK DEFINITIONS

G1	Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or fabricated factor.
G2	Imperiled globally because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
G3	Either very rare or local throughout its range (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction of other factors.
G4	apparently secure globally (may be rare in parts of range)
	demonstrably secure globally
	of historical occurrence throughout its range may be rediscovered (e.g., ivory-billed woodpecker)
GX	believed to be extinct throughout range
GXC	extirpated from the wild but still known from captivity or cultivation
	Tentative rank (e.g.,G2?)
G#G#	range of rank; insufficient data to assign specific global rank (e.g., G2G3)
G#T#	rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1)
G#Q	rank of questionable species - ranked as species but questionable whether it is species or subspecies; numbers have same definition as above (e.g., G2Q)

- GU .....due to lack of information, no rank or range can be assigned (e.g., GUT2).
- G?.....Not yet ranked (temporary)
- S1.....Critically imperiled in Florida because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
- S2..... Imperiled in Florida because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
- S3..... Either very rare or local throughout its range (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction of other factors.
- S4.....apparently secure in Florida (may be rare in parts of range)
- S5..... demonstrably secure in Florida
- SH .....of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker)
- SX..... believed to be extinct throughout range
- SA.....accidental in Florida, i.e., not part of the established biota
- SE.....an exotic species established in Florida may be native elsewhere in North America
- SN .....regularly occurring but widely and unreliably distributed; sites for conservation hard to determine
- SU .....due to lack of information, no rank or range can be assigned (e.g., SUT2).
- S?.....Not yet ranked (temporary)
- N .....Not currently listed, nor currently being considered for listing, by state or federal agencies.

# LEGAL STATUS

## **FEDERAL**

## (Listed by the U. S. Fish and Wildlife Service - USFWS)

- LE .....Listed as Endangered Species in the List of Endangered and Threatened Wildlife and Plants under the provisions of the Endangered Species Act. Defined as any species that is in danger of extinction throughout all or a significant portion of its range.
- PE.....Proposed for addition to the List of Endangered and Threatened Wildlife and Plants as Endangered Species.
- LT .....Listed as Threatened Species. Defined as any species that is likely to become an endangered species within the near future throughout all or a significant portion of its range.
- PT..... Proposed for listing as Threatened Species.

C .....Candidate Species for addition to the list of Endangered and Threatened Wildlife and Plants. Defined as those species for which the USFWS currently has on file sufficient information on biological vulnerability and threats to support proposing to list the species as endangered or threatened.

E(S/A) ...... Endangered due to similarity of appearance.

T(S/A) ...... Threatened due to similarity of appearance.

EXPE, XE..... Experimental essential population. A species listed as experimental and essential.

EXPN, XN.... Experimental non-essential population. A species listed as experimental and non-essential. Experimental, nonessential populations of endangered species are treated as threatened species on public land, for consultation purposes.

# <u>STATE</u>

#### ANIMALS .. (Listed by the Florida Fish and Wildlife Conservation Commission - FWC)

- FE ..... Federally-designated Endangered
- FT ..... Federally-designated Threatened
- FXN......Federally-designated Threatened Nonessential Experimental Population
- FT(S/A) ...... Federally-designated Threatened species due to similarity of appearance
- ST..... Listed as Threatened Species by the FWC. Defined as a species, subspecies, or isolated population, which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat, is decreasing in area at a rapid rate and therefore is destined or very likely to become an endangered species within the near future.
- SSC..... Listed as Species of Special Concern by the FWC. Defined as a population which warrants special protection, recognition or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance or substantial human exploitation that, in the near future, may result in its becoming a threatened species.

#### PLANTS .... (Listed by the Florida Department of Agriculture and Consumer Services - FDACS)

- LE .....Listed as Endangered Plants in the Preservation of Native Flora of Florida Act. Defined as species of plants native to the state 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, and includes all species determined to be endangered or threatened pursuant to the Federal Endangered Species Act of 1973, as amended.
- LT .....Listed as Threatened Plants in the Preservation of Native Flora of Florida Act. Defined as 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 such number as to cause them to be endangered.

Addendum 7—Cultural Information

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

## A. General Discussion

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

## B. Agency Responsibilities

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

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

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

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

# C. Statutory Authority

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

## D. Management Implementation

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

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

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

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

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

## E. Minimum Review Documentation Requirements

In order to have a proposed project reviewed by the Division, certain information must be submitted for comments and recommendations. The minimum review documentation requirements can be found at: <a href="http://www.flheritage.com/preservation/compliance/docs/minimum\_review\_docum">http://www.flheritage.com/preservation/compliance/docs/minimum\_review\_docum</a> entation\_requirements.pdf .

\* \* \*

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

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

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

The criteria to be used for evaluating eligibility for listing in the National Register of Historic Places are as follows:

- 1) Districts, sites, buildings, structures, and objects may be considered to have significance in American history, architecture, archaeology, engineering, and/or culture if they possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:
  - a) are associated with events that have made a significant contribution to the broad patterns of our history; and/or
  - **b)** are associated with the lives of persons significant in our past; and/or
  - c) embody the distinctive characteristics of type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; and/or
  - **d)** have yielded, or may be likely to yield, information important in prehistory or history.
- 2) Ordinarily cemeteries, birthplaces, or graves of historical figures; properties owned by religious institutions or used for religious purposes; structures that have been moved from their original locations; reconstructed historic buildings; properties primarily commemorative in nature; and properties that have achieved significance within the past 50 years shall not be considered eligible for the *National Register*. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:
  - a) a religious property deriving its primary significance from architectural or artistic distinction or historical importance; or
  - a building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
  - c) a birthplace or grave of an historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life; or
  - d) a cemetery which derives its primary significance from graves of persons of transcendent importance, from age, distinctive design features, or association with historic events; or a reconstructed building, when it is accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and no other building or structure with the same association has survived; or a property primarily commemorative in intent, if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
  - e) a property achieving significance within the past 50 years, if it is of exceptional importance.

# Preservation Treatments as Defined by Secretary of Interior's Standards and Guidelines

**Restoration** is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.

**Rehabilitation** is defined as the act or process of making possible a compatible use for a property through repair, alterations and additions while preserving those portions or features that convey its historical, cultural or architectural values.

**Stabilization** is defined as the act or process of applying measures designed to reestablish a weather resistant enclosure and the structural stability of an unsafe or deteriorated property while maintaining the essential form as it exists at present.

**Preservation** is defined as the act or process of applying measures necessary to sustain the existing form, integrity and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.

Addendum 8—Timber Management Analysis

## FOREST RESOURCE ASSESSMENT

At the request of Anne Barkdoll, Biologist, Division of Recreation and Parks, a forest resource assessment was prepared for one management zone of the Stephen Foster Folk Culture Center State Park. A field visit was made on May 23, 2011 and June 28, 2011.

## Zone 7G – Planted Slash Pine, 16 acres

This is a site prepared 25-year-old planted slash pine stand. Current stocking is approximately 503 trees per acre. The average tree diameter is 6.9 inches. The average basal area is 131 sq. ft. per acre. Windrows run throughout the stand. These windrows are growing up in water oak, river birch, red maple and sweetgum. There is a moderate to heavy understory of hardwoods throughout the stand.

This is a fully stocked stand, which needs to be thinned in order to maintain the stand in a healthy, growing condition and to allow any type of ground cover restoration work to begin. Third row thin this stand, removing every third row for equipment access, and, in addition, remove any diseased, suppressed, or poor formed trees in the remaining two rows. Only healthy, well-formed pine trees would remain. Residual basal area will be in the 40 to 60 square feet per acre range.

## Zone 7G Stand 2 – Loblolly Pine, 12 acres

This is an 18-year-old site prepared loblolly pine plantation. There are approximately 175 trees per acre with an average diameter of 8.8 inches. The average basal area is 75 square feet per acre. At first glance, this stand does not appear to have been planted, however upon close inspection you will find windrows and evidence of bedding. I suspect this area flooded in the year it was site prepared, eroding the beds to nearly level ground. In addition, loblolly pine has "volunteered" in this stand from adjoining areas.

Thin this stand down to 20 to 40 square feet of basal area per acre, leaving only the healthy, better-formed trees.

Portions of adjacent and neighboring management zones have stocking levels similar to stand 2, above. In those areas where longleaf pine is the preferred pine species, it is recommended to heavily thin the loblolly pine and interplant with longleaf pine.

Presently, the forested area of the park along the Suwannee River has only limited vehicular access thru the RV campground. Before any logging activities can take place, this access point will need improvement or a completely new access point established outside the campground area. A possible access entry point is from River Road at the northeast corner of 7G.

Prepared by: Doug Longshore, Senior Forester, Division of Forestry, June, 2011.