LAKE TALQUIN STATE PARK

UNIT MANAGEMENT PLAN

APPROVED

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION Division of Recreation and Parks

FEBRUARY 15, 2008

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INTRODUCTION

Lake Talquin State Park is located in Leon County (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.

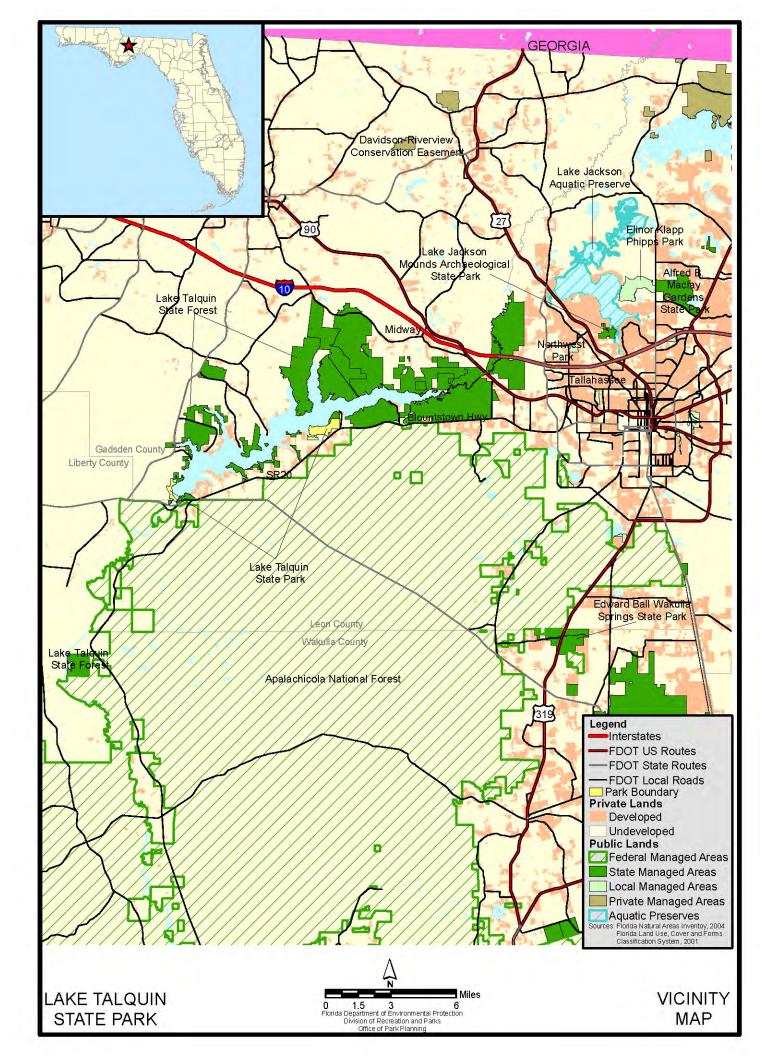
Lake Talquin State Park was acquired to preserve, develop, operate and maintain the property for public outdoor recreational, park, conservation and related purposes. On December 15, 1970, the Board of Trustees of the Internal Improvement Trust Fund (Trustees) obtained title to the park by donation from the Florida Power Corporation (see Addendum 1). At Lake Talquin State Park, public outdoor recreation and conservation is the designated single use of the property. There are no legislative or executive directives that constrain the use of this property.

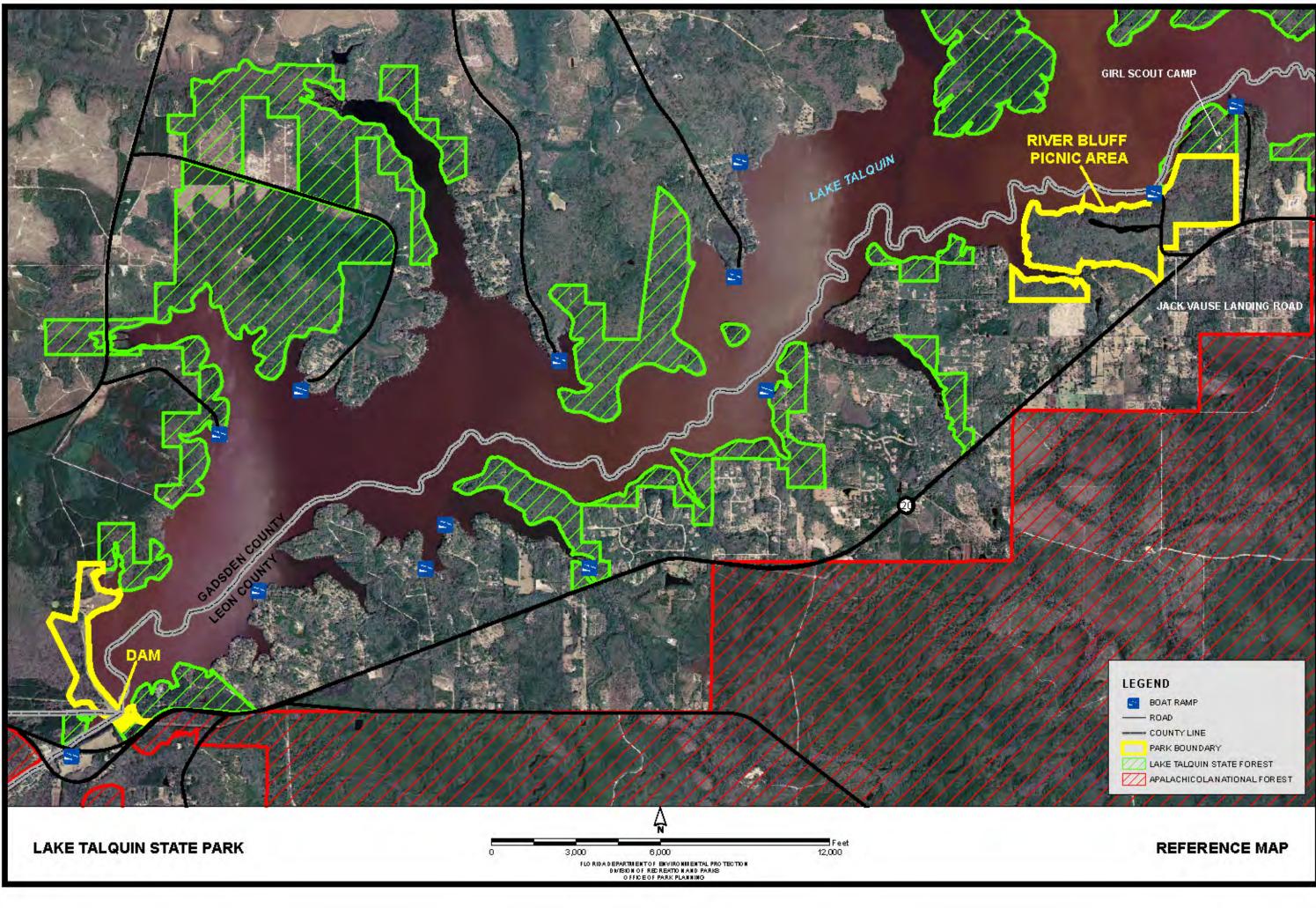
PURPOSE AND SCOPE OF THE PLAN

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 objectives, criteria and standards that guide each aspect of park administration, and sets forth the specific measures that will be implemented to meet management objectives. The plan is intended to meet the requirements of Sections 253.034 and 259.032, Florida Statutes, Chapter 18-2, Florida Administrative Code, and intended to be consistent with the State Lands Management Plan. With approval, this management plan will replace the May 17, 2001, approved plan. All development and resource alteration encompassed 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. This plan is also intended to meet the requirements for beach and shore preservation, as defined in Chapter 161, Florida Statutes and Chapters 62B-33, 62B-36 and 62R-49, Florida Administrative Code.

The plan consists of two interrelated components. Each component corresponds to a particular aspect of the administration of the park. The resource management component provides a detailed inventory and assessment of the natural and cultural resources of the park. Resource management problems and needs are identified, and specific management objectives are established for each resource type. This component provides guidance on the application of such measures as prescribed burning, exotic species removal, and restoration of natural conditions.

The land use component is the recreational resource allocation plan for the unit. Based on considerations such as access, population, and adjacent land uses, an optimum allocation of the physical space of the park is made, locating use areas and proposing types of facilities and volume of use to be provided.







In the development of this plan, the potential of the park to accommodate secondary management purposes ("multiple uses") was analyzed. These secondary purposes were considered within the context of the Division's statutory responsibilities and an analysis of 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. Uses such as, water resource development projects, water supply projects, stormwater management projects, linear facilities and sustainable agriculture and forestry (other than those forest management activities specifically identified in this plan) are not consistent with this plan or the management purposes of the park.

The potential for generating revenue to enhance management was also analyzed. Visitor fees and charges are the principal source of revenue generated by the park. It was determined that multiple-use management activities would not be appropriate as a means of generating revenues for land management. Instead, techniques such as entrance fees, concessions and similar measures will be employed on a case-by-case basis as a means of supplementing park management funding.

The use of private land managers to facilitate restoration and management of this unit was also analyzed. Decisions regarding this type of management (such as outsourcing, contracting with the private sector, use of volunteers, etc.) will be made on a case-by-case basis as necessity dictates.

MANAGEMENT PROGRAM OVERVIEW

Management Authority and Responsibility

In accordance with Chapter 258, Florida Statutes, and Chapter 62D-2, Florida Administrative Code, the Division of Recreation and Parks (Division) 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 Trustees have also granted management authority of certain sovereign submerged lands to the Division 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 impact public recreational uses.

Many operating procedures are standard system wide and are set by policy. These procedures are outlined in the Division's Operations Manual (OM) that covers such areas as personnel management, uniforms and personal appearance, training, signs, communications, fiscal procedures, interpretation, concessions, camping 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 of natural systems. Development in the park is directed toward providing public access to and within the park, and to providing recreational facilities, in a reasonable balance, that are both convenient and safe. Program emphasis is on interpretation on the park's natural, aesthetic and educational attributes.

Park Goals and Objectives

The following park goals and objectives express the Division's long-term intent in managing the state park. At the beginning of the process to update this management plan, the Division reviewed the goals and objectives of the previous plan to determine if they remain meaningful and practical and should be included in the updated plan. This process ensures that the goals and objectives for the park remain relevant over time.

Estimates are developed for the funding and staff resources needed to implement the management plan based on these goals, objectives and priority management activities. Funding priorities for all state park management and development activities are reviewed each year as part of the Division's legislative budget process. The Division prepares an annual legislative budget request based on the priorities established for the entire state park system. The Division also aggressively pursues a wide range of other funds and staffing resources, such as grants, volunteers and partnerships with agencies, local governments and the private sector, for supplementing normal legislative appropriations to address unmet needs. The ability of the Division to implement the specific goals, objectives and priority actions identified in this plan will be determined by the availability of funding resources for these purposes.

Natural and Cultural Resources

- 1. Protect, restore, and maintain natural communities
 - A. Develop and implement a plan to protect the bluffs from degradation
 - **B.** Protect the ravine systems including the seepage streams and slope forests from degradation.
 - C. Maintain and restore community structure, function and composition
 - **D.** Maintain and restore ecotones between communities
 - E. Monitor natural communities using photopoints
- 2. Design and implement restoration of highly altered communities or areas
 - **A.** Develop a restoration plan for the sandhill community.
 - **B.** Work toward restoring the sandhill community.
 - **C.** Develop and implement a plan to restore the unauthorized off-road vehicle trails on the disjunct southern parcel.
- **3.** Protect, restore and maintain native plant diversity and natural relative abundance
 - **A.** Continue to inventory vascular plants found on the park.
 - **B.** Develop inventory of bryophytes, algae, lichens, and fungi
 - C. Locate, maintain and monitor listed plant species populations.
 - **D.** Restore and maintain distinctive populations.
 - **E.** Repair and prevent habitat fragmentation within the park.
- 4. Protect, restore and maintain native animal diversity and natural relative abundance
 - **A.** Conduct a herpetological survey.
 - **B.** Conduct wildlife inventories.
 - **C.** Conduct inventory of macroinvertebrates including insects, arachnids, crustaceans, and mollusks
 - **D.** Restore and maintain listed species.
 - **E.** Restore and maintain distinctive populations
 - **F.** Identify animal nuisance problems and develops a plan to address these problems
 - **G.** Repair and prevent habitat fragmentation within the park
 - **H.** Support acquisitions, conservation easements or zoning that provide landscape continuity.
- 5. Establish and maintain prescribed fire program
 - A. Establish and maintain interfere intervals for each burn zone
 - **B.** Establish and maintain sufficient firebreaks in appropriate locations
 - **C.** Site facilities so they do not unduly impact the ability to burn adjacent or nearby communities. Facilities should not be sited where they would prevent fire from burning into the ecotone from the sandhill to the slope forest. Wooden boardwalks also make burning difficult.
 - **D.** Protect sensitive resources, for example, firebreaks should not be installed in slope forests.

- **E.** Control of offsite and overly abundant woody species. Presently the laurel oaks (*Quercus hemispherica*) are dominating the sandhill and need mechanical and herbicide treatment.
- **F.** Train staff and acquire appropriate equipment to conduct prescribed burns.
- 6. Establish and maintain invasive exotics plant species removal program
 - **A.** Locate and control invasive exotics in the park
 - **B.** Develop an exotic species management plan
 - **C.** Map invasive exotic species
- 7. Establish and maintain destructive exotic animal species removal program
 - **A.** Develop a plan for controlling destructive exotic species
 - **B.** Monitor slope forest and seepage streams for damage from armadillos
 - **C.** Implement armadillo control program in the park focusing on sensitive communities.
- **8.** Protect, restore and maintain natural hydrological regimes.
 - **A.** Protect sensitive ravine habitats.
 - **B.** Prevent erosion along the ravine systems and along Jack Vause Road.
 - **C.** Maintain minimum flows and levels of the seepage and other streams.
 - **D.** Maintain the surface hydrology and hydroperiod of the slope forest and seepage streams.
- 9. Protect, restore and maintain water quality conditions
 - A. Prevent erosion into the streams and lake from development.
 - **B.** Maintain canopy cover in slope forest to shade streams and keep temperatures cool and dissolved oxygen levels high.
 - **C.** Keep nutrients out of the seepage streams.
- **10.** Protect park boundaries to improve resource management and avoid encroachment
 - A. Mark and fence boundaries to prevent unauthorized vehicle access.
 - **B.** Contact neighbors and provide interpretive materials to them about the location of park boundaries and ATV impacts to the park.
- **11.** Protect natural resources from impacts caused by park visitors and outside influences.
 - **A.** Restore Jack Vause Road to the elevation of surrounding communities.
 - **B.** Avoid, minimize or eliminate unacceptable resource impacts due to visitor activities.
 - **C.** Review proposals affecting land use and development outside the park boundaries and support efforts that establish or maintain zoning, land use, water use policies, etc. that facilitate appropriate protection of park resources.
- **12.** Provide staff for natural resource management and protection
 - A. Allot staff time to complete resource management tasks.
 - **B.** Train staff in resource management techniques such as prescribed burning and exotic plant control.
- **13.** Preserve, protect and maintain the cultural resources of the park.
 - **A.** Seek funding to conduct a phase I archaeological survey of the park.

B. Conduct ground disturbing activities in accordance with DHR policy and Division guidelines.

Recreational Goals

- 1. Continue to provide quality resource based outdoor recreational and interpretive programs and facilities at the state park.
 - **A.** Maintain existing trails, picnic facilities, and access to the lake.
 - **B.** Continue effort to rebuild the existing boardwalk system.
- 2. Seek funding to expand recreational and interpretive opportunities through the improvement of programs and the development of new use areas and facilities, as outlined in this management plan.
 - A. Construct entrance station.
 - **B.** Improve existing picnic area.
 - **C.** Improve interpretive signage.
 - **D.** Enhance fishing and boating opportunities.
 - **E.** Expand hiking trails and provide appropriate signage.
 - F. Provide overnight accommodations.

Park Administration/Operations

- **1.** Provide efficient and effective management of park resources and facilities while maintaining a high level of visitor service.
 - A. Seek additional funding.
 - **B.** Provide universally accessible public facilities.
 - **C.** Assure that appropriate training is provided to all staff in visitor services, natural and cultural resources of the park and emergency procedures.
 - **D.** Conduct regular inspections and maintenance of park grounds and facilities to ensure a safe, clean and well-maintained environment for visitors and staff.
 - **E.** Recruit volunteer support to assist park staff with the maintenance of facilities, management of resources and implementation of park programs.

Management Coordination

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

The Department of Agriculture and Consumer Services, Division of Forestry (DOF), assists Division staff in the development of wildfire emergency plans and provides the authorization required for prescribed burning. The Florida Fish and Wildlife Conservation Commission (FFWCC), assists staff in the enforcement of state laws pertaining to wildlife, freshwater fish and other aquatic life existing within park boundaries. In addition, the FFWCC aids the Division with wildlife management programs, including the development and management of Watchable Wildlife programs. The Department of State, Division of Historical Resources (DHR) assists staff to assure protection of archaeological and historical sites. The Department of Environmental Protection (DEP), Office of Coastal and Aquatic Managed Areas (CAMA) aids staff in aquatic preserves management programs. The DEP, Bureau of Beaches and Wetland Resources aids staff in planning and construction activities seaward of the Coastal Construction Line. In addition, the Bureau of Beaches and Wetland Resources aid the staff in the development of erosion control projects. Emphasis is placed on protection of existing resources as well as the promotion of compatible outdoor recreational uses.

Public Participation

The Division provided an opportunity for public input by conducting a public workshop and an advisory group meeting. A public workshop was held on February 27, 2007. The purpose of this meeting was to present the draft management plan to the public. An Advisory Group meeting was held on February 28, 2007. The purpose of this meeting was to provide the Advisory Group members the opportunity to discuss the draft management plan.

Other Designations

Lake Talquin State park in not within an Area of Critical State Concern as defined in section 380.05, Florida Statutes and it is not under study for such designation. The park is a component of the Florida Greenways and Trails System.

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

RESOURCE MANAGEMENT COMPONENT

INTRODUCTION

The Division of Recreation and Parks has implemented resource management programs for preserving for all time the representative examples of natural and cultural resources of statewide significance under its administration. This component of the unit plan describes the natural and cultural resources of the park and identifies the methods that will be used to manage them. The stated management measures in this plan are consistent with the Department's overall mission in ecosystem management. Cited references are contained in Addendum 2.

The Division's philosophy of resource management is natural systems management. Primary emphasis is on restoring and maintaining, to the degree practicable, the natural processes that shape the structure, function and species composition of Florida's diverse natural communities as they occurred in the original domain. Single species management may be implemented when the recovery or persistence of a species is problematic provided it is compatible with natural systems management.

The management goal of cultural resources is to preserve sites and objects that represent all of Florida's cultural periods as well as significant historic events or persons. This goal may entail 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 is often affected by conditions and occurrences beyond park boundaries. Ecosystem management is implemented through a resource management evaluation program (to assess resource conditions, evaluate management activities and refine management actions), review of local comprehensive plans and review of permit applications for park/ecosystem impacts.

RESOURCE DESCRIPTION AND ASSESSMENT

Natural Resources

Topography

The most notable topographic features at the park are the steep ravines and bluffs along Lake Talquin. Some areas, near the park's northwest tip, closely resemble the Florida Natural Areas Inventory description of a limestone bluff natural community. 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. Wave action has exposed much of the limestone at the base of the slopes. In general, the topography of the park consists of well-drained uplands interspersed by steep ravines. Seepage streams run along the bottom of the steep ravines.

Geology

Significant geological features of the surrounding area 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 (Lane).

Overlying these bedrock formations are unconsolidated materials deposited during the Pliocene and Pleistocene periods.

<u>Soils</u>

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, Ortega sand, and swamp (see Soils Map). Well drained, gently sloping soils of upland areas support sandhill and upland mixed hardwood communities towards the interior of the park. Poorly drained, loamy soils situated within the park's natural drainage, support slope forest and seepage stream natural communities. Regularly inundated wetlands near the hydroelectric dam are situated on swamp soil type. See Addendum 3 for a more detailed description of the above mentioned soil types.

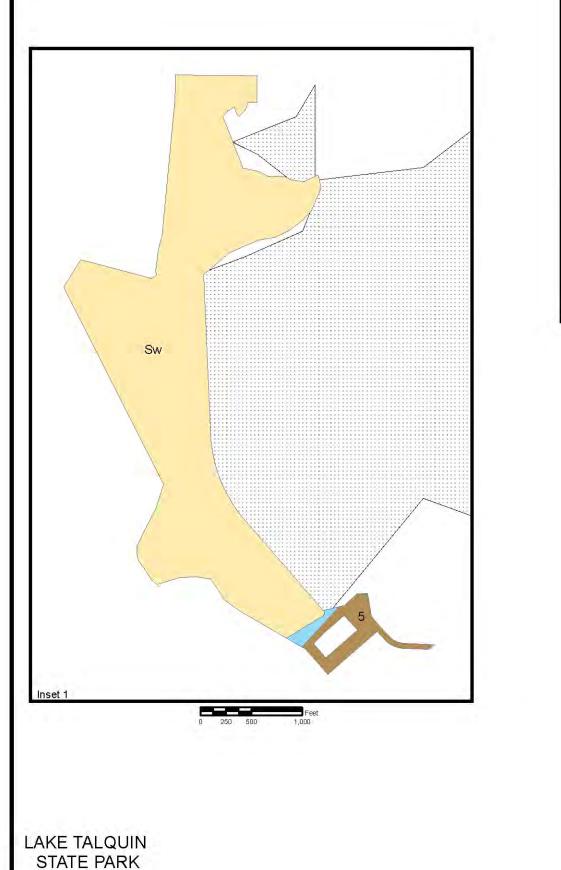
<u>Minerals</u>

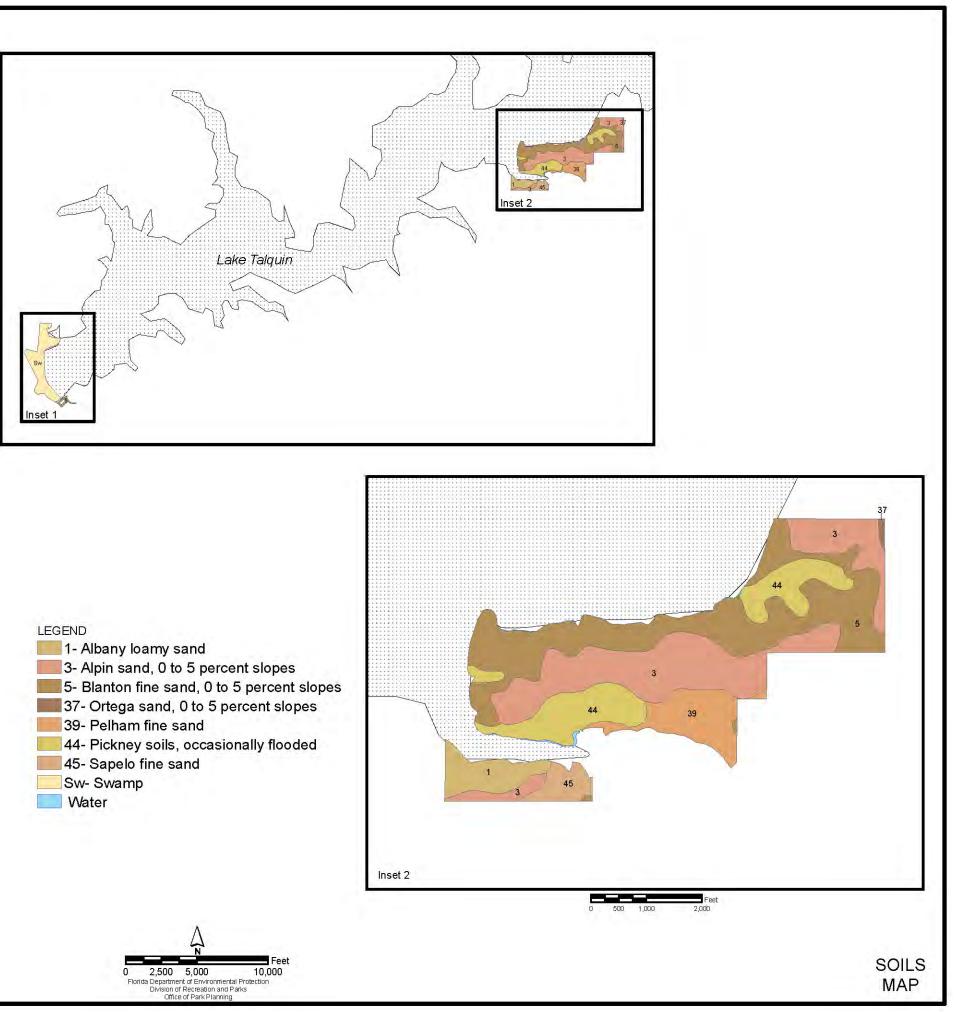
In general, minerals at the park consist of clays, marls and sands. Large quantities of these minerals are readily available off-site, making these deposits commercially unimportant.

<u>Hydrology</u>

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 formed in 1927 when the river was impounded at Jackson Bluff to produce hydroelectric power.

The Floridan Aquifer underlies the entire Big Bend region. It occurs primarily within the Ocala and Suwannee limestones. However, it also flows through permeable portions of the overlying St. Marks and Hawthorne Formations. Local recharge to the Floridan Aquifer primarily occurs in the sandy upland areas south of Lake Talquin. Water percolates through the sandy soils of the park and feeds the slope forests and seepage streams. Any surface runoff is directed into the numerous ravine seepage streams that meander down slope to the lakeshore. A portion of the water that precipitates in well-drained upland areas percolates through the sandy soils to ravine heads. This water forms seepage streams that flow through the ravines.





Natural Communities

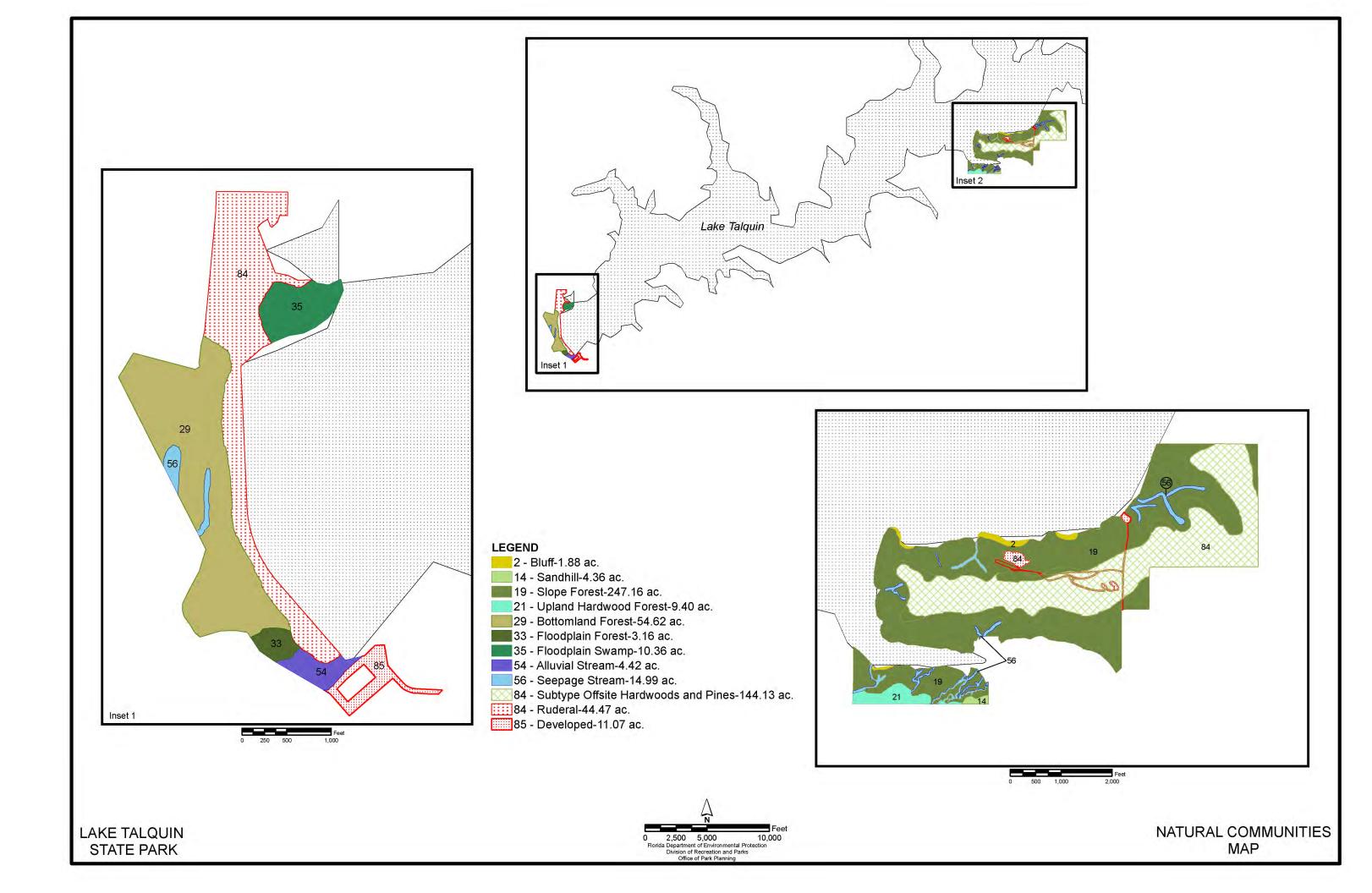
The system of classifying natural communities employed in this plan was developed by the Florida Natural Areas Inventory (FNAI). The premise of this system is that physical factors, such as climate, geology, soil, hydrology and fire frequency generally determine the species composition of an area, and that areas which are similar with respect to these factors will tend to have natural communities with similar species compositions. Obvious differences in species composition can occur, 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.

The park contains nine distinct natural communities (see Natural Communities Map) in addition to ruderal and developed areas. The Natural Communities Map is a graphic representation of the existing vegetative conditions in the park at the time this management plan was developed. Park specific assessments of the existing natural communities are provided in the narrative below. A list of plants and animals occurring in the unit is contained in Addendum 4.

Bluff. The best example of bluff community occurs in the northwest corner of the park, near the lakeshore. The bluff consists of exposed limestone of the Hawthorne Formation. A few areas along the bluff are covered with a thin layer of loamy clay topsoil. Other "bluff-like" areas were formed as the impounded waters cut an erosion scarp along steep, forested slopes. The shoreline base of the scarp is littered with fallen trees that have succumbed to the forces of erosion. The remaining larger trees are leaning towards the water below. These trees will most likely one day topple into the lake as wave action continues to erode the soft limestone, but for now their labyrinth of roots help to slow the erosion process.

Typical plant species growing along the bluff community include red maple, silver maple, wax myrtle, hop hornbeam, American holly, ironwood, bald cypress, high bush blueberry, cinnamon fern, sensitive fern and liverwort. Notable plant species found along or adjacent to the classic limestone bluff include southern maidenhair fern, green dragon, Jack-In-The-Pulpit, trout lily, heartleaf and trilliums. Animals are limited in bluff communities. Birds such as kingfisher and bank swallow inhabit bluffs, having constructed cavities in the exposed sediments.

Slope forest. Areas of closed canopy hardwoods situated along steep slopes above the lakeshore and along the ravine slopes, are best described as slope forest. Some of the lakeshore areas have been eroding over the years, resulting in steep banks or "bluffs." The finest examples of intact slope forest occur along the park's steep ravines. The densely shaded ravine slopes and damp conditions combine to produce a cool moist



microclimate within the ravine system. These areas are a haven for various ferns and bryophytes. In some areas deep within the ravines, the forest floor is carpeted with *Polytrichum* and *Sphagnum* mosses, as well as liverworts. Large canebrakes dominated by switch cane are found between the ravine slopes and the surrounding uplands. Canopy trees include American beech, white oak, swamp chestnut oak and sweet bay. Notable species, thus far identified, within the slope forest include trilliums, noddingnixie, heartleaf and trout lily.

Upland hardwood forest. The transitional upland sites wedged between sandhill and slope forests at the park are comprised of successional, closed-canopy hardwoods. Major canopy forming trees in this community include southern magnolia, mockernut hickory, pignut hickory, American beech, laurel oak, live oak and sweetgum. Other plant species present include spruce pine, shortleaf pine, loblolly pine, American holly and dogwood.

Bottomland forest. Most of the parcel north of the hydroelectric dam is best described as bottomland forest with characteristic species such as sweetgum, red maple, cabbage palm, wax myrtle, live oak and white cedar. Active osprey nests are located on manmade structures adjacent to the earthen berms. Bald eagles reportedly nest in this forest. This area is used as an emergency floodplain for the hydroelectric dam.

Floodplain forest. A very small area of floodplain forest occurs along the western bank of the Ochlockonee River, down stream from the dam. Willow, swamp basket oak, catalpa, tulip poplar, and red maple are the dominant trees found in this community. The area connects with a seepage stream that flows into the lake from the northwest. This seepage stream has been artificially altered and used as an emergency spillway for the dam.

Floodplain swamp. Floodplain swamp occurs along the western bank of the Ochlockonee River, both in small areas up stream from the dam. The area connects with a seepage stream that flows into the lake from the northwest. This seepage stream has been artificially altered and used as an emergency spillway for the dam.

Seepage stream. Various small, clear steephead streams flow through the park's ravines. Water, having precipitated in the uplands, percolates through the sandy soil to the ravine heads where these shallow surface streams begin. The streams have helped to shape the dramatic topography of the numerous ravines.

The water temperatures in the sandy bottom streams generally stay around 70 degrees Fahrenheit year round. Because the streams are sheltered by the dense slope forest canopy, they support few aquatic plants. Filamentous green algae occur sporadically within the stream, while mosses, ferns and liverworts grow along the edge of the water. Animal species found within or along these ephemeral streams include mosquito fish, amphiuma, slimy salamander, marbled salamander, newt, bronze frog, Florida cricket frog and leopard frog.

Ruderal. The bermed shoreline near Jackson Bluff is considered ruderal. The City of Tallahassee mows several fields on the western parcel. These are used as emergency spillways.

Ruderal – Subtype Offsite Hardwoods and Pines. Most of the former range of sandhill at the park is dominated by hardwoods, superficially resembling an upland hardwood forest. It seems apparent that with no signs of longleaf pine and understory regeneration, remnants of the sandhill community are being supplanted by shade tolerant species more typical of an upland hardwood forest. During the previous natural community inventory small numbers of relict, longleaf pines and turkey oaks were located over a few acres of well-drained upland sandy soil just west of Vause Road, and east of Vause Road along the park's southern boundary. Isolated clumps of wiregrass are also present in these areas. This meager population of longleaf pines was suppressed, having been largely succeeded by opportunistic hardwoods such as laurel oaks and sweetgums. This small area is being restored to sandhill. Recent prescribed burns have increased sandhill understory and fine fuel cover such as wiregrass in this area. Signs of a few lightered stumps, cat-faced turpentine trees and herty cups indicate that the range of sandhill extended far into other areas now dominated by hardwoods. Large areas of switchcane (Arundinaria gigantea) found bordering degraded sandhill form a transition into slope forest. Switchcane is fire dependent growing on the ecotone between wetlands and savannas (Walkup 1991, Connor). These clues along with the excessively drained underlying soil demonstrate that at one time a bigger area of the park was sandhill.

In order to restore this area to sandhill, a restoration plan including the reintroduction of fire and selective hardwood girdling, is needed. With proper action and time, this area has the potential to recover to a more natural longleaf pine sandhill community, which would enhance the park's biodiversity and return this community to its original domain.

Developed. Developed areas at the park include recreation and maintenance areas and the roads. Additionally, there is one active staff residence within the park. The hydroelectric dam that is leased to the City of Tallahassee contains a building complex, a dam and earthen berms.

Designated Species

Designated species are those that are listed by the Florida Natural Areas Inventory (FNAI), U.S. Fish and Wildlife Service (USFWS), Florida Fish and Wildlife Conservation Commission (FFWCC), and the Florida Department of Agriculture and Consumer

Services (FDA) as endangered, threatened or of special concern. Addendum 5 contains a list of the designated species and their designated status for this park. Management measures will be addressed later in this plan.

Presently, 23 designated species of plants and animals have been identified at the park. Addendum 5 contains a list of these species along with current listing status.

Special Natural Features

The steep limestone bluffs in the park's northwestern region are considered special natural features. Additionally, the ravine systems, largely shaped by steephead streams, are considered special natural features at the park.

Cultural Resources

Evaluating the condition of cultural resources is accomplished using a three part evaluative scale, expressed as good, fair, and poor. These terms describe the present state of affairs, rather than comparing what exists against the ideal, a newly constructed component. 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 judgment is cause for concern. Poor describe 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 to reestablish physical stability.

The Florida Master Site File (FMSF) lists three sites (FMSF LE02128, GD00267 and GD00268) within the park. Numerous historically significant cultural resources occur in the Lake Talquin area and additional cultural resources may exist in the park.

FMSF LE02128: Site LE02128 is a lithic scatter site representive of the Weeden Island occupation. The lithics were the result of tool maintenance and manufacture. The scatter found in this site suggests that the area tested was just the edge of the site. More testing is needed around where these items were found to better determine the historic context of the site. The site is in good condition despite some erosion along the slope.

GD00267 and GD00268: Sites GD00267 and GD00268 are a lithic flake sites of unknown historical context. The sites are in poor condition due to the construction of the Ochlocknee dam emergency spillway area. The spillway area is maintained for emergency water overflow in case of structural failure of the dam and is highly altered and disturbed.

RESOURCE MANAGEMENT PROGRAM

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 Division'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 early successional communities such as sand pine scrub and coastal strand.

A timber management analysis was not conducted for this park. The total acreage for the unit is below the 1,000-acre threshold established by Florida Statutes. Timber management will be reevaluated during the next revision of this management plan.

Additional Considerations

The sandhill community at Lake Talquin State park has been degraded such that little structure or species representative of sandhill remain. Restoration of the sandhill is clearly needed; however, it will take many years and resources before it functions as a sandhill. A restoration and prescribed burning plan should be developed and implemented to help restore and maintain the sandhill and adjacent communities.

The numerous seepage streams and ravines found on the park are environmentally sensitive. They must be protected from disturbance especially during the restoration of the sandhill community and park facilities development. Increased sedimentation, excessive nutrient loading, impoundment or erosion can adversely impact the ravine system.

Management Needs and Problems

- 1. Most of the species information for this plan was derived from information gathered for the former ~ 30,000-acre Lake Talquin State Recreation Area. A new survey of biota, specific to the River Bluff Picnic Site is needed to document the occurrence of designated species.
- 2. Wild taro and parrot-feather, two common invasive exotic plants, continue to persist along the park's shoreline and portions of the lower ravines. These species have impacted sensitive ravine flora and need to be removed. Cogon grass established at the park entrance and along Jack Vause Road needs to be controlled.
- **3.** The sensitive ravine systems need to be protected from any use that would facilitate erosion and/or harm rare plants located within these areas. A

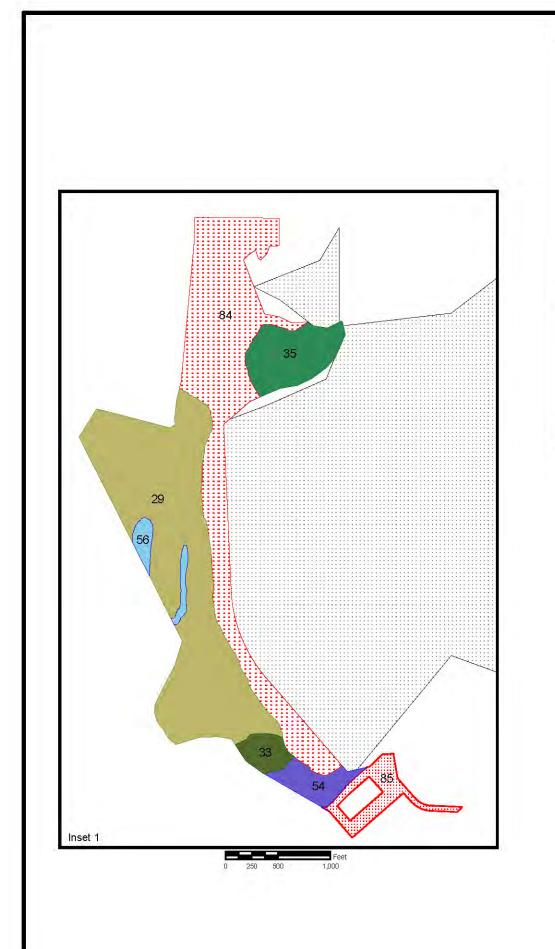
monitoring program for these ravines is suggested.

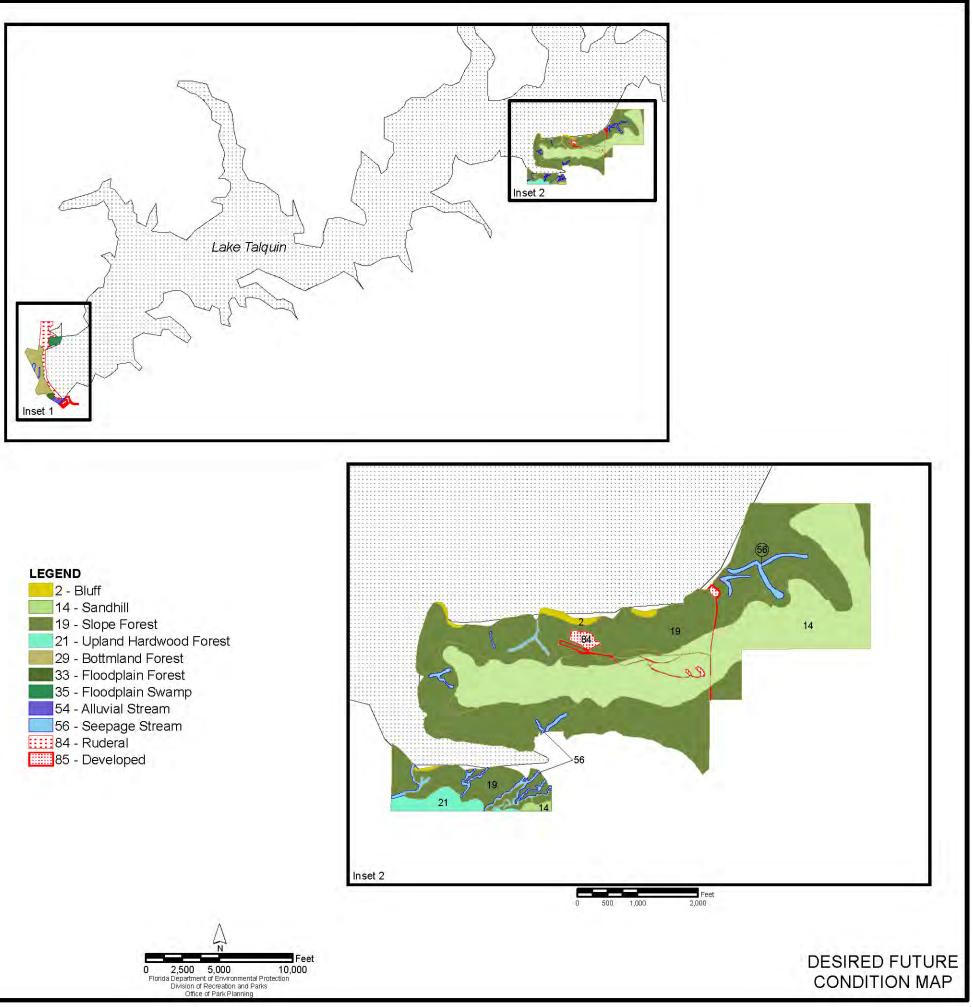
- **4.** Rooting from armadillos is evident throughout the ravine systems. An armadillo control program would help to reduce the rooting in sensitive ravine systems.
- 5. Erosion from Vause Road is depositing clay into the lake along the road and county managed boat ramp. Continual grating of Jack Vause Road has eroded the elevation of the road in relation to the surrounding vegetation. High banks now tower above the road at places. Cooperation with the Leon County to control erosion along the road and at the boat ramp would reduce the amount of sedimentation deposited in the lake.
- 6. Erosion into the seepage stream at the end of the parking lot at the vehicle turn around is severe and needs to be addressed. Consultation with the Natural Resources Conservation Service should be pursued to develop a plan to stop the current erosion, fix the existing gully and prevent future erosion.
- 7. Unauthorized off-road vehicles have gained entry into the park through the boundary with neighboring land and have made several trails through the eastern portion of the park and the portion of the park south of Polk Creek. Some of these off-road vehicles have cut trails through slope forests and seepage streams creating rutting and degrading the seepage streams. The park boundary needs to be marked and fenced to prevent unauthorized entry of off-road vehicles.
- 8. The property adjacent to the dam should be fenced and posted to prevent hunting on park property.
- **9.** A sandhill restoration plan needs to be developed and implemented for the park, including the installation of firebreaks circling the project area.
- **10.** The park needs vehicle access to the portion of the park south of Polk Creek.

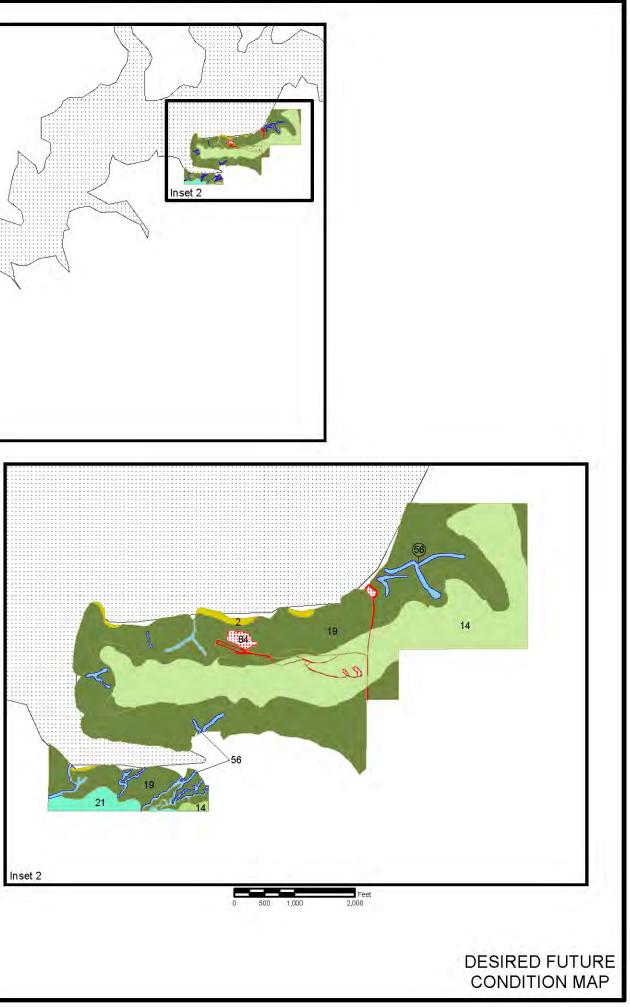
Management Objectives

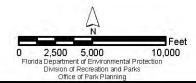
The resources administered by the Division are divided into two principal categories: natural resources and cultural resources. The Division primary objective in natural resource management is to maintain and restore, to the extent possible, to the conditions that existed before the ecological disruptions caused by man. The objective for managing cultural resources is to protect these resources from human-related and natural threats. This will arrest deterioration and help preserve the cultural resources for future generations to enjoy. The Desired Future Conditions Map is a graphic representation of the natural resource conditions that should exist in the park after restoration objectives outlined here have been achieved.

- **1.** Protect and monitor sensitive ravine habitats.
- **2.** Seek funding, through the Bureau of Natural and Cultural Resources to conduct a phase I archeological survey of the park.
- **3.** Conduct regular maintenance operations to remove the trash/litter that accumulates along the shoreline of the park.
- **4.** Conduct surveys of the biota to compile a more comprehensive list of the park's flora and fauna, and conduct surveys for listed species.









LAKE TALQUIN STATE PARK

- **5.** Remove invasive exotic species, concentrating initial efforts on areas along the lake shoreline, park entrance and ravines.
- 6. Develop and implement a restoration plan for the relict longleaf pine community. The Desired Future Conditions Map illustrates the area that should be restored to this natural community as a result of long-term restoration efforts at the park.
- 7. Monitor user impacts to sensitive areas such as the ravine systems.
- 8. Mark and fence park boundary.
- **9.** Work with the Leon County to prevent erosion along Jack Vause Road into the park.
- **10.** Cultural resource sites should be checked periodically for signs of illegal digging or artifact collection.

Management Measures for Natural Resources

<u>Hydrology</u>

Natural surface and subsurface drainage at the park are critical to the ecology of seepage streams and ravine systems. Management practices that continue to protect natural communities vital to local hydrology should help provide for the conservation of water resources and for the control and prevention of soil erosion. The Division will seek to route trails away from seepage streams and slope forests and keep recreational development from intruding into seepage streams to prevent erosion or other hydrological damage. Trails developed around slope forests and seepage streams should be constructed to protect sensitive slopes by using boardwalks and/ or other erosion mitigation methods. The park will also work to address the erosion along Jack Vause Road.

It should be noted that the Division does not have management authority for Lake Talquin. This responsibility is shared by the NWFWMD, the FFWCC and other branches of our agency. The Division will continue to be attentive to any near shore water quality conditions that may be related to the management of natural resources and recreational activities in the park. In addition, the Division will continue to cooperate with the other agencies that are directly responsible for managing Lake Talquin.

Prescribed Burning

The objectives of prescribed burning are to create those conditions that are most natural for a particular community, and to maintain ecological diversity within the unit's natural communities. To meet these objectives, the park is partitioned into burn zones, and burn prescriptions are implemented for each zone. The park burn plan is updated annually to meet current conditions. All prescribed burns are conducted with authorization from the Department of Agriculture and Consumer Services, Division of Forestry (DOF). Wildfire suppression activities will be coordinated between the Division and the DOF.

The reintroduction of fire is needed to make progress in the restoration of the sandhill community. Prior to the introduction of prescribed burning, sufficient fire breaks will need to be established and maintained. Initial burns will most likely only succeed in burning the areas of pine needle accumulation immediately encircling the longleaf pines. However, successive burns, along with selective hardwood removal, would likely help to improve habitat conditions for the pines. Specific habitat descriptions, objectives and restoration guidelines are incorporated into the District 1 burn plan. The burn plan for this park outlines annual prescribed fire objectives for each burn zone at each park.

Designated Species Protection

The welfare of designated species is an important concern of the Division. In many cases, these species will benefit most from proper management of their natural communities. At times, however, additional management measures are needed because of the poor condition of some communities, or because of unusual circumstances that aggravate the particular problems of a species. To avoid duplication of efforts and conserve staff resources, the Division will consult and coordinate with appropriate federal, state and local agencies for management of designated species. Specifically, data collected by the FWC and USFWS as part of their ongoing research and monitoring programs will be reviewed periodically to inform management of decisions that may have an impact on designated species at the park.

The slope forests, bluffs and seepage streams should be surveyed on a regular basis in order to monitor the status of the designated and/or uncommon species occurring in these communities. A regular herpetological survey is especially needed as certain amphibians can act as biological water quality monitors. Management practices that continue to protect and conserve these natural communities should be continued and encouraged.

Bald eagles have been both heard and sited at the northwestern bluff of the main parcel of the park. Surveys of listed bird species should be conducted regularly to identify nesting birds.

Buffer zones should be established around the slope forests and seepage streams to prevent impacts from development or other human disturbance to listed species found in these communities.

Exotic Species Control

Exotic species are those plants or animals that are not native to Florida, but were introduced because of human-related activities. Exotics have fewer natural enemies and may have a higher survival rate than do native species, as well. They may also harbor diseases or parasites that significantly affect non-resistant native species. Consequently, it is the strategy of the Division to remove exotic species from native natural communities.

Ardisia (*Ardisia crenata*) is found long the slope forests of the park. Since ardisia has just started to establish in the slope forests control is possible if the park is pro-active and constant in its removal efforts.

Wild taro (*Colocasia esculenta*) is found along the entire edge of Lake Talquin. Though removal efforts should be effective at this site, long-term monitoring and maintenance will be required to prevent new plants from re-colonizing the area. Removal would best be accomplished when coordinated with lake level drops, which would cause additional stress on the plants and limit residual effects of herbicide on the aquatic environments.

Parrot-feather (*Myriophyllum aquaticum*) has been found growing in the lower portions of the shallow seepage streams at the park. Removal efforts should be initiated as soon as possible before the plants begin to spread further upstream.

Water hyacinth (*Eichhornia crassipes*) is found floating throughout Lake Talquin. When plants drift along the shoreline of the park, they should be removed.

Cogon grass (*Imperata cylindrica*) is found along the roads leading to the park and has invaded into the park. Periodic monitoring should be conducted to ensure that this species does not spread into the park.

Climbing fern (*Lygodium jopanicum*) has been found on the powerline right-of-way on the western parcel, north of the hydroelectric dam. Climbing fern is difficult to control and can spread quickly. Treatment should be swift and constant.

Evidence of digging by armadillos is found throughout the park. Armadillos are carnivores consuming vast quantities of insects and invertebrates. Digging by armadillos in the ravines and seepage streams is a great concern to both the water quality and amphibians found living there. Removal of armadillos is recommended in order to protect the ravines and seepage streams.

Problem Species

Problem species are defined as native species whose habits create specific management problems or concerns. Occasionally, problem species are also a designated species, such as alligators. The Division will consult and coordinate with appropriate federal, state and local agencies for management of designated species that are considered a threat or problem.

Alligators may be considered a problem species when they interfere with recommended outdoor recreation at the park. Adequate signage is in place to inform visitors of the

potential for encountering nuisance alligators.

Other nuisance species occasionally encountered at the park include biting flies, yellow flies and mosquitoes. Problems with insects can usually be alleviated by wearing insect repellent.

Management Measures for Cultural Resources

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. 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, 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 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.

Primary management concerns regarding known cultural sites are erosion and looting. Park operations and natural resources management practices should be sensitive to these sites. Additionally, these sites should be periodically monitored in order to ensure that these areas are secure.

Research Needs

Natural Resources

Any research or other activity that involves the collection of plant or animal species on park property requires a collecting permit from the Department of Environmental Protection. Additional permits from the Florida Fish and Wildlife Conservation Commission, the Department of Agriculture and Consumer Services, or the U.S. Fish and Wildlife Service may also be required.

1. A more complete survey of biota is needed.

2. Water quality monitoring and recommendations for managing seepage streams are needed.

Cultural Resources

1. An archeological survey of the park is needed.

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 contained in Addendum 6. Cost estimates for conducting priority management activities are based on the most cost effective methods and recommendations currently available.

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 of the Internal Improvement Trust Fund are being managed for the purposes for which they were acquired and in accordance with the approved land management plan. The managing agency has considered the findings and recommendations of the land management review team in preparing this update of the management plan. On April 21, 1999, Lake Talquin State Park was subject to a land management review and the team made the following determinations:

- 1. The land is being managed for the purpose for which it was acquired.
- 2. The actual management practices, including public access, complied with the approved management plan for the park.

LAND USE COMPONENT

INTRODUCTION

Land use planning and park development decisions for the state park system are based on the dual responsibilities of the 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 visitors.

The general planning and design process begins with an analysis of the natural and cultural resources of the unit, and then proceeds through the creation of a conceptual land use plan that culminates in the actual design and construction of park facilities. Input to the plan is provided by experts in environmental sciences, cultural resources, park operation and management, through public workshops, and environmental groups. With this approach, the Division 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 described and located in general terms.

EXTERNAL CONDITIONS

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

Lake Talquin State Park is located in Leon County, about 14 miles west of Tallahassee in the panhandle of Florida. Nearly 400,000 Floridians reside within 50 miles of the park, which includes the cities of Tallahassee, Marianna, Chattahoochee, Havana, Quincy, Monticello, St. Marks, Blountstown and Apalachicola (Census, 2000). The populations of Leon County and the adjacent Gadsden, Liberty, and Wakulla Counties have grown 36 percent since 1990, and are projected to grow an additional 24 percent by 2020 (BEBR, University of Florida, 2005). The median age of Leon County is 29.5 years old, which is significantly younger than the state average of 39.6 years. Of significant note, 33 percent of the population of these four counties is of African-American ethnicity. Despite a relatively modest population size compared to other areas of the state, a strong projected growth rate combined with proximity to a large, rapidly growing urban center will only serve to produce additional demand for recreation services.

Lake Talquin State Park recorded 13,496 visitors in fiscal year 2005/2006. By DRP estimates, these visitors contributed \$610,317 in direct economic impact and the equivalent of 12.2 jobs to the local economy (Florida Department of Environmental Protection, 2006). Visitation dropped in 2005/2006 partly due to the closure of the boardwalk system while this facility has been under renovation. Typically, visitation peaks in April and October when the weather is most pleasant and is lowest during August and September when temperatures are highest. Picnicking and fishing are the most popular recreational pursuits here.

Existing Use of Adjacent Lands

Developed land adjacent to the park is limited primarily to low-density residential. Single-family homes line Jack Vause Landing Road leading into the park and within a new subdivision off Williams Landing Road, along the park's eastern border. The Florida Division of Forestry leases 65 acres adjacent to the northeast boundary of the park to the Girl Scout Council of the Apalachee Bend that operates a scout camp named "Camp for All Seasons." This camp is provided access from State Road 20 via Julow Lane, a dirt road that runs through the park along the eastern boundary. Private lands along the surrounding lake shoreline have been developed largely with weekend or vacation homes.

The park is located in an area with significant public lands stretching southwest of Tallahassee to the Gulf coast. These areas serve to protect surrounding natural resources, provide abundant recreation opportunities and potentially draw visitors to Lake Talquin State Park. Publicly managed lands in close proximity to the park include Lake Talquin State Forest with over 16,000 acres along the shoreline of Lake Talquin and the Ochlockonee River in western Leon and southern Gadsden Counties. The State Forest includes three Wildlife Management Areas that are managed under special agreement with the Florida Fish and Wildlife Conservation Commission. The Apalachicola National Forest lies a short distance south of the park and conserves 564,000 acres of Leon, Wakulla, Liberty and Franklin Counties. Both state and national forest lands offer a variety of resource-based recreational opportunities including hiking, fishing, boating, canoe/kayaking, horseback riding, nature observation, off-road bicycling, primitive camping, and hunting. A boat ramp, maintained by Leon County, is located at the end of Jack Vause Landing Road. Several other small county parks are scattered along the shoreline of Lake Talquin, including nearby Williams Landing, Coe's Landing, Hall's Landing and Pat Thomas Park at Hopkins Landing. Collectively, these areas provide additional lake access, camping, fishing and picnicking opportunities.

In addition, the Girl Scout's camp provides a lodge, cabins, swimming pool, horse barn

and trails, ball fields, archery range, arts and crafts room, canoe launch, and fishing platform to registered campers.

Planned Use of Adjacent Lands

The Future Land Use Map in the Tallahassee-Leon County Comprehensive Plan (2004) designates lands adjacent to the park as Lake Talquin Recreation/Urban Fringe. This land use classification is limited to the eastern shore of Lake Talquin north of State Road 20 and provides density limits of one unit per three acres or one unit per acre if development is clustered on site. The designation is intended to protect this environmentally sensitive area until a critical area study is completed, at which time allowable uses and densities may be reassessed. This area currently lies outside the urban service area; it is characterized by low-density residential, open space, and agricultural uses. Intensification of development can be expected at some point in the future, as urban services are extended into the fringe to accommodate growth westward from the City of Tallahassee. Land across the lake in Gadsden County, within the viewshed of the park, is designated as Conservation and Agricultural (Gadsden County, 2003).

Access to the park from State Road 20 is from Jack Vause Landing Road, a narrow dirt roadway maintained by Leon County with steep drainage ditches along its length. Its current condition is not suitable for use by large recreational vehicles. Leon County has plans to stabilize the road in 2007; however, this improvement is contingent on acquiring the necessary right-of-way. The Division will encourage the County to pursue road improvements that will maximize the safety and reliability of this access route.

PROPERTY ANALYSIS

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

Recreation Resource Elements

This section assesses the unit's recreation resource elements those physical qualities that, either singly or in certain combinations, supports the various resource-based recreation activities. Breaking down the property into such elements provides a means for measuring the property's capability to support individual recreation 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 is composed of three disjunct properties. The only property

with public access is bisected by Jack Vause Landing Road, with all of the recreational facilities west of the road. This 382-acre area is also known as the River Bluff State Picnic Site and is the focus of this management plan. Another 42 acres is located south of the picnic area across Polk Creek. This property has no vehicular access. The 125-acre dam parcel accounts for the remaining land. The City of Tallahassee subleases this property and manages the hydroelectric dam.

With the exception of several seepage streams, the majority of the park acreage consists of uplands. The environmental sensitivity presented by the natural communities and topography associated with ravines and bluffs requires the careful siting of recreation facilities.

Water Area

Lake Talquin was created in 1927 by impounding the Ochlockonee River thus inundating the river floodplain. The lake provides a variety of boating and fishing opportunities. Facilities within the park include the lake boardwalk and boating/fishing dock that offer scenic views, boater access and shoreline fishing opportunities. A boat ramp, currently maintained by Leon County, is located at the end of Jack Vause Landing Road.

The park steephead ravines contain seepage streams, which add to the aesthetic quality of the visitor's experience. These systems are environmentally sensitive and their use as a recreational amenity is limited. Trails, boardwalks and overlooks could provide access in these areas, but should be designed to minimize any impact to the resource.

Shoreline

The park contains over two miles of shoreline along Lake Talquin. High bluffs and slope forests line the shoreline. Wave action is undercutting portions of the bank and threatening the boardwalk overlook.

Natural Scenery

The park's location along Lake Talquin and the presence of elevated topography provide sweeping vistas of the lake not often seen in Florida. The uplands of the park grade into a heavily canopied slope forest containing some impressive sized hardwoods. Ravines add additional changes to the topography, and produce a cooler microclimate that contains unique plant communities and several, clear, narrow streams. The distinct differences between these communities provide variety in the natural setting and provide opportunities for interpretation.

Significant Wildlife Habitat

Lake Talquin provides habitat for a variety of water dependent fauna. Large congregations of waterfowl are frequently seen feeding and resting on the lake. The ravine systems provide cool, damp conditions that support unique groupings of plants and animal species similar to that of the Appalachian Mountains. It is possible that the

seepage streams provide habitat for rare amphibians. These habitats offer opportunities for wildlife viewing and interpretation.

Natural Features

Lake Talquin is the most recognizable natural feature of the park. However, the bluffs are unique, particularly since opportunities to experience elevated natural features are rare in Florida. Erosion from historic meandering of the Ochlockonee River created the bluffs that rise impressively up to 20 feet in elevation along the shoreline of the park. The bluffs provide attractive vantage points for scenic views and unique opportunities for interpretation. Additionally, drainage from the uplands of the park has contributed to the system of steephead ravines cutting through the slope forest, creating an area of unique botanical significance. The recreation and interpretive potential of these natural features is not being realized. Park facilities could expose visitors to these habitats with a strong emphasis on interpretation.

Archaeological and Historical Features

Three cultural sites have been identified within the park and should be investigated for interpretive opportunities.

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 (formerly 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.

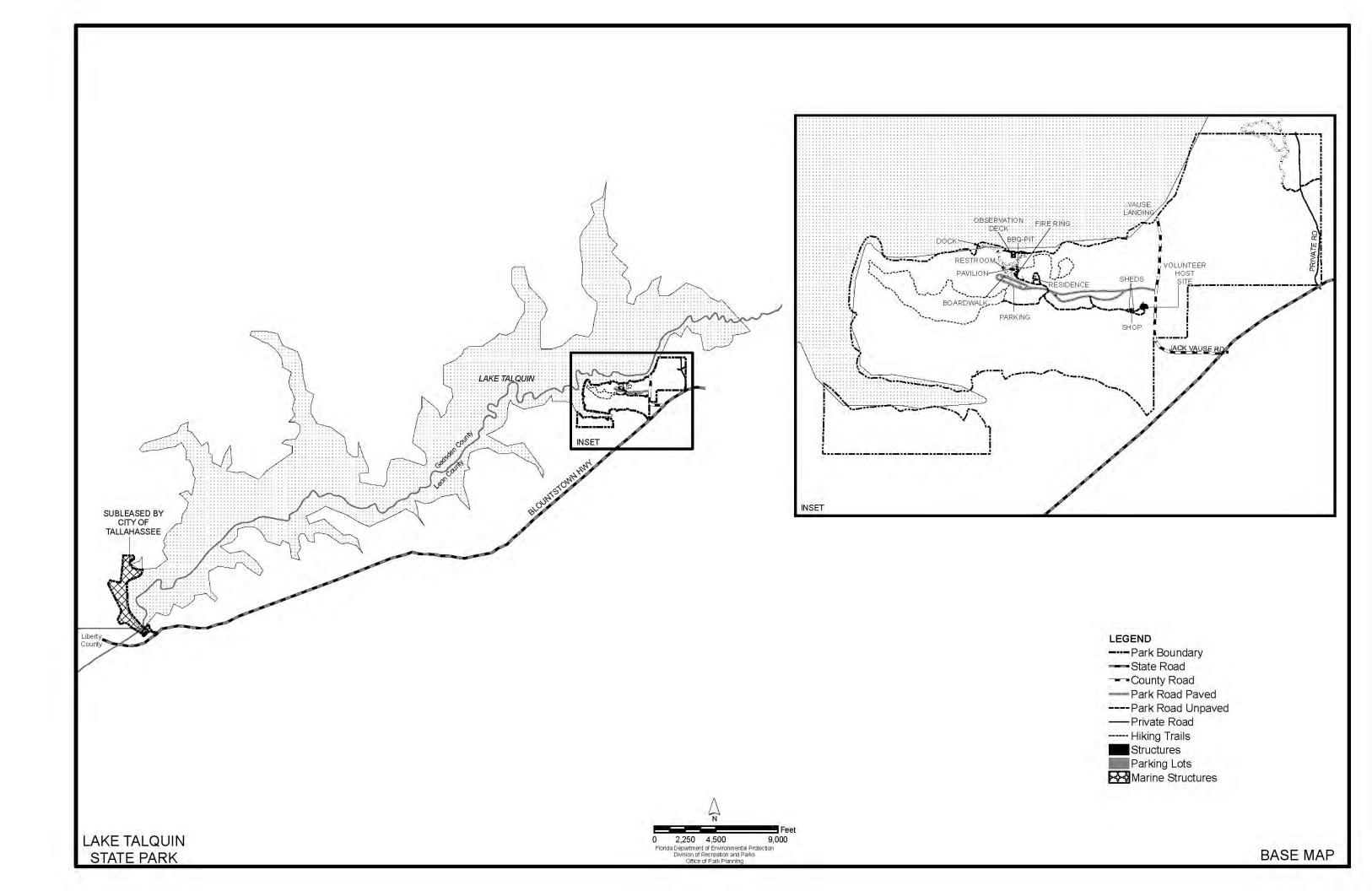
Recreational Uses

The park has served primarily as a picnic site, with facilities available for group reservation. However, fishing, boating, hiking and nature observation opportunities are also available.

Other Uses

The City of Tallahassee leases the property at the south end of Lake Talquin that contains the hydroelectric dam and associated buildings.

The Girl Scout Council of the Apalachee Bend is 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 at the end of Jack Vause Landing Road.

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 the bluffs, ravines, seepage streams and slope forest have been designated as protected zones as delineated on the Conceptual Land Use Plan. Appropriate signage and fencing will be utilized to protect these areas where deemed necessary.

Existing Facilities

Recreation Facilities

Existing recreational facilities are concentrated within the picnic area. A large picnic pavilion, BBQ shelter, fire ring and additional scattered picnic tables support public use of the park. Access to the water is provided by approximately 700 feet of boardwalk, a small observation deck and a small boating/fishing dock. A short nature trail loops around a nearby ravine. An additional nature trail leads visitors from the picnic area to a scenic point at the northwest corner of the park. This trail was recently completed as part of an Eagle Scout project. A county-maintained boat ramp is located at the end of Jack Vause Landing Road.

Wooden structures, including the boardwalk, dock and observation deck are currently under renovation. The existing nature trail should be cleared and improved. Consideration should be given to reconfiguring the trail to minimize impacts to an adjacent ravine and to connect efficiently with proposed trail facilities.

Support Facilities

Support facilities include paved parking at the picnic area for 70 vehicles, a restroom, a ranger residence and several shop structures. A volunteer host campsite with full hookups has been established to help recruit volunteers to assist park staff. The picnic site is accessed via a paved road that extends west from Jack Vause Landing Road. A service road provides access to the shop area, the volunteer site and the western end of the property.

The following is a listing of existing recreation and support facilities:

Recreation facilities

Picnic pavilion (24 tables) Scattered picnic tables and grills BBQ shelter Lake boardwalk (700 ft)

Support facilities

Paved picnic area parking (70 spaces) Picnic area restroom Ranger residence Volunteer host site Two-bay shop Observation deck Boating/fishing dock Nature trail (1.5 mile)

Flammable storage building Storage sheds (2) Utility shed/office Water well Paved park drive (0.8 mi.)

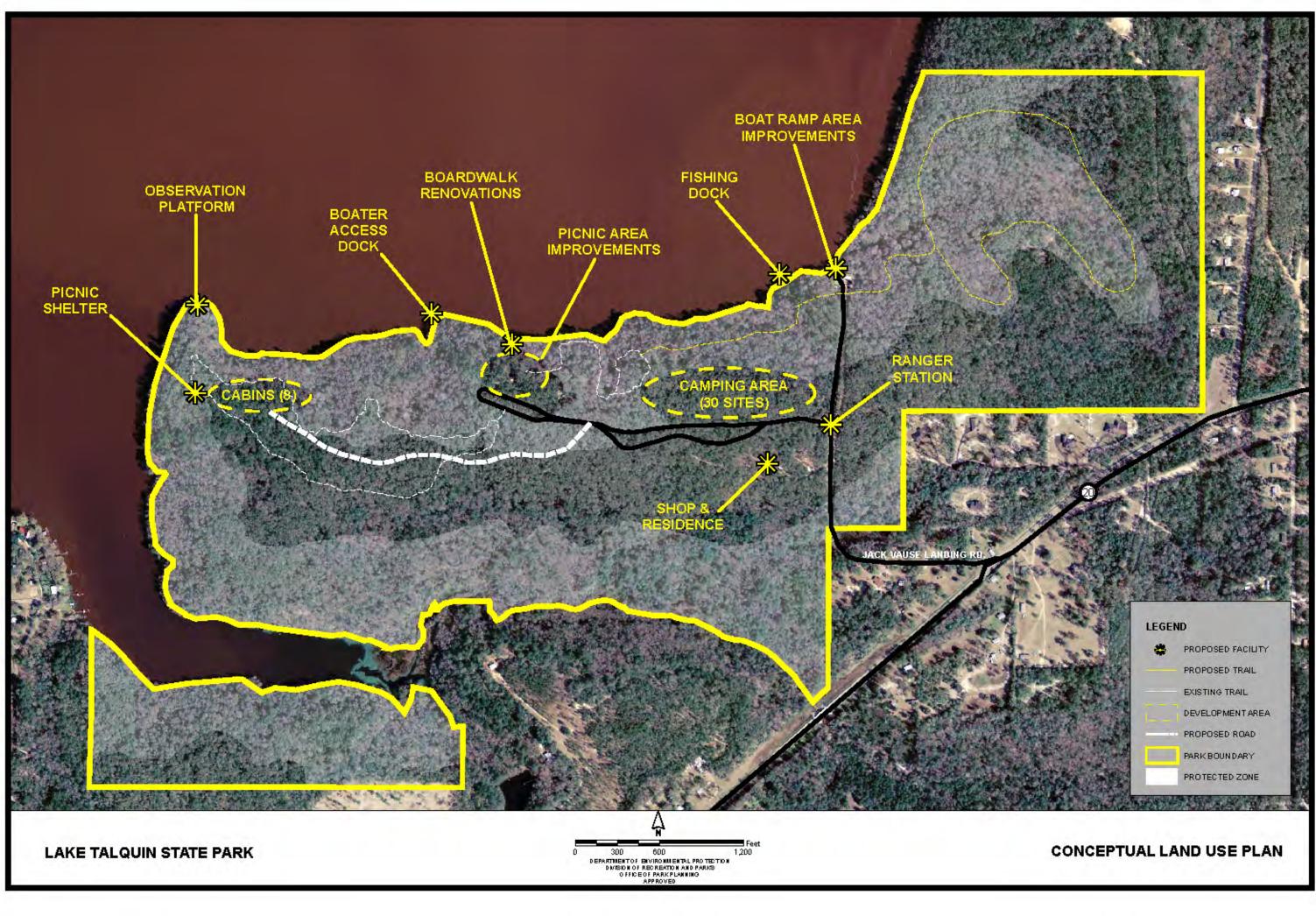
CONCEPTUAL LAND USE PLAN

The following narrative represents the current conceptual land use proposal for this park. As new information is provided regarding the environment of the park, cultural resources, recreational use, and as new land is acquired, the conceptual land use plan may be amended to address the new conditions (see Conceptual Land Use Plan). A detailed development plan for the park and a site plan for specific facilities will be developed based on this conceptual land use plan, as funding becomes available.

During the development of the unit management plan, the Division assesses potential impacts of proposed uses on the resources of the property. Uses that could result in unacceptable impacts are not included in the conceptual land use plan. Potential impacts are more thoroughly identified and assessed through the site planning process once funding is available for the development project. At that stage, design elements, such as sewage disposal and stormwater management, and design constraints, such as designated species or cultural site locations, are more thoroughly investigated. Advanced wastewater treatment or best available technology systems are applied for on-site sewage disposal. Stormwater management systems are designed to minimize impervious surfaces to the greatest extent feasible, and all facilities are designed and constructed using best management practices to avoid impacts and to mitigate those that cannot be avoided. Federal, state and local permit and regulatory requirements are met by the final design of the projects. 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, the park staff monitors conditions to ensure that impacts remain within acceptable levels.

Potential Uses and Proposed Facilities

In the past, the park has been utilized primarily for picnicking, fishing and group functions. The unusual landscape features and rich botanical diversity of this site supports the establishment of additional facilities to enhance recreational and



educational uses. However, the presence of rare plants and sensitive habitats demands a cautious approach to planning additional park development.

The following proposed facilities and recreational opportunities could be provided at the park in a manner that would be sensitive to its resources. An interpretive trail system with scenic boardwalks and an observation deck is proposed to highlight the unique natural communities and landscape features of the park. Cabins and a camping area are recommended to allow for extended visits and to encourage exploration of park resources and the waters of Lake Talquin.

Recreation Facilities

Boardwalk and Picnic Area. The lake boardwalk is an important recreational amenity of the Lake Talquin State Park. It allows visitors to walk along the lake edge, fish along the shoreline, and experience an unimpeded view across the lake. An effort is underway to renovate this structure to ensure visitor safety. In addition, the shoreline in this vicinity is experiencing erosion most likely exacerbated by wave action from boat traffic. Erosion areas should be studied and consideration given to measures that may mitigate this problem.

The existing observation platform and boating/fishing dock has also been identified for improvements. The observation platform is experiencing considerable erosion at its base. This platform should be moved back a few feet from the edge of the bluff and expanded to provide a safe viewing opportunity for multiple visitors at one time. This platform as well as the path from the picnic area should be enhanced to provide ADA accessibility. The boating/fishing dock has also shown signs of deterioration and is currently under renovation. In addition, the dock should be expanded to provide slips for up to six boats.

The picnic site is an attraction that draws families and groups; however, there is only one large pavilion. Two additional small pavilions are recommended for the picnic area as well as screening of the existing large pavilion. Playground equipment is also recommended to provide an additional incentive for families with children to visit the park.

Trails and Interpretation. A system of loop trails is proposed that would link both existing and proposed use areas. Interpretive signs are proposed to orient trail users and provide information regarding the unique natural features along the trails. The park's bluffs and steephead ravines should be featured, including an emphasis on the sensitivity of these systems to human disturbance.

An interpretive kiosk is recommended for the picnic area that discusses the natural communities of the park and the management efforts to protect them. The value of interpretive facilities in the picnic area is supported by the fact that the majority of

visitors are concentrated in this area. A recently completed nature trail begins at the picnic area and winds through the slope forest, and around a few ravines, leading eventually to the northwestern corner of the park where bluffs provide a unique vantage point above Lake Talquin. An improved view at this location would significantly add to the recreational value of the trail. Currently, trees along the steep shoreline partially obstruct a view of the lake. Thinning of low branches, trees and shrubs is recommended at this site and an observation platform is proposed to enhance the viewing opportunity. Due to the presence of sensitive plant communities in this area, the Bureau of Natural and Cultural Resources (BNCR) and Bureau of Design and Construction (BDC) will coordinate rare plant surveys prior to the design and construction of the platform. Potential safety, erosion problems and impacts to unique plants require appropriate signage and fencing to control visitor behavior. Interpretive signage is recommended to highlight the processes contributing to the formation of the bluffs and their role as habitat for unique plant communities. This trail loops back to the picnic area.

An interpretive trail is also proposed for the east side of the Jack Vause Landing Road, highlighting the unique flora and fauna of the steephead ravines. The trail should be designed in a manner that provides controlled access to the ravine but limits the impact to the surrounding environment. The trail would follow the natural landscape contours of the slope forest, guide the visitor along the edges of the ravines and provide views of the seepage streams. One or two boardwalk crossings are proposed to allow visitors an opportunity to experience the changes in vegetation and microclimate that occur as one descends into the ravine. However, if adequate funding is not provided to construct structures needed to protect the ravine topography, then the proposed trails could be routed along the top edges of the ravine slopes. It is envisioned that users will walk away from this trail with an enhanced knowledge about slope forests, steephead ravines, and an intimate appreciation for the unique nature of these systems.

Cabins. Eight lakeview cabins are recommended near the bluffs along the northwestern shoreline of the park. The hardwood forest canopy and unique elevation overlooking Lake Talquin provides an ideal scenic setting for overnight accommodations. One or two medium picnic shelters are recommended nearby for use by cabin guests and trail users. Vehicle access should be provided with parking accommodated near each cabin. The design and exact location of the cabins should be done in a manner that blends well with the wooded setting and is sensitive to the potential impacts to rare plants that may be present in this area. This will require coordination between the park staff, District staff, BNCR and BDC so that appropriate pre-siting biological surveys are conducted to identify resource sensitive areas. In order to minimize water quality impacts and degradation of surrounding hydrological features, project site characteristics will be investigated more thoroughly during the engineering and design stage and the best available wastewater treatment and stormwater management technology applied.

Camping Area. A 30-site camping area with bathhouse is recommended for the area north of the existing park road between the Vause Landing boat ramp and the picnic area. A fishing dock on the lake, north of the proposed camping area and within a short distance of the boat ramp area, is recommended as an additional amenity for overnight visitors as well as day-use fishermen. An accessible trail/boardwalk would link the campground to the fishing dock. However, due to constraints posed by Jack Vause Landing Road, most RV's would not be able to access this camping area unless significant improvements are made to the road. The Division will discuss this issue and potential solutions with Leon County who currently maintains this road.

The design and exact location of the campsites should blend well with the wooded setting and be sensitive to the potential impacts to rare plants that may be present in the area. This will require coordination between the park staff, District staff, BNCR and BDC so that appropriate pre-siting biological surveys are conducted to identify resource sensitive areas. In addition, once the camping area is developed, appropriate signage, fencing and/or boardwalks may become necessary to control visitor behavior within identified sensitive areas.

Boat Ramp. Vause Landing is a county maintained boat ramp located at the terminus of Jack Vause Landing Road. This small boat ramp has no facilities and little area for parking. It is the desire of the Division to manage this boat ramp as part of Lake Talquin State Park. The Division will discuss with Leon County the potential transfer of management of Vause Landing as well as the portion of Jack Vause Landing Road that is within the boundary of the state park. Once accomplished, this plan recommends improving the boat ramp area by expanding and organizing the boat trailer parking area, to the extent possible, and providing small picnic shelters and a restroom. The boat ramp parking area should also serve for day-use fishermen that will use the proposed, adjacent fishing dock.

Support Facilities

Ranger Station. Currently, the park contains no entrance station or administrative office space. As the proposed use areas are developed, a ranger station with office space will need to be constructed to manage these new use areas and the expected increase in visitation.

Maintenance Area. A new 4-bay shop building is recommended to help support the management of the park and serve as a support building for the proposed cabin area. A new staff residence and two additional volunteer campsites are also recommended for the maintenance area to support the management of the park.

Road to Proposed Cabin Area. In order to provide vehicular access to the proposed cabin area, a new park road is needed. To the extent practical and possible, the road

may follow an existing unimproved jeep trail. The design of the road project will also take into consideration the topography of the area, surface hydrology, and the sensitivity of park resources.

Facilities Development

Preliminary cost estimates for the following list of proposed facilities are provided in Addendum 6. These cost estimates are based on the most cost-effective construction standards available at this time. The preliminary estimates are provided to assist the Division in budgeting future park improvements, and may be revised as more information is collected through the planning and design processes.

slips)

Small picnic pavilions (2)

Playground equipment

Interpretive trail signs (10)

Medium picnic shelters (2)

Observation platform

Fishing dock

Interpretive kiosk

Screened walls for existing pavilion

Picnic Area

Boardwalk renovation (700 ft.) [in progress] Observation platform renovation and ADA access Boating/fishing dock renovation (6

Proposed Trail

Nature trail (2 miles) Ravine boardwalk crossings (2)

Cabin Area Cabins w/furnishings (8)

Camping Area Campsites (30)

Bathhouse (1)

Boat Ramp Area

Small picnic shelters (2) Restroom

Support Facilities

Ranger station w/office Shop building (4 bays) Residence Volunteer campsites (2) Access road to cabins (0.5 mi.)

Parking (20 vehicles w/trailer)

Accessible trail/boardwalk (500 ft.)

Existing Use and 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 1). The 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.

Table 1Existing Use And Carrying Capacity						
	Existing <u>Capacity</u>		Proposed Additional Capacity		Estimated Optimum <u>Capacity</u>	
Activity/Facility	One Time	Daily	One Time	Daily	One Time	Daily
Trails	10	40	25	50	35	90
Picnicking	144	288	24	48	168	336
Fishing	20	40			20	40
Boating	8	16	56	112	64	128
Camping			240	240	240	240
Cabins			48	48	48	48
TOTAL	182	384	393	498	575	882
		Ontimu	n Bounda	***		

Optimum Boundary

As additional needs are identified through park use, development, research, and as adjacent land uses change on private properties, modification of the unit's optimum boundary may occur for the enhancement of natural and cultural resources, recreational values and management efficiency. At this time, no lands are considered surplus to the needs of the park.

Leon County currently manages the boat ramp located at the end of Jack Vause Landing Road on property that is owned by the state. The Division would like to manage this boat ramp area as well as the portion of Jack Vause Landing Road that is located within the park boundary. The property along the south side of Jack Vause Landing Road between State Road 20 and the park boundary is also identified as optimum boundary. Incorporating these areas into the management of the state park would provide an opportunity to improve public access, enhance the recreational opportunities available at the park and provide a better location for the proposed ranger station. Addendum 1 – Acquisition History and Advisory Group Staff Report

Purpose of Acquisition

The Board of Trustees of the Internal Improvement Trust Fund of the State of Florida (Trustees) acquired Lake Talquin State Park to manage the property to protect and restore the natural and cultural values of the property for the benefit of the citizens of the state.

Sequence of Acquisition

On December 14, 1970, the Trustees obtained title to a 10,690.90-acre property that became Lake Talquin State Recreation Area (now Lake Talquin State Park). The Florida Power Corporation donated the property to the Trustees.

Management Leases

On June 8, 1971, the Trustees leased Lake Talquin State Park to the Division of Recreation and Parks (Division) under Lease No. 2537. This 99-year lease will expire on June 7, 2070.

On June 28, 1993, the Division released its leasehold interest in a large portion (10,139.90 acres) of Lake Talquin State Park. Currently the Division manages only the 425.78-acre River Bluff Recreation Area on the Leon County Side of the lake and the 125.75-acre Jackson Bluff Hydroelectric Dam site, which together constitute 551.53 acres. The Jackson Bluff Hydroelectric Dam site has been subleased to the City of Tallahassee and is under the city's control and management.

According to Lease No. 2537, the Division manages Lake Talquin State Park for conservation and protection of natural and historical resources of the park and to provide resource-based public outdoor recreation that is compatible with the conservation and protection of the property.

Title Interest

The Trustees hold fee simple title to Lake Talquin State Park.

Special Conditions on Use

Lake Talquin State Park is designated single-use to provide resource-based public outdoor recreation and other related uses. Uses such as water resource development projects, water supply projects, stormwater management projects, linear facilities and sustainable agriculture and forestry (other than those forest management activities specifically identified in this plan) are not consistent with this plan or the management purposes of the park. There are no outstanding rights, reservations and encumbrances that apply to Lake Talquin State Park.

The Advisory Group meeting to review the proposed land management plan for Lake Talquin State Park was held at the Fort Braden Community Center in Tallahassee, Florida on February 28, 2007 at 9am. Chairman Ed DePuy (Leon County Board of County Commissioners) was represented by Commissioner Jane Sauls. Ken Weber (Florida Division of Forestry) was represented by Steve Oswalt. Dr. John Himes (Florida Fish and Wildlife Conservation Commission) and Mary Holdeen (Girl Scout Council of Apalachee Bend) did not attend. All other appointed Advisory Group members were present. Also in attendance were DeLaney Griffith, Pat Plocek, and Dale Walker. Attending staff from the Division of Recreation and Parks included Danny Jones, Eric Kiefer, Tova Spector, Barry Burch, and Brian Burket.

Mr. Burket began the meeting by explaining the purpose of the Advisory Group and reviewing the meeting agenda. He provided a brief overview of the Division's planning process and summarized public comments received during the previous evening's public workshop. He then asked each member of the advisory group to express his or her comments on the plan.

Summary of Advisory Group Comments

Guy Thompson (Leon County Tourism Development Council) voiced support for attracting more visitors to the state park and Leon County in general. He mentioned that funds may be available to help the park "tell the story" and promote the park programs.

Commissioner Jane Sauls (Leon County Board of County Commissioners) expressed her excitement about the park's potential and support of the proposed camping area. She asked about the timeline for implementing new development at the park. Mr. Burket explained that the conceptual land use plan is a long-term vision for the park and that no funds have been identified to develop any of the proposed, new use areas. Commissioner Sauls inquired if the county should proceed with their plans to stabilize Jack Vause Landing Road. Mr. Jones replied that the county should proceed with their road improvement plans.

Richard Graham (Florida Trail Association) recommended either hard-packing or paving the new hiking trail from the parking lot to the northwest corner of the park to support the expected increase in park visitation that would come when new use areas are developed. He recommended routing future trails away from the ravines and providing overlooks and fencing to showcase the park's resources without letting visitors down the steep slopes thus causing erosion. He expressed support of additional kiosks and interpretive signage.

Blas Gomez (Ochlocknee River, Soil and Water Conservation District) commented that stormwater management and wastewater treatment are important issues at this

park, and careful consideration should be given when new use areas are designed. He also warned about potential erosion problems within the sloped areas of the park.

Claude Griffith (adjacent landowner) commented, "Get on with the program."

David Mock (fishing representative) described the existing conflict between fishermen using the dock at the boat ramp and boaters attempting to launch/land their boats. Mr. Burch responded that this is an operational and enforcement issue that could be addressed by park staff if the boat ramp was managed as part of the state park. Mr. Mock suggested that a separate fishing dock and associated parking be established in the park to alleviate the conflict at the ramp area. He commented that Gadsden County is currently getting most of the boating/fishing business since they offer the only launching areas on the lake with adequate boat trailer parking and boat tie-ups to support large groups and events. He stated that most fishermen would prefer to stay on the Leon County side of the lake and would use facilities at the state park if the boat ramp area is improved and expanded. He expressed his support for the proposed cabins and believed they would be popular with fishing clubs. He requested that the cabin area provide parking for boat trailers and include electric hook-ups for recharging boat batteries.

Elizabeth Platt (Apalachee Audubon Society) commented that Lake Talquin State Park is beautiful. She cautioned that the camping area bubble on the conceptual plan seems too large for the area and has concerns with the topography there. She also voiced concern over the location of the proposed cabins. Mr. Burket explained that the areas identified for camping and cabins were carefully considered by Division staff and confirmed that the selected areas are flat. Ms. Platt identified that the Tallahassee area is the number one birding location in the state and ranked third nationally and expressed in interest to organize a birding field trip to the park.

Steve Oswalt (Florida Division of Forestry) expressed his support of exotic species control efforts at the park and stated that climbing fern is a major problem in the nearby state forest. He also expressed support for the sandhill restoration and offered to provide assistance.

Linda Jamison (Sierra Club) discussed her concerns over the use of Round-Up herbicide to treat exotic plants due to recent evidence of its impact on amphibians. Ms. Spector responded that the park uses Rodeo brand in areas near water. Ms. Jamison expressed her appreciation for the excellent planning and research that goes into developing state park management plans. She commented that she likes the idea of screening the large shelter. She commented that she enjoyed hiking the new trail and appreciates the ongoing effort to renovate the boardwalk, especially the non-slip surface of the decking. She mentioned that the new trail signage is good but requested trail mileage markers. She asked if many trees would be removed during the development

of the cabin area. Mr. Burket replied that selective tree removal would be necessary but that most of the larger trees would remain since their presence is one of the attractive qualities about the site. Ms. Jamison asked if composting restrooms could be included in the design of the cabins. Mr. Jones responded that this type of restroom does not work well for cabins due to volume of use and potential to smell bad. Ms. Jamison suggested that the park construct a narrow road to the cabin area and provide golf carts instead of paving a wider road. She then asked if user fees would be collected at the park. Mr. Kiefer replied that once new use areas are developed, fees would be implemented. Ms. Jamison expressed concerns regarding children playing near the steep slopes of the bluffs as well as in the waters of Lake Talquin. She stated that she was impressed with the number of listed species in the park.

Barry Burch (Lake Talquin State Park) thanked the advisory group for their comments and their support of the state park.

Summary of Additional Comments

Dale Walker (Leon County Director of Operations) suggested that the state and county begin an open dialogue regarding the future improvements and management of Jack Vause Landing Road. He pointed out that there is now an opportunity to coordinate the design of the current county road improvement project with the state's long-term conceptual plans for the park.

DeLaney Griffith (adjacent landowner) voiced her support for the proposed facilities. She stated that the quality and experience offered in the proposed camping area would be different from what is already available at the county campgrounds around the lake. She questioned whether thirty sites will be sufficient for the proposed camping area. Mr. Burket responded that thirty are proposed initially but that an expansion could be considered in the future if demand warrants and the impacts to the resources are evaluated.

Pat Plocek (Leon County Director of Parks and Recreation) identified that the countymaintained boat ramp is actually on state land and is supportive of transferring management back to the state. He confirmed that there is a need for additional family camping opportunities and boater access around the lake. He then offered numerous recommendations regarding the conceptual land use plan for the park including: locate the cabin area across the road from the proposed camping area; provide ceiling fans in the large shelter rather than screening it; reevaluate the location of the fishing dock; provide parking near the proposed fishing dock; expand the boat trailer parking area to the extent possible; and relocate the boat slips near the boat ramp.

Staff Recommendations

The staff recommends approval of the proposed management plan for Lake Talquin State Park with the following revisions:

Fishing Dock. The location of the proposed fishing dock has been moved five hundred feet to the east, closer to the boat ramp. Division staff believes this new location is an improvement for numerous reasons: 1) it would provide fishing access to deeper water; 2) it should solve the current conflict between fishermen and boaters at the boat ramp by providing a separate dock designed specifically for fishermen while still in close proximity to the boat ramp area; 3) day-use parking for fishermen could be provided at the adjacent boat ramp area; and 4) it would still serve the overnight guests in the proposed camping area.

Support Facilities. In addition to the proposed shop building, an additional staff residence and two volunteer campsites are recommended for the existing support area that would be needed as new use areas are developed in the park.

The Honorable Ed DePuy, Chairman Leon County Board of County Commissioners 301 South Monroe Street, 5th Floor Tallahassee, Florida 32301

Represented by:

Commissioner Jane G. Sauls Leon County Board of County Commissioners 301 South Monroe Street Tallahassee, Florida 32301

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Blas Gomez, Chairman Ochlockonee River Soil and Water Conservation District 308 Sweetbriar Drive Tallahassee, Florida 32312 Dr. John Himes Non-Game Biologist, Northwest Region Florida Fish and Wildlife Conservation Commission 3911 Highway 2321 Panama City, Florida 32409-1658

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Linda Jamison, Group Chair Sierra Club, Big Bend Group 8469 Lake Atkinson Drive Tallahassee, Florida 32310

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Guy P. Thompson, Executive Director 106 East Jefferson Street Tallahassee, Florida 32301

Mary Holdeen, Camp Administrator Girl Scout Council of Apalachee Bend 250 Pinewood Drive Tallahassee, Florida 32303

Claude Griffith 14829 Jack Vause Landing Road Tallahassee, Florida 32310 Addendum 2—References Cited

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Addendum 3—Soils Descriptions

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

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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

A 3 - 4

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

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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.

Swamp – Swamp consists of very poorly drained soils that are wet most of the time. Only two areas are mapped in the county. One area is adjacent to the Ochlockonee River in the eastern part of the county. The other is at the southern edge of Lake Talquin in the southeastern part. Swamp is on first bottoms that flood frequently. Because of excess water and thick vegetation, it is not feasible to examine the soils in this unit thoroughly. The soils that make up the mapping unit have not been classified. They consist of a mixture of sediments deposited by flood waters from overflowing streams.

The surface layers in most places consist of dark, strongly acid soil material 6 to 12 inches thick. The underlying material varies in color and in texture.

The native vegetation consists chiefly of sweetgum, cypress, bay, low shrubs, and vines. Because they are poorly drained and flood frequently, these areas are best suited as woodland.

Addendum 4—Plant And Animal List

Primary Habitat Codes

Common Name	Scientific Name	(for designated species)
Slender Threeseed Mercury	Acalypha gracilens	
Paraguay Starburr	Acanthospermum australe	
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	Agalinis fasciculata	
Slenderleaf False Foxglove	Agalinis tenuifolia	
White snake root	Agaratina altissima	
Hammock Snakeroot	Ageratina jucunda	
Spring bentgrass	Agrostis hiemalis	
Autumn bentgrass	Agrostis perennans	
Silktree, Mimosa	Albizia julibrissin*	
Hazel alder	Alnus serrulata	
Alligatorweed	Alternanthera philoxeroides*	
Common ragweed	Ambrosia artemisiifolia	
Peppervine	Ampelosis arborea	
Blue dogbane	Amsonia ciliata	
Bushy beardgrass	Andropogon glomeratus	
Silver bluestem	Andropogon ternarius	
Broomsedge	Andropogon virginicus	
Groundnut	Apios americana	
Nodding-nixie	Apteria aphylla	
Devil's walkingstick	Aralia spinosa	
Coral ardisia	Ardisia crenata*	
Green dragon	Arisaema dracontium	
Jack-in-the-pulpit	Arisaema triphyllum	
Arrowfeather threeawn	Aristida purpurescens	
Switchcane	Arundinaria gigantea	
Cane	Arundinaria stricta	
Milkweed	Asclepias perennis	
Butterfly weed	Asclepias tuberosa	
Redring Milkweed	Asclepias variegata	
Ebony spleenwort	Asciepius vanegaia Asplenium platyneuron	
Small-leaf astor	Aspentum platyneuron Aster adnatus	
Eastern silver aster	Aster concolor	
Bushy astor	Aster dumosus	
Southern lady fern	Athyrium filix-foemina	
Yellow foxglove	Aureolaria flava	
Foxglove	Aureolaria pedicularis	
Downy Yellow False Foxglove	Aureolaria virginica	
Common Carpetgrass	Axonopis affinis	
Salt myrtle/Sea myrtle	Baccharis halimifolia	
Blue hyssop	Bacopa caroliniana	
Soft Greeneyes	Berlandiera pumila	

Common Name

Scientific Name

Primary Habitat Codes (for designated species)

River birch	Betula nigra
Beggarticks	Bidens alba
Cross vine	Bigonia capreolata
Southern grapefern	Bitrychium biternatum
Galse-nettle, bog hemp	Boehmeria cylandrica
Buttonweed	Borreria laevis
Rattlesnake fern	Botrychium virginianum
Eardrop vine	Brunnichia ovata
Blueheart	Buchnera floridana
Capillary Hairsedge	Bulbostylis ciliatifolia
Sedge	Bulbostyllis spp.
Black haw, gum bumelia	Bumelia lanuginosa
Beautyberry	Callicarpa americana
Straggler Daisy	Calyptocarpus vialis*
Trumpet-vine, cowitch	Campsis radicans
Bromelike Sedge	Carex bromoides
Sandywoods Sedge	Carex dasycarpa
White-fruit Sedge	Carex debilis
Slender Woodland Sedge	Carex digitalis
Fescue Sedge	Carex festucacea
Prickly Bog Sedge	Carex howei
Owlfriut sedge	Carex stipata
Caric sedge	Carex sp.
Vanillaleaf	Carphephorus odoratissimus
Ironwood	Carpinus caroliniana
Water hickory	Carya aquatica
Pignut hickory	Carya glabra
Mockernut hickory	Carya tomentosa
Chinquapin	Castanea pumila
Sugarberry	Celtis laevigata
Sanddune sandbur	Cenchrus tribuloides
Intelligence plant	Centella asiatica
Butterfly-pea	Centrosema virginianum
Buttonbush	Cephalanthus occidentalis
Redbud	Cercis canadensis
Partridge pea	Chamaecrista fasciculata
Partridge pea	Chamaecrista nictitans
Eyebane	Chamaesyce hyssopofolia
Milk purslane	Chamaesyce maculata
Spike grass	Chasmanthium latifolium
Slender woodoats	Chasmanthium laxum
Longleaf chasmanthium	Chasmanthium sessiliflorum
Fringe-tree, old man's beard	Chionanthus virginicus
Twospike fingergrass	Chloris floridana
Pinewoods fingergrass	Chloris petraea
Golden aster	Chrysopsis gossypina
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Common Name	Scientific Name	Primary Habitat Codes (for designated species)
Maryland golden aster	Chrysopsis mariana	
Water-hemlock	Cicuta mexicana	
A virgin's bower	Clematis catesbyana	
Leather-flower	Clematis crispa	
Sweet pepperbush	Clethra alnifolia	
Butterfly pea	Clitoria mariana	
Tread softly	Cnidoscolus stimulosus	
Taro	Colocasia esculentum*	
Blueridge horsebalm	Collinsonia serotina	
Virginia dayflower	Commelina virginica	
Mistflower	Conoclinium coelestinum	
Squaw root	Conopholis americana	
Horseweed	-	
Roughleaf dogwood	Conyza canadensis var. pusilla Cornus asperifolia	
	1 0	
Flowering dogwood	Cornus florida	
Stiff-cornel dogwood Summer haw	Cornus foemina	
	Crataegus flava Crataegus marshallii	
Parsley haw Haw	Crataegus marshallii Crataegus mulaherrima	
Dwarf thorn	Crataegus pulcherrima	
Rabbit bells	Crataegus viridis Cratalaria raturdifalia	
	Crotalaria rotundifolia Crotalaria apostabilia	
Snowy crotalaria Silver croton	Crotalaria spectabilis	
	Croton argyranthemus	
Croton	Croton glandulosus Croton linearis	
Rushfoil Waxweed		
	Cuphea carthagenensis	
Redroot flatsedge	Cyperus erythrorhizos	
Wiry flatsedge	Cyperus filiculmis	
Baldwin's flatsedge	Cyperus globulosus	
Green flatsedge	Cyperus virens	
Sweet rush Water loosestrife	Cyperus spp. Decodon verticillatus	
Wood vamp Danialalaaf tiaktrafail	Decumaria barbara	
Panicleleaf ticktrefoil	Desmodium paniculatum	
Beggarweed	Desmodium spp.	
Bosc's witchgrass	Dichanthelium boscii	
Bosc's witchgrass	Dichanthelium boscii	
Variable witchgrass	Dichanthelium commutatum	
Cypress witchgrass	Dichanthelium dichotomum	
Pennyroyal	Dicerandra linearifolia	
Pony-foot	Dichondra carolinensis	
Southern crabgrass	Digitaria ciliaris	
Shaggy fingergrass	Digitaria villosa	
Poor joe	Diodia teres	
Buttonweed	Diodia virginiana	
Fourleaf yam	Dioscorea quaternata	

* Non-native Species

Common NameScientific NamePrimary Habitat Codes
(for designated species)

Persimmon	Diospyros virginiana
Southern shield fern	Dryopteris ludoviciana
Coast Cockspur	Echinochloa walteri
Water hyacinth	Eichhornia crassipes*
Elephant's-foot	Elephantopus carolinianus
Elephant's-foot	Elephantopus elatus
Devil's grandmother	Elephantopus tomentosus
Indian goosegrass	Eleusine indica*
Sugarcane Plumegrass	Erianthus giganteus
Beech drops	Epifagus virginiana
Daisy-fleabane	Erigeron strigosus
Dogtongue Wild Buckwheat	Eriogonum tomentosum
Buttonweed	Eryngium prostratum
Coralbean	Erythrina herbacea
Dog-tooth violet	Erythronium umbilicatum
Strawberry-bush	Euonymus americanus
White thoroughwort	Eupatorium album
Dogfennel	Eupatorium capillifolium
Dogfennel	Eupatorium compositifolium
Boneset	Eupatorium perfoliatum
False hoarhound	Eupatorium rotundifolium
Dogfennel	Eupatorium semiserratum
Euphoria	Euphorbia discoidalis
Euphoria	Euphorbia exserta
Spurge	Euphorbia floridana
American beech	Fagus grandifolia
Swamp privit	Forestiera acuminata
White ash	Fraxinus americana
Pop ash	Fraxinus caroliniana
Milk pea	Galactia spp.
Goosegrass	Galium pilosum
Dwarf huckleberry	Gaylussacia dumosa
Dangleberry	Gaylussacia frondosa
Yellow jessamine	Gelsemium sempervirens
Water locust	Gleditsia aquatica
Sweet everlasting	Gnaphalium obtusifolium
Hedge hyssop	Gratiola brevifolia
Florida hedgehyssop	Gratiola floridana
Guara	Guara angustifolia
Two-wing silverbell	Halesia diptera
Witch hazel	Hamamelis virginiana
Scratch daisy	Haplopappus divaricatus
Star violet	Hedyotis crassifolia
Innocence	Hedyotis procumbens
Sneezeweed	Helenium autumnale
Camphor weed	Heterotheca subaxillaris
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* Non-native Species

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Common Name Scientific Name

Primary Habitat Codes (for designated species)

Heartleaf	Hexastylis arifolia
Hawk-weed	Hieracium gronvii
Oak leaf hydrangea	Hydrangea quercifolia
Marsh pennywort	Hydrocotyle umbellata
Swamp pennywort	Hydrocotyle verticillata
Hydrolea	Hydrolea quadrivalvis
Spider lily	Hymenocallis caroliniana
St. John's wort	Hypericum cistifolium
St. John's wort	Hypericum crux-andreae
St. John's wort	Hypericum fasciculatum
St. Andrew's cross	Hypericum hypericoides
Musky mint	Hyptis alata
Tropical bushmint	Hyptis mutabilis*
Possum haw	Ilex dicidua
American holly	Ilex opaca
Florida anisetree	Illicium floridanum
Cogon grass	Imperata cylindrica*
Tievine	Ipomoea trichocarpa
Virginia willow	Itea virginica
Black walnut	Juglans nigra
Rush	Juncus coriaceus
Red cedar	Juniperus silicicola
Looseflower	Justicia ovata
Mountain laurel	Kalmia latifolia
Pinweed	Lechea mucronata
Little duckweed	Lemna obscura
Hairy lespedeza	Lespedeza hirta
Pinkscale gayfeather	Liatris elegans
Slender gayfeather	Liatris gracilis
Dense gayfeather	Liatris graciis Liatris tenuifolia
Sweetgum Yellow poplar	Liquidambar styraciflua Liriodendron tulipifera
Southern lobelia	10
	Lobelia amoena Lobelia pubamila
Downy lobelia Netted chainfern	Lobelia puberula Lorinseria areolata
Ludwigia Tananflaaf watarkanakawa d	Ludwigia leptocarpa
Taperfleaf waterhorehound	Lycopus rubellus
Japanese climbing fern	Lygodium japonicum*
Fetterbush	Lyonia lucida
Bigleaf magnolia	Magnolia ashii
Southern magnolia	Magnolia grandiflora
Pyramid magnolia	Magnolia pyramidata
Sweetbay	Magnolia virginiana
Southern crabapple	Malus angustifolia
Bur-clover	Medicago polymorpha
Climbing henpvine	Mikania scandens

Common Name	Scientific Name	Primary Habitat Codes (for designated species)
Partridge pea	Mitchella repens	
Red mulberry	Morus rubra	
Wax myrtle	Myrica cerifera	
Parrot's feather	Myriophyllum aquaticum*	
Black gum	Nyssa sylvatica	
Sensitive fern	Onoclea sensibilis	
Woodsgrass	<i>Oplismenus setarius</i>	
Golden club	Orontium aquaticum	
Wild olive	Osmanthus americanus	
Cinnamon fern	Osmunda cinnomoea	
Royal fern	Osmunda regalis	
Hop hornbeam	Ostrya virginiana	
Woodsorrel	Oxalis dillenii	
Sourwood	Oxydendron arboreum	
Beaked panicum	Panicum anceps	
Savannah panicum	Panicum anceps Panicum gymnocarpon	
Panic grass	Panicum spp.	
Switch grass	Panicum virgatum	
Virginia creeper	Parthenocissus quinquefolia	
Bahiagrass	Paspalum notatum*	
Thin paspalum	Paspalum setaceum	
Vaseygrass	Paspalum urvillei*	
Yellow passionflower	Passiflora lutea	
Green arum	Peltranda virginica	
Beard tongue	Penstemon australis	
Red bay	Persea borbonia	
Swamp red bay	Persea palustria	
Downy phlox	Phlox pilosa	
Mistletoe	Phoradendron serotinum	
Groundcherry	Physalis angulata	
Short-leaf pine	Pinus echinata	
Spruce pine	Pinus glabra	
Longleaf pine	Pinus palustris	
Loblolly pine	Pinus taeda	
Pitted stripeseed	Piriqueta caroliniana	
Pineland silkgrass	Pityopsis aspera	
Narrowleaf silkgrass	Pityopsis aspera Pityopsis graminifolia	
Hoary plantain	Plantago virginica	
Yellow-fringed orchid	Platanthera integra	
Tall jointweed	Polygonella gracilis	
Denseflower knotweed	Polygonum densiflorum	
Polygonum	Polygonum hydropiperoides	
Dotted smartweed	Polygonum punctatum	
Resurrection fern	Polygpodium polypodioides	
Rustweed	Polypremum procumbens	
Christmas fern	Polystichum acrostichoides	
	1 orystichum acrostichotaes	

Common Name	Scientific Name	Primary Habitat Codes (for designated species)
	•	
Swamp cottonweed	Populus heterophylla	
Combleaf mermaidweed	Proserpinaca pectinata	
Carolina laurelcherry	Prunus caroliniana	
Black cherry	Prunus serotina	
Hog plum	Prunus umbellata	
Bracken fern	Pteridium aquilinum	
White oak	Quercus alba	
Southern red oal	Quercus falcata	
Laural Oak	Quercus hemisphaerica	
Bluejack oak	Quercus incana	
Diamond-leaf oak	Quercus laurifolia	
Swamp chesnut oak	Quercus michauxii	
Water oak	Quercus nigra	
Running oak	Quercus pumila	
Live oak	Quercus virginiana	
Meadow beauty	Rhexia alifanus	
Meadow beauty	Rhexia mariana	
Florida flame azalea	Rhododendron austrinum	
Chapman's azalea	Rhododendron chapmanii	
Swamp honeysuckle	Rhododendron viscosum	
Winged sumac	Rhus copallina	
Dollarweed	Rhychosia difformis	
Snoutbean	Rhychosia tomentosia	
Shortbristle horned beaksedge	Rhynchospora corniculata	
Rush	Rhynchospora inundata	
Beaked sedge	Rhynchospora megalocarpa	
Rush	Rhynchospora miliacea	
Tropical mexican clover	Richardia brasiliensis	
Clover	Richardia humistrata	
Swamp rose	Rosa palustris	
Toothcup	Rotala ramiosior	
Dewberry	Rubus trivialis	
Wild petunia	Ruellia carolinensis	
Curled dock	Rumex crispus	
Sourdock	Rumex hastatulus	
Dwarf palmetto	Dwarf palmetto	
Coastal plain willow	Salix caroliniana	
Black willow	Salix nigra	
Lyre-leaved sage	Salvia lyrata	
Water spangles	Salvinia mimima	
Elder berry	Sambucus canadensis	
Water pimperel	Samolus parviflorus	
Canadian blacksnake root	Sanicula canadensis	
Chinese tallow	Sapium sebiferum*	
Sassafras	Sassafras albidum	
Lizard's tail	Saururus cernuus	

Common Name	Scientific Name	Primary Habitat Codes (for designated species)
Littlehead nutrush	Scleria oligantha	
Meadow spikemoss	Selaginella apoda	
Saw palmetto	Serenoa repens	
Bladderpod	Sesbania vesicaria	
Wild bamboo	Smilax auriculta	
Saw greenbriar	Smilax bona-nox	
Cat greenbriar	Smilax glauca	
Blueridge carrionflower	Smilax giuded Smilax lasioneuron	
Wild sarsparilla	Smilax pumila	
Horsenettle	Solanum carolinense	
Bluestem goldenrod	Solidago caesia	
Canada goldenrod	Solidago canadensis	
Sweet goldenrod	Solidago odora	
Lopsided indiangrass	Sorghastrum secundum	
Johnsongrass	Sorghum halepense*	
Woodland pinkroot, Indian pink	Spigelia marilandica	
Dotted duckweed	Spirodella punctata	
Smutgrass	Spiroderia punctuta Sporobolus indicus*	
Blackseed needlegrass	Stipa avenacea	
Silky camellia	Stewartia malachodendron	
Morning glory	Stewarita malachoaenaron Stylisma humistrata	
Coastal plains dawnflower	Stylisma patens	
Horse-sugar, sweetloaf	Symplocus tinctoria	
Pondcypress	Taxodium ascendens	
Bald cypress	Taxodium distichum	
Scurf hoary pea	Tephrosia chrosyphylla	
Basswood	Tilia americana	
Spanish moss	Tillandsia usneoides	
Poison ivy	Toxicodendron radicans	
Small's noseburn	Tragia smallii	
Greater marsh St. John's-wort	Triadenum walteri	
Blue-curls	Trichostema dichotomum	
Narrowleaf bluecurls	Trichostema setaceum	
Tall redtop	Tridens flavus	
Wake robin	Trillium underwoodi	
Venus' looking-glass	Triodanis biflora	
Eastern gamagrass	Tripsacum dactyloides	
Winged elm	Ulmus alata	
American elm	Ulmus americana	
	Vaccinium arboreum	
Sparkleberry High blueberry	Vaccinium arboreum Vaccinium corymbosum	
Elliots blueberry	Vaccinium elloittii	
Giant ironweed		
Southern arrowwood	Veronia gigantea Viburnum dentatum	
Violet		
Florida violet	Viola affinis Viola floridana	
	Viola floridana	

Scientific Name	Primary Habitat Codes (for designated species)
Viola lanceolata	
Vitis aestovalis	
Vitis rotundifolia	
Woodwardia areolata	
Woodwardia virginica	
Ũ	
Yucca flaccida	
	Viola lanceolata Vitis aestovalis Vitis rotundifolia Woodwardia areolata Woodwardia virginica Youngia japonica*

Primary Habitat Cod		
Common Name	Scientific Name	(for all species)
	FISH	
Alabama shad	Alosa alabamae	43
Bowfin	Amia calva	43
American eel	Anguilla rostrata	43
Banded pygmy sunfish	Elassoma spp.	43
Bluespotted sunfish	Enneacanthus gloriosus	43
Banded sunfish	Enneacanthus obesus	43
Lake chubsucker	Erimyzon sucetta	43
Brown darter	Etheostoma edwini	43
Swamp darter	Etheostoma fusiforme	43
Mosquitofish	Gambusia affinis	43,54
Least killifish	Heterandria formosa	43,54
White catfish	Ictalurus catus	43
Yellow bullhead	Ictalurus natalis	43
Brown bullhead	Ictalurus nebulosus	43
Channel catfish	Ictalurus punctatus	43
Longnose gar	Lepisosteus osseus	43
Redbreasted sunfish	Lepomis auritus	43
Bluegill	Lepomis macrochirus	43
Redear sunfish	Lepomis microlophus	43
Spotted sunfish	Lepomis punctatus	43
Pigmy killifish	Leptolacunia ommata	43
Largemouth bass	Micropterus salmoides	43
Golden shiner	Notemigonus crysoleucas	43
Black crappie	Pomoxis nigromaculatas	43
	AMPHIBIANS	
Florida cricket frog	Acris gryllus	18,54
Marbled salamander	Ambystoma opacum	18,54
Mole salamander	Ambystoma talpoideum	18,54
Two-toed amphiuma	Amphiuma means	18,54
One-toed amphiuma	Amphiuma pholeter	18,54
Southern toad	Bufo terrestris	18,54
Southern dusky salamander	Desmognathus auriculatus	18,54
Three-lined salamander	Eurycea longicauda	18,54
Dwarf salamander	Eurycea quadridigitata	18,54
Four-toed salamander	Hemidactylium scutatum	18,54
Green treefrog	Hyla cinerea	18,54
Southern spring peeper	Hyla crucifer	18,54
Little grass frog	Limnaoedus ocularis	18,54
Slimy salamander	Plethodon glutinosus	18,54
Southern chorus frog	Pseudacris nigrita	18,54
Bullfrog	Rana catesbeiana	18,54
Bronze frog	Rana c. clamitans	18,54
DIVILL HUE	Nuna C. Ciumilans	10,54

Common Name	Scientific Name	Primary Habitat Codes (for all species)
Pig frog	Rana grylio	18,54
Southern leopard frog	Rana sphenocephala	18,54
	REPTILES	
Florida cottonmouth	Agkistrodon piscivorus	43
American alligator	Alligator mississipiensis	43
Green anole	Anolis carolinensis	2,18,20
Scarlet snake	Cemophora coccinea	18,20
Common snapping turtle	Chelydra serpentina	43
Eastern river cooter	Chrysemys concinna	43
Florida cooter	Chrysemys floridana	43
Yellow-bellied slider	Chrysemys scricta	43
Sixlined racer	Cnemidophorus sexlineatus	20,13
Black racer	Coluber constrictor	20,13
Eastern diamondback rattlesnake	Crotalus adamanteus	20,13
Southern ringneck snake	Diadophis punctatus	20,13
Eastern chicken turtle	Dierochelys reticularia	54
Gray rat snake	Elaphe obsoleta	18,20,13
Five lined skink	Eumeces fasciatus	18
Southeastern fivelined skink	<i>Eumeces juscituus</i>	18
Broadhead skink	Eumeces laticeps	18
Eastern mud snake	Farancia abacura	54
Eastern hognose snake	Heterodon platyrhinos	20
Eastern mud turtle	Kinosternon subrurum	54
Eastern kingsnake	Lampropeltis getulus	18,20
Scarlet kingsnake	Lampropeltis triangulum	18,20
Eastern coral snake	Micrurus fulvius	20
Banded water snake	Nerodia fasciata	43
Brown water snake	Nerodia taxispilota	43
Rough greensnake	Opheodrys aestivalis	18,20
Eastern slender glass lizard	Ophisaurus attenuatus	18,20,13
Eastern glass lizard	Ophisaurus ventralis	18,20,13
Southern fence lizard	Sceloperus undulatus	20,13
Ground skink	Scincella lateralis	18,20
Dusky pygmy rattlesnake	Sistrurus miliarius	18,20,13
Eastern garter snake	Thamnophis sirtalis	20,13
Florida softshell	Trionyx ferox	43
	BIRDS	

BIRDS

Cooper's hawk	Accipiter cooperii	OF
Sharp-shinned hawk	Accipiter stritaus velox	OF
Red winged blackbird	Agelarus phoeniceus	OF
Wood duck	Aix sponsa	43
Green winged teal	Anas carolinensis	43

Common Name	Scientific Name	Primary Habitat Codes (for all species)
Blue winged teal	Anas discois	43
Mallard	Anas platyrynchos platyrhynchos	43
Black duck	Anas rubripes	43
Gadwall	Anas strepera	43
{PRIVATE }Anhinga	Anhinga anhinga	43
Ruby throated hummingbird	Archilochus colubris	20
{PRIVATE }Great Blue Heron	Ardea herodias	43
Lesser scaulp	Aythya affinis	43
Red head	Aythya americana	43
Ringnecked duck	Aythya collaris	43
Cedar waxwing	Bombycilla cedrorum	20
Canada goose	Branta candensis	OF
Great horned owl	Buba virginianus	18,20
Cattle egret	Bubulcus ibis	82
Red tailed hawk	Butea famaicensis	OF
Red shouldered hawk	Butea lineatus	OF
Great heron	Butorides virescans	43
Chuck-wills-widow	Caprimulgus principalis	20
Cardinal	Cardinalis cardinalis	20
Purple finch	Carpodacus purpureus	OF
Great egret	Casmerodius albus egretta	43
Turkey vulture	Cathartes aura	OF
Brown creeper	Certhia familiaris	20
Chimmey swift	Chaetura pelogica	OF
Common night hawk	Chordeiles minor	OF
Yellow-billed cuckoo	Coccyzus americanus	18,20
Black-billed cuckoo	Coccyzus erythropthalmus	18,20
Yellow-shafted flicker	Colaptes auratus	20
Bobwhite	Colinus virginianus	13
Ground dove	Columbigallina passerina	20
Horned grebe	Colymbus auritus	43
Eastern wood pewee	Contopus virens	20
Black vulture	Coragyps atratus	OF
Common crow	Corvus brachynchos	OF
Fish crow	Corvus ossifragus	OF
Bluejay	Cyonocitta cristata	MTC
Downy woodpecker	Dendrocopus pubescens	20
Hairy woodpecker	Dendrocopus villosus	20
Yellow-rumped warbler	Dendroica coronata	20
Yellow throated warbler	Dendroica demonica	20
Black throated green warbler	Dendroica dominica	20
Magnolia warbler	Dendroica magnolia	20
Pileated woodpecker	Dryocopus pileatus	18,20
Catbird	Dumetella carolinensis	MTC
Little blue heron	Egretta caerula	43
Tricolor heron	Egretta tricolor	43
	0	-

Common Name	Scientific Name	Primary Habitat Codes (for all species)
Swallow-tailed kite	Elanoides forficatus	OF
Acadian flycatcher	Empidonax virescens	20
Ruddy duck	Erismatura jamaicensis rubida	43
Sparrow hawk	Falco sparverius	OF
Swallow tailed kite	Flanoides forficatus	OF
American coot	Fulica americana	43
Yellow throat	Geothlypis trichas	OF
Bufflehead	Glaucionetta albeola	43
Common goldeneye	Glaucionetta clangula americana	43
White ibis	Guara alba	43
Blue grosbeak	Guiraca coerula	43
Bald eagle	Haliaeetus leucocephales	OF
Barn swallow	Hirundo rustica erythrogaster	OF
Veery	Hylocichla fuscescens	OF
Hermit thrush	Hylocichla guttata	20,13
Tree swallow	Iridoprocne bicolor	MTC
Belted kingfisher	Magaceryla alcyon	2
Redbellied woodpecker	Melanerpes carolinus	20
Turkey	Meleagris gallopavo	20,13
Redbreasted merganser	Mergus serrator	43
American widgeon	Merca penelope	43
Mockingbird	Minus polyglottis	MTC
Black and white warbler	Mniotilta varia	20,13
Black crowned nightheron	Nycticorax nycticorax	43
Screech owl	Otus asio	18,20,13
Osprey	Pandion haliaetus	OF
Tufted titmouse	Parus bicolor	18,20
Carolina chickadee	Parus carolinensis	20
Double-crested cormorant	Phalacrocorax auritus	43
Pie-billed grebe	Podilymbus podicaps	43
Blue-grey gnatcatcher	Polioptiola caerulea	20
Common grackle	Quiscalus quiscala	2
Bank swallow	Riparia riparia	2
Eastern phoebe	Sayornis phoebe	20
Whitebreasted nuthatch	Sitta carolinensis	20
Brown headed nuthatch	Sitta pusilla	20
Yellowbellied sapsucker	Sphyrapicus varius	20,13
American goldfinch	Spinus tristis	20
Barred owl	Strix varia	20,13
Starling	Sturnus vulgaris	OF
Carolina wren	Thryothorus ludovicionus	20
Robin	Turdus migratorius	OF
White-eyed vireo	Vireo grisseus	18,20
Red-eyed vireo	Vireo olivaceous	18,20

Common Name

Scientific Name

Primary Habitat Codes (for all species)

Terrestrial

- 1. Beach Dune
- 2. Bluff
- 3. Coastal Berm
- 4. Coastal Rock Barren
- 5. Coastal Strand
- **6.** Dry Prairie
- 7. Maritime Hammock
- 8. Mesic Flatwoods
- 9. Mesic Hammock
- **10.** Coastal Grasslands
- **11.** Pine Rockland
- **12.** Prairie Hammock
- 13. Rockland Hammock
- 14. Sandhill
- 15. Scrub
- 16. Scrubby Flatwoods
- 17. Shell Mound
- 18. Sinkhole
- 19. Slope Forest
- 20. Upland Glade
- 21. Upland Hardwood Forest
- **22.** Upland Mixed Forest
- 23. Upland Pine Forest
- 24. Xeric Hammock

Palustrine

- 25. Basin Marsh
- 26. Basin Swamp
- 27. Baygall
- **28.** Bog
- 29. Bottomland Forest
- 30. Coastal Interdunal Swale
- 31. Depression Marsh
- **32.** Dome
- 33. Floodplain Forest
- **34.** Floodplain Marsh
- 35. Floodplain Swamp
- **36.** Freshwater Tidal Swamp
- **37.** Hydric Hammock
- 38. Marl Prairie
- **39.** Seepage Slope
- 40. Slough
- 41. Strand Swamp
- 42. Swale
- 43. Wet Flatwoods
- 44. Wet Prairie

Lacustrine

- **45.** Clastic Upland Lake
- 46. Coastal Dune Lake
- 47. Coastal Rockland Lake

Lacustrine

- **48.** Flatwood/Prairie Lake
- 49. Marsh Lake
- 50. River Floodplain Lake
- 51. Sandhill Upland Lake
- 52. Sinkhole Lake
- 53. Swamp Lake

Riverine

- 54. Alluvial Stream
- 55. Blackwater Stream
- 56. Seepage Stream
- 57. Spring-Run Stream

Estuarine

- 58. Estuarine Algal Bed
- 59. Estuarine Composite Substrate
- 60. Estuarine Consolidated Substrate
- 61. Estuarine Coral Reef
- 62. Estuarine Grass Bed
- **63.** Estuarine Mollusk Reef
- 64. Estuarine Octocoral Bed
- 65. Estuarine Sponge Bed
- **66.** Estuarine Tidal Marsh
- 67. Estuarine Tidal Swamp
- 68. Estuarine Unconsolidated Substrate
- **69.** Estuarine Worm Reef

<u>Marine</u>

- 70. Marine Algal Bed
- 71. Marine Composite Substrate
- 72. Marine Consolidated Substrate
- 73. Marine Coral Reef
- 74. Marine Grass Bed
- 75. Marine Mollusk Reef
- 76. Marine Octocoral Bed
- **77.** Marine Sponge Bed
- 78. Marine Tidal Marsh
- 79. Marine Tidal Swamp
- 80. Marine Unconsolidated Substrate
- 81. Marine Worm Reef

Subterranean

- 82. Aquatic Cave
- 83. Terrestral Cave

Miscellaneous

- 84. Ruderal
- 85. Developed
- MTC Many Types of Communities
- OF Over Flying

Addendum 5—Designated Species List

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 Game and Freshwater Fish Commission (animals), and the Florida Department of Agriculture and Consumer Services (plants), respectively.

FNAI GLOBAL RANK DEFINITIONS

G1	=	Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made
		factor.
G2	=	Imperiled globally because of rarity (6 to 20 occurrences or less than 3000 individuals) or because
<u></u>		of vulnerability to extinction due to some natural or man-made factor.
G3	=	Either very rare and local throughout its range (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction of other factors.
G4	=	apparently secure globally (may be rare in parts of range)
G5	=	demonstrably secure globally
GH	=	of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker)
GX	=	believed to be extinct throughout range
GXC	=	extirpated from the wild but still known from captivity or cultivation
G#?	=	tentative rank (e.g.,G2?)
G#G#	=	range of rank; insufficient data to assign specific global rank (e.g., G2G3)
G#T#	=	rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to
		the entire species and the T portion refers to the specific subgroup; numbers have same definition
		as above (e.g., G3T1)
G#Q	=	rank of questionable species - ranked as species but questionable whether it is species or
		subspecies; numbers have same definition as above (e.g., G2Q)
G#T#Q	=	same as above, but validity as subspecies or variety is questioned.
GU	=	due to lack of information, no rank or range can be assigned (e.g., GUT2).
G?	=	not yet ranked (temporary)
S1	=	Critically imperiled in Florida because of extreme rarity (5 or fewer occurrences or less than 1000
		individuals) or because of extreme vulnerability to extinction due to some natural or man-made
		factor.
S2	=	Imperiled in Florida because of rarity (6 to 20 occurrences or less than 3000 individuals) or
		because of vulnerability to extinction due to some natural or man-made factor.
S3	=	Either very rare and local throughout its range (21-100 occurrences or less than 10,000 individuals)
		or found locally in a restricted range or vulnerable to extinction of other factors.
S4	=	apparently secure in Florida (may be rare in parts of range)
S5	=	demonstrably secure in Florida
SH	=	of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker)
SX	=	believed to be extinct throughout range
SA	=	accidental in Florida, i.e., not part of the established biota
SE	=	an exotic species established in Florida may be native elsewhere in North America
SN	=	regularly occurring, but widely and unreliably distributed; sites for conservation hard to determine
SU	=	due to lack of information, no rank or range can be assigned (e.g., SUT2).
S?	=	not yet ranked (temporary)

LEGAL STATUS

Ν	=	Not currently listed, nor currently being considered for listing, by state or federal agencies.
FEDERAL	(Li	sted by the U. S. Fish and Wildlife Service - USFWS)
LE	=	Listed as Endangered Species in the List of Endangered and Threatened Wildlife and Plants under the provisions of the Endangered Species Act. Defined as any species that is in danger of extinction
PE	=	throughout all or a significant portion of its range. Proposed for addition to the List of Endangered and Threatened Wildlife and Plants as Endangered Species.
LT	=	Listed as Threatened Species. Defined as any species that is likely to become an endangered species within the near future throughout all or a significant portion of its range.
PT C	=	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.
E(S/A) T(S/A)	= =	Endangered due to similarity of appearance. Threatened due to similarity of appearance.
<u>STATE</u>		
<u>Animals</u>		(Listed by the Florida Fish and Wildlife Conservation Commission - FFWCC)
LE	=	Listed as Endangered Species by the FFWCC. Defined as a species, subspecies, or isolated population which is so rare or depleted in number or so restricted in range of habitat due to any man-made or natural factors that it is in immediate danger of extinction or extirpation from the state, or which may attain such a status within the immediate future.
LT	=	Listed as Threatened Species by the FFWCC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at a rapid rate and as a consequence is destined or very likely to become an endangered species within the foreseeable future.
LS	=	Listed as Species of Special Concern by the FFWCC. Defined as a population which warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in its becoming a threatened species.
<u>Plants</u>		(Listed by the Florida Department of Agriculture and Consumer Services - FDACS)
LE	=	Listed as Endangered Plants in the Preservation of Native Flora of Florida Act. Defined as species of plants native to the state that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue, and includes all species determined to be endangered or threatened pursuant to the Federal Endangered Species Act of 1973, as amended.
LT	=	Listed as Threatened Plants in the Preservation of Native Flora of Florida Act. Defined as species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in such number as to cause them to be endangered.

Common Name/ Scientific Name	FDACS	<u>Designated Species Status</u> USFWS	FNAI
Scientific Mame	TDACS	USI W 5	FILAI
Trout lily			
Erythronium umbilibatum	LE		G5,S2
Heartleaf			
Hexastylis arifolia	LT		G5,S3
Florida Anise			
Illicium floridanum			LT
Mountain laurel			
Kalmia latifolia	LT		G5,S3
Pyramid magnolia			~ . ~ .
Magnolia pyramidata	LE		G4,S3
Ashe's Magnolia	T E		
Magnolia ashii	LE		G2, S2
Yellow-fringless orchid	ΙP		C 4 S 2
Platanthera integra	LE		G4,S3
Flame azalea Rhododendron austrinum	LE		$S_2 C_2 C_4$
	LE		S3,G3G4
Silky camellia Stewartia malachodendron	LE		G4,S3
Siewarna maiachoacharon	LL		04,05

Lake Talquin State Park Designated Species—Plants

Common Name/		Designated Species Status	
Scientific Name	FDACS	USFWS	FNAI

Lake Talquin State Park Designated Species—Animals

Common Name/ Scientific Name	FFWCC	<u>Designated Species Status</u> USFWS	FNAI
	REPTILE	S	
American alligator Alligator mississippiensis	LS	T(S/A)	G5,84
Eastern diamondback rattlesnake Crotalis adamanteus			G5,S3
Southern hognose snake Heterodon simus			G2,S2
	AMPHIBIA	NS	
One toed amphiuma Amphiuma pholeter			G3,83
Four-toed salamander Hemidactylium scutatum			G5,82
	BIRDS		
Cooper's hawk Accipiter cooperii			G4,S3?
Little blue heron Egretta caerulea Tricolored heron	LS		G5,84
<i>Egretta tricolor</i> Swallow-tailed kite	LS		G5,84
Elanoides forficatus Bald eagle			G4,S2S3
Haliaeetus leucocephalus Black crowned night heron	LT	LT	G4,S3
Nycticorax nycticorax			G5,S3?
Osprey <i>Pandion haliaetus</i> White breasted nuthatch	LS+		G5,S3S4
Sitta carolinensis			G5,82

Common Name/		Designated Species Status	
Scientific Name	FFWCC	USFWS	FNAI

Addendum 6 – Priority Schedule And Cost Estimates

Estimates are developed for the funding and staff resources needed to implement the management plan based on goals, objectives and priority management activities. Funding priorities for all state park management and development activities are reviewed each year as part of the Division's legislative budget process. The Division prepares an annual legislative budget request based on the priorities established for the entire state park system. The Division also aggressively pursues a wide range of other funds and staffing resources, such as grants, volunteers, and partnerships with agencies, local governments and the private sector for supplementing normal legislative appropriations to address unmet needs. The ability of the Division to implement the specific goals, objectives and priority actions identified in this plan will be determined by the availability of funding resources for these purposes.

Resource Management

1.	Survey of Biota	\$90,000.00
2.	Level 1 Cultural Resources Survey	\$35,000.00
3.	Exotic Removal (\$15,000 annual cost)	\$150,000.00
4.	Develop sandhill pine restoration plan	\$1,500.00
5.	Implement initial prescribed burn program/ sandhill restoration (annual cost \$15,000)	\$150,000.00
6.	Prescribed burning (annual cost \$5,000)	\$50,000.00
7.	Mark and fence park boundary	\$60,000.00
Tota	l Estimated Cost:	\$536,500
Deve	elopment Area or Facilities	Cost
Cabi Cam Picni Supp	Ramp Area n Area ping Area ic Area port Facilities s	1,587,500.00 1,092,500.00 419,000.00 811,000.00
Tota	l w/contingency	\$4,975,600.00