

INTRODUCTION

	Purpose and Significance of the Park	. 1
	Purpose and Scope of the Plan	. 1
	Resource Management Component	. 2
	Land Use Component	
	Secondary Uses Consideration	
	Contract Services	
	Management Program Overview	
	Management Authority and Responsibility	
	General Park Management Goals	
	Management Coordination	
	•	
	Public Participation	
	Other Designations	.9
PAST	ACOMPLISHMENTS AND FUTURE OBJECTIVES	
	Past Accomplishments	
	Park Administration and Operations	
	Resource Management	
	Recreation and Visitor Services	
	Park Facilities	. 11
	Future Objectives	.11
	Administration and Support	. 12
	Hydrological Management	.13
	Natural Communities Management	.13
	Imperiled Species Management	
	Exotic Species Management	
	Cultural Resources Management	
	Recreation Management	
	Summary of Ten-Year Cost Estimates	
RFSO	DURCE MANAGEMENT COMPONENT	
REGG	Natural Resources	. 21
	Topography	
	Geology	
	Soils	
	Minerals	
	Hydrology	
	Hydrological Management	
	Natural Communities	
	Natural Communities Management	
	Imperiled Species	
	Imperiled Species Management	
	Exotic Species	
	Exotic Species Management	
	Special Natural Features	.40

RESOURCE MANAGEMENT COMPONENT CONT.	
Cultural Resources	40
Condition Assessment	40
Level of Significance	40
Prehistoric and Archaeological Resources	41
Cultural Resources Management	
Special Management Conditions	
Timber Management Analysis	
Arthropod Control Plan	
Land Management Review	
LAND USE COMPONENT	
External Conditions	47
Demographics	47
Regional Population Growth	47
Land Use and Zoning	48
Existing Use of Adjacent Lands	48
Planned Use of Adjacent Lands	48
Future Land Use Designation of the Park	49
Regional Conservation, Recreation, Trails	50
Florida Greenways and Trails System	50
Statewide Comprehensive Outdoor Recreation Plan	50
Property Analysis	51
Recreation Resource Elements	51
Land Area	52
Water Area	52
Shoreline	52
Natural Scenery	52
Significant Habitat	52
Archaeological and Historic Features	52
Assessment of Use	52
Past Uses	53
Current Recreation Use and Visitor Programs	53
Other Uses	53
Protected Zones	53
Existing Facilities	53
Recreation Facilities	54
Support Facilities	54
Attendance Analysis	54
Conceptual Land Use Plan	57
Potential Uses	57
Public Access and Recreational Opportunities	57
Proposed Facilities	
Capital Facilities and Infrastructure	58
Facilities Development	61
Recreational Carrying Capacity	62

Optimum Boundary	65
TABLES	
TABLE 1—Natural Communities and Altered Landcovers	22
TABLE 2—Prescribed Fire Management	
TABLE 3—Imperiled Species	
TABLE 4—FLEPPC Category I and II Exotic Plant Species	
TABLE 5—Cultural Sites in the Florida Master Site File	
TABLE 6—Current Populations	
TABLE 7—Zoning and Future Land Use	
TABLE 8—Regional Recreational Opportunities	
TABLE 9—Recreational Carrying Capacity	62
MAPS	
Vicinity Map	3
Reference Map	
Soils Map	25
Management Zones Map	27
Natural Communities Map	31
Base Map	55
Conceptual Land Use Plan Map	59
Optimum Boundary Map	63
ADDENDA	
ADDENDUM 1—Acquisition History	A—1
ADDENDUM 2—Advisory Group Summary and Comments	A2
ADDENDUM 3—References Cited	A—3
ADDENDUM 4—Soil Descriptions	A—4
ADDEDNUM 5—Plant and Animal List	A—5
ADDENDUM 6—Imperiled Species Ranking Definitions	
ADDENDUM 7—Cultural Information	
ADDEDNUM 8—Local Government Comprehensive Plan Compliance.	88



Introduction

Lake Talquin State Park is located in Leon County just 15 miles west of Tallahassee. (see Vicinity Map). Access to the park is from State Highway 20 via Jack Vause Landing Road. (see Reference Map). The Vicinity Map also reflects significant land and water resources existing near the park.

Lake Talquin State Park was initially acquired on December 15, 1970 by donation to the Board of Trustees of the Internal Improvement Trust Fund (Trustees) from the Florida Power Corporation. Currently, the park comprises 425.78 acres. The Board of Trustees of the Internal Improvement Trust Fund (Trustees) hold fee simple title to the park and on June 8, 1971, the Trustees leased (Lease Number 2537) the property to DRP under a 99-year lease. The current lease will expire on June 7, 2070.

Lake Talquin State Park is designated singleuse to provide public outdoor recreation and conservation. There are no legislative or executive directives that constrain the use of this property (see Addendum 1).

Purpose and Significance of the Park

Lake Talguin State Park is an interesting park with a colorful history. The park is all that's left of the once 20,000+ acre Lake Talquin State Recreation Area, with the remaining upland tracts transferring to the Florida Division of Forestry (now FFS). While small in size, the park is significant in several big ways. It protects one of the last natural stretches of bluff running along the high banks of the Ochlockonee River from Jackson Bluff near Hwy 20 to Cole Landing near Hwy 90. Beech/magnolia forests, Appalachian flora, clear seepage streams, and some of the most commanding views in Florida are among the gems the park has to offer. It has remained a special place all these years because it has remained minimally developed.

Park Significance

- The park's principle distinctive feature is Lake Talquin itself. The lake encompasses miles of the Ochlocknee River floodplain and is a resource for excellent outdoor recreation. Steep bluffs along the lake's southside shore tower over a thin strip of slope forest community, providing attractive lake shore scenery as well as unique habitat and sheer topography uncommon throughout much of Florida.
- The park contains some of the largest ravines outside of the immediate Apalachicola River basin. Deep steephead ravines along the edge of the lake form ideal conditions that provide a moist habitat for many sensitive species ans rich biodiversity. Other important natural communities harbored within the ravines are best described as slope forest, seepage stream, and sandhill.
- The park's cool clear seepage streams are prime habitat for a variety of amphibians including the listed Apalachicola dusky salamander and the four-toed salamander.
- The park offers an extensive picnic and grilling area as well as an excellent boardwalk and dock for fresh-water fishing, boating, and wildlife viewing. The 650-foot boardwalk runs alongside the water's edge, offering breathtaking panoramic views of Lake Talquin. The nature trails provide hikers a closer look at the steephead ravine system and the park's extensive upland forest.

Purpose and Scope of the Plan

Lake Talquin State Park is classified as a State Recreation Area in the DRP's unit classification system. In the management of a state recreation area, major emphasis is placed on maximizing the recreational potential of the unit. However, preservation of the park's natural and cultural resources remains important. Depletion of a resource by any recreational activity is not permitted. In order to realize the park's recreational potential, the development of appropriate

park facilities is undertaken with the goal to provide facilities that are accessible, convenient and safe, to support public recreational use or appreciation of the park's natural, aesthetic and educational attributes

This plan serves as the basic statement of policy and direction for the management of Lake Talquin 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 2008 approved plan.

Resource Management 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 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 the park values.

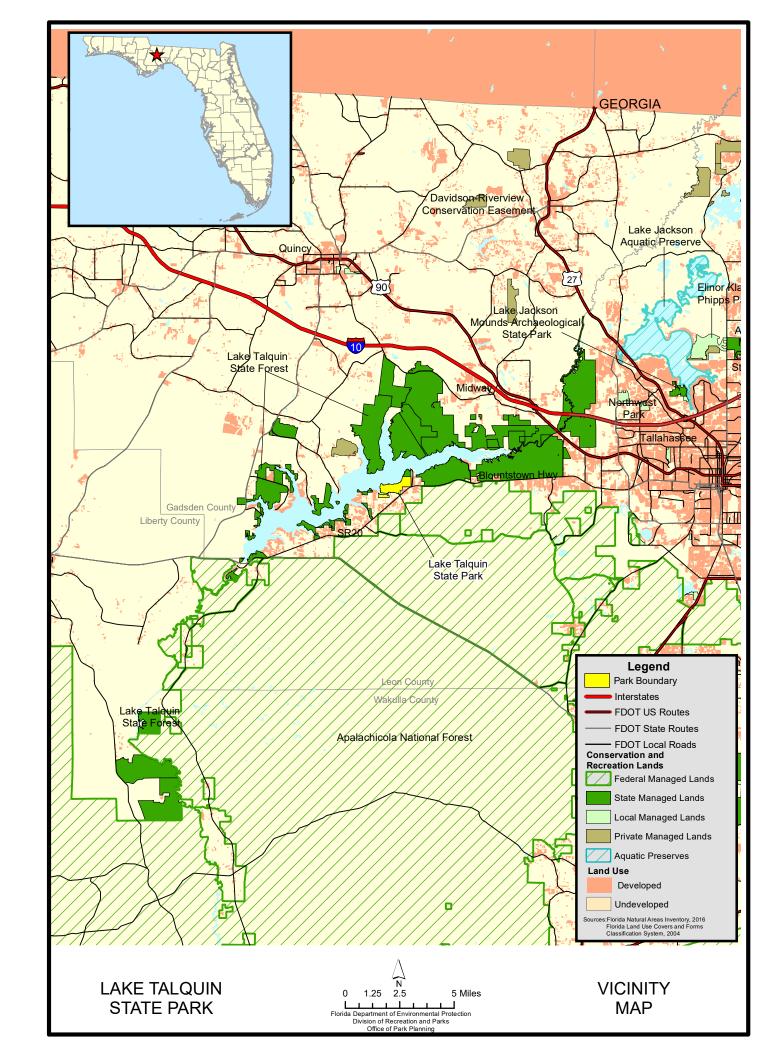
The DRP's management goal for cultural resources is to preserve sites and objects that represent Florida's cultural periods, significant historic events or persons. This goal often entails active measures to stabilize, reconstruct or restore resources, or to rehabilitate them for appropriate public use.

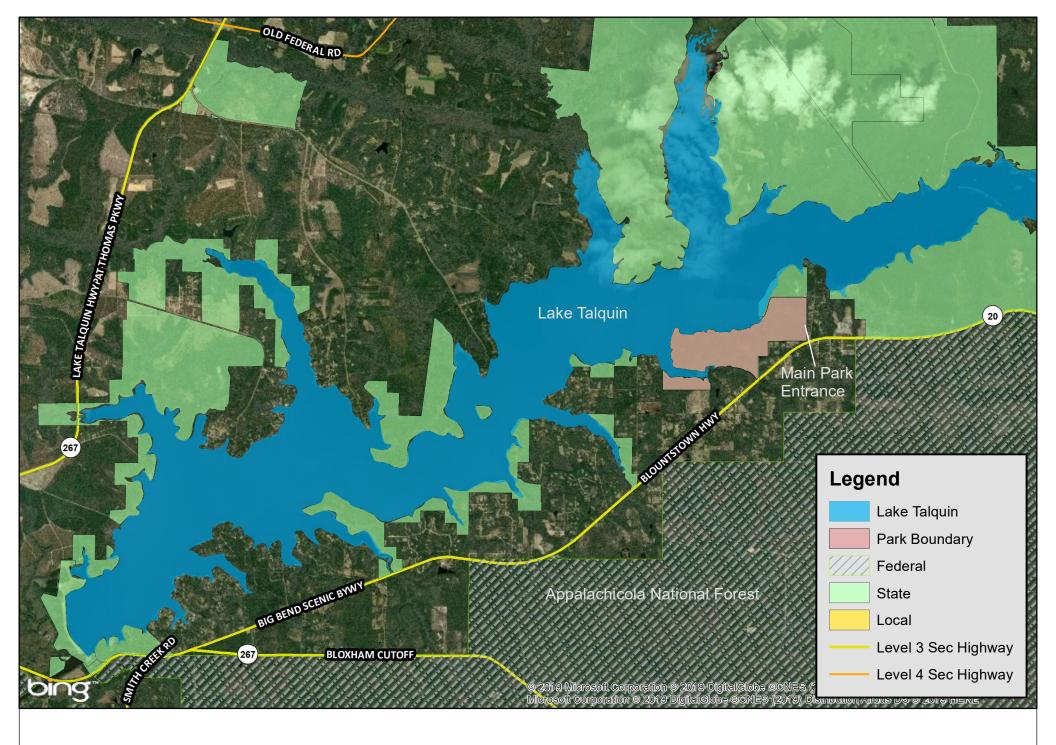
Because park units are often components of larger ecosystems, their proper management can be affected by conditions and events that occur beyond park boundaries. Ecosystem management is implemented through a resource management evaluation program that assesses resource conditions, evaluates management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

Land Use Component

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.

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, Division of Recreation and Parks. 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 visitore general planning and design





LAKE TALQUIN STATE PARK

REFERENCE MAP

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.

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.

Secondary Use Considerations

In accordance with 253.034(5) F.S., the potential of the park to accommodate secondary management purposes was analyzed. These secondary purposes were considered within the context of the DRP's statutory responsibilities and the resource needs and values of the park. This analysis considered the park natural and cultural resources, management needs, aesthetic values, visitation and visitor experiences. For this park, it was determined that no secondary purposes could be accommodated

in a manner that would not interfere with the primary purpose of resource-based outdoor recreation and conservation.

DRP has determined that 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) would not be consistent with this plan or the management purposes of the park.

Contract Services

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-bycase basis in accordance with the policies set forth in DRP's Operations Manual (OM).

Management Authority and Responsibility

In accordance with Chapter 258, Florida Statutes and Chapter 62D-2, Florida Administrative Code, the Division of Recreation and Parks (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.

In the management of Lake Talquin 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 ofnatural 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 on the park's natural, aesthetic and educational attributes.

General Park Management Goals

The following park goals express DRP's longterm 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 [INSERT Dates], respectively. Meeting notices were published in the Florida Administrative Register, [INSERT publication date, VOL/ISSUE], 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

Lake Talquin 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.

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).

Past Accomplishments

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 Lake Talquin State Park in 2008, significant work has been accomplished and progress made towards meeting the DRP's management objectives for the park. These accomplishments fall within four of the five general categories that encompass the mission of the park and the DRP.

Park Administration and Operations

- 5 film shoots have taken place in the last 10 years at the park
- ADA improvements to sidewalk completed in 2015-2016
- Substantial cleanup efforts from Hurricane Michael including extensive tree debris removal, hazard tree identification and removal, and resurfacing hiking trails have been done at the park

Natural Resources

- Restored 7 acres of sandhill natural community
- Observed excellent progress in 7 acre sandhill restoration area

- Harvested wire grass seeds from Talquin State Forest and applied the seeds to restoration area
- Burned restoration area in 2011
- Restoration area burned and gyrotracked in 2013-2014
- Continued monitoring and documentation of listed plants and animals
- Exotic species control reached maintenance condition
- Erosion control features constructed on trail from bluff to boardwalk in 2015-2016
- Treated exotics in ravine systems
- Continued erosion control measures on trail to boat dock

Recreation and Visitor Services

- Eagle Scout project completed a spur trail to the bluff overlook from existing nature trail
- Ravine interpretive program was developed and implemented
- Held 2 fishing programs in collaboration with FWC
- Held tours for multiple school day camps

Park Facilities

- Replaced 700 feet of boardwalk along bluff
- In partnership with Leon County, Jack Vause Landing Road was paved for safer access to the park and boat ramp
- All new underground utilities installed for park facilities in 2011
- New park entrance fencing completed in 2012
- Repairs to pavilion and cook shed in 2013-2014
- Ranger residence roof replaced 2015-2016

Future Objectives

This section also compiles the management goals, objectives, and actions expressed in the separate parts of this management plan for easy review. Estimated costs for the tenyear period of this plan are provided for each action and objective, and the costs are

summarized under standard categories of land management activities. The Ten-Year Implementation Schedule and Cost Estimates summarizes the management goals, objectives, and actions that are recommended for implementation over this period. Measures are identified for assessing progress toward completing each objective and action. The timeframes for completing each objective and action are Continuous (C), Short-Term (ST), Long-Term (LT), and Unfunded Need (UFN). 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 three standard land management categories: administration and support, resource management, and recreation and visitor services.

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 may need to be adjusted during the ten-year management planning cycle.

Goal I: Provide administrative support for all park functions.		Measure	Planning Period	Estimated Manpower and Expense Cost* (10-years)
Objective A	Continue day-to-day administrative support at current levels.	Administrative support ongoing	С	\$36,502
Objective B	Expand administrative support as new lands are acquired, new facilities are developed, or as other needs arise.	Administrative support expanded	С	\$2,765

C - Continuous; ST - Short Term (within 2 years); LT - Long Term (within 10 years); UFN - Unfunded Need

restore hydro	ect water quality and quantity, ology to the extent feasible, a the restored condition.	Measure	Planning Period	Estimated Manpower and Expense Cost* (10- years)
Objective A	Conduct/obtain an assessment of hydrological needs.	Assessment conducted	ST or LT	\$5,000
Action 1	Conduct annual surveys if all park roads, trails, and seepage streams to identify any impacts to surface hydrology	Cooperation ongoing	LT	\$5,000
Goal III: Restore and maintain the natural communities/habitats.		Measure	Planning Period	Estimated Manpower and Expense Cost* (10- years)
Objective A	Within 10 years have the 4 acres of sandhill maintained within optimal fire return interval.	# Acres within FRI target	LT	\$37,000
Action 1	Develop/update annual burn plan	Plan updated	С	\$4,000
Action 2	Manage fire dependent communities by burning every 2-3 years	Average # acres burned annually	С	\$7,000
Action 3	Maintain all equipment that supports fire preparation and holding/suppression activities in good repair	Equipment clean and fully serviceable	С	\$26,000
Objective B	Conduct habitat/natural community improvement activities on 4 acres of sandhill	# acres improved or underway	ST or LT	\$7,500
Action 1	Annually evaluate the sandhill and determine if mowing or hand clearing of select understory hardwoods is necessary before the next scheduled prescribed burn	Evaluation conducted	LT	\$3,000
Action 2	Conduct understory reduction of woody fuels as necessary to reestablish appropriate woody vs. herbaceous species proportions.	Project completed	LT	\$4,500

	•	improve or restore opulations and habitats		Measure		Planning Period	Estimated Manpower and Expense Cost* (10- years)
Objective A	ective A species occurrence inventory lists for plants and animals.		List updated		С	\$6,000	
Action 1	Coordi botani	linate with experienced lists to conduct additional surveys		Survey(s) conducted		LT	\$3,000
Action 2	acader	nate with agency staff and mia to conduct additional cological surveys		Survey(s) conducted		LT	\$3,000
Objective C		or and document 1 ed imperiled animal es.		# Species		С	\$3,000
Action 1	park's winter monito ephem	Conduct annual surveys of the park's slope forests during the late winter – early spring time to monitor imperiled spring ephemerals such ass trout lily and trilliums (including staff training)		Survey(s) conducted		С	\$3,000
Goal V: Remove exotic and invasive plants and animals and conduct needed maintenance-control.			Measure		anning Period	Estimated Manpower and Expense Cost* (10-years)	
Objective A		Annually treat 2 acres of exotic plant species.		# Acres treated		С	\$33,000
Action 1		Annually develop/ update exotic plant management work plan.	d	Plan developed/ updated		С	\$3,000
Action 2 Action 2 Action 2 Implement annual work plan by treating 2 acres annually, and continuing maintenance and follow up treatments		im	Plan nplemented	('		\$30,000	
	Goal VI: Protect, preserve and maintain the cultural resources.		е	Measure		Plannin Period	- land Evhansa
Objective A	reco	ess and evaluate 1 of 1 orded cultural resources ne park		Documentat complete		LT	\$1,200
Action 1	of th	plete an annual evaluation e park's only recorded aeological site		Assessmen complete		С	\$1,200

Objective B Action 1	recorded historic and archaeological sites Ensure all known sites a recorded or updated in	are	# Sites recorded or	LT LT	\$1,200 \$1,200
Objective C	Florida Master Site File. Maintain 1 of 1 record cultural resources in condition	ded	# sites in good condition	LT	\$1,200
Action 1	Annually monitor the parecorded site	arks	# sites monitored	С	\$1,200
	vide public access			Planning	Estimated Manpower

	ovide public access onal opportunities.	Measure	Planning Period	Estimated Manpower and Expense Cost* (10- years)
Objective A	Maintain the park's current recreational carrying capacity 594 users per day	# Recreation/ visitor	С	\$80,306
Objective B	Expand the park's recreational carrying capacity by 45 users	# Recreation/ visitor	ST or LT	\$6,084
Goal VIII: Develop and maintain the capital facilities and infrastructure necessary to meet the goals and objectives of this management plan.		Measure	Planning Period	Estimated Manpower and Expense Cost* (10- years)
Objective A	Maintain all public and support facilities in the park.	Facilities maintained	С	\$109,508
Objective B	Improve/repair 2 existing facilities, 1.1 miles of trail, and 650 feet of boardwalk as identified in the Land Use Component	# Facilities/Miles of Trail/Miles of Road	LT	\$85,712
Objective C	Construct 3 new facilities as identified in the Land Use Component.	# Facilities/Miles of Trail/Miles of Road	UFN	\$667,150
Objective E	Expand maintenance activities as existing facilities are improved and new facilities are developed	Facilities maintained	UFN	\$50,000

Continue to implement the park's transitional plan to ensure facilities are accessible in accordance with the American with Disabilities Act of 1990	Plan Implemented	ST or LT	\$20,000
--	------------------	----------	----------

Summary of Ten-Year Cost Estimates Total Estimated Manpower Management Categories and Expense Cost Percentage (10 years) **Administration and Support** \$39,267 3.9% **Resource Management** \$96,300 9.7% Hydrology \$5,000 0.5% **Natural Communities** \$44,500 4.5% **Imperiled Species** \$9,000 0.9% **Exotic Species** \$33,000 3.3% **Cultural Resources** \$4,800 0.5% **Recreation and Visitor Services** 86.4% \$859,252 **Public Access** \$86,390 8.7% Capital Improvements \$772,862 77.7% **Total Ten-Year Cost Estimate** \$994,819 100%



Natural Resources

Topography

In general, the topography of the park consists of well-drained uplands dissected by steep ravines. There is a high bluff that runs along the park's northern shoreline, culminating in a sharp precipice at the northwest tip. Here the bluff reaches its highest point, towering over a thin strip of slope forest community along the lakeshore. Other steep "bluff-like" areas along the lakeshore were created as the impounded waters of Lake Talquin cut erosion scarps along steep slope forests. In many places, wave action has exposed limestone at the base of the slopes.

Geology

Significant geological strata of the park and surrounding areas are, from oldest to most recent, the Suwannee Straights of the late Eocene Period, the Chattahoochee Anticline and Ocala Uplift of the Oligocene Period, and the Apalachicola Embayment of the late Miocene Period. Overlying the Suwannee limestone of the Oligocene is the St. Marks, Hawthorne, Jackson Bluff and Miccosukee Formations. The upper beds of the Hawthorne Formation are exposed on the bluffs along the south side of Lake Talquin, where the lake has created an erosion scarp. Overlying these bedrock formations are unconsolidated materials deposited during the Pliocene and Pleistocene periods.

Soils

The following soil types occur at the park: Albany loamy sand, Alpin sand, Blanton fine sand, Pelham fine sand, Rutledge loamy fine sand, Sapelo fine sand, and Ortega sand (see Soils Map). The well drained gently sloping upland soils support hardwood and sandhill communities towards the interior of the park. Poorly drained loamy soils along steeper grades and ravine slopes, support slope forest and seepage stream natural communities. Preservation of the park's natural communities is the best way to provide for the conservation of these soil resources. See Addendum 3 for a more detailed description of the park's soil types.

Minerals

Minerals consist of clays, marls and sands, all of which are necessary in their current quantities and distributions to support the park's natural communities.

Hydrology

The most obvious hydrological feature at the park is Lake Talquin, a 12,000-acre manmade lake encompassing 14.5 miles of the Ochlockonee River Floodplain. The lake was created in 1927 when the river was impounded at Jackson Bluff to produce hydroelectric power.

The Floridan Aguifer underlies the entire Big Bend region occurring primarily within the older/deeper Ocala and Suwannee limestones. However, upper portions of the aguifer also flow, although to a much lesser extent, through permeable portions of the overlying St. Marks and Hawthorne Formations. Local recharge to the Floridan Aquifer occurs in the sandy uplands south of Lake Talquin, including the State Park. Here water percolates through permeable soils to the underlying aguifer, as well as feeding the slope forests and seepage streams. Surface runoff is generally directed into the numerous ravines that meander down slope to the lakeshore.

Aside from the lake impoundment, natural hydrological elements on the park have been largely unaltered.

Hydrological Management Program

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

Action 1

Conduct a reassessment field survey of all park roads, trails and seepage streams to identify any new impacts to surface hydrology since the last unit management plan update.

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 [and population restoration] are discussed in the Resource Management Program section of this component.

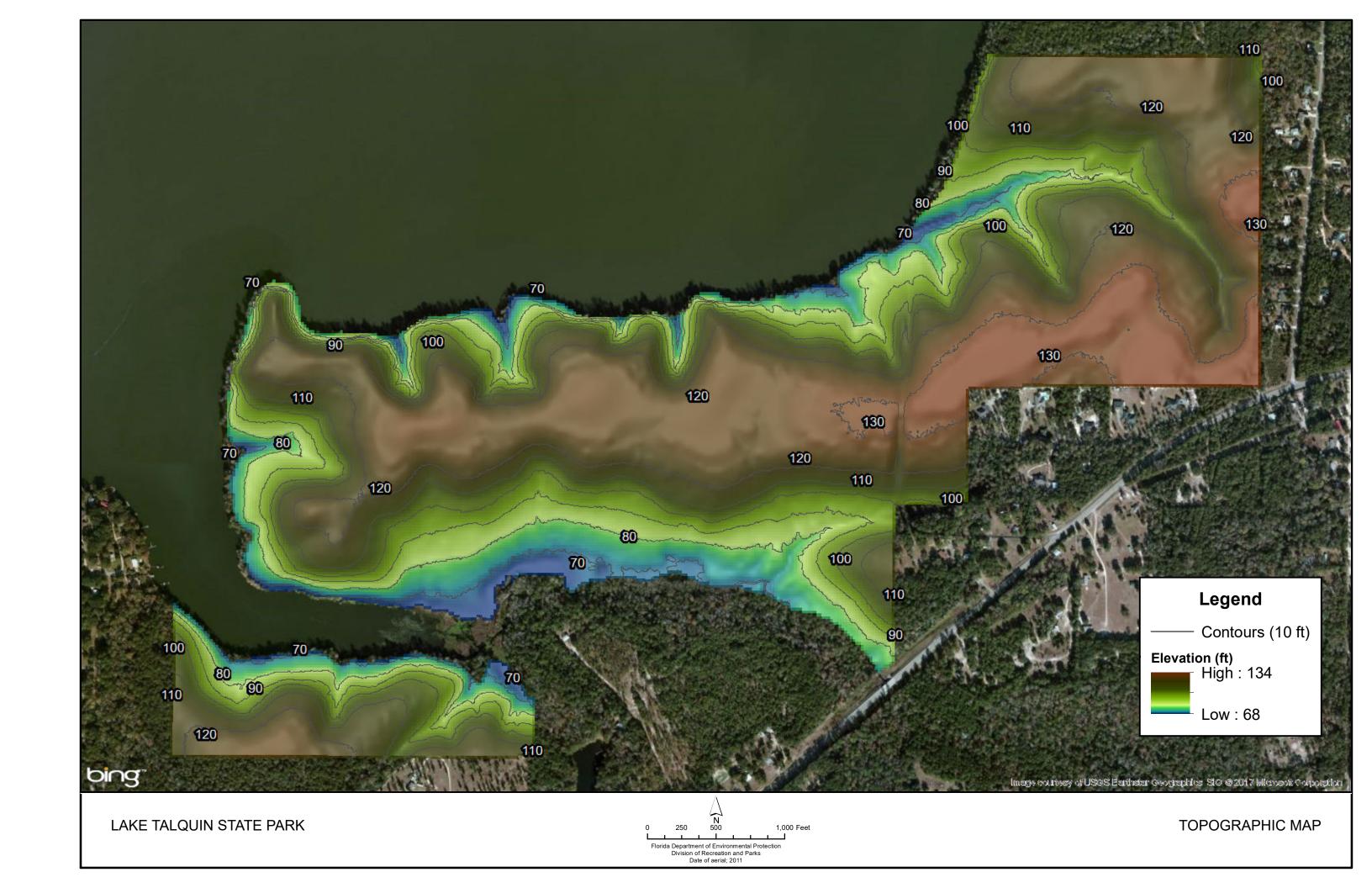
The system of classifying natural communities employed in this plan was developed by the Florida Natural Areas Inventory (FNAI). The premise of this system is that physical factors

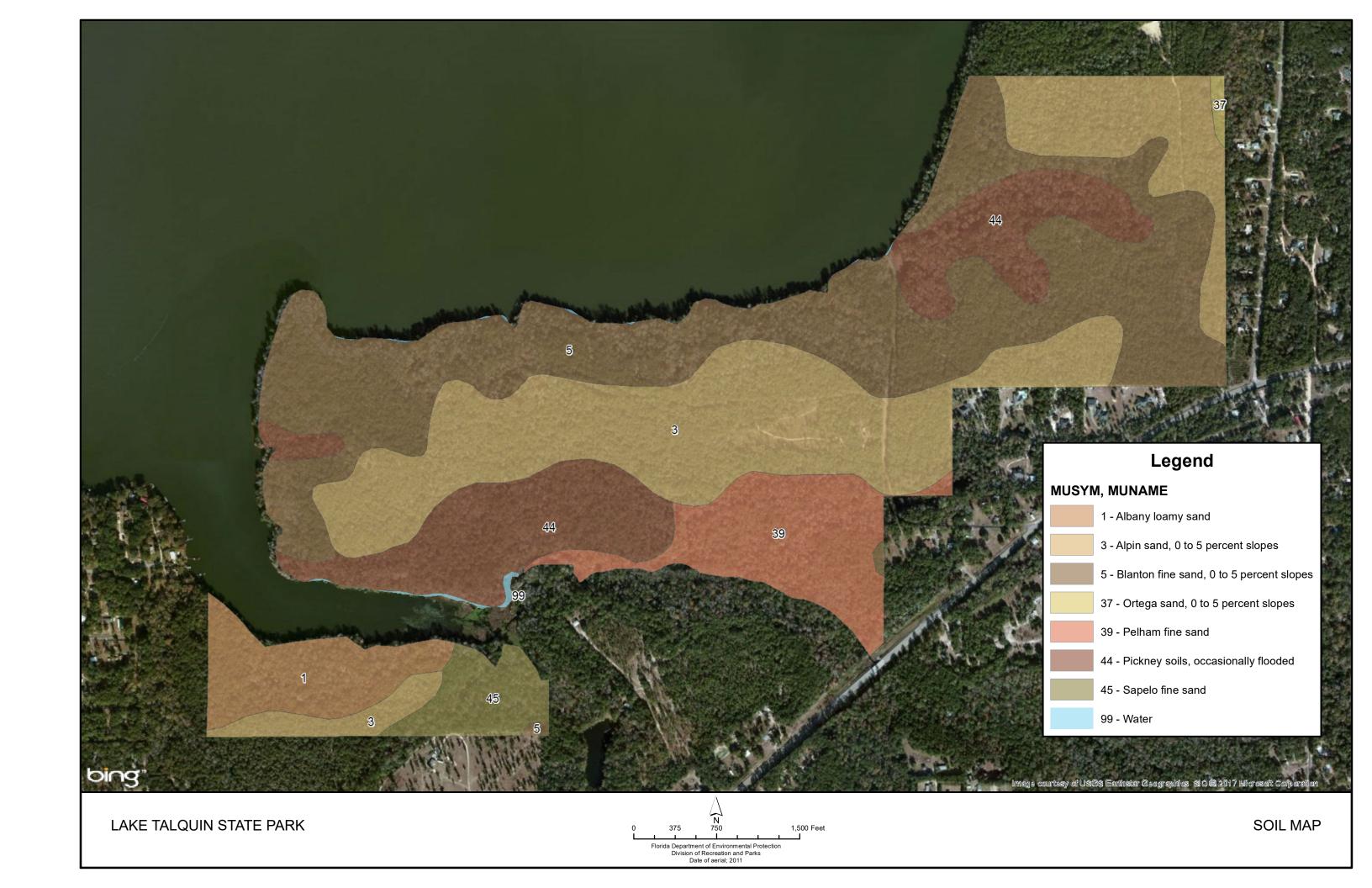
such as climate, geology, soil, hydrology and fire frequency generally determine the species composition of an area, and that areas that are similar with respect to those factors will tend to have natural communities with similar species compositions. Obvious differences in species composition can occur, 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.

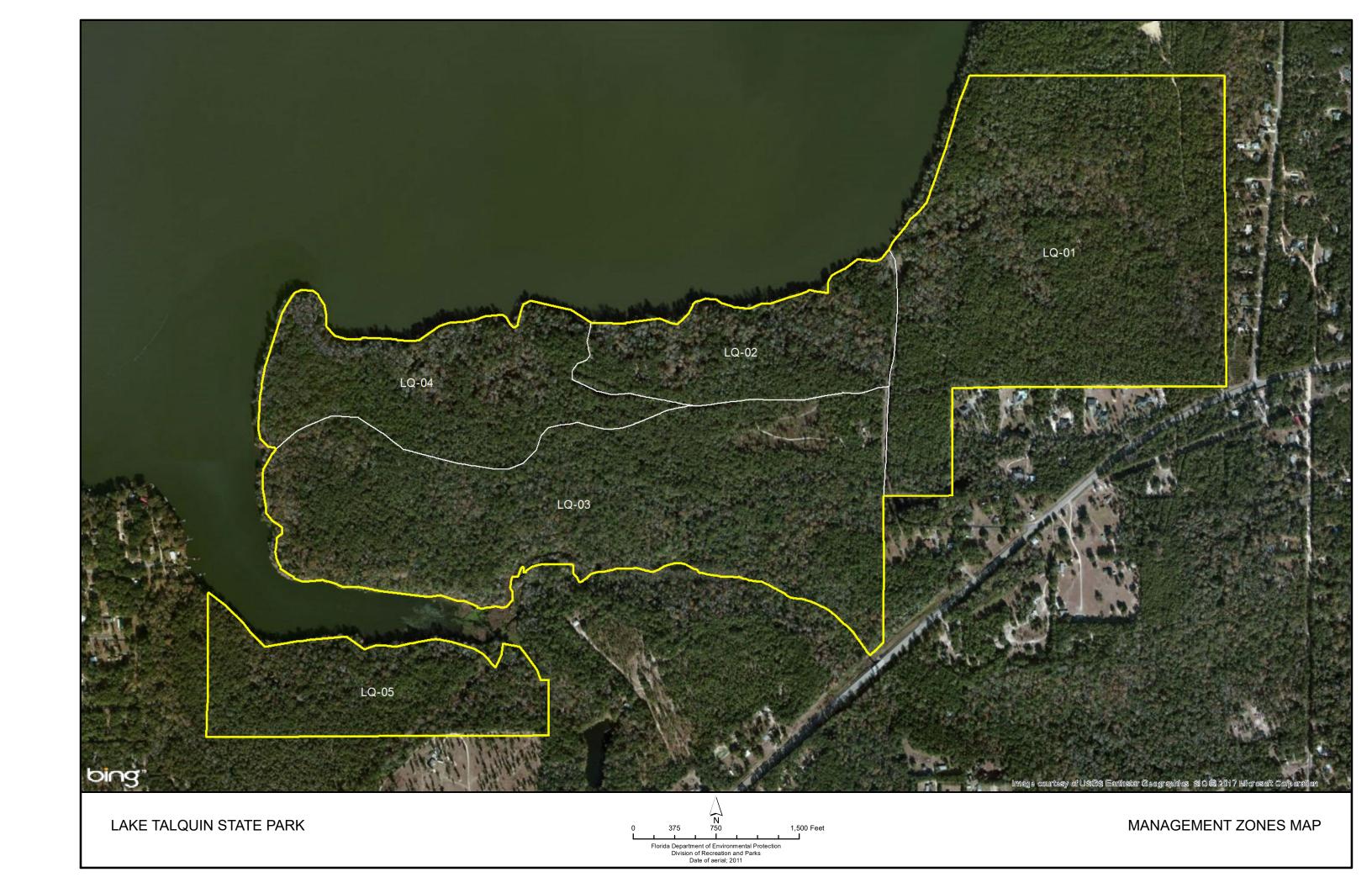
When a natural community within a park reaches the desired future condition, it is considered to be in a "maintenance condition." Required actions for sustaining a community's maintenance condition may include; maintaining optimal fire return intervals for fire dependant communities, ongoing control 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 that link natural communities across the landscape.

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

Table 1. Natural Communities and Altered Landcovers Existing Conditions			
Natural Communities	Acreage*	Percentage	
Slope Forest	195.29		
Upland Hardwood Forest	225.01		
Sandhill	4.16		
Seepage Stream	1.36		
Total Acreage	425.82	100%	







SLOPE FOREST

Desired future condition: The park's slope forest will be a climax mesic community, with a closed canopy of deciduous and evergreen trees occurring along the slopes of ravines and the steep contours grading towards the Lake as well as the mouth of Polk Creek. Soil conditions will vary from moist loamy clays, with substantial organic component, to nearly xeric sandy soils in higher elevations. Species composition will be very similar to upland hardwood forest, consisting of southern magnolia (Magnolia grandiflora), mockernut hickory (Carya tomentosa), pignut hickory (Carya glabra), sweetgum (Liquidambar styraciflua), basket oak (Quercus michauxii), spruce pine (Pinus glabra), American beech (Fagus grandifolia), white oak (Quercus alba), hop hornbeam (Ostrya virginiana) and ironwood (Carpinus caroliniana). Diverse understory composition may include smaller trees such as flowering dogwood (Cornus florida), eastern redbud (Cercis canadensis), American holly (Ilex opaca), horse sugar (Symplocos tinctoria) and bluestem palmetto (Sabal minor). Groundcover will typically consist of a layer of leaf litter with sparsely populated shade tolerant species including spring ephemerals, such as violets (Viola spp.), wild ginger (Asarum canadense), wakerobins (Trillium sp.), and trout lily (Erythronium umbilicatum). Other understory species commonly found include greenbrier (Smilax spp.), switchcane (Arundinaria gigantea), Christmas fern (Polystichum acrostichoides), ebony spleenwort (Asplenium platyneuron), and partridgeberry (Mitchella repens).

<u>Description and assessment:</u> The park's slope forests occur along ravine slopes and steeper contours grading towards the lake. They are nearly all in excellent condition, having been largely excluded from past selective timber harvesting, presumably due to steep grades. These closed-canopy, cool hardwood forests closely match the above future desired condition.

<u>General management measures:</u> The primary management measure for this natural community will be protection and

preservation, including periodic monitoring as to assess populations of listed species and identify any threats.

UPLAND HARDWOOD FOREST

Desired future condition: This community will be a mature, closed canopy hardwood forest occurring on the park's higher, well-drained uplands. Overstory tree species will consist of southern magnolia, sweetgum, live oak (Quercus virginiana), laurel oak, Florida maple (Acer saccharum subsp. floridanum), white oak (Quercus alba), swamp chestnut oak and American beech. Understory species will include trees and shrubs such as American holly, flowering dogwood (Cornus florida), eastern redbud, red bay (Persea borbonia), horse sugar, and beautyberry (Callicarpa americana). Ground cover will be comprised of shade tolerant herbaceous species, such as woodoats (Chasmanthium sessiliflorum) along with sedges.

<u>Description and assessment:</u> The majority of the park's upland hardwood forest closely matches the above future desired condition. Even the few areas that appear to have been cleared for agricultural use in the 1930s, have largely recovered and today are home to many of the mature hardwoods mentioned above. The notable distinction these formerly disturbed areas have is the presence of mature loblolly pines in the canopy.

<u>General management measures:</u> The primary management measure for this natural community will be protection and preservation, including periodic monitoring as to assess populations of listed species and identify any threats.

SANDHILL

Future desired condition: The park's small area of sandhill will be an open canopy forest of scattered longleaf pines with an understory dominated by warm season grasses, such as wiregrass (Aristida stricta) and broomsedge (Andropogon spp.). In addition to groundcover and pines, there will be scattered individual trees, clumps of onsite oak species including turkey oaks (Quercus

laevis), sand post oak (Quercus margaretta), and blue-jack oak (Quercus incana). In old growth conditions, sand post oaks will commonly be 150-200 years old, and some turkey oaks will be over 100 years old. The Optimal Fire Return Interval for this community is 1-3 years.

Description and assessment: The park's relatively small island of sandhill is presumed to have once been connected to a larger sandhill community that extended well beyond the portion of the park located on what is now a peninsula north of the flooded mouth of Polk Creek. With decades of fire exclusion, the understory became overgrown with off-site oaks, primarily laurel oak. Restoration efforts in the last 15 years have focused on reintroducing fire as well as hand removal, girdling, and mechanical mowing of re-sprouting hardwoods. Today the open understory with wiregrass and broomsedge, along with longleaf pine regeneration, help characterize this area as sandhill. In addition, there is a modest number of active gopher tortoise burrows.

<u>General management measures:</u> Habitat improvement measures such as removal of offsite hardwoods will continue, along with habitat maintenance measures such as prescribed burning. Gopher tortoise burrow surveys will be conducted during post burn evaluations.

SEEPAGE STREAM

Future desired condition: The park's seepage streams will be characterized as narrow, relatively short perennial or intermittent streams formed by percolating water from adjacent uplands. They will be sheltered by a dense overstory of broad-leaved hardwoods which block out much of the sunlight, resulting in minimal aquatic flora aside from filamentous algae, ferns and liverworts growing in clumps at the streams edge. Water color will be clear with a slow flow rate and fairly constant temperature, although there will also be areas of "pool and drop" due to steeper stream grades. Depending on the stream section, bottom substrate will consist of sand, gravel or limestone. The streams will

provide habitat for a variety of amphibians, including both frogs and salamanders, as well as mosquito fish (*Gambusia affinis*). Description and assessment: The park's seepage streams are in excellent condition and closely match the above description. Most of the streams occur at the bottom of the slope-forested ravines, however, the streams that feed the Polk Creek drainage occur through more topographically subtle slope forest.

<u>General management measures:</u> Management measures for the park's seepage streams will focus on habitat protection and future survey efforts to track the presence of listed species.

Natural Community Management

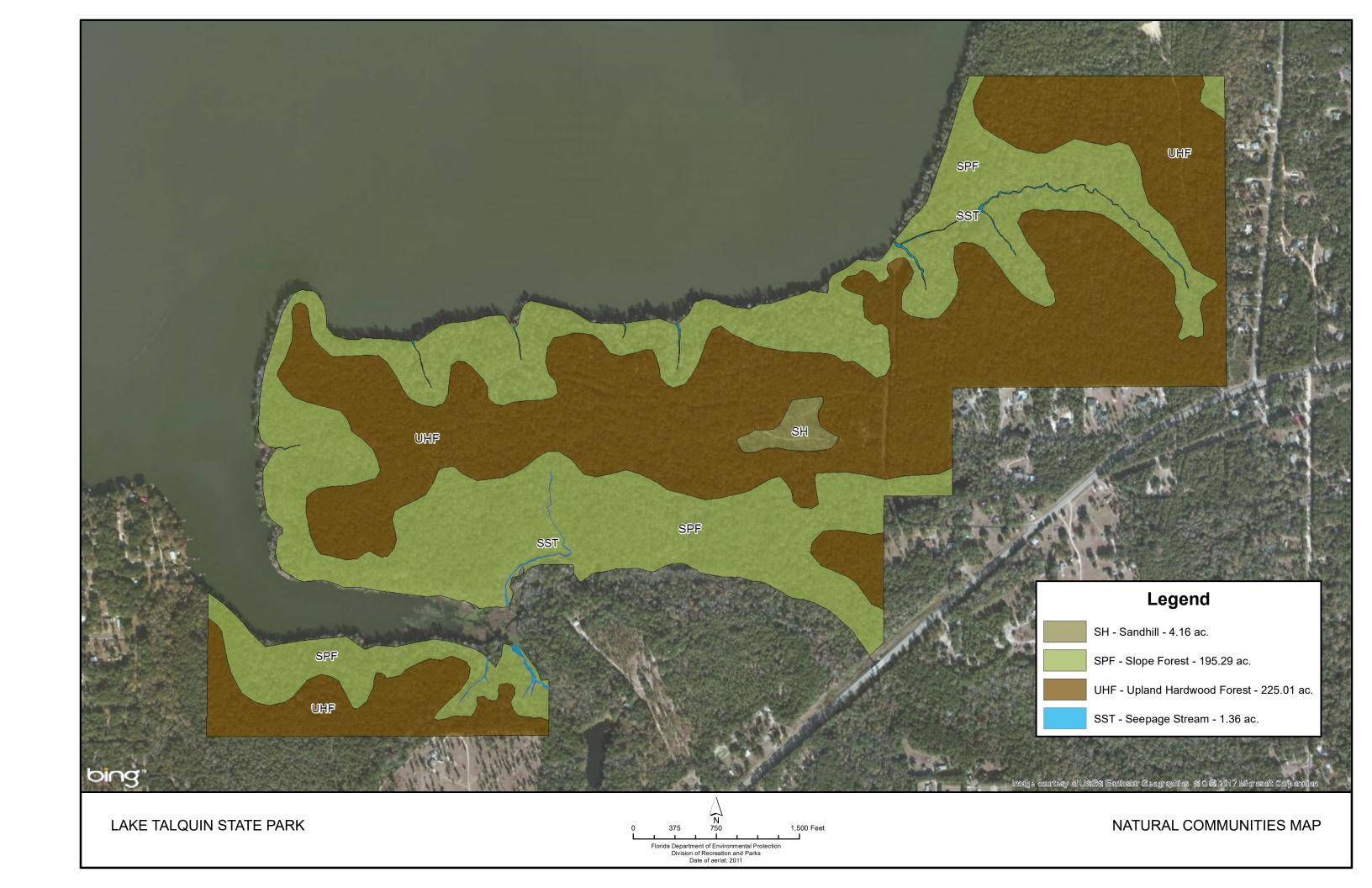
Goal: Restore and maintain the natural communities/habitats of the park.

The 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 A: Within 10 years, have the 4 acres of sandhill maintained within the optimum fire return interval.

Action 1 Develop/update annual

burn plan

Action 2 Manage this relict island of

fire dependent community by burning the entire 4

acres every 2-3 years as necessary.

Table 2 contains a list of all fire-dependent natural communities found within the park, their associated acreage and optimal fire return interval (FRI), and the annual average target for acres to be burned.

Table 2: Prescribed Fire Management					
Natural Optimal FR Community Acres (Years)					
Sandhill	4	2-3			
Annual Target Acreage	0-4				

Prescribed fire is planned for the 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.

The park's only burn zone consists of 4 acres of sandhill natural community within management zone LQ-3. This small island of longleaf pine habitat is likely the remaining tip of an arm of sandhill that once extended from the east. Prescribed fire was introduced to the site in 2001, with regular burning ever since. The primary management objectives for prescribed burning are to impact competing hardwoods while encouraging extant warm season grasses such as wiregrass and broomsedge. By allowing more sunlight to the understory and exposing mineral soil, burning also serves to promote natural regeneration of longleaf pine. These conditions also promote the growth of many species of herbaceous plants, thus increasing food source for gopher tortoises.

At least one photo point needs to be maintained within this restoration area, in order to help track and evaluate resource management efforts.

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 and experience, backlog, etc. The database is also used for annual burn planning which allows the 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 Community Restoration:

In some cases, the reintroduction and maintenance of natural processes is not enough to reach the desired future conditions for natural communities 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, and small-scale vegetation management.

Natural Community 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 C: Conduct natural community/habitat improvement activities on 4 acres of sandhill natural community.

Action 1 Annually evaluate the

sandhill and determine if mechanical mowing or hand clearing of select understory hardwoods is necessary before the next scheduled prescribed

burn.

Action 2 Burn the sandhill every 2 to 3 years, with emphasis

on growing season burns.

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.

The park's steep lakeside bluffs are preferred habitat for State endangered, trout lily (Erythronium umbilicatum). These spring ephemerals are rare in Florida, with suitable habitat limited to the shady bluffs and ravine slopes of the Ochlockonee and Apalachicola River drainages. The thick mottled leaved and yellow flowers are conspicuous along the north side bluff that towers over the original channel of the Ochlockonee River. The plants also occur sparingly within several of the ravines on the peninsula west of Jack Vause Road. The population, estimated in the thousands, is considered stable. However, coral ardisia (Ardisia crenulata) has invaded the ravines where many of the plants occur. Despite control efforts, this prolific exotic remains a threat.

Mountain laurel (*Kalmia latifolia*), flame azalea (*Rhododendron austrinum*), and silky camelia (*Stewartia malecodendron*) have been reported to occur in similar habitats on adjacent lands managed by the Florida Forest Service and are therefore included on the park's plant list. A more detailed plant survey is needed to confirm the occurrence of these species on the park. A single Pyramid magnolia (*Magnolia pyramidata*) tree persisted along the park's old river bluff until the early 2000s when it finally succumbed to shoreline erosion. More of these rare trees may occur along remote sections of the bluff or within slope forested ravines.

The Alabama shad is an anadromous fish, historically found within southeastern streams that drain to the Gulf of Mexico. Like other anadromous species, they are born in freshwater, spend most of their lives at sea, then return to freshwater to spawn before they die. The cool, shady streams that feed the upper reaches of the Ochlockonee River were once favored spawning grounds. With the construction of the hydroelectric dam at Jackson Bluff in 1927, the upper Ochlockonee was effectively cut off to migrating shad. The last occurrence of Alabama shad in the Ochlockonee River was documented in 1977 just below the dam. This species is currently considered extirpated from the park.

The park's cool clear seepage streams are prime habitat for a variety of amphibians including the listed Apalachicola dusky salamander (*Desmognathus apalachicolae*) and the Four-toed salamander (*Hemidactylium scutatum*). Both prefer damp leaf litter and sphagnum moss in heavily shaded slope forest. Additional surveys by experienced herpetologists are needed to make population estimates and identify any additional species.

Listed reptiles include the American alligator (Alligator mississippiensis), Gopher tortoise (Gopherus Polyphemus), Eastern kingsnake (Lampropeltis getula), and Apalachicola alligator snapping turtle (Macrochelys

apalachicolae). All populations are considered stable, although additional gopher tortoise burrow surveys are necessary to develop an assessment of the long term population trend.

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				anagen		Monitoring Level
	FWC	USFWS	FDACS	FNAI	Μά Ac	Š	
PLANTS							
Trout lily Erythronium umbilicatum		N	E	G5,S2	10	Tier 2	
Mountain laurel Kalmia latifolia		N	Т	G5,S3	10	Tier 1	
Pyramid magnolia <i>Magnolia</i> <i>pyramidata</i>		N	E	G4,S3	10	Tier 1	
Florida flame azalea Rhododendron austrinum		N	E	G3,S3	10	Tier 1	
Silky camellia Stewartia malacodendron		N	E	G4,S3	10	Tier 1	
FISH							
Alabama shad Alosa alabamae		SC	N	G2G3,S2	10	Tier 1	
AMPHIBIANS							

	Table 3: Imperiled Species Inventory						
Common and Scientific Name	lm	periled S	nt				
	FWC	USFWS	FDACS	FNAI	ΑĞ	Monitoring Level	
Apalachicola dusky salamander Desmognathus apalachicolae	N	N		G4,S2S3	10	Tier 1	
Four-toed salamander Hemidactylium scutatum	N	N		G5,S2	10	Tier 1	
REPTILES							
American alligator Alligator mississippiensis	FT(S/A)	SAT			10	Tier 1	
Gopher tortoise Gopherus polyphemus	ST	С		G3,S3	10	Tier 1	
Eastern kingsnake <i>Lampropeltis</i> getula	N	N		G5, S2S3	10	Tier 1	
Apalachicola alligator snapping turtle <i>Macrochelys</i> apalachicolae	SSC	N		G2G3,S2	10	Tier 1	
BIRDS							
Little blue heron Egretta caerulea	ST	N		G5,S4	10	Tier 1	
Tricolored heron <i>Egretta tricolor</i>	ST	N		G5,S4	10	Tier 1	
Swallow-tailed kite Elanoides forficatus	N	N	G5,S2	G5,S2	10	Tier 1	

Table 3: Imperiled Species Inventory							
Common and Scientific Name	Imperiled Species Status				Management Actions	Monitoring Level	
	FWC	USFWS	FDACS	FNAI	Ma	Ĕ	
Southeastern American kestrel Falco sparverius paulus	ST	N		G5T4,S3	10	Tier 1	

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. [If referenced in table, provide discussion in narrative]

Imperiled Species Management Program

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. Longterm 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 A: Update baseline imperiled species occurrence inventory lists for plants and animals.

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

Action 1	Develop monitoring protocol for trout lily
Action 2	
ACTION 2	Implement monitoring
	protocol for trout lily
Action 3	Interpret habitat
	requirement, life history,
	and field identification of
	trout lily to park staff.

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.

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 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.

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

FLEPPC Category I and II exotic plants are listed in Table 3 below. Currently all infestations are relatively small (distributions level 1 or 2) due to control efforts. These efforts must continue to keep highly prolific and invasive species such as cogon grass (*Imperata cylindrica*) and coral ardisia in check. Coral ardisia prefers the same cool shady ravines home to rare trout lily, and can easily supplant these rare spring ephemerals.

Treatment of taro (*Colocasia esculenta*) and Water hyacinth (*Eichhornia crassipes*) is difficult due to "swampy" site conditions, limited access and reintroduction from other areas around the lake.

All documented infestations of exotic plants are monitored annually and treated as necessary.

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, 2011). 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 and FLEPPC Distribution Scientific Name Category		Management Zone (s)				
PLANTS						
Mimosa <i>Albizia julibrissin</i>	1	2	LQ-02			
Caral Ardicia		1	LQ-04			
Coral Ardisia Ardisia crenulata	1	2	LQ-01, LQ-02, LQ- 04, LQ-05			
Wild taro Colocasia esculenta	I	2	LQ-01, LQ-02, LQ- 03, LQ-04, LQ-05			
Water hyacinth Eichhornia crassipes	1	0	LQ-03			
Cogon grass Imperata cylindrica	1	2	LQ-03			
Japanese climbing fern Lygodium japonicum	1	2	LQ-03			
Chinese tallow Sapium sebiferum	I	2	LQ-01			

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 Species Management Program

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 A: Annually treat 2 acres of exotic plant species in the park.

Action 1 Annually develop/update

exotic plant management

work plan.

Action 2 Implement annual work

plan by treating at least 2

acres in the park, annually, and continuing maintenance and followup treatments, as needed. archaeological site, historic structure or historic landscape refer to all resources that will become 50 years old during the term of this plan.

Special Natural Features

High bluffs rise adjacent to the former Ochlockonee River channel at the park's northwestern tip. Such geologic features of exposed limestone are worthy of mention as they provide unique habitat and sheer topography uncommon throughout much of Florida.

The park also contains some of the largest ravines outside of the immediate Apalachicola River basin. The ravines are derived by a combination of seepage erosion, which occurs from the valley floor up (steepheads), and surface erosion, which occurs from the hilltops down. Natural communities harbored within these ravines are best described as slope forest and seepage stream.

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 stateowned 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

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 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 the evaluation of significance.

Prehistoric and Historic Archaeological Sites

<u>Desired future condition:</u> 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.

<u>Description:</u> FMSF LE2128 is the park's only recorded archaeological site. The site was identified during archaeological survey prior to the installation of a new septic tank drain field for the day use restroom facility. Test pits recovered chert flakes indicative of tool maintenance and manufacture activities. While no culturally diagnostic artifacts were recovered, the nature of the chert materials and immediacy of surrounding freshwater resources suggest that further testing (above the 100 foot contour) would yield evidence of Weeden Island occupation.

A 1938 aerial shows clear cuts and/or possible agricultural fields within Management Zones LQ-01 and LQ-04. This correlates with earlier successional forest species/characteristics within these areas. The remainder of the park appears relatively undisturbed by modern man. A predictive model for the presence of archaeological resources has been developed as part of the Archaeological Sensitivity Modeling in Florida State Parks District 1:

Northwest Region. Copies of this report are available at the Park and District level.

<u>Condition Assessment:</u> FMSF Site LE2128 is considered to be in good condition. There are no threats such as erosion, impacts from vegetation, animal intrusion, or looting.

<u>Level of Significance:</u> The park's recorded archaeological site and recent archaeological sensitivity modeling suggest that the presence of Swift Creek – Weeden Island – Ft. Walton period sites are likely. Only future archaeological surveys can confirm this level of significance.

<u>General Management Measures:</u> Management measures for site LE2128 will focus on protection from impacts associated with future facilities maintenance or resource management activities. The site will be periodically monitored to ensure its integrity.

Historic Structures

<u>Desired future condition:</u> 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.

<u>Description:</u> There are no historic structures on the park.

Collections

<u>Desired future condition:</u> 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.

<u>Description:</u> The park does not maintain collections of artifacts.

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 following the table.

Table 5. Cultural Sites Listed in the Florida Master Site File							
Site Name and FMSF #	Culture/Period	Description	Significance	Condition	Treatment		
LE2128	Unspecified/Unspecified	Archaeological Site	NE	G	Р		

	Sig	gnificance:
--	-----	-------------

NRL National Register listed
NR National Register eligible
NE not evaluated

NS 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

Cultural Resource Management Program

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 will implement the following goals, objectives and actions, as funding becomes available, to preserve the cultural resources found in Lake Talquin 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 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 the 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 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 the DHR.

Objective A: Assess and evaluate 1 of 1 recorded cultural resources in the park.

Action 1 Complete an assessments/evaluation of the park's only archaeological site.

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

Action 1

Ensure the site's reassessment is updated in the Florida Master Site

Objective C: Maintain 1 of 1 recorded cultural resources into good condition.

Action 1 Periodically monitor the one cultural site.

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 analysis was not conducted for this park since its total acreage is below the 1,000-acre threshold established by statute. Timber management will be reevaluated during the next revision of this management plan.

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. By policy of DEP since 1987, aerial adulticiding is not allowed, but larviciding and ground adulticiding (truck spraying in public use areas) is typically allowed. 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.

A general protocol for arthropod control has been developed for the park. The Park Manager can coordinate site specific ground adulticiding in visitor use areas if necessary.

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 considered recommendations of the land management review team and updated this plan accordingly.

Lake Talquin State Park has not been subject to a land management review.



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

Demographics

Lake Talquin State Park is located within Leon County, about 15 miles west of Tallahassee in the northwestern part of the state.

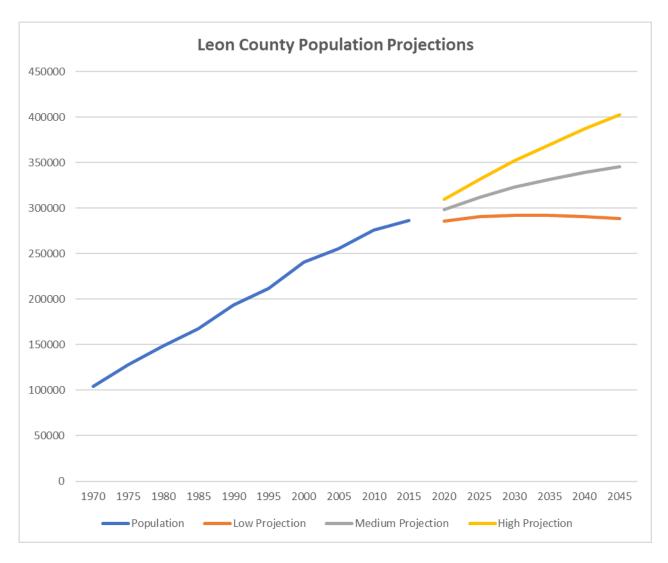
Approximately 376,725 individuals live within 30 miles of the park, which includes the counties of Leon, Gadsden, Liberty, and Wakulla (Census 2010). According to U.S. Census data (2010), approximately 48% of residents in Leon county identify as African American, Hispanic, Latino, or another minority group. More than half (74%) of the residents are considered to be of working age, which is defined as being between the ages of 16 and 65 (U.S Census 2010). The median age in Leon County is 26.5 years old

compared to the State average of 42.1 years old. Leon County's per capita personal income is \$27,190, below the state average of \$46,858 (Census 2010).

Regional Population Growth

According to population projections calculated by the Bureau of Economic and Business Research (BEBR), Leon County is expected to see the population increase from 287,899 (2017 estimate) to 344,100 by 2045 (BEBR 2018). Leon County will establish and maintain an Urban Service Area (USA) in order to accommodate growth in an environmentally acceptable manner. The Urban Service Area (USA) is based on a desire to have Tallahassee and Leon County grow in a responsible manner, with infrastructure provided economically and efficiently, and surrounding forest and agriculture lands protected from unwarranted and premature conversion to urban land use (Tallahassee/Leon County 2030 Comprehensive Plan, 2018). This strategy provides for orderly growth that will preserve natural resources and promote fiscal responsibility.

Table 6. Current Populations*				
	Leon C	ounty		
Total Population				
,				
Urban Centers				
Tallahassee Southwood Woodville				
,	,	,		
Surrounding Counties				
Gadsden	Liberty	Wakulla		
,	,	ı		



Land Use and Zoning

Existing Use of Adjacent Lands

Lake Talquin State Park is comprised of approximately 426 acres, causing the park to be near several different land uses along its boundaries. The park is entirely within Leon County and borders, the roughly 10,000-acre freshwater lake, Lake Talquin on the parks northern border. The nearest incorporated city, Tallahassee, is 15 miles to the east of the park. However, an unincorporated area of Fort Braden exists just outside of the park boundary. The Fort Braden area is comprised of low to medium density houses and mobile homes. The park is zoned as Lake Talquin Recreational/Urban Fringe except for a small parcel on the southwest corner of the property. Land uses to the south include Urban Fringe, Residential Preservation, Rural, and Rural Community. Rural land use encompasses a large amount of the land to

the south of the park due to the Apalachicola National Forest. Florida Highway 20 runs parallel to the southern boundary of the park and is a heavily traveled East-West corridor used by many as an alternative to using Interstate 10. To the west of the park is the Jackson Bluff Dam which has been used as a hydroelectric generating facility by the City of Tallahassee since the 1980's and is now managed by the DRP staff. Adjacent to the eastern boundary of the park is Lake Talquin State Forest and private property.

Planned Use of Adjacent Lands

The future land use of the areas surrounding the western, southern, and eastern boundaries of the park are not expected to deviate dramatically from its current usage. In these areas, the future land use designations are Recreation/Open Space and Urban Fringe in the immediate vicinity of the park boundary. The future use of the land to the northeastern edge of park is Urban Fringe with Residential Overlay beyond the immediately adjacent future use of Recreation/Open Space. Additional zoning to the south of the park is Rural Community and Government Operational. All zoning surrounding the park require future developments to allow for open spaces on the property.

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 resource-based recreation.

The Leon County future land use map has Lake Talquin State Park designated in the Recreation/Open Space district. This future land use category contains all government owned lands which have active or passive recreational facilities, historic sites, forests, cemeteries, or wildlife management areas as well as all privately owned lands which have golf courses, cemeteries, or wildlife management areas. Permitted uses include passive recreation and silviculture. Active recreation facilities are included if the site is within the Urban Service Area (USA) or a rural community.

The table below identifies the zoning and future land use designations for parcels in Leon County that are adjacent to Lake Talquin State Park.

Table 7. Zoning and Future Land Use Designations for Leon County							
Future Land Use Designation	Allowable Uses	Maximum Density (Dwelling Units per Acre)	Other Noteworthy Considerations	Adjacent Management Zone(s)			
Recreational/Open Space	Historic Sites, Forests, Cemeteries, Wildlife Management Areas	1,000 sq.ft./acre	All government lands with active or passive recreation.	LQ-01, LQ-02, LQ- 03, LQ-04, LQ-05			
Urban Fringe	Conservation subdivisions with 50% open space and restrictive development	1du/3 acres	Low-density residential areas mixed with open space and agricultural activity on periphery	LQ-01, LQ-02, LQ- 03, LQ-04, LQ-05			
Urban Fringe w/ Residential Overlay	Residential uses with open space	1du/3 acres	Development designed to cluster units and preserve open space	LQ-01			
Rural Community	Minor Office and small to moderate commercial	4 du/acre	Provide basic shopping opportunities to rural residents	LQ-03, LQ-05			

Government	Police and	15,000	Provides for the	LQ-03, LQ-05
Operational	Fire Stations,	sq.ft./acre	operation and	
	Courts, Postal		provision of	
	Facilities,		services by	
	Libraries,		federal, state,	
	Museums		and local	
			government.	

<u>Regional Conservation, Recreation, and</u> Trails

Florida Greenways and Trails System (FGTS)

The Florida Greenways and Trails System (FGTS) is made up of existing, planned and conceptual non-motorized trails and ecological greenways that form a connected, integrated statewide network. The FGTS serves as a green infrastructure plan for Florida, tying together the greenways and trails plans and planning activities of communities, agencies and non-profit organizations throughout Florida. Trails include paddling, hiking, biking, multi-use and equestrian trails. The Office of Greenways and Trails maintains a priority trails map and gap analysis for the FGTS to focus attention and resources on closing key gaps in the system.

In some cases, existing or planned priority trails run through or are adjacent to state parks, or they may be in close proximity and can be connected by a spur trail. State parks can often serve as trailheads, points-of-interest, and offer amenities such as camping, showers and laundry, providing valuable services for trail users while increasing state park visitation.

Lake Talquin State Park is surrounded by current trail systems that offer visitors hiking, biking, or equestrian opportunities. Some of these opportunities include Lake Talquin State Forest, Joe Budd Wildlife Management Area, and The Apalachicola National Forest. These areas provide opportunities for visitors to explore miles of trails. Additional trail systems near the park are on the FGTS priorities and opportunities map. These opportunities include land trails as well as paddling trails. The land trail opportunities nearby are Fort

Braden Corridor and Quincy to Lake Talquin Trail Corridor. The paddling opportunity is the Little River Paddling Trail. This paddling trail ends in Lake Talquin could be an opportunity for visitors to paddle to the park.

Statewide Comprehensive Outdoor Recreation Plan

The park is located in the North Central Vacation Region, which includes Alachua, Bradford, Columbia, Dixie, Gadsden, Gilchrist, Hamilton, Jefferson, Lafayette, Leon, Levy, Madison, Suwannee, Taylor, Union, and Wakulla counties (Visit Florida 2014). According to the 2014 Florida Visitor Survey, approximately 1.8% of domestic visitors to Florida visited this region. Roughly 89% visitors to the region traveled to the North Central for leisure purposes. The top activities for domestic visitors were visiting friends or relatives. Winter (36%) was the most popular travel season, but fall visitation was a close second at 34%. Nearly all visitors traveled by non-air (91%), reporting an average of 3.7 nights and spending an average of \$63 per person per day (Visit Florida 2014).

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 (boat and non-boat) fishing, paddling, visiting archaeological and historic sites, wildlife viewing, nature study, bicycle riding, hiking, horseback riding, picnicking, camping, and hunting are higher than the state average with demand for additional facilities increasing through 2020 (FDEP 2013).

The table below identifies significant resource-based recreation opportunities within 15 miles of Lake Talquin State Park.

Table 8. Resource-Based Recreational Opportunities Near Lake Talquin State Park									
Name	Biking	Hiking	Swim/ Beach Access	Boating/ Paddling	Fishing	Wildlife Viewing	Overnight Stay	Hunting	Equestrian Facilities
Lake Jackson Aquatic Preserve (FDEP)				✓	✓	✓			
Lake Jackson Mounds Archaeological State Park (FDEP)		✓				✓			
Lake Talquin State Forest (DACS)	✓	✓		✓	✓	✓	✓	√	√
Apalachicola National Forest (USFS)		✓			✓	✓	✓	✓	✓
Joe Budd Wildlife Management Area (FFWCC)	✓	✓		√	✓	✓	✓	✓	✓
Fred George Greenway Park		_				_			

Property Analysis

(Leon County)

San Luis Mission Park (FDOS)

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

Lake Talquin State Park consist of just over 425 acres of upland and wetland natural communities. The bluffs along the northern tip of the property provides expansive views of the lake. Most of the property is made up of uplands with the exception of seepage streams throughout the park. Due to the sensitivity of the bluffs and slope forests, recreational activities and facilities are carefully considered to minimize the impact on these sensitive areas. The main use area accessed off Jack Vause Landing Road is the only part of the property that has public access. The southern parcel of the property is used currently to run the hydroelectric dam.

Water Area

The most obvious hydrological feature at the park is Lake Talquin, a 12,000-acre manmade lake encompassing 14.5 miles of the Ochlocknee River Floodplain. The lake was created in 1927 when the river was impounded at Jackson Bluff to produce hydroelectric power. Various seepage streams and other natural hydrological flow are largely unaltered at the park and flow into the numerous ravines that carry water into the lake as well as into the aquifer.

Shoreline

The park contains over two miles of shoreline along the southern shore of Lake Talquin. The shoreline is lined with high bluffs that overlook the lake as well as slope forest natural communities that offer habitat to a variety of plants and animals. In some areas the wave action produced by the lake are eroding the bank threatening the integrity of the bluffs and slopes.

Natural Scenery

The park is home to numerous plant and animal species which allow visitors a unique experience in nature. The high bluffs provide numerous opportunities to view the lake and all its unique features that are uncommon in Florida. The ravines and their topographic

changes provide cooler climate that allows distinct plant communities a place to thrive.

Significant Habitat

The bluffs, slope forests, and seepage streams in the park provide habitat for numerous imperiled plant and animal species including trout lily, mountain laurel, flame azalea, the Apalachicola dusky salamander, and the Alabama shad. These habitats provide opportunities for wildlife viewing and interpretation.

Natural Features

The main natural feature of the park is Lake Talquin. Along the park's northern tip lie high bluffs that stand out adjacent to the former Ochlocknee River channel. This area exhibits geological features of exposed limestone that provide a unique habitat to plants and animals as well as topography that is uncommon to Florida. The park is home to some of the largest ravines outside of the immediate Apalachicola River Basin which were derived by surface and seepage erosion processes.

Archaeological and Historical Features

The park's recorded archaeological site and recent archaeological sensitivity modeling suggest that the presence of Swift Creek – Weeden Island – Ft. Walton period sites are likely. Only future archaeological surveys can confirm this level of significance.

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 Florida Power Corporation previously owned the property and maintained the Jackson Bluff Hydro Project facility, producing

electricity until other sources became more cost effective. During their ownership, the land was leased to the St. Joe Land and Development Company (formally St. Joe Timberland Company), which harvested trees from the property. The presence of longleaf pine was probably much more extensive on the property before this logging activity.

Current Recreational Use and Visitor Programs

Lake Talquin State Park consists of just over 425 acres providing a variety of recreational opportunities for visitors to experience while they are visiting the park. Current recreational opportunities at the park include hiking, birding, canoeing, kayaking, fishing, picnicking, wildlife viewing, and tours. Visitors can enjoy a 1.1 mile walk on the interpretive trails past many ravine systems to a bluff with a picturesque view that overlooks Lake Talquin. The parks notorious 650 foot long boardwalk along the edge of Lake Talquin provide visitors with an opportunity to fish for various freshwater fish species. A large picnic pavilion and BBQ grill offers a peaceful place to eat lunch or rent out for larger events.

Other Uses

The City of Tallahassee had previously leased the property at the southwest end of Lake Talquin that contains a hydroelectric dam and associated buildings. However, as of 2018 this facility and associated buildings are no longer managed and run by the City of Tallahassee and is currently being managed and ran by park staff.

The Girl Scout Council of the Apalachee Bend has provided access to their 65-acre scout camp just across the northeast boundary of the park by a dirt road, Julow Lane, which runs along the eastern edge of park property.

In addition, Leon County maintains a boat ramp and accompanying amenities at the end of Jack Vause Landing Road. This boat ramp area includes 2 floating docks with tie offs for boats, grassy parking area for vehicles and boat trailers, and trash cans.

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 Lake Talquin State Park all wetlands and floodplain as well as the bluffs and ravines and all known imperiled species habitat have been designated as protected zones. The park's current protected zone is delineated on the Conceptual Land Use Plan.

Existing Facilities

Currently all recreational facilities at Lake Talguin State Park, with the exception of the boat landing, are located west of Jack Vause Landing Road. The large picnic pavilion area in the center of the park is frequently used as a venue for weddings and other receptions. This area provides visitors access to the pavilion as well as a BBQ shelter, restroom, picnic area, nature trails, and the large boardwalk and observation deck that overlooks Lake Talquin. Another popular area of the park is the boat ramp at the end of Jack Vause Landing Road. This boat ramp allows canoes, kayaks, and other powered boat access to Lake Talquin for both passive and active recreational activities. An additional nature trail loop is located on the South side of the parking lot and offers visitors just over a mile worth of single track trail that meanders through the parks unique natural communities offering opportunities for wildlife viewing. Interpretive panels along the trail educate visitors of the wildlife that they may encounter while walking the trail. (see Base Map)

Recreation Facilities

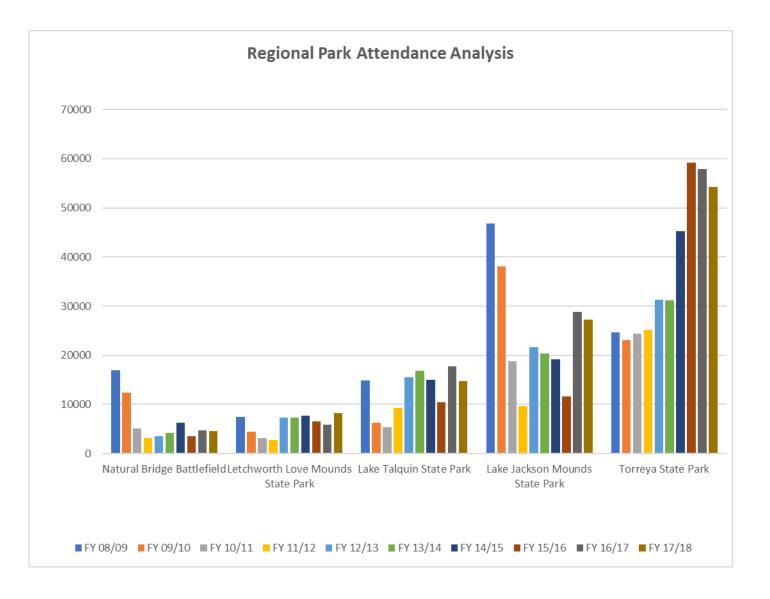
Large Picnic Pavilion BBQ Shelter Lake Boardwalk (650 ft.) Observation Deck Boating/Fishing Dock Nature Trail (1.68 mile) Canoe/Kayak Launch

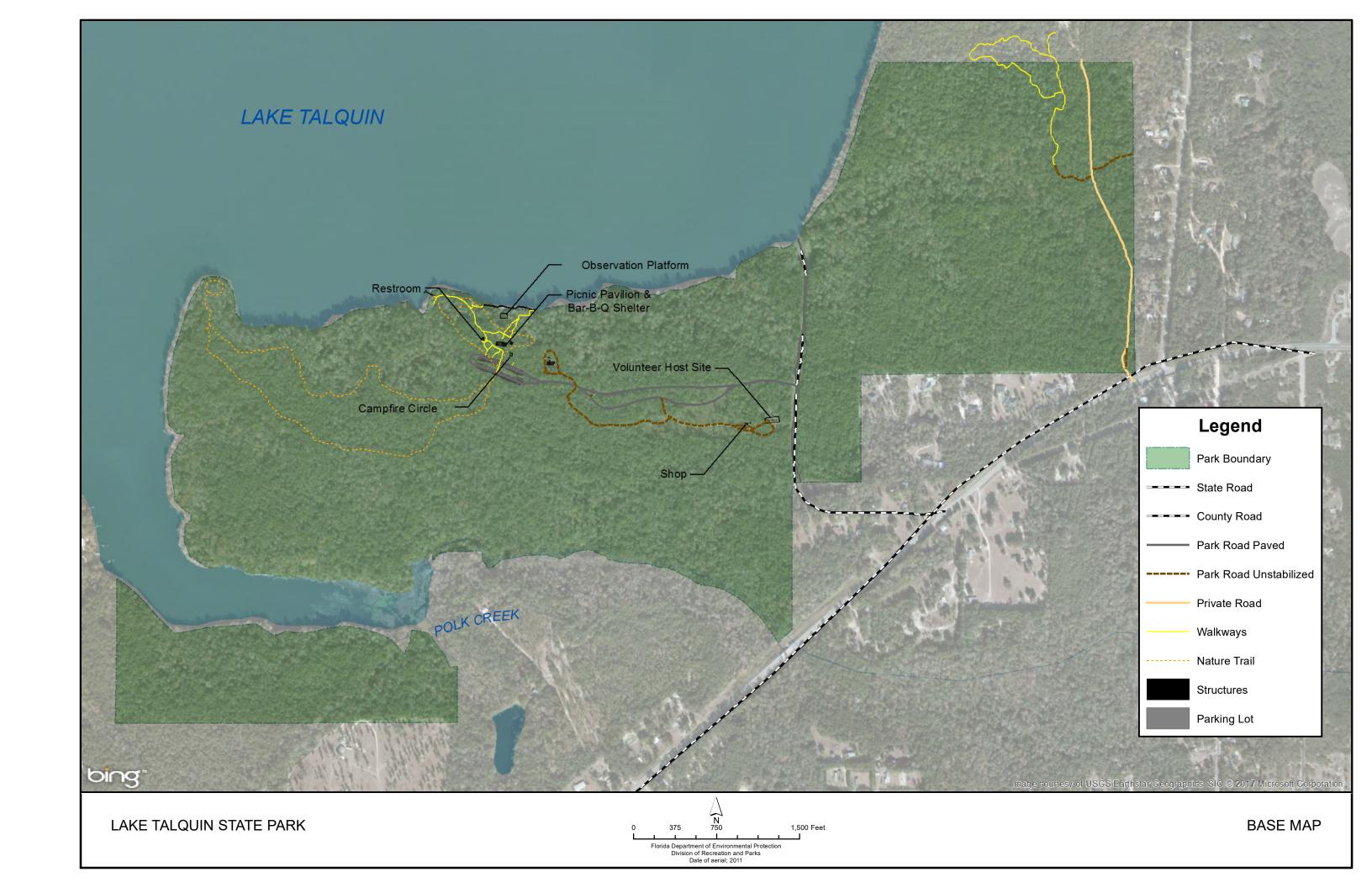
Support Facilities

Paved Parking (30 spaces) Restroom Ranger Residence Volunteer Host Site 2-Bay Shop Flammable Storage Building Storage Shed Utility Shed/Office Water Well Paved Road (1.27 mi) Unstabilized Road (.78 mi)

Attendance Analysis

The chart below shows annual attendance at Lake Talquin State Park over the past 10 years, as compared to other state parks in the region. Lake Talquin State Park recorded 14,775 visitors in FY 2017/2018. By DRP estimates, the FY 2017/2018 visitors contributed \$1.24 million in direct economic impact, the equivalent of adding 17 jobs to the local economy (FDEP 2018)





Conceptual Land Use Plan

The following narrative represents the current conceptual land use proposal for this park. The conceptual land use plan is the longterm, 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/or improved] activities and programs are also recommended and discussed below.

Objective: Maintain the park's current recreational carrying capacity of 594 users per day.

Given the park's proximity to Tallahassee the park is a hidden gem that offers visitors with numerous recreational opportunities to become immersed in. The park offers ample fishing opportunities with a boardwalk at the edge of the lake as well as a small dock for fishing, docking, and paddling. Additional recreational opportunities provided to visitors include nature trails with wildlife viewing opportunities, picnic pavilions for a quick lunch or rental for special events, a BBQ shelter for cooking, and an observation platform that provides picturesque views of Lake Talquin. In addition, numerous interpretive panels throughout the park educate visitors on wildlife, their habitats, and how to treat animals should they be encountered.

Objective: Expand the park's recreational carrying capacity by 45 users per day.

An observation deck will be added to provide visitors with an expansive view of Lake Talquin from atop the bluffs on the northwest

point of the park. Additionally, a fishing platform will also be added at the end of Jack Vause Landing Road to provide additional fishing opportunities at the park.

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 Development concept for Lake Talquin State Park envisions the park as a destination spot for day use from surrounding areas as well as visitors who frequent the area. The parks ability to provide the recreational opportunities while preserving the natural beauty that is Lake Talquin State Park is second to none. While small in size, the park is significant in several big ways. It protects one of the last natural stretches of bluff running along the high banks of the Ochlockonee River from Jackson Bluff near Hwy 20 to Cole Landing near Hwy 90. Beech/magnolia forests, Appalachian flora, clear seepage streams, and some of the most commanding views in Florida are among the gems the park has to offer. It has remained a special place all these years because it has remained minimally developed.

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 Lake Talquin State Park:

Objective A: 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 B: Improve/repair 2 existing facilities, 1.1 miles of trail and 650 feet of boardwalk.

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.

Boat Dock

The current boat dock in the northwest section of the park is showing signs of aging and should be renovated to provide fishermen and boaters a safer and better alternative to its current state. The dock should have tie off spots for up to 6 boats and should meet ADA and safety standards.

Trails

The 1.1 loop trail on the south side of the main parking area provides visitors with a short nature walk through unique natural communities. All benches, interpretive signs, and wooden structures along the trail should be evaluated and repaired or replaced due to wood rot. Alternative wood materials that hold up better to rot and termite damage should be explored to extend the life and use of the structures.

Lake Boardwalk

This 650-foot-long boardwalk provides visitors with water level fishing access to Lake Talquin with the Ochlocknee River Channel within casting distance of the dock. This dock is experiencing extensive termite and wood rot damage to the upper sections of the boardwalk. The boardwalk should be renovated and repaired to provide a better visitor experience. Additionally, the banks of the adjacent slope forest that meet the water



are experiencing erosion that is intensified due to wave action from the lake. This issue should be studied further and measures taken to improve or mediate the issue.

Boat Ramp

The current boat ramp is maintained by Leon County and has no facilities and has limited parking with little organization. Expanded and organized parking is needed at this location with potential for support structures. Support structures could include a fish cleaning area, small picnic shelter, and a restroom. A better organized and posted launching route should be compiled to reduce congestion and improve traffic flow.

Objective C: Construct 3 new facilities.

Observation Deck

On the northwest point of the state park a raised observation deck should be constructed to provide visitors with picturesque views of Lake Talquin from atop of the bluffs. Special considerations and site-specific planning should be completed for this proposed facility to ensure protection of the ecotone between natural communities at this site. Additionally, special considerations should be taken to determine the best location for the observation deck that minimizes the impacts on the sensitive plant, animal, and natural communities. Trees at this site should be pruned and not cut down or cleared because the root systems of these trees provide essential structure to the slopes and aid in the retention of soils to keep the slopes integrity intact. Close contact and communication between the Bureau of Natural and Cultural Resources, District Biologists, the Office of Park Planning, and the Bureau of Design and Construction is needed to minimalize any impacts to the park.

Fishing Platform

The boat ramp and docks at the end of Jack Vause Landing Road experience crowdedness due to individuals fishing from the boat docks while boats are launching, loading, and docking. A separate fishing platform is proposed to remedy this problem. The fishing

platform will be on the west side of the road and will allow another location for day use fishing at the park without crowding the boat ramp. This dock will be constructed in accordance with current ADA and safety standards. Additional considerations should be taken to provide a receptacle for recycling used fishing line to reduce entanglement of animals.

Support Area

A new 4 bay shop building is recommended to help support park management and serve as a support building for the future desire for overnight accommodations. A new residence is also recommended for the maintenance area to support the management of the park.

Facilities Development

Preliminary cost estimates for these recommended facilities and improvements are provided in the Ten-Year Implementation Schedule and Cost Estimates (Table 7) 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:

Boat Dock

Renovate/Update Dock

Trails

Replace Signs and Benches

Lake Boardwalk

Replace rotten/termite damaged wood

Boat Ramp

Redesign parking area

Observation Deck

Raised deck for lake viewing

Fishing Platform

Separate day use fishing area

Support Area

Shop Building Add Residence

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 8).

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 8.

Table 8. Recreational Carrying Capacity Estimates						
Existing Use Areas	Visitors at One Time	Daily Visitors				
Trails	35	90				
Picnicking	168	336				
Fishing	20	40				
Boating	64	128				
Proposed Use Areas	Visitors at One Time	Daily Visitors				
Observation Deck	5	25				
Fishing Platform	10	20				

Optimum Boundary

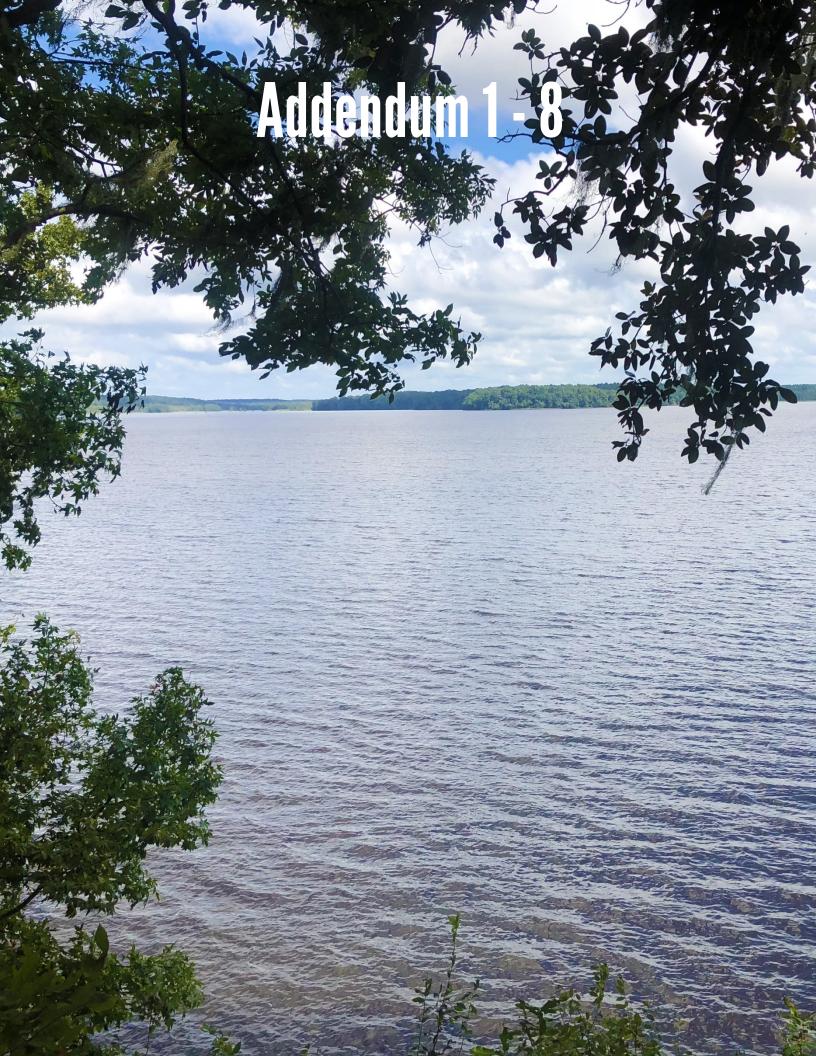
The optimum boundary map reflects lands considered desirable for direct management by the DRP as part of the state park. These parcels may include public or privately owned land that would improve the continuity of existing parklands, provide the most efficient boundary configuration, improve access 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.

The parcel on the corner of Jack Vause Landing Road and SR 20 has been identified due to the parcel's ability to improve the public access, allow a reconfigured entrance road, and allow better signage to notify motorists and visitors of the park's entrance.







Lake Talquin State Park Acquisition History

		LAND ACQUISITION HIS	STORY REPORT		
	Lake Talquin Sta	te Park			
Park Name					
Date Updated	7/2/2018				
County	Leon County, Flo	orida			
Trustees Lease Number	Lease No. 2537				
Legal Description	A legal description	on is available upon request fro	m the Department of Environmental	Protection	
Current Park Size	425.78 acres				
Purpose of Acquisition	The Board of Trus	tees of the Internal Improvement	Trust Fund of the State of Florida has a	cquired Lake Talq	uin State Park
Purpose of Acquisition	for public recreati	ion, park, and related purposes.			
Acquisition History (Inc	clude only the ac	quisition of a parcel or parcels	with 10 acres or more)		
Parcel Name or Parcel DM-ID	Date Acquired	Initial Seller	Initial Purchaser	Size in acres	Instrument Type
rateer name of rateer bin ib	bate nequired	militar ocher	The Board of Trustees of the Internal	Size in dores	11100
			Improvement Trust Fund of the State		Fee Simple
DMID3059	12/14/1970	The Florida Power Corporation	of Florida (Trustees).	694.879	Deed
Management Lease					
Wanagement Lease					Expiration
Parcel Name or Lease Number	Date Leased	Initial Lessor	Initial Lessee	Current Term	Date
		The Bened of Tourses of the	State of Florida Department of		
		The Board of Trustees of the Internal Improvement Trust	Natural Resources for the use and benefit of the Division of Recreation		
Lease No. 2537	6/8/1971	Fund of the State of Florida	and Parks.	99 years	6/7/2070
	Type of				
Outstanding Issue	Instrument	Brief Description	of the Outstanding Issue	Term of the Out	standing Issue
- 1					
There are no known deed-					
There are no known deed- related issues such as restrictions or reservations on					
related issues such as					



Lake Talquin State Park Advisory Group Members and Report

List

Lake Talquin State Park Advisory Group Members and Report

Report



Lake Talquin State Park References Cited

- Florida Natural Areas Inventory and the Florida Department of Natural Resources. 1990. Guide to the natural communities of Florida. Tallahassee, FL. 111 pp.
- Leon County/Tallahassee 2018. 2030 Comprehensive Plan 2018. Leon County, Florida
- University of Florida, Bureau of Economic and Business Research (BEBR). Population Projection Estimates. 2018
- University of South Florida Alliance for Integrated Spatial Technologies, Archaeological Resource Sensitivity Modeling in Florida State Parks District 1: the Northwest Florida Region. 2013

Florida Master Site File, LE2128, 1994

- U.S. Department of Agriculture, Bureau of Soils. Soil Survey of Leon County, Florida. 1906. Washington, D.C.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 1981. Soil Survey of Leon County, Florida. Washington, D.C.



1- Albany loamy sand - This nearly level, somewhat poorly drained soil is on lower elevations of uplands.

Typically the surface layer is very dark grayish brown loamy sand about 4 inches thick. The subsurface layer is loamy sand about 46 inches thick- the upper 17 inches is pale brown, the next 15 inches is very pale brown, and the lower 14 inches is mottled very pale brown, yellow and brownish yellow. The subsoil extends to a depth of 78 inches- the upper 13 inches is mottled light gray and yellowish brown sandy loam and the lower 155 inches is light yellowish brown sandy clay loam. Below 78 inches is light gray very fine sandy loam that has yellow and reddish yellow mottles.

Included with this soil in mapping are small areas of Troup and Plummer soils. These inclusions make up about 20 percent of the map unit.

This Albany soil has a seasonal high water table 12 to 30 inches below the surface for 1 to 2 months in most years. Available water capacity is very low in the surface and subsurface layers and medium in the subsoil. Permeability is rapid in the surface and subsurface layers and moderate in the subsoil. Natural fertility is low.

The native trees include longleaf and slash pines and mixed hardwoods-white oak, live oak, laurel oak, sweetgum, hickory, dogwood, and persimmon trees. The understory consists of native grasses and shrubs including huckleberry, briers, and pineland threeawn.

This soil has severe limitations for cultivated crops because of periodic wetness and droughtiness in the root zone. With adequate water control, such crops as corn, soybeans, and peanuts are moderately well suited. Management includes close-growing, soil-improving crops in rotation with row crops. The close-growing crops should be used two thirds of the time. To help improve the soil tilth, cover crops and crop residues should be used to protect the soil from erosion. Fertilizer and lime are needed.

The soil is moderately suited for pastures and hay crops. Coastal bermudagrass, bahiagrasses, and clovers are well suited for this soil. These plants respond well to fertilizers and lime. Drainage removes excess internal water in wet seasons. Controlled grazing maintains vigorous plants.

The potential is moderately high for pine trees on this soil. Moderate equipment use limitations, seedling mortality, and plant competition are management concerns. Slash and loblolly pine are the best suited trees to plant for commercial woodland production.

This Albany soil is in capability subclass IIIw.

3- Alpin sand- This excessively drained, nearly level to gently sloping soil is on ridges, knolls, and broad upland areas. Slopes are smooth to broken.

Typically, the surface layer is dark gray sand about 4 inches thick. The subsurface layer, extending to a depth of about 55 inches, is very pale brown sand. White mottles and splotches are in the lower part. The underlying material extending to 90 inches or mote is white sand that has this brownish yellow bands or lenses.

Included with this soil in mapping are small areas of Kershaw, Ortega, Blanton, and Troup soils that are on the same slope position as this Alpin soil. A few areas of these soils are also on slopes ranging to about 12 percent. Small areas are on foot slopes or side slopes where limestone is within 80 inches of the surface and occasionally outcrops at the surface. These inclusions make up less than 15 percent of the map unit.

The water table of this Alpin soil is below a depth of 80 inches. Available water capacity is low to very low, and permeability is very rapid. Natural fertility is low.

Native trees include longleaf pine, turkey oak bluejack oak, and blackjack oak; the understory includes honeysuckle, pineland threeawn, and running oak.

This soil has very severe limitations for cultivated crops. Droughtiness and rapid leaching of plant nutrients reduce the potential yields of suited crops. Row crops should be planted on the contour. Crop rotations should include close-growing plants at least three-fourths of the time. Soil-improving crops and crop residue should be used to protect the soil from erosion. Irrigation of suitable crops is usually feasible where water is readily available.

The soil is moderately suited to pastures and hay crops. Deep-rooting plants such as coastal bermudagrass and bahiagrass are well suited, but yields are reduced by periodic droughts. Regular fertilizing and liming are needed. Grazing should be controlled to help plants maintain vigor.

Potential is moderately high for pine trees on this soil. Equipment use limitations and seedling mortality are management concerns. Slash and loblolly pine are the vest suited trees to plant for commercial woodland production.

This Alpin soil is in capability subclass IVs.

5- Blanton fine sand- This nearly level to gently sloping, moderately well drained soil is on small to large areas of the uplands.

Typically, the surface layer is dark grayish brown fine sand about 7 inches thick. The subsurface layer, extending to a depth of 52 inches, is brown, light yellowish brown, and very pale brown fine sand. The subsoil is sandy clay loam to a depth of 80 inches or more-the upper 10 inches is brownish yellow that has reddish yellow mottles, and the lower 18 inches is light brownish gray that has red and strong brown mottles.

Included with this soil in mapping are small areas of Troup, Kershaw, Chipley, Albany, and Norfolk soils. These inclusions make up 15 - 20 percent of the map unit.

This Blanton soil has a water table that is perched above the subsoil for less than a month during wet seasons. In other seasons the water table is below 72 inches. The available water capacity is very low to low in the surface and subsurface layer and medium in the subsoil. Permeability is rapid in the surface layers and moderate in the subsoil. Natural fertility is low.

This soil has severe limitations for most cultivated crops. Droughtiness and rapid leaching of plant nutrients limit the choice of plants and reduce potential yields of suited crops. Row crops should be planted on the contour. The crop rotation should include close-growing cover crops at least two-thirds of the time. Soil-improving cover crops and crop residue should be used to protect the soil from erosion. Irrigating high value crops is usually feasible where water is readily available.

The soil is moderately well suited to pasture and hay crops. Coastal bermudagrass and improved bahiagrass are well suited but yields are reduced be periodic droughts. Grasses respond to regular fertilizing and liming. Grazing should be controlled to maintain plant vigor and good ground cover.

The potential is moderately high for pine trees. Equipment use limitations, seedling mortality, and plant competition are management concerns. Slash and longleaf pine are the best suited trees to plant for commercial wood production.

This Blanton soil is in capability subclass IIIs.

37- Ortega sand- This nearly level to gently sloping, moderately well drained soil is on small and medium areas on upland ridges.

Typically, the surface layer is sand about 10 inches thick. The upper 4 inches is gray, and the lower 6 inches is light brownish gray. The underlying layers are sand to a depth of about 44 inches and fine sand to 80 inches or more. From 10 to 18 inches is very pale brown, the next 16 inches is yellow, the next 28 inches is yellow that has brownish mottles, and the lower 8 inches is white that has yellowish mottles.

Included with this soil in mapping are small areas of Blanton and Kershaw soils. These inclusions make up about 25 percent of the map unit.

This Ortega soil has a water table that fluctuates between depths of about 60 to 72 inches in many years during rainy seasons and within depths of 40 to 60 inches occasionally during heavy rainfall periods. Available water capacity is low in the surface layer and very low in the underlying layers. Permeability is rapid. Natural fertility is low.

Native trees are dominantly longleaf pines that have a ground cover of wiregrass.

This Ortega soil is in capability subclass IIIs.

39- Pelham fine sand- This poorly drained, nearly level soil is on broad flatwoods, in depressional areas, and in some drainageways on uplands. Slopes range from 0 to 2 percent.

Typically, the surface layer is very dark gray fine sand about 5 inches thick. The subsurface layer is dark gray, light brownish gray, and light gray sand about 21 inches thick. The subsoil is sandy clay loam that extends to a depth of 80 inches or more. The upper 6 inches of the subsoil is gray that has brown mottles, and the lower part is light gray that has yellow, brown, and red mottles.

Included with this soil mapping are small areas of Plummer soils. These inclusions make up less than 15 percent of the map unit.

The water table of this Pelham soil is within 15 inches of the soil surface for 3 to 6 months of most years. Permeability is rapid in the surface and subsurface layers and moderate in the subsoil. The available water capacity is low in the surface and subsurface layers and medium in the subsoil. Natural fertility is low.

Native trees include slash pine and loblolly pine, sweetgum, blackgum, and water oak. The understory includes greenbrier, wax myrtle, and inkberry.

This soil has very severe limitations for cultivated crops. Because of wetness and thick sandy surface layers, a good water control system is needed before this soil is suitable for cultivation. The system should remove excess surface water and excess internal water from the surface layer during wet seasons. The crop rotation should include a close-growing, soil-improving crop on the soil at least three-fourths of the time. Seedbed preparation should include bedding the rows. Crops respond to fertilizer and lime. Crop residue and soil-improving crops should be used to protect the soil from erosion.

This soil is poorly to moderately suited to pasture and hay crops. Tall fescue, coastal bermudagrass, and bahiagrass are well suited to this soil. These grasses respond to fertilizer and lime. Grazing should be controlled to prevent overgrazing and reducing the vigor of the plants. Management should include water control to remove excess surface water.

This soil has high potential for pine trees, but surface drainage is needed for high productivity. Equipment use limitations, seedling mortality, and plant competition are management concerns. Slash and loblolly pine are the best suited trees to plant for commercial woodland production, but tree planting is feasible only with adequate surface drainage.

This Pelham soil is in capability subclass IVw.

43- Rutlege loamy fine sand- This poorly drained, nearly level soil is in shallow upland depressional areas and in narrow natural drainageways. Slopes range from 0 to 2 percent.

Typically, the surface layer is very dark gray and black loamy fine sand and loamy sand about 23 inches thick. The underlying layers are sand and fine sand to depths of 80 inches or more- The upper 9 inches is grayish brown, the next 25 inches is grayish brown, and the remaining is light gray.

Included with this soil in mapping are small areas of poorly drained Plummer soils. These inclusions make up less than 20 percent of the map unit.

This soil has a water table at or near the surface for long periods of each year. Most areas are flooded frequently for brief periods. It has a high available water capacity in the surface layer and is low in the next layer. Permeability is rapid throughout. Natural fertility is moderate.

The Native trees include sweetbay, loblolly pine, bayberry, blackgum, pond pine, slash pine, and titi; the understory includes blueberry, fetterbush, and large gallberry. Some areas do not have trees but have pitcher plants, sedges, beak rushes, and pineland threeawn.

The soil has severe limitations for cultivated crops. Without good water control, the number of crops is limited. With adequate water control, such crops as corn and soybeans can be grown. The water control system should remove excess water rapidly after heavy rainfall. Seedbed preparation should include bedding the rows. Management includes fertilizing, liming, and rotating crops to include close-growing, soil-improving crops on the soil at least two-thirds of the time. Crop residue from row crops and soil-improving crops should be used to protect the soil from erosion.

The soil is well suited to pasture and hay crops. Surface ditches remove excess surface water during heavy rainfall. Tall fescue, bahiagrass, and white clovers are well suited. They respond to fertilizer and lime. Grazing control helps maintain vigorous plants.

With adequate surface drainage this soil has high potential for pine trees. Equipment use limitations, seedling mortality, and competing plants are management concerns. Slash and loblolly pine are the best suited trees to plant for commercial woodland production, but tree planting is feasible only on areas with adequate surface drainage.

This Rutlege soil is in capability subclass IIIw.

45- Sapelo fine sand- This poorly drained, nearly level soil is on the flatwoods. Slopes are smooth to concave, ranging from 0 to 2 percent.

Typically, the surface layer is very dark gray fine sand about 6 inches thick. The subsurface layer is light gray fine sand to about 14 inches thick. The

upper part of the subsoil, to about 26 inches, is fine sand. The first 2 inches is dark reddish brown, the next 6 inches is dark brown, and the lower 3 inches is brown. The dark color is organic matter that coats the sand grains. The next layer is very pale brown and light gray fine sand to a depth of 43 inches. The lower part of the subsoil is gray fine sand loam that extends to 80 inches or more.

Included in this soil in mapping are small areas of Rutlege and Plummer soils. Also included are small areas that are not loamy in the lower part of the subsoil. These inclusions make up less than 20 percent of the map unit.

This Sapelo soil has a water table at 15 to 30 inches below the surface for about 2 to 4 months in most years. Permeability is moderate in both the upper and lower parts of the subsoil and rapid in the other layers. Available water capacity is medium in the upper and lower parts of the subsoil and low in the other layers. Natural fertility is low.

This soil has very severe limitations for cultivated crops because of wetness and sandy texture. With good water control measures and soil-improving measures, this soil is suitable for crops such as corn, peanuts, soybeans, and watermelons. A complete water control system should remove excess water quickly after heavy rainfall and serve to supply subsurface irrigation in dry seasons. Row crops should be rotated with soil-improving crops. The soil-improving crops should be on the land at least three-fourths of the time. Crop residue and the soil-improving crops should be used to protect the soil from erosion. Seedbed preparation should include bedding of the rows. Crops respond to fertilizer and lime, which should be added according to soil tests.

The soil is well suited to pasture and hay crops. Coastal bermudagrass, improved bahiagrass, and several legumes are adapted. Water control measures are needed to remove excess water during heavy rainfall. Fertilizer and lime are needed. Grazing should be controlled to maintain vigorous plants.

The potential is moderately high for pine trees on this soil. Equipment use limitations, seedling mortality and plant competition are management concerns. Slash and loblolly pine are the best suited trees to plant for commercial woodland production.

This Sapelo soil is in capability subclass IVw.

Addendum 5—Plant and Animal List

PLANTS	
Box elder	. Acer negundo
Southern red maple	. Acer rubrum
Florida sugar-maple	. Acer saccarum subsp. Floridanum
Venus' hair fern	. Adiantum capillus veneris
Red buckeye	. Aesculus pavia
Agalinis	
White snake root	
Spring bentgrass	. Agrostis hiemalis
Autumn bentgrass	. Agrostis perennans
Hazel alder	. Alnus serrulata
Common ragweed	. Ambrosia artemisiifolia
Pepper vine	. Ampelosis arborea
Blue dogbane	. Amsonia ciliata
Bushy beardgrass	. Andropogon glomeratus
Silver bluestem	
Broomsedge	. Andropogon virginicus
Nodding-nixie	. Apteria aphylla
Devil's walking stick	. Aralia spinose
Coral ardisia	. Ardisia crenulata
Green dragon	. Arisaema dracontium
Jack-in-the-pulpit	. Arisaema triphyllum
Cane	
Wild ginger	. Asarum canadense
Milkweed	. Asclepias perennis
Butterfly weed	. Asclepias tuberosa
Ebony spleenwort	
Small-leaf aster	. Aster adnatus
Bushy astor	. Aster dumosus
Southern lady fern	. Athyrium filix-foemina
Yellow foxglove	. Aureolaria flava
Foxglove	
Salt myrtle/Sea myrtle	. Baccharis halimifolia
Blue hyssop	
River birch	. Betula nigra
Cross vine	
Southern grapefern	
False-nettle, bog hemp	. Boehmeria cylandrica
Buttonweed	. Borreria laevis
Rattlesnake fern	
Eardrop vine	
Blueheart	
Sedge	
Black haw	. Bumelia lanuginose
Daniel de la como	0-111

Beautyberry Callicarpa Americana Trumpet-vine Campsis radicans

Caric sedge	Carex spp.
Ironwood	· ·
Water hickory	•
Pignut hickory	· .
Mockernut hickory	
Chinquapin	
Sugarberry	
Intelligence plant	
Butteryfly pea	
Buttonbush	
Redbud	
Partridge pea	
Partridge pea	
Eyebane	Chamaesyce hyssopofolia
Milk purslane	
Spike grass	Chasmanthium sessiliflorum
Fringe-tree	Chionanthus virginicus
Golden aster	
Water-hemlock	3 , 6 3,
Virgin's bower	
Leather-flower	<u> </u>
Sweet pepperbush	
Butterfly pea	
Tread softely	
Taro	
Mist flower	
Squaw root	
Horseweed	
Flowering dogwood	
Stiff-cornel dogwood	
Summer haw	
Parsley haw	
Haw	
Dwarf thorne	o ,
Rabbit bells	
Showy crotalaria	
Silver croton	•
Croton	
Rushfoil	<u> </u>
Waxweed	
Sweet rush	
Water loosestrife	
Wood vamp	
Beggarweed	Desmodium son
Pennyroyal	Dicerandra linearifolia
Pony-foot	Dichondra carolinansis
Shaggy fingergrass	
Poor Joe	
1 001 JUC	Diodia (CICS

Duttonwood	Diadia virginiana
Buttonweed	
Southern shield fern	
Water hyacinth	
Elephant's foot	
Elephant's foot	
Beech drops	, ,
Daisy-fleabane	
Buttonweed	
	. Erythronium umbilicatum SPF
Strawberry bush	
White thoroughwort	
Dogfennel	
Dogfennel	
Boneset	
False hoarhound	. Eupatorium rotundifolium
Dogfennel	. Eupatorium semiserratum
Euphorbia	. Euphorbia discoidalis
Euphorbia	. Euphorbia exserta
Spurge	. Euphorbia floridana
American beech	
Swamp privet	. Forestiera acuminata
White ash	
Pop ash	. Fraxinus caroliniana
Milk pea	
Goosegrass	
Dwarf huckleberry	
Dangleberry	
Yellow jessamine	
Water locust	
Sweet everlasting	•
Hedge hyssop	
Guara	
Two-wing silverbell	
Witch hazel	·
Scratch daisy	
Star violet	
Innocence	
Sneezeweed	
Heartleaf	
Hawk-weed	<u> </u>
Oak leaf hydrangea	S .
Marsh pennywort	
Swamp pennywort	
Hydrolea	· ·
Spider lily	
St. John's wort	- ·
St. John's wort	
St. John's wort	. турыкин тахкинацин

Musky mint	· ·
Tall sweet gallberry	
Possum haw	
American holly	•
Virginia willow	_
Black walnut	•
Rush	
Red cedar	
	. Kalmia latifoliaSPF
Pinweed	
Sweetgum	
Yellow poplar	
Netted chainfern	
Ludwigia	e , ,
Fetterbush	3
Southern magnolia	
	. Magnolia pyramidataSPF
Sweetbay	
Southern crabapple	
Bur-clover	
Partridge pea, twin-berry	
Red mulberry	
Wax myrtle	•
Swamp blackgum	
Sensitive fern	
Golden club	
Wild olive	
Cinnamon fern	. Osmunda cinnomoea
Royal fern	. Osmunda regalis
Hop hornbeam	
Woodsorrel	
Sourwood	. Oxydendrum arboreum
Panic grass	. Panicum spp.
Switch grass	. Panicum virgatum
Virginia creeper	. Parthenocissus quinquefolia
Green arum	. Peltandra virginica
Beard tongue	. Penstemon australis
Red bay	. Persea borbonia
Swamp red bay	. Persea palustris
Mistletoe	. Phoradendron serotinum
Groundcherry	. Physalis angulata
Short-leaf pine	. Pinus echinata
Spruce pine	. Pinus glabra
Longleaf pine	. Pinus palustris
Loblolly pine	
Hoary plantain	
Wild water pepper	
Dotted smartweed	
	•

D (
Resurrection fern	<i>, ,</i> , , , , , , , , , , , , , , , , ,
Christmas fern	
Swamp cottonweed	. Populus neteropnylla
Black cherry	
Hog plum	
White oak	
Laurel oak	
Bluejack oak	
Swamp laurel oak	
Swamp chestnut oak	
Water oak	
Running oak	
Live oak	_
Meadow beauty	
Meadow beauty	
Florida flame azalea	. Rhododendron austrinumUHF
Swamp honeysuckle	. Rhododendron serrulatum
Winged sumac	
Dollarweed	. Rhychosia difformis
Snoutbean	. Rhychosia tomentosa
Rush	. Rhynchospora inundata
Sandy field beaked sedge	. Rhynchospora megalocarpa
Rush	. Rhynchospora miliacea
Clover	. Richardia humistrata
Swamp rose	. Rosa Palustris
Toothcup	
Dewberry	. Rubus trivialis
Wild petunia	
Curled dock	
Sourdock	
Coastal plain willow	
Black willow	
Lyre-leaved sage	3
Elderberry	
Pineland pimpernel	
Sassafras	
Lizard's tail	
Saw palmetto	
Wild bamboo	
Greenbrier	
Cat greenbrier	
Wild sarsaparilla	
Horsenettle	
	Stewartia malacodendron SPF
Morning glory	
Sweetleaf, horse-sugar	
Bald cypress	
Basswood	
Da334400a	. This afficilitation

Spanish moss	
Poison ivy	. Toxicodendron radicans
Blue-curls	. Trichostema dichotomum
Tall redtop	
Wake robin	
Venus' looking-glass	
Winged elm	
American elm	
Sparkleberry	
High bush blueberry	
Elliot's blueberry	
Tall ironweed	
Violet	
Florida violet	
Lance-leaved violet	
Summer grape	
Muscadine	
Virginia chain fern	
Bear grass	. Yucca flaccida
FIGU	
FISH	Alasa alabamasa Cablaskanas Diyan balayy dana
	. Alosa alabamae Ochlockonee River, below dam
	. Amia calva Lake
	. Anguilla rostrate Lake
	. Elassoma sppLake, SST
	. Enneacanthus gloriosus Lake . Enneacanthus obesus Lake
	Erimyzon sucettalake
	. Etheostoma edwiniilake
	. etheostoma fusiformelake
	. Gambusia affinislake, SST
•	. Heterandria formosa lake, SST
	. Ictalurus catuslake
	. Ictalurus natalislake
	. Ictalurus nebulosuslake
	. Ictalurus punctatuslake
	Lepisosteus osseuslake
	. Lepomis aurituslake
	. Lepomis macrochiruslake
	. Lepomis microlophuslake
	. Lepomis punctatuslake
	. Leptolacunia ommatalake, SST
	. Micropterus salmoideslake
•	. Notemigonus crysoleucaslake
	. Pomoxis nigromaculataslake
as.	ss. rigi sinasalatas ili
AMPHIBIANS	
Eastern cricket frog	Acris crepitansSPF, SST
•	

Southern cricket frog	. Acris gryllus gryllus	SPF, SST
Marbled salamander	. Ambystoma opacum	SPF, UHF, SST
Mole salamander	Ambystoma talpoideum	SPF, UHF, SST
	. Amphiuma means	
One-toed amphiuma	. Amphiuma pholeter	SPF, SST
Fowler's toad	Anaxyrus fowleri	MTC
	. Anaxyrus terrestris	
	Desmognathus apalachicolae	
	Dryophytes avivoca avivoca	
	Dryophytes chrysoscelis	
	. Dryophytes cinereus	
	Dryophytes femoralis	
	. Dryophytes squirellus	
	Eurycea cirrigera	
	Eurycea guttolineata	
	. Eurycea quadridigitata	
	.Gastrophryne carolinensis	
	. Hemidactylium scutatum	
<u> </u>	. Lithobates clamitans clamitans	
	. Lithobates sphenocephalus	
	. Lithobates catesbeianus	
	. Lithobates grylio	
	Lithobates heckscheri	
	Necturus lodingi	
	Notophthalmus viridescens louisiane	
3	Plethodon grobmani	
	Pseudobranchus striatus	
	Pseudotriton montanus floridanus	
Southern red salamander	Pseudotriton ruber vioscai	SPF, SST, UHF
Eastern lesser siren	Siren intermedia intermedia	SST
Greater siren	Siren lacertian	SST
Spring peeper	. Pseudacris crucifer	SPF, UHF, SST
	. Pseudacris nigrita	
	. Pseudacris ocularis	
3		
REPTILES		
Elorida cottonmouth	Agkistradon nissivarus cananti	SDE
	. Agkistrodon piscivorus conanti	
	. Alligator mississippiensis	
	. Anolis carolinensis carolinensis	
	Apalone spinifera aspera	
	. Apalone ferox	
	. Aspidoscelis sexlineatus sexlineatus	
	. Cemophora coccinea copei	
	. Chelydra serpentina	
	. Coluber constrictor priapus	
	Coluber flagellum flagellum	
Eastern diamondback	. Crotalus adamanteus	SH, UHF

Southern ringneck snake	. Diadophis punctatus punctatus	SH TIHE
	. Farancia abacura abacura	
	Farancia abacura abacura Farancia erytrogramma erytrogrami	
	r arancia erytrogramma erytrogram Graptemys barbouri	
	Grapternys barbouri	
Ctrined moud turtle	. Heterodon platirhinos	UHF
	Kinosternon baurii	
	Kinosternon subrubrum subrubrum.	· · · · · · · · · · · · · · · · · · ·
	. Lampropeltis getulus	
	. Lampropeltis elapsoides	
	Liodytes pygaea pygaea	
	Liodytes rigida rigida	
	Macrochelys apalachicolae	
Eastern coral snake	. Micrurus fulvius	UHF, SH
Plainbelly water snake	.Nerodia erythrogaster	. lakeshore, SST
Banded water snake	. Nerodia fasciata fasciata	. lakeshore, SST
Florida green water snake	.Nerodia floridana	. lakeshore, SST
	. Nerodia taxispilota	
	. Opheodrys aestivus aestivus	
	. Ophisaurus attenuatus longicaudus.	
	. Ophisaurus ventralis	
	. Pantherophis alleghaniensis	
	. Plestiodon fasciatus	
	Pantherophis guttatus	
	. Plestiodon inexpectatus	
	. Plestiodon laticeps	
	. Pseudemys concinna floridana	
	Rhadinaea flavilata	
	. Sceloporus undulatus	
	•	
	. Scincella lateralis	
Dusky pigmy rattiesnake	. Sistrurus miliarius barbouri	UHF, SH
	Sternotherus minor minor	
	Sternotherus odoratus	
	.Storeria dekayi	
	. Storeria occipitomaculata obscura	
	.Tantilla coronata	
	.Terrapene carolina Carolina	
	Thamnophis sauritus sauritus	
	. Thamnophis sirtalis sirtalis	
belly slider	. Trachemys scripta scripta	lakeshore
Eastern earth snake	Virginia valeriae valeriae	SPF, UHF
BIRDS		
Cooper's hawk	. Accipiter cooperii	OF
	. Accipiter stritaus velox	
	. Agelarus phoeniceus	
<u> </u>	. Aix sponsa	

	Anas carolinensis	
<u> </u>	Anas discois	
	Anas platyrhynchos platyrhynchos	
	Anas rubripes	
	Anas strepera	
	Ahninga anhinga	
3	Archilochus colubris	
	Ardea herodias	
	Aythya affinis	
	Aythya americana	
	Aythya collaris	
	Bombycilla cedrorum	
	Branta candensis	
	Bubo virginianus	
	Bubulcus ibis	
	Buteo Famaicensis	
	Buteo lineatus	
	Caprimulgus principalis	
	Cardinalis cardinalis	
	Carpodacus purpureus	
Great egret	Casmerodius albus egretta	lakeshore
	Cathartes aura	
•	Certhia familiaris	
	Chaeture pelogica	
Common nighthawk	Chordeiles minor	OF
Yellow-billed cuckoo	Coccyzus americanus	UHF, SPF
	Coccyzus erythropthalmus	
	Colaptes auratus	
	Colinus virginianus	
Ground dove	Columbigallina passerina	MTC
Horned grebe	Colymbus auritus	lake
•	Contopus virens	
Black vulture	Coragyps atratus	OF
Common crow	Corvus brachynchos	OF
	Corvus ossifragus	
• •	Cyonocitta cristata	
	Dryobates pubescens	
	Dendroica coronata	
	Dendroica domonica	
	Dendroica magnolia	
	Dryocopus pileatus	
	Dumetella carolinensis	
	Egretta caerula	
	Egretta tricolor	
	Elanoides forficatus	
	Empidonax virescens	
	Erismatura jamaicensis rubida	
American kestrel	Falco sparverius	OF

American coet	. Fulica americana	lako
	. Geothlypis trichas	
	. Glaucionetta albeola	
	. Glaucionetta albeola . Glauconetta clangula americana	
	. Giauconetta ciangula americana . Guara alba	
•	. Haliaetus leucocephales	
	. Hirundo rustica	
	. Hylocichla fuscescens	
	. Hylocichla guttata	
	. Iridoprocne bicolor	
	. Megaceryle alcyon	
•	. Melanerpes carolinus	
<u> </u>	. Meleagris gallopavo	
•	. Mergus serrator	
	. Merca penelope	
	. Mimus polyglottis	
	. Mniotilta varia	
Black-crowned knight heron	. Nycticorax nycticorax	lakeshore
	. Otus asio	
Osprey	. Pandion haliaetus	OF
Tufted titmouse	. Parus bicolor	UHF
Carolina chickadee	. Parus carolinensis	MTC
Blue grossbeak	. Passerina caerulea	UHF, SPF
Double crested cormorant	. Phalacrocorax auritus	lake
Hairy woodpecker	. Picoides villosus	UHF, SPF
•	. Podilymbus podiceps	
	. Polioptiola caerulea	
	. Quiscalus quiscala	
<u> </u>	. Riparia riparia	
	. Sayornis phoebe	
	. Setophaga virens	
	. Sitta carolinensis	
	Sitta pusilla	
Yellow-hilled sansucker	Sphyrapicus varius	SH
American goldfinch	. Spinus tristis	MTC
	. Strix varia	
	. Sturnus vulgaris	
	. Thryothorus Iudovicionus	
	. Turdus migratorius	
	. Vireo grisseus	
	. Vireo grisseus	
Red-eyed vireo	. VII eo olivaceous	
MAMMALS		
	Plarina bravicauda	MTC
	. Blarina brevicauda	
	Dasypus novemcinctus	
	Didelphis virginiana	
	. Geomys pinetis	
River otter	. Lutra canadensis	iake, iakeshore

Bobcat	Lynx rufus	MTC
Striped skunk	Mephitis mephitis	UHF,SH
Eastern woodrat	Neotoma floridana	UHF
White-tailed deer	Odocoileus virginianus	MTC
Cotton mouse	Peromyscus gossypinus gossypinus	UHF, SH
Woodland vole	Pitymus pinetorum	UHF,SPF,SH
Northern raccoon	Procyon lotor	MTC
Norway rat	Rattus norvegicus	developed
Eastern mole	Scalopus aquaticus	UHF, SH
Gray squirrel	Sciurus carolinensis	MTC
Fox squirrel	Sciurus niger niger	SPF, UHF
Hispid cotton rat	Sigmodon hispidis	MTC
Southeastern shrew	Sorex longirostris	UHF, SH
Eastern cottontail	Sylvilagus floridanus	MTC
	Urocyon cinereoargenteus	

Beach Dune. BD Coastal Berm CB CB LACUSTRINE Coastal Grassland CG Clastic Upland Lake CULK Coastal Strand CS Coastal Dune Lake CDLK Keys Cactus Barren KCB Flatwoods/Prairie FPLK LImestone Outcrop LO Marsh Lake RFLK Maritime Hammock MAH Maritime Hammock MAH River Floodplain Lake RFLK Mesic Flatwoods MF Sandhill Upland Lake SULK Mesic Hammock MEH Sinkhole Lake SULK Rockland Hammock RH Sandhill SH RIVERINE Scrub SC Alluvial Stream SST Shell Mound SHM Seepage Stream SST Sinkhole SK Spring-run Stream SRST Slope Forest UHF Aquatic Cave ACV Upland Mixed Woodland UMW Terrestrial Cave ACV Upland Mixed Woodland UMW Terrestrial Cave ACV Upland Pine UP Wet Flatwoods WF ESTUARINE ACV Hammock XH Algal Bed EAB Composite Substrate ECPS Alluvial Forest AF Coral Reef EAB Composite Substrate ECPS Consolidated Substrate ECPS Consolidated Substrate ECPS Constal Interdunal Swale CIS Depression Marsh BM Mollusk Reef EMR Basin Swamp BS Octooral Bed ESPB Bottomland Forest BF MARINE Floodplain Marsh GMARINE Floodplain Marsh GMARINE Floodplain Marsh GMARINE Floodplain Swamp FS Algal Bed MAB Glades Marsh GM Composite Substrate EUS Depression Marsh GM Composite Substrate EUS Bottomland Forest BF Sponge Bed ESPB BOttomland Forest BF Sponge Bed ESPB BOttomland Swale CIS Unconsolidated Substrate MCPS Hydric Hammock HH Consolidated Substrate MCPS Hydric Hammock HH Consolidated Substrate MCPS Seepage Slope SSL Shrub Bog SHB Unconsolidated Substrate MUS Slough Marsh SLM Strand Swamp STS ALTERED LANDCOVER TYPES	TERRESTRIAL	Wet PrairieWP
Coastal Grassland CG Clastic Upland Lake CULK Coastal Strand CS Coastal Dune Lake. CDLK Dry Prairie. DP Coastal Rockland Lake CRLK Keys Cactus Barren KCB Flatwoods/Prairie. FPLK Limestone Outcrop. LO Marsh Lake. MLK Maritime Hammock MAH River Floodplain Lake RFLK Mesic Flatwoods MF Sandhill Upland Lake SULK Mesic Hammock MEH Sinkhole Lake SULK Rockland Hammock RH Sandhill. SH RIVERINE Scrub SC Alluvial Stream. AST Scrubby Flatwoods SCF Blackwater Stream BST Sinkhole SK Spring-run Stream SRST Sinkhole UG SUBTERRANEAN Upland Hardwood Forest UHF Aquatic Cave ACV Upland Mixed Woodland UMW Terrestrial Cave TCV Upland Pine. UP Wet Flatwoods WF ESTUARINE Xeric Hammock XH Algal Bed. EAB Baygall BG Seagrass Bed. ECR Basin Marsh BM Mollusk Reef ECR Basin Marsh DM Worm Reef EWR Dome Swamp. FS Floodplain Marsh. FM MARINE Floodplain Marsh. FM MARINE Reef Marsh. SAM Seagrass Bed. MAB Ball Marsh BM Mollusk Reef EWR Dome Swamp. FS Floodplain Marsh. FM MARINE Floodplain Swamp FS FS Floodplain Marsh. FM MARINE Floodplain Swamp FS FS Floodplain Marsh. FM MARINE Floodplain Swamp FS FS Floodplain Swamp FS FS Floodplain Swamp FS FS FIORM MARINE Floodplain Swamp FS FS FIORM MARINE Floodplain Swamp FS FS Floodplain Swamp FS FS FIORM Composite Substrate MCPS Floodplain Swamp FS FS Floodplain Marsh. FM MARINE Floodplain Swamp FS FS Floodplain Marsh. FM MARINE Floodplain Swamp FS FS FIORM SWAMP	Beach DuneBD	
Coastal Grassland CG Clastic Upland Lake CULK Coastal Strand CS Coastal Dune Lake. CDLK Dry Prairie. DP Coastal Rockland Lake CRLK Keys Cactus Barren KCB Flatwoods/Prairie. FPLK Limestone Outcrop. LO Marsh Lake. MLK Maritime Hammock MAH River Floodplain Lake RFLK Mesic Flatwoods MF Sandhill Upland Lake SULK Mesic Hammock MEH Sinkhole Lake SULK Nesic Hammock RPR Swamp Lake SWLK Rockland Hammock RH Sandhill. SH RIVERINE Scrub SC Alluvial Stream. AST Scrubby Flatwoods SCF Blackwater Stream BST Shell Mound SHM Seepage Stream. SST Sinkhole SK Spring-run Stream SRST Slope Forest SPF Upland Glade. UG Upland Hardwood Forest UHF Aquatic Cave ACV Upland Mixed Woodland. UMW Terrestrial Cave. TCV Upland Mixed Woodland. UMW Terrestrial Cave. TCV Upland Pine. UP Wet Flatwoods. WF ESTUARINE Xeric Hammock XH Algal Bed. EAB Baygall BG Seagrass Bed. ECR Basin Marsh BM Mollusk Reef ECR Basin Marsh BM Mollusk Reef ECR Baston Marsh. DM Worm Reef EWR Dome Swamp. DS Floodplain Marsh. FM MARINE Floodplain Swamp FS Algal Bed. MAB Glades Marsh. GM Composite Substrate MCPS Hydric Hammock. HH Consolidated Substrate MCPS Hydric Hammock. HM Composite Substrate MCPS Hydric Hammock. HH Consolidated Substrate MCPS	Coastal BermCB	LACUSTRINE
Coastal Strand. CS Coastal Dune Lake. CDLK Dry Prairie. DP Coastal Rockland Lake. CRLK Keys Cactus Barren. KCB Flatwoods/Prairie. FPLK Limestone Outcrop. LO Marsh Lake. MLK Maritime Hammock. MAH River Floodplain Lake. RFLK Mesic Flatwoods. MF Sandhill Upland Lake. SULK Mesic Hammock. MEH Sinkhole Lake. SKLK Pine Rockland. PR Sandhill Upland Lake. SULK Rockland Hammock. RH Sandhill. SH RIVERINE. SCRUB. SC Alluvial Stream. AST Scrubby Flatwoods. SCF Blackwater Stream. SST Shell Mound. SHM Seepage Stream. SST Shell Mound. SHM Seepage Stream. SST Shell Mound. SHM Seepage Stream. SST Sholpe Forest. SPF Upland Glade. UG SUBTERRANEAN Upland Hardwood Forest. UHF Aquatic Cave. ACV Upland Mixed Woodland. UMW Terrestrial Cave. TCV Upland Pine. UP Wet Flatwoods. WF ESTUARINE Algal Bed. EAB Composite Substrate. ECPS Consolidated Substrate. ECPS Alluvial Forest. AF Coral Reef. ECR Basin Marsh. BM Mollusk Reef. EMR Basin Swamp. BS Octocoral Bed. EOB Bayagall. BG Seagrass Bed. ESGB Bottomland Forest. BF Sponge Bed. ESPB Coastal Interdunal Swale. CIS Unconsolidated Substrate. EUS Depression Marsh. DM Worm Reef. EWR Dome Swamp. BS Algal Bed. MARINE Floodplain Swamp. FS Algal Bed. MARINE Floodplain Swamp. FS Algal Bed. MARINE Floodplain Swamp. BS Mollusk Reef. EWR Dome Swamp. BS Algal Bed. MARINE Floodplain Swamp. FS Algal Bed. MARINE Floodplain Swamp. MS Mollusk Reef. MMR MS Seagrass Bed. MSGB Seepage Slope. SSL Sponge Bed. MSPB Shrub Bog. SHB Unconsolidated Substrate. MUS Slough Marsh. SLM		Clastic Upland LakeCULK
Dry Prairie. DP Coastal Rockland Lake CRLK Keys Cactus Barren KCB Flatwoods/Prairie. FPLK Limestone Outcrop. LO Marsh Lake. MLK Maritime Hammock MAH River Floodplain Lake RFLK Mesic Flatwoods MF Sandhill Upland Lake SULK Mesic Hammock MEH Sinkhole Lake SKLK Pine Rockland. PR Swamp Lake. SWLK Rockland Hammock RH Sandhill SH RIVERINE Scrub SC Alluvial Stream. AST Scrubby Flatwoods. SCF Blackwater Stream BST Shell Mound SHM Seepage Stream. STST Shell Mound SHM Seepage Stream. SRST Slope Forest SPF Upland Glade. UG SUBTERRANEAN Upland Hardwood Forest UHF Aquatic Cave. ACV Upland Mixed Woodland. UMW Terrestrial Cave. TCV Upland Pine. UP Wet Flatwoods. WF ESTUARINE XH Algal Bed. EAB Composite Substrate ECPS PALUSTRINE AF Coral Reef. ECR Basin Marsh BM Mollusk Reef. ECR Basin Marsh BM Mollusk Reef. ECR Basin Marsh BM SS Seepage Step EVR DD SEPONDAIN BS SEED BOTTOM BASIN BE SEED BOTTOM BASIN BASIN Swamp. BS Octocoral Bed. ESPB SONGE BED. ESPB SIDOOD BASIN BASIN Swamp. BS SEED BEST BED. SEED BOTTOM BASIN BASIN BASIN Swamp. BS SEED BEST BED. SEED BOTTOM BASIN BASIN BASIN BASIN Swamp. BS SEED BEST BOTTOM BASIN BASIN BASIN BASIN Swamp. BS SEED BEST BED. SEED BOTTOM BASIN B		
Keys Cactus BarrenKCBFlatwoods/PrairieFPLKLimestone OutcropLOMarsh LakeMLKMaritime HammockMAHRiver Floodplain LakeRFLKMesic FlatwoodsMFSandhill Upland LakeSULKMesic HammockMEHSinkhole LakeSKLKPine RocklandPRSwamp LakeSKUKRockland HammockRHSandhillSHRIVERINEScrubSCAlluvial StreamASTScrubby FlatwoodsSCFBlackwater StreamBSTShell MoundSHMSeepage StreamSSTSinkholeSKSpring-run StreamSRTSinkholeSKSpring-run StreamSRTSlope ForestSPFUpland GladeUGSUBTERRANEANUpland Hardwood ForestUHFAquatic CaveACVUpland PineUPWet FlatwoodsWFESTUARINEXeric HammockXHAlgal BedEABComposite SubstrateECPSAlluvial ForestAFConsolidated SubstrateECNBasin MarshBMMollusk ReefEMRBasin SwampBSOctocoral BedEOBBaygallBGSeagrass BedESGBBottomland ForestBFSponge BedESPBCoadal Interdunal SwaleC1SUnconsolidated SubstrateEUSDepression MarshDMWorm ReefMABGlades MarshGMComposite SubstrateMCPSHydric Hamm		
Limestone Outcrop LO Marsh Lake MLK Maritime Hammock MAH Mesic Flatwoods MF Sandhill Upland Lake SULK Mesic Hammock PR Swamp Lake SWLK Rockland PR Swamp Lake SWLK Rockland Hammock RH Sandhill SH RIVERINE Scrub SC Alluvial Stream AST Scrubby Flatwoods SCF Blackwater Stream BST Shell Mound SHM Seepage Stream SST Sinkhole SK Spring-run Stream SRST Slope Forest SPF Upland Glade UG SUBTERRANEAN Upland Hardwood Forest UHF Aquatic Cave ACV Upland Mixed Woodland UMW Terrestrial Cave TCV Upland Mixed Woodland UMW Upland Pine UP Wet Flatwoods WF ESTUARINE Xeric Hammock XH Algal Bed EAB Composite Substrate ECPS PALUSTRINE AF Coral Reef ECR Basin Marsh BM Mollusk Reef ECR Basin Marsh BM Mollusk Reef ECR Basin Marsh DM Worm Reef EWR Dome Swamp DS Floodplain Marsh FM MARINE Floodplain Swamp FS Algal Bed MAB Glades Marsh GM Composite Substrate EUS Depression Marsh DM Worm Reef EWR Floodplain Swamp BS Glades Marsh GM Composite Substrate MCPS Floodplain Marsh FM MARINE Floodplain Swamp FS Algal Bed MAB Glades Marsh GM Composite Substrate MCPS Floodplain Marsh FM MARINE Floodplain Swamp FS Algal Bed MAB Glades Marsh GM Composite Substrate MCPS Floodplain Marsh FM MARINE Floodplain Swamp FS Algal Bed MAB Glades Marsh GM Composite Substrate MCPS Floodplain Marsh FM MARINE Floodplain Swamp FS Algal Bed MAB Glades Marsh GM Composite Substrate MCPS Floodplain Marsh FM MARINE Floodplain Rock Barren KTRB Coral Reef MCR Mangrove Swamp MS Mollusk Reef MCPS Floodplain Swamp FS Algal Bed MAB Glades Marsh GM Composite Substrate MCPS Floodplain Marsh GM Composite Substrate MCPS Floodplain Swamp FS Algal Bed MAB Glades Marsh GM Composite Substrate MCPS Floodplain Swamp FS Algal Bed MSPB Floodplain Swamp MS Mollusk Reef MCPS Floodplain Marsh SAM Seagrass Bed MSGB Seepage Slope SSL Sponge Bed MSPB Shrub Bog SHB Unconsolidated Substrate MUS Slough MASH		
Maritime Hammock MAH River Floodplain Lake RFLK Mesic Flatwoods MF Sandhill Upland Lake SULK Mesic Hammock MEH Sinkhole Lake SXLK Pine Rockland PR Swamp Lake SWLK Rockland Hammock RH Sandhill SH RIVERINE Scrub SC Alluvial Stream AST Scrubby Flatwoods SCF Blackwater Stream BST Shell Mound SHM Seepage Stream SST Shell Mound SHM Seepage Stream SST Sinkhole SK Spring-run Stream SRST Slope Forest SPF Upland Glade UG SUBTERRANEAN Upland Hardwood Forest UHF Aquatic Cave ACV Upland Mixed Woodland UMW Terrestrial Cave TCV Upland Pine UP Wet Flatwoods WF ESTUARINE Xeric Hammock XH Algal Bed EAB Composite Substrate ECPS PALUSTRINE Consolidated Substrate ECNS Alluvial Forest AF Coral Reef EAB Basin Swamp BS Octocoral Bed EOB Baygall BG Seagrass Bed ESBB Coastal Interdunal Swale CIS Unconsolidated Substrate EUS Depression Marsh DM Worm Reef EWR Floodplain Swamp FS Algal Bed. MAB Glades Marsh GM Composite Substrate MCNS FM WORMS BS Octocoral Bed EOB Baydall BG Seagrass Bed ESPB Coastal Interdunal Swale CIS Unconsolidated Substrate EUS Depression Marsh FM MARINE Floodplain Swamp FS Algal Bed. MAB Glades Marsh GM Composite Substrate MCNS Keys Tidal Rock Barren KTRB Coral Reef MCR Mangrove Swamp MS Mollusk Reef MCR		
Mesic Flatwoods MF Sandhill Upland Lake SULK Mesic Hammock MEH Sinkhole Lake SKLK Pine Rockland PR Swamp Lake SWLK Rockland Hammock RH RH Swamp Lake SWLK Rockland Hammock RH RH Swamp Lake SWLK Scrubby Flatwoods SC Alluvial Stream AST Scrubby Flatwoods SCF Blackwater Stream BST Shell Mound SHM Seepage Stream SST Shepage Stream SST SPT Upland Brade ACV Upland Mized Woodland UM Terrestrial Cave ACV		
Mesic Hammock		
Pine Rockland PR Swamp Lake SWLK Rockland Hammock RH Sandhill SH RIVERINE Scrub SC Alluvial Stream AST Scrubby Flatwoods SCF Blackwater Stream BST Shell Mound SHM Seepage Stream SST Shell Mound SHM Aquatic Cave ACV Upland Blade UP ACV Upland Blade ACV Upland Hardwood Forest UHF Aquatic Cave ACV Upland Mixed Woodland UMW Terrestrial Cave ACV Upland Mixed Woodland UMW Terrestrial Cave ACV Upland Hardwood Forest UF ESTUARINE Ac		·
Rockland Hammock RH Sandhill SH RIVERINE Scrub SC Alluvial Stream AST Scrubby Flatwoods SCF Blackwater Stream BST Shell Mound SHM Seepage Stream SST Sinkhole SK Spring-run Stream SRST Slope Forest SPF Upland Glade UG SUBTERRANEAN Upland Hardwood Forest UHF Aquatic Cave ACV Upland Mixed Woodland UMW Terrestrial Cave TCV Upland Pine UP Wet Flatwoods WF ESTUARINE Xeric Hammock XH Algal Bed EAB Composite Substrate ECPS PALUSTRINE Consolidated Substrate ECNS Alluvial Forest AF Coral Reef ECR Basin Marsh BM Mollusk Reef EMR Basin Swamp BS Octocoral Bed ESB Bottomland Forest BF Sponge Bed ESBB Bottomland Forest BF Sponge Bed ESPB Coastal Interdunal Swale CIS Unconsolidated Substrate EUS Depression Marsh DM Worm Reef EWR Dome Swamp DS Floodplain Marsh FM MARINE Floodplain Swamp FS Algal Bed MARINE Floodplain Swamp FS Alga		
Sandhill SH RIVERINE Scrub SC Alluvial Stream AST Scrubby Flatwoods SCF Blackwater Stream BST Shell Mound SHM Seepage Stream SST Sinkhole SK Spring-run Stream SRST Slope Forest SPF Upland Glade UG SUBTERRANEAN Upland Hardwood Forest UHF Aquatic Cave ACV Upland Mixed Woodland UMW Terrestrial Cave TCV Upland Pine UP WE ESTUARINE Xeric Hammock WF ESTUARINE EAB Composite Substrate ECPS Consolidated Substrate ECNS Alluvial Forest AF Coral Reef ECR Basin Marsh BM Mollusk Reef EMR Basin Swamp BS Octocoral Bed EOB Baygall BG Seagrass Bed ESGB Bottomland Forest BF Sponge Bed ESPB Coastal Interdunal Swale CIS		Swamp Lake
ScrubSCAlluvial StreamASTScrubby FlatwoodsSCFBlackwater StreamBSTShell MoundSHMSeepage StreamSSTSinkholeSKSpring-run StreamSRSTSlope ForestSPFUpland GladeUGSUBTERRANEANUpland GladeUGSUBTERRANEANACVUpland Hardwood ForestUHFAquatic CaveACVUpland PineUPWet FlatwoodsWFESTUARINEXeric HammockXHAlgal BedEABComposite SubstrateECPSPALUSTRINEConsolidated SubstrateECNSAlluvial ForestAFCoral ReefECRBasin MarshBMMollusk ReefEMRBasin SwampBSOctocoral BedEOBBaygallBGSeagrass BedESGBBottomland ForestBFSponge BedESPBCoastal Interdunal SwaleCISUnconsolidated SubstrateEUSDepression MarshDMWorm ReefEWRDome SwampDSFloodplain MarshFMFMFloodplain SwampFSAlgal BedMABGlades MarshGMComposite SubstrateMCPSHydric HammockHHConsolidated SubstrateMCPSHydric HammockHHConsolidated SubstrateMCPSHydric HammockHHConsolidated SubstrateMCPSMangrove SwampMSMollusk ReefMMRMarl PrairieMPOctocoral BedMOB <td></td> <td>DIVEDINE</td>		DIVEDINE
Scrubby Flatwoods		
Shell Mound SHM Seepage Stream. SST Sinkhole SK Spring-run Stream SRST Slope Forest SPF Upland Glade UG SUBTERRANEAN Upland Hardwood Forest UHF Aquatic Cave ACV Upland Mixed Woodland UMW Terrestrial Cave. TCV Upland Pine UP Wet Flatwoods. WF ESTUARINE Xeric Hammock XH Algal Bed. EAB Composite Substrate ECPS PALUSTRINE Consolidated Substrate ECNS Alluvial Forest. AF Coral Reef ECR Basin Marsh BM Mollusk Reef EMR Basin Swamp. BS Octocoral Bed EOB Baygall BG Seagrass Bed. ESGB Bottomland Forest. BF Sponge Bed ESPB Coastal Interdunal Swale CIS Unconsolidated Substrate EUS Depression Marsh DM Worm Reef EWR Dome Swamp. DS Floodplain Marsh FM MARINE Floodplain Swamp FS Algal Bed. MAB Glades Marsh GM Composite Substrate MCPS Hydric Hammock HH Consolidated Substrate MCPS Hydric Hammock HH Consolidated Substrate MCPS Mangrove Swamp MS Mollusk Reef MMR Marl Prairie MP Octocoral Bed MOB Salt Marsh SAM Seagrass Bed MSGB Seepage Slope. SSL Sponge Bed MSPB Shrub Bog. SHB Unconsolidated Substrate MUS Slough Marsh SLM		
Sinkhole SK Spring-run Stream SRST Slope Forest SPF Upland Glade UG SUBTERRANEAN Upland Hardwood Forest UHF Aquatic Cave ACV Upland Mixed Woodland UMW Terrestrial Cave TCV Upland Pine UP Wet Flatwoods WF ESTUARINE Xeric Hammock XH Algal Bed EAB Composite Substrate ECPS Alluvial Forest AF Coral Reef EMR Basin Swamp BS Octocoral Bed ESB Bottomland Forest BF Sponge Bed ESPB Coastal Interdunal Swale CIS Unconsolidated Substrate EUS Depression Marsh DM Worm Reef EWR Dome Swamp DS Floodplain Marsh FM Floodplain Swamp FS Algal Bed MAB Glades Marsh GM Composite Substrate ECPS Unconsolidated Substrate EUS Depression Marsh DM Worm Reef EWR Dome Swamp DS Floodplain Marsh FM Floodplain Swamp FS Algal Bed MAB Glades Marsh GM Composite Substrate MCPS Hydric Hammock HH Consolidated Substrate MCPS Hydric Hammock HH Consolidated Substrate MCNS Keys Tidal Rock Barren KTRB Mary Prairie MP Salt Marsh SAM Seagrass Bed MSGB Seepage Slope SSL Sponge Bed MSPB Shrub Bog SHB Unconsolidated Substrate MUS Slough Marsh SLM		
Slope Forest		
Upland Glade		Spring-run StreamSRS1
Upland Hardwood Forest		CURTERRANGAN
Upland Mixed WoodlandUMWTerrestrial CaveTCVUpland PineUPWet FlatwoodsWFESTUARINEXeric HammockXHAlgal BedEABComposite SubstrateECPSPALUSTRINEConsolidated SubstrateECNSAlluvial ForestAFCoral ReefECRBasin MarshBMMollusk ReefEMRBasin SwampBSOctocoral BedEOBBaygallBGSeagrass BedESGBBottomland ForestBFSponge BedESPBCoastal Interdunal SwaleCISUnconsolidated SubstrateEUSDepression MarshDMWorm ReefEWRDome SwampDSFloodplain MarshFMMARINEFloodplain SwampFSAlgal BedMABGlades MarshGMComposite SubstrateMCPSHydric HammockHHConsolidated SubstrateMCNSKeys Tidal Rock BarrenKTRBCoral ReefMCRMangrove SwampMSMollusk ReefMMRMarl PrairieMPOctocoral BedMOBSalt MarshSAMSeagrass BedMSGBSeepage SlopeSSLSponge BedMSPBShrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWRSlough MarshSLM		
Upland PineUPWet FlatwoodsWFESTUARINEXeric HammockXHAlgal BedEABComposite SubstrateECPSPALUSTRINEConsolidated SubstrateECNSAlluvial ForestAFCoral ReefECRBasin MarshBMMollusk ReefEMRBasin SwampBSOctocoral BedEOBBaygallBGSeagrass BedESGBBottomland ForestBFSponge BedESPBCoastal Interdunal SwaleCISUnconsolidated SubstrateEUSDepression MarshDMWorm ReefEWRDome SwampDSFloodplain MarshFMMARINEFloodplain SwampFSAlgal BedMABGlades MarshGMComposite SubstrateMCPSHydric HammockHHConsolidated SubstrateMCNSKeys Tidal Rock BarrenKTRBCoral ReefMCRMangrove SwampMSMollusk ReefMMRMarl PrairieMPOctocoral BedMOBSalt MarshSAMSeagrass BedMSGBSepage SlopeSSLSponge BedMSPBShrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWRSlough MarshSLM		
Wet FlatwoodsWFESTUARINEXeric HammockXHAlgal BedEABComposite SubstrateECPSPALUSTRINEConsolidated SubstrateECNSAlluvial ForestAFCoral ReefECRBasin MarshBMMollusk ReefEMRBasin SwampBSOctocoral BedEOBBaygallBGSeagrass BedESGBBottomland ForestBFSponge BedESPBCoastal Interdunal SwaleCISUnconsolidated SubstrateEUSDepression MarshDMWorm ReefEWRDome SwampDSFloodplain MarshFMMARINEFloodplain SwampFSAlgal BedMABGlades MarshGMComposite SubstrateMCPSHydric HammockHHConsolidated SubstrateMCNSKeys Tidal Rock BarrenKTRBCoral ReefMCRMangrove SwampMSMollusk ReefMMRMarl PrairieMPOctocoral BedMOBSalt MarshSAMSeagrass BedMSGBSeepage SlopeSSLSponge BedMSPBShrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWR		Terrestrial CaveTCV
Xeric HammockXHAlgal BedEABComposite SubstrateECPSPALUSTRINEConsolidated SubstrateECNSAlluvial ForestAFCoral ReefECRBasin MarshBMMollusk ReefEMRBasin SwampBSOctocoral BedEOBBaygallBGSeagrass BedESGBBottomland ForestBFSponge BedESPBCoastal Interdunal SwaleCISUnconsolidated SubstrateEUSDepression MarshDMWorm ReefEWRDome SwampDSFloodplain MarshFMMARINEFloodplain SwampFSAlgal BedMABGlades MarshGMComposite SubstrateMCPSHydric HammockHHConsolidated SubstrateMCNSKeys Tidal Rock BarrenKTRBCoral ReefMCRMangrove SwampMSMollusk ReefMMRMarl PrairieMPOctocoral BedMOBSalt MarshSAMSeagrass BedMSGBSeepage SlopeSSLSponge BedMSPBShrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWRSlough MarshSLM		
PALUSTRINE Alluvial Forest		
PALUSTRINE Alluvial Forest	Xeric HammockXH	
Alluvial Forest		·
Basin MarshBMMollusk ReefEMRBasin SwampBSOctocoral BedEOBBaygallBGSeagrass BedESGBBottomland ForestBFSponge BedESPBCoastal Interdunal SwaleCISUnconsolidated SubstrateEUSDepression MarshDMWorm ReefEWRDome SwampDSFloodplain MarshFMMARINEFloodplain SwampFSAlgal BedMABGlades MarshGMComposite SubstrateMCPSHydric HammockHHConsolidated SubstrateMCNSKeys Tidal Rock BarrenKTRBCoral ReefMCRMangrove SwampMSMollusk ReefMMRMarl PrairieMPOctocoral BedMOBSalt MarshSAMSeagrass BedMSGBSeepage SlopeSSLSponge BedMSPBShrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWRSlough MarshSLM		
Basin SwampBSOctocoral BedEOBBaygallBGSeagrass BedESGBBottomland ForestBFSponge BedESPBCoastal Interdunal SwaleCISUnconsolidated SubstrateEUSDepression MarshDMWorm ReefEWRDome SwampDSFloodplain MarshFMMARINEFloodplain SwampFSAlgal BedMABGlades MarshGMComposite SubstrateMCPSHydric HammockHHConsolidated SubstrateMCNSKeys Tidal Rock BarrenKTRBCoral ReefMCRMangrove SwampMSMollusk ReefMMRMarl PrairieMPOctocoral BedMOBSalt MarshSAMSeagrass BedMSGBSeepage SlopeSSLSponge BedMSPBShrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWRSlough MarshSLM	Alluvial Forest AF	
Baygall BG Seagrass Bed ESGB Bottomland Forest BF Sponge Bed ESPB Coastal Interdunal Swale CIS Unconsolidated Substrate EUS Depression Marsh DM Worm Reef EWR Dome Swamp DS Floodplain Marsh FM MARINE Floodplain Swamp FS Algal Bed MAB Glades Marsh GM Composite Substrate MCPS Hydric Hammock HH Consolidated Substrate MCNS Keys Tidal Rock Barren KTRB Coral Reef MCR Mangrove Swamp MS Mollusk Reef MCR Marl Prairie MP Octocoral Bed MOB Salt Marsh SAM Seagrass Bed MSGB Seepage Slope SSL Sponge Bed MSPB Shrub Bog SHB Unconsolidated Substrate MUS Slough Marsh SLM	Basin Marsh BM	Mollusk ReefEMR
Bottomland Forest	Basin SwampBS	Octocoral Bed EOB
Coastal Interdunal SwaleCISUnconsolidated SubstrateEUSDepression MarshDMWorm ReefEWRDome SwampDSFloodplain MarshFMMARINEFloodplain SwampFSAlgal BedMABGlades MarshGMComposite SubstrateMCPSHydric HammockHHConsolidated SubstrateMCNSKeys Tidal Rock BarrenKTRBCoral ReefMCRMangrove SwampMSMollusk ReefMMRMarl PrairieMPOctocoral BedMOBSalt MarshSAMSeagrass BedMSGBSeepage SlopeSSLSponge BedMSPBShrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWRSlough MarshSLM	Baygall BG	Seagrass BedESGB
Depression Marsh.DMWorm ReefEWRDome SwampDSFloodplain Marsh.FMMARINEFloodplain SwampFSAlgal BedMABGlades Marsh.GMComposite SubstrateMCPSHydric Hammock.HHConsolidated SubstrateMCNSKeys Tidal Rock BarrenKTRBCoral ReefMCRMangrove SwampMSMollusk ReefMMRMarl PrairieMPOctocoral BedMOBSalt MarshSAMSeagrass BedMSGBSeepage SlopeSSLSponge BedMSPBShrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWRSlough MarshSLM	Bottomland Forest BF	Sponge BedESPB
Dome SwampDSFloodplain MarshFMMARINEFloodplain SwampFSAlgal BedMABGlades MarshGMComposite SubstrateMCPSHydric HammockHHConsolidated SubstrateMCNSKeys Tidal Rock BarrenKTRBCoral ReefMCRMangrove SwampMSMollusk ReefMMRMarl PrairieMPOctocoral BedMOBSalt MarshSAMSeagrass BedMSGBSeepage SlopeSSLSponge BedMSPBShrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWRSlough MarshSLM	Coastal Interdunal Swale CIS	Unconsolidated SubstrateEUS
Floodplain MarshFMMARINEFloodplain SwampFSAlgal BedMABGlades MarshGMComposite SubstrateMCPSHydric HammockHHConsolidated SubstrateMCNSKeys Tidal Rock BarrenKTRBCoral ReefMCRMangrove SwampMSMollusk ReefMMRMarl PrairieMPOctocoral BedMOBSalt MarshSAMSeagrass BedMSGBSeepage SlopeSSLSponge BedMSPBShrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWRSlough MarshSLM	Depression Marsh DM	Worm ReefEWR
Floodplain MarshFMMARINEFloodplain SwampFSAlgal BedMABGlades MarshGMComposite SubstrateMCPSHydric HammockHHConsolidated SubstrateMCNSKeys Tidal Rock BarrenKTRBCoral ReefMCRMangrove SwampMSMollusk ReefMMRMarl PrairieMPOctocoral BedMOBSalt MarshSAMSeagrass BedMSGBSeepage SlopeSSLSponge BedMSPBShrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWRSlough MarshSLM	Dome Swamp DS	
Floodplain SwampFSAlgal BedMABGlades MarshGMComposite SubstrateMCPSHydric HammockHHConsolidated SubstrateMCNSKeys Tidal Rock BarrenKTRBCoral ReefMCRMangrove SwampMSMollusk ReefMMRMarl PrairieMPOctocoral BedMOBSalt MarshSAMSeagrass BedMSGBSeepage SlopeSSLSponge BedMSPBShrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWRSlough MarshSLM		MARINE
Glades MarshGMComposite SubstrateMCPSHydric HammockHHConsolidated SubstrateMCNSKeys Tidal Rock BarrenKTRBCoral ReefMCRMangrove SwampMSMollusk ReefMMRMarl PrairieMPOctocoral BedMOBSalt MarshSAMSeagrass BedMSGBSeepage SlopeSSLSponge BedMSPBShrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWRSlough MarshSLM		Algal BedMAB
Hydric HammockHHConsolidated SubstrateMCNSKeys Tidal Rock BarrenKTRBCoral ReefMCRMangrove SwampMSMollusk ReefMMRMarl PrairieMPOctocoral BedMOBSalt MarshSAMSeagrass BedMSGBSeepage SlopeSSLSponge BedMSPBShrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWRSlough MarshSLM		-
Keys Tidal Rock BarrenKTRBCoral ReefMCRMangrove SwampMSMollusk ReefMMRMarl PrairieMPOctocoral BedMOBSalt MarshSAMSeagrass BedMSGBSeepage SlopeSSLSponge BedMSPBShrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWRSlough MarshSLM		
Mangrove SwampMSMollusk ReefMMRMarl PrairieMPOctocoral BedMOBSalt MarshSAMSeagrass BedMSGBSeepage SlopeSSLSponge BedMSPBShrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWRSlough MarshSLM	•	Coral ReefMCR
Marl PrairieMPOctocoral BedMOBSalt MarshSAMSeagrass BedMSGBSeepage SlopeSSLSponge BedMSPBShrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWRSlough MarshSLM	=	
Salt MarshSAMSeagrass BedMSGBSeepage SlopeSSLSponge BedMSPBShrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWRSlough MarshSLM		
Seepage SlopeSSLSponge BedMSPBShrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWRSlough MarshSLM		
Shrub BogSHBUnconsolidated SubstrateMUSSloughSLOWorm ReefMWRSlough MarshSLM		
Slough	· · · · · · · · · · · · · · · · · · ·	
Slough Marsh SLM	_	
		VVOITII RECTIVIVVR
Strand Swamp		ALTERED LANDCOVER TYPES
	Stratia Swarrip	METERED EMINDOUVER TIFES

	Pasture - semi-improved PSI
Abandoned field ABF	Pine plantationPP
Abandoned pasture ABP	RoadRD
Agriculture AG	Spoil areaSA
Canal/ditch CD	Successional hardwood forest SHF
Clearcut pine plantation CPP	Utility corridorUC
ClearingCL	
DevelopedDV	MISCELLANEOUS
Impoundment/artificial pond IAP	Many Types of Communities MTC
Invasive exotic monoculture IEM	OverflyingOF
Pasture - improvedPI	



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

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)
	same as above, but validity as subspecies or variety is questioned. due to lack of information, no rank or range can be assigned (e.g.,
	GUT2).
G?	Not yet ranked (temporary)
	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.
	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.
	apparently secure in Florida (may be rare in parts of range)
	demonstrably secure in Florida
	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
	an exotic species established in Florida may be native elsewhere in North America
	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)
	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)

LEListed as Endangered Species in the List of Endangered and	
Threatened Wildlife and Plants under the provisions of the Endangered	k
Species Act. Defined as any species that is in danger of extinction	
throughout all or a significant portion of its range.	
PEProposed for addition to the List of Endangered and Threatened	
Wildlife and Plants as Endangered Species.	
LTListed as Threatened Species. Defined as any species that is likely to become an endangered species within the near future throughout all casting a significant portion of its range.	r

	Proposed for listing as Threatened Species. 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.
• •	Endangered due to similarity of appearance. Threatened due to similarity of appearance.
EXPE, XE essential.	Experimental essential population. A species listed as experimental and
EXPN, XN	Experimental non-essential population. A species listed as all 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

its becoming a threatened species.

habitat modification, environmental alteration, human disturbance or substantial human exploitation that, in the near future, may result in

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

LEListed 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.

LTListed 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.



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

A. General Discussion

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

B. Agency Responsibilities

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

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

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

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

C. Statutory Authority

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

D. Management Implementation

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

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

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

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

E. Minimum Review Documentation Requirements

In order to have a proposed project reviewed by the Division, certain information must be submitted for comments and recommendations. The minimum review documentation requirements can be found at:

http://www.flheritage.com/preservation/compliance/docs/minimum_review_documentation_requirements.pdf .

* * *

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

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

Phone: (850) 245-6425

Toll Free: (800) 847-7278 Fax: (850) 245-6435 The criteria to be used for evaluating eligibility for listing in the National Register of Historic Places are as follows:

- 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
 - 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.
- 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
 - b) 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
 - 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
 - a cemetery which derives its primary significance from graves of persons of transcendent importance, from age, distinctive design features, or association with historic events; ora 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 coderequired 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.



Leon County Comprehensive Plan Compliance

Insert Local Comprehensive Plan Compliance