Alfred B. Maclay Gardens State Park

APPROVED Unit Management Plan

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Recreation and Parks February 2014





FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

MARJORY STONEMAN DOUGLAS BUILDING 3900 COMMONWEALTH BOULEVARD TALLAHASSEE, FLORIDA 32399-3000 RICK SCOTT GOVERNOR

CARLOS LOPEZ-CANTERA LT, GOVERNOR

HERSCHEL T. VINYARD JR. SECRETARY

February 27, 2014

Ms. Jennifer Carver Planning Manager Office of Park Planning, Division of Recreation and Parks Department of Environmental Protection 3900 Commonwealth Boulevard, MS 525 Tallahassee, FL 32399-3000

Re: Alfred B. Maclay Gardens State Park – Lease # 3607

Dear Ms. Carver:

The Division of State Lands, Office of Environmental Services, acting as agent for the Board of Trustees of the Internal Improvement Trust Fund, hereby approves the Alfred B. Maclay Gardens State Park management plan. The next management plan update is due February 27, 2024.

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

Sincerely,

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Marianne S. Gengenbach Office of Environmental Services Division of State Lands

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INTRODUCTION

Alfred B. Maclay Gardens State Park is located in Leon County (see Vicinity Map) within the city limits of Tallahassee. Access to the park is reached from U.S. Highway 319, one mile to the north of the intersection of U.S. Interstate 10. The vicinity map also reflects significant land and water resources existing near the park.

The park is nationally known for its distinctive gardens, which cover some 28 acres. The natural areas of the park are forested with mixed hardwoods and pines, and include beautiful, slope forested ravines, which harbor a number of imperiled plants. Lakes Hall and Overstreet provide habitat for a variety of freshwater fish, wildlife and migrating fowl.

Mrs. Alfred B. Maclay donated the original Alfred B. Maclay Gardens State Park to the state of Florida in 1953. In 1994, the adjacent Lake Overstreet property was purchased in partnership with the City of Tallahassee with funding from the Preservation 2000 program. The Board of Trustees of the Internal Improvement Trust Fund (Trustees) hold fee simple title to the park. On January 31, 1968, the Trustees leased (Lease Number 2324) the property to Florida Board of Parks and Historic Memorials (FBPHM), predecessor to the Division of Recreation and Parks (DRP) under a 99-year generic lease. In 1988, the Trustees assigned a new lease number (Lease Number 3607) to Alfred B. Maclay Gardens State Park, without changing any terms and conditions of the original lease. Currently the park contains 1,169 acres.

At Alfred B. Maclay Gardens 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 (see Addendum 1).

PURPOSE AND SIGNIFICANCE OF THE PARK

The original State Park property was donated by Mrs. Alfred B. Maclay to be managed as an ornamental garden by the State of Florida as a place of beauty, peace and serenity for the use and enjoyment of the people of Florida and their guests, and remain as a memorial to Alfred B. Maclay. The purpose of the Overstreet addition is to enhance the management and protection of the state gardens, to provide appropriate outdoor recreation, to protect historic and prehistoric archaeological sites, and to help establish a continuous greenway area of public land between the state gardens and Lake Jackson to the west.

Park Significance

• The Maclay Estate, including the main house, gardens, and outbuildings, represents the historical period of the late 1800's and early twentieth century when the Red

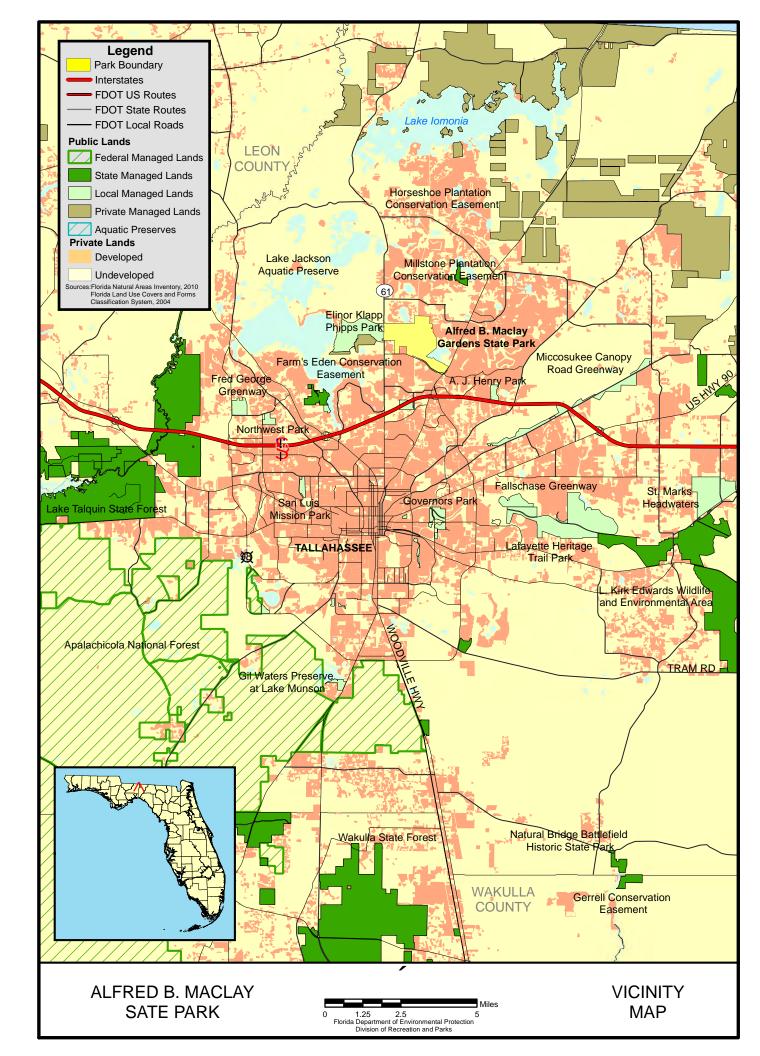
Hills landscape was transformed by the conversion of farms and cotton plantations into the pleasure grounds and winter retreats of wealthy, northern industrialists.

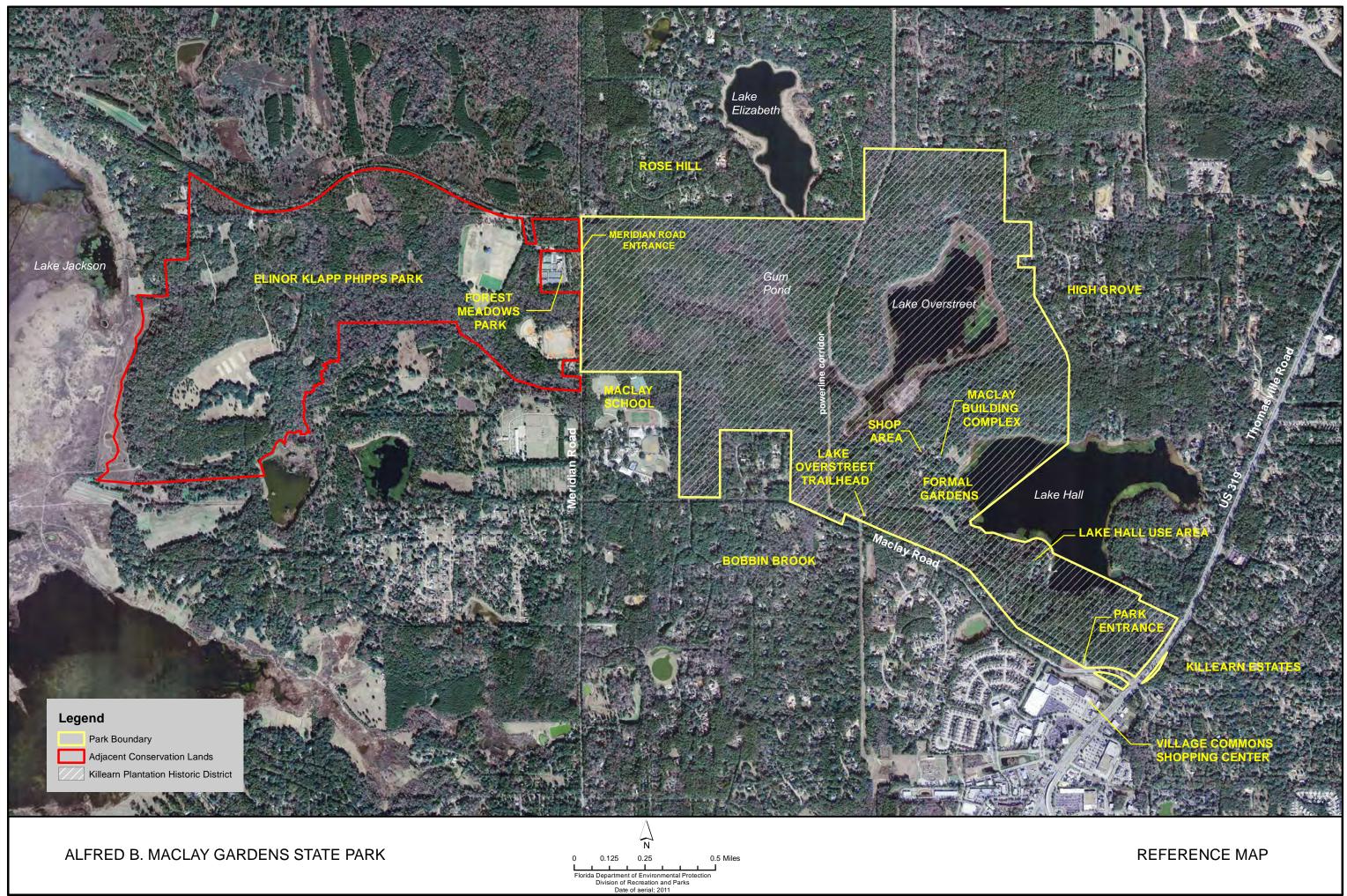
- The abundant archeological and historic era sites within the park represent a remarkable complex of inter-related cultural resources and provide a unique opportunity to interpret the long history of human habitation that has unfolded in the Red Hills region of Florida over the past 10,000 years.
- The Lake Overstreet addition, with its historic house sites, represents the tangible remains of an African-American community whose subsistence and tenancy shifted between enslavement, tenant farming/sharecropping, land ownership and paid employment.
- The steephead ravines on the Overstreet addition, an uncommon natural feature in the Tallahassee area, provide moist microclimates that support a high diversity of native plants including trillium, trout lily, bloodroot, southern lady fern, and the rare bay star vine.
- Located entirely within the park boundary, Lake Overstreet is one of the last remaining lakes in Leon County with a completely undeveloped shoreline. It supports a diverse assemblage of native, aquatic flora and is free of exotic plant species.
- Surrounded by suburban development, the park provides outstanding resourcebased recreational opportunities in a densely populated section of Tallahassee and Leon County.

Alfred B. Maclay Gardens State Park is classified as a state gardens in the DRP's unit classification system. In the management of a state gardens, major emphasis is placed on the maintenance and enhancement of the gardens. Recreational uses are generally passive, related to the aesthetic enjoyment of the gardens; however, the unit also provides active recreational activities such as swimming, fishing, boating, hiking, biking, and horseback riding. Development in the park has been limited to picnicking and swimming facilities, and support facilities for trail based activities. Park programs emphasize interpretation of the natural and cultural attributes of the park.

PURPOSE AND SCOPE OF THE PLAN

This plan serves as the basic statement of policy and direction for the management of Alfred B. Maclay Gardens State Park as a unit of Florida's state park system. It identifies the goals, objectives, actions and criteria or standards that guide each aspect of park administration, and sets forth the specific measures that will be implemented to meet management objectives and provide balanced public utilization. The plan is intended to meet the requirements of Sections 253.034 and 259.032, Florida Statutes, Chapter 18-2, Florida Administrative Code, and is intended to be consistent with the State Lands Management Plan. With approval, this management plan will replace the 2003 approved plan.





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

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

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

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

In the development of this plan, the potential of the park to accommodate secondary management purposes was analyzed. These secondary purposes were considered within the context of the DRP's statutory responsibilities and the resource needs and values of the park. This analysis considered the park natural and cultural resources, management needs, aesthetic values, visitation and visitor experiences. For this park, it was determined that no secondary purposes could be accommodated in a manner that would not interfere with the primary purpose of resource-based outdoor recreation and conservation. 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.

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 park 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-bycase 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 (DRP) is charged with the responsibility of developing and operating Florida's recreation and parks system. These are administered in accordance with the following policy:

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

The Board of Trustees of the Internal Improvement Trust Fund (Trustees) has granted management authority of certain sovereign submerged lands to the DRP under Management Agreement MA 68-086 (as amended January 19, 1988). The management area includes a 400-foot zone from the edge of mean high water where a park boundary borders sovereign submerged lands fronting beaches, bays, estuarine areas, rivers or streams. Where emergent wetland vegetation exists, the zone extends waterward 400 feet beyond the vegetation. The agreement is intended to provide additional protection to resources of the park and nearshore areas and to provide authority to manage activities that could adversely affect public recreational uses. Many operating procedures are standardized system-wide and are set by internal direction. These procedures are outlined in the DRP's Operations Manual (OM) that covers such areas as personnel management, uniforms and personal appearance, training, signs, communications, fiscal procedures, interpretation, concessions, public use regulations, resource management, law enforcement, protection, safety and maintenance.

Park Management Goals

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

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

Management Coordination

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

The Florida Department of Agriculture and Consumer Services (FDACS), Florida Forest Service (FFS), assists DRP staff in the development of wildfire emergency plans and provides the authorization required for prescribed burning. The Florida Fish and Wildlife Conservation Commission (FFWCC), assists staff in the enforcement of state laws pertaining to wildlife, freshwater fish and other aquatic life existing within the park. In addition, the FFWCC aids the DRP with wildlife management programs, including imperiled species management and Watchable Wildlife programs. The Florida Department of State (FDOS), Division of Historical Resources (DHR) assists staff to ensure protection of archaeological and historical sites. The Magnolia Chapter of the Florida Native Plant Society provides valuable assistance in maintaining the native plant arboretum and garden as part of the formal Maclay Gardens area.

Public Participation

The DRP provided an opportunity for public input by conducting a public workshop and an Advisory Group Meeting to present the draft management plan to the public. These meetings were held on August 19 and 20, 2013, respectively. Meeting notices were published in the Florida Administrative Register, August 12, 2013 [VOL 39/156], included on the Department internet calendar, posted in clear view at the park, and promoted locally. The purpose of the Advisory Group meeting is to provide the Advisory Group members an opportunity to discuss the draft management plan (see Addendum 2).

Other Designations

Alfred B. Maclay Gardens State Park is not within an Area of Critical State Concern as defined in Section 380.05, Florida Statutes, and it is not presently under study for such designation. The park is listed on the National Register of Historic Places and is a component of the Florida Greenways and Trails System, administered by the Department's Office of Greenways and Trails. The park is also a designated stop on the Panhandle Section of the Great Florida Birding Trail.

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

RESOURCE MANAGEMENT COMPONENT

INTRODUCTION

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

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

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

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

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

Table 1: Maclay G	ardens State Park	Management Zone	es
Management	A 2702 22	Managed with	Contains Cultural
Zone	Acreage	Prescribed Fire	Resources
MG-A	79.2	N	Y
MG-B	37.5	N	Ν
MG-C	27.3	N	Ν
MG-D	36.6	N	Y
MG-E	24.5	N	Y
MG-F	142.5	N	Y
MG-G	49.2	N	Y
MG-H	120	N	Y
MG-I	212.5	N	Y
MG-J	38.1	N	Y
MG-K	82	N	Y
MG-L	115.3	N	Y
MG-M	124	N	Ν
MG-N	38.4	N	Y
MG-O	30.5	N	N
MG-P	11.4	Ν	N

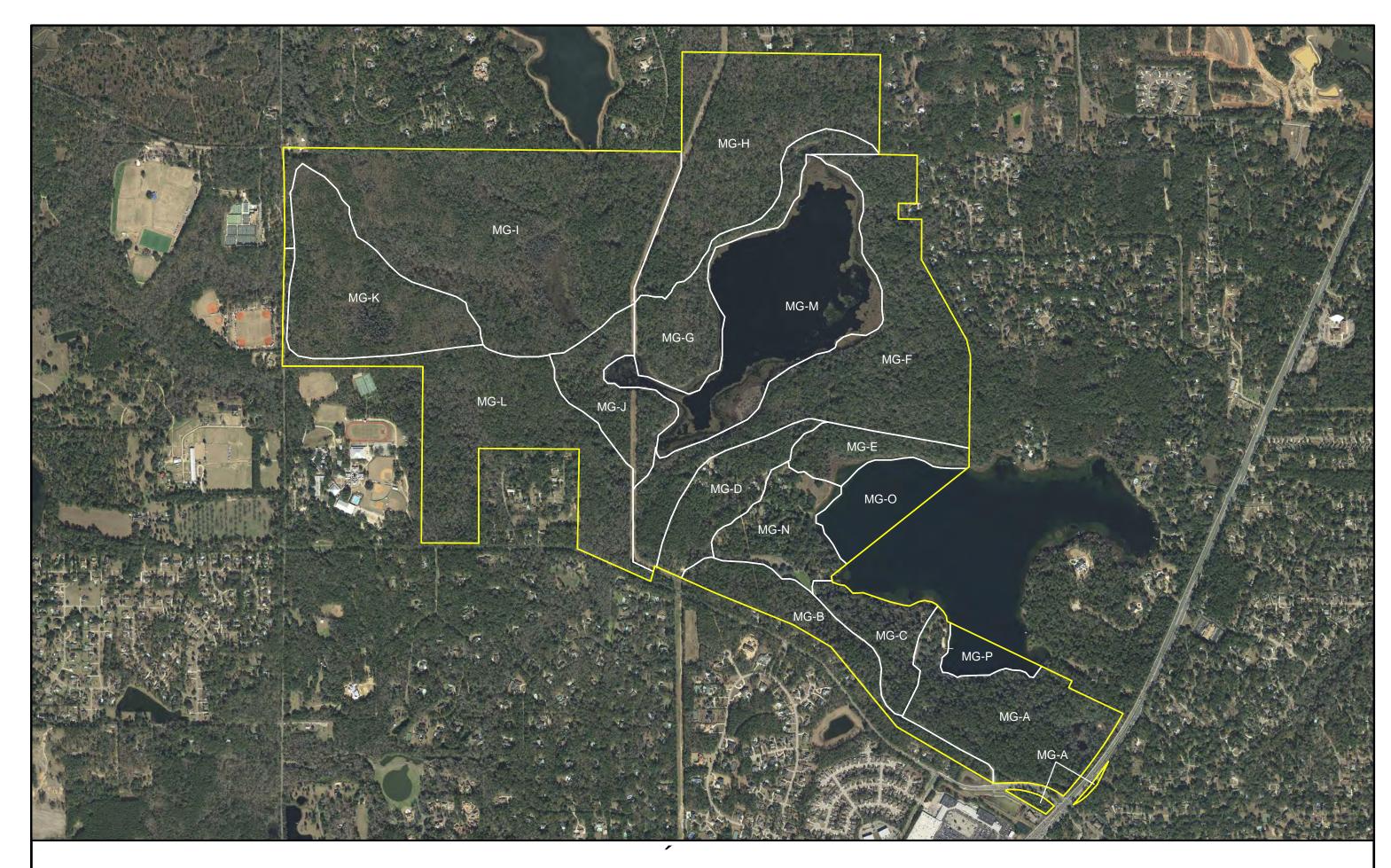
dependent natural communities. Table 1 reflects the management zones with the acres of each zone.

RESOURCE DESCRIPTION AND ASSESSMENT

Natural Resources

Topography

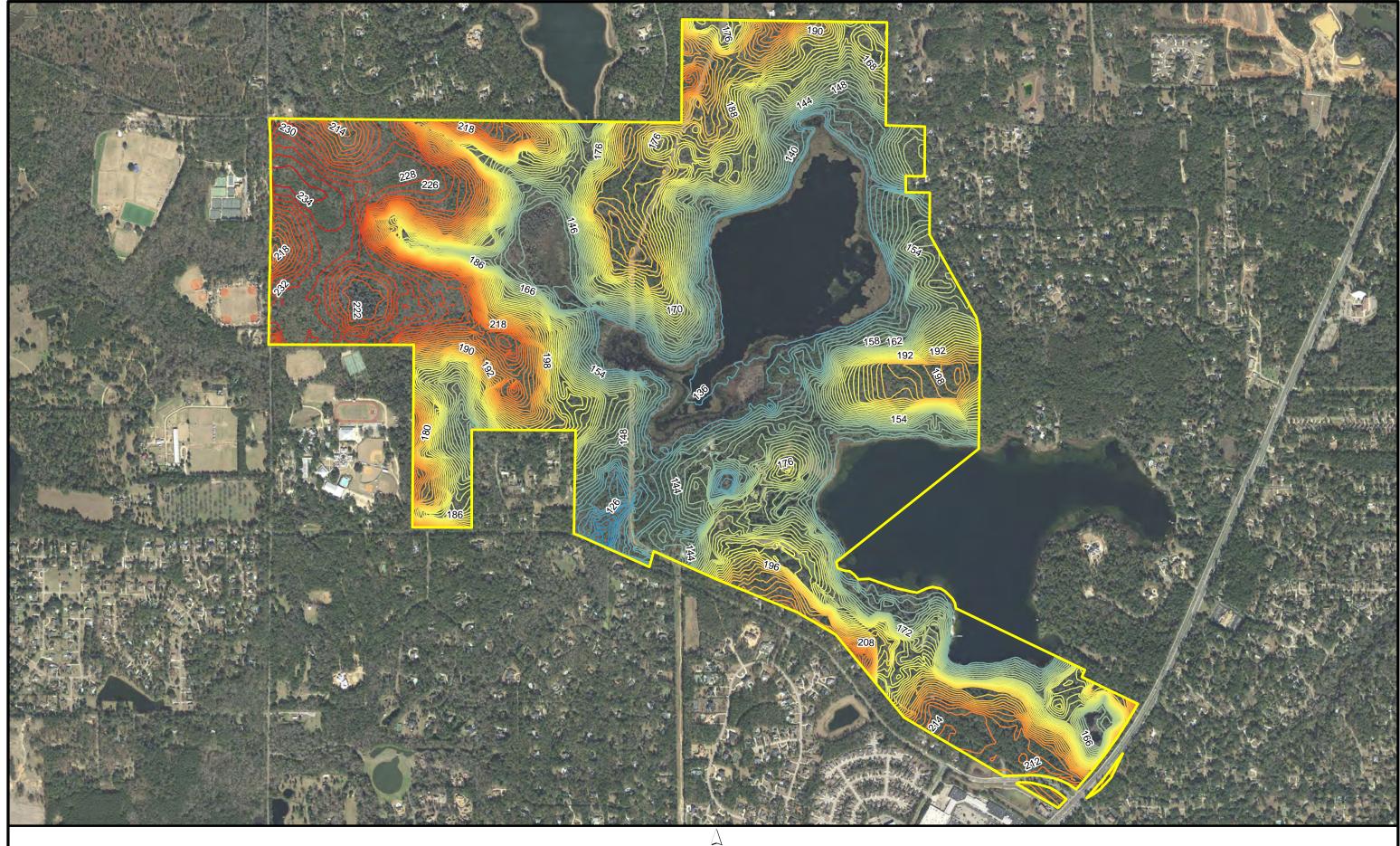
Alfred B. Maclay Gardens State Park is located within the Florida physiographic province of the Northern Highlands, known as the Tallahassee Hills. The topography in the park is characterized by rolling hills, deep ravine systems, and two relatively large lakes (see Topographic Map). Particularly on the Overstreet Tract in the western portion of the park, the landscape can be quite dramatic as upland hardwood forest abruptly gives way to steep ravines about 60 feet below. Topographic extremes at the park range from about 138 feet to more than 230 feet above sea level west of Gum Pond and the central and northerly ravines. The sandy clay hills are erosional remnants, having been shaped over the millennia by ancient streams. Karst processes have been instrumental in the formation of the sinkholes and other solution features. Lakes and ephemeral ponds form in low-lying areas over impermeable clayey sediments.



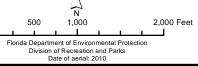
ALFRED B. MACLAY GARDENS STATE PARK

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MANAGEMENT ZONES MAP



ALFRED B. MACLAY GARDENS STATE PARK



TOPOGRAPHIC MAP

Geology

Suwannee Limestone underlies the entirety of Leon County and was formed during the Oligocene epoch, which dates from about 34 to 23 million years before the present day. Suwannee Limestone is generally pale orange, partially recrystallized into a finely crystalline matrix, and often contains abundant microfossils; this stratum typically undergoes partial dolomitization to some degree, which entails the process by which magnesium ions replace calcium ions in calcite often as a result of water evaporation and may reduce the extent of observable microfossil content. Since this layer is significantly porous and permeable, it is the principle aquifer from which many wells draw groundwater, particularly on the county's eastern portion.

The St. Marks Formation overlies the Suwannee Limestone and developed during the Tampa Stage of the early Miocene epoch (beginning about 23 million years before the present). The St. Marks Formation consists of silty to sandy limestone that varies from pale orange to grayish orange in color, has undergone some degree of secondary dolomization, and contains lower abundances of microfossils that are generally less identifiable than those found in its underlying stratum. Across the county, it is almost exclusively a subsurface formation with little surface exposure, however, its thickness is highly variable on account of its diminution by erosion or solution; in fact, it is currently absent from the basins of Lake Iamonia and Miccosukee a short distance from the park on account of these processes.

The Hawthorne Formation overlies the St. Marks Formation, having been deposited later in the Miocene epoch. It consists of a variety of minerals that often display intraformation layering in the northern portion of Leon County with sandy, clayey, and phosphoritic silt overlying sand and sandy phosphoritic clays overtopping sandy phosphoritic limestone in the lower reaches (Hendry and Sproul 1966).

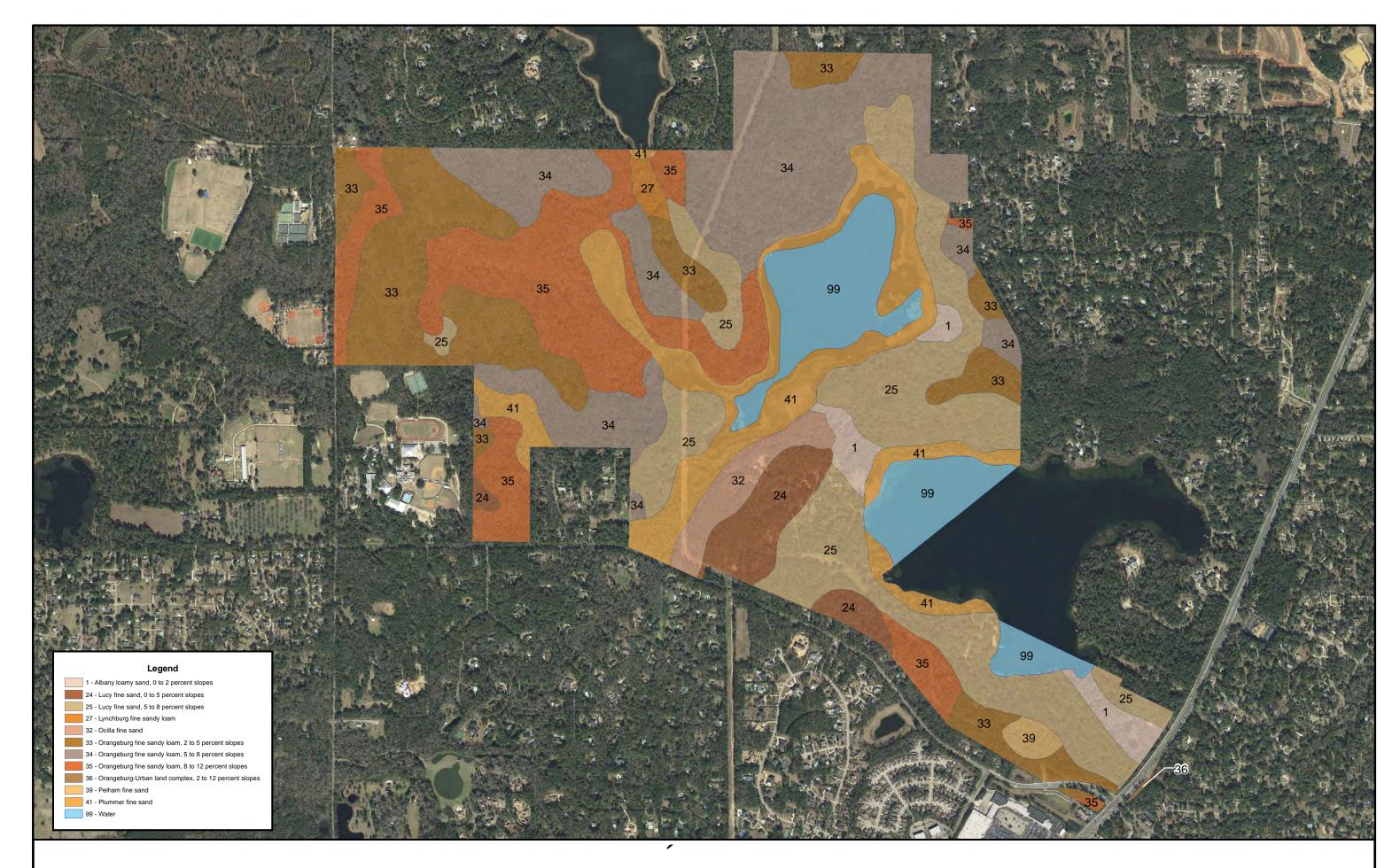
Soils

The fertile soils overlying the Tallahassee Hills supported the productive agricultural fields used by the pre-Columbian Apalachee people, antebellum planters, and the tenant farmers of the early 20th century. The majority of the park's acreage lying to the west of the powerline corridor and to the north of Lake Overstreet is dominated by Orangeburg fine sandy loam soils of various slopes ranging from 2 to 15 percent, which comprise much of the most dramatic topography. Orangeburg soils may also be found along portions of the eastern and southern boundaries. These soils are well drained with permeability that is moderately rapid and moderate in the surface and subsoil layers, respectively, contributing to a water table generally 72 inches below the surface throughout the year; water capacity is low and medium in the surface and subsoil layers, respectively.

At the other end of the spectrum are the Plummer fine sand soils, which fringe the lakeshores and underlie Gum Pond and most of the lower elevation bottomland forests. This is a relatively level, poorly drained soil with a water table occurring within 15 inches of the surface for 3 to 6 months during most years; permeability is moderately rapid and moderate in the surface and subsoil layers, respectively. Lucy fine sand, characterized by slopes between 0 and 8 percent, occupy most of the intervening land between these two extremes. Permeability is rapid and moderate in the surface and subsoil layers, respectively, contributing to a depth to the water table of typically 80 inches or more; available water capacity is low and moderate in the surface and subsoil layers, respectively. Addendum 4 contains complete soil descriptions.

The dramatic topography of the park lends itself to natural erosive processes over geological time scales. Adequate vegetative cover binds the soil with its root networks in order to ensure that this natural erosion proceeds at a very gradual rate so that nutrient rich topsoil is retained as organic matter decomposes. Since this area had experienced a long history of cultivation, it is unknown to what extent prehistoric and historic agricultural practices may have altered properties of surface soils. Some trails and primitive roads currently observed in the park have been recently created while others follow courses established in pre-Columbian times. In fact, the multi-use trail on the Overstreet Tract was the main road traversing this landscape since antebellum times; in contrast to newer trails, it is generally cut inches or even more than a foot below the surrounding soil surface. Park staff monitors these trails for signs of active erosion and implements corrective actions to mitigate this soil loss. A variety of approaches have been employed for this purpose. A particularly successful technique currently in use involves the creation of water diversion bars to channel flow away from the trail; these bars are composed of bags of crushed concrete overlain with loose crushed concrete material. The bag paper decomposes over time and the crushed concrete remains firm enough to remain in place yet permit percolation.

Steep trail and road grades should especially be monitored for soil loss. The most problematic section occurs where the bicycle trail in north-central zone I crosses the northerly ravine, particularly on the relatively steep north-facing slope. This has resulted in an uneven surface contour evident even during the short time since it was created. In order to determine the rate and pattern of soil loss from this feature, the park staff should initiate a photo point documentation program from fixed vantage points along the length of the problematic portions. The DRP should arrange for a professional contractor to assess this situation and provide recommendations so that a suitably effective remedy can be instituted. Depending on the situation, this expert would likely recommend the rerouting of (non-historic) trails, the resurfacing of trails with protective fabrics or materials, or the restriction of public use for chronically erosive areas. Other particularly problematic access road segments include the steep slopes on the north-south road leading down to the Lake Overstreet-Gum Pond canal



ALFRED B. MACLAY GARDENS STATE PARK

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Florida Department of Environmental Protection Division of Recreation and Parks									
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SOILS MAP

and the east-west road between the powerline corridor and the Three Oaks homesite; park staff monitors and repairs these areas as necessary.

<u>Minerals</u>

No mineral deposits of commercial value are found within the park.

Hydrology

Surface water flows toward the Lake Jackson drainage basin off park property with Lake Overstreet and Lake Hall dominating the surface hydrology in the park. Both are fed primarily by surface runoff from surrounding habitats, though relatively persistent water levels during times of severe drought may indicate the contribution of a subterranean water source. The deepest holes at Lake Hall are over 50 feet in depth. The lakes are not known to have ever dried up, which is rather atypical for lakes in northern Leon County generally characterized by recession and recharge on a nearly cyclical basis. Lake Overstreet remains undeveloped while residential neighborhoods occupy the northern shoreline of Lake Hall; the park's main recreation / swimming area is also located on Lake Hall's southern shore. After significant storm events, highlevel surface water historically flowed from Lake Hall through an artificial ditch that then sheet-flowed through a thin strip of bottomland forest into the southeast portion of Lake Overstreet; since the ditch's original construction, sediment deposition has raised the surface level of the canal so that mass water movement along this course is now relatively uncommon except in unusually high water events. Where an access road crosses this canal about midway between the two lakes, the original culvert is now submerged in the soil out of view and a latter day culvert sits above it.

Historically, water also overflowed south from Lake Elizabeth partially through a manmade ditch to then sheet flow through bottomland forest into the north end of Gum Pond; a water retention structure now occurs along the park boundary that blocks this water flow in the majority of cases at present. As the water level rises in Gum Pond, it overflows through bottomland forest, also channeled through an artificial ditch, into Lake Overstreet. The Little Gum Pond contributes additional water through an artificial ditch to the central ravine, occasionally augmenting the flow of a seepage stream, all of which flows into Gum Pond. Little Gum Pond was originally an isolated depression ephemerally flooded and with no outflow before construction of this ditch; other ditches in the park serve to amplify existing hydrological connections. Water from Lake Overstreet overflows through yet another artificial ditch passing through bottomland forest at the extreme southwestern end of the lake. This surface flow meanders along an ephemeral drainage and passes beyond the park boundary to ultimately enter the southeastern portion of Lake Jackson.

The Floridan aquifer underlies the entire Big Bend region, occurring primarily within the Suwannee Limestone but also flowing through permeable portions of the overlying St. Marks and Hawthorn Formations. Recharge to the aquifer comes from rainfall to Leon County and southern Georgia. Shallow, perched water table aquifers are irregularly distributed throughout much of the Hawthorn and Miccosukee strata and can be depleted during prolonged droughts or through excessive withdrawals. These systems are characterized by water that is soft, turbid, and can be somewhat stained by high iron content.

All permanent water bodies within the park are designated as Outstanding Florida Waters and are managed as natural areas. Littoral zone disturbances outside of designated recreational areas are prohibited in an effort to deter unnatural erosion and help maintain the natural vegetative buffer vital to the water quality of the lakes. Park staff restrict the use of public boats on Lake Overstreet in order to prevent the introduction of invasive exotic vegetation, such as hydrilla or water hyacinth, that often occurs abundantly in other local lakes. The staff uses a boat with an outboard motor for various activities on both lakes, and this boat is thoroughly inspected for exotic vegetation prior to its infrequent launching on Lake Overstreet.

Ongoing baseline water quality monitoring is conducted through Florida Lakewatch in association with the University of Florida, Institute of Food and Agricultural Sciences. Lake Hall and Lake Overstreet are tested multiple times per year for total phosphorus, total nitrogen, total chlorophyll, and turbidity. From this data, spikes related to nutrient loading and increased turbidity related to runoff may be observed. The city of Tallahassee also conducts quarterly water testing from both lakes with the data being compiled into periodic reports; the most recent report was released in September 2009 and the next one is expected soon. This testing program has been ongoing since 1992 for Lake Hall and since 1998 for Lake Overstreet. The former has shown a trend of increasing water quality over an approximately 15 year period ending in 2008 (Lake Condition Index, or LCI, in the "Very Good" range); LCI for Lake Overstreet has been stable with an LCI in the "Good" range. Water quality in the park is potentially impacted through stormwater runoff from nearby residential and commercial property. Storm runoff structures in the vicinity of Thomasville Road, which runs along the park's eastern boundary, serve to direct much of this flow toward a retention area less than one mile to the north.

The ditches connecting the lakes and basin swamps (Gum Pond and Little Gum Pond) represent alterations of the natural hydrological regime, primarily in terms of flow rates rather than redirection with the exception of Little Gum Pond. However, these canals are important cultural features, having been excavated in antebellum times likely with slave labor, which are registered in the Florida Master Site File. Given their historic status and the park's emphasis on preserving the cultural landscape, restoration of the area's hydrology through reburial of the canals is not an option.

Natural Communities

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

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

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

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

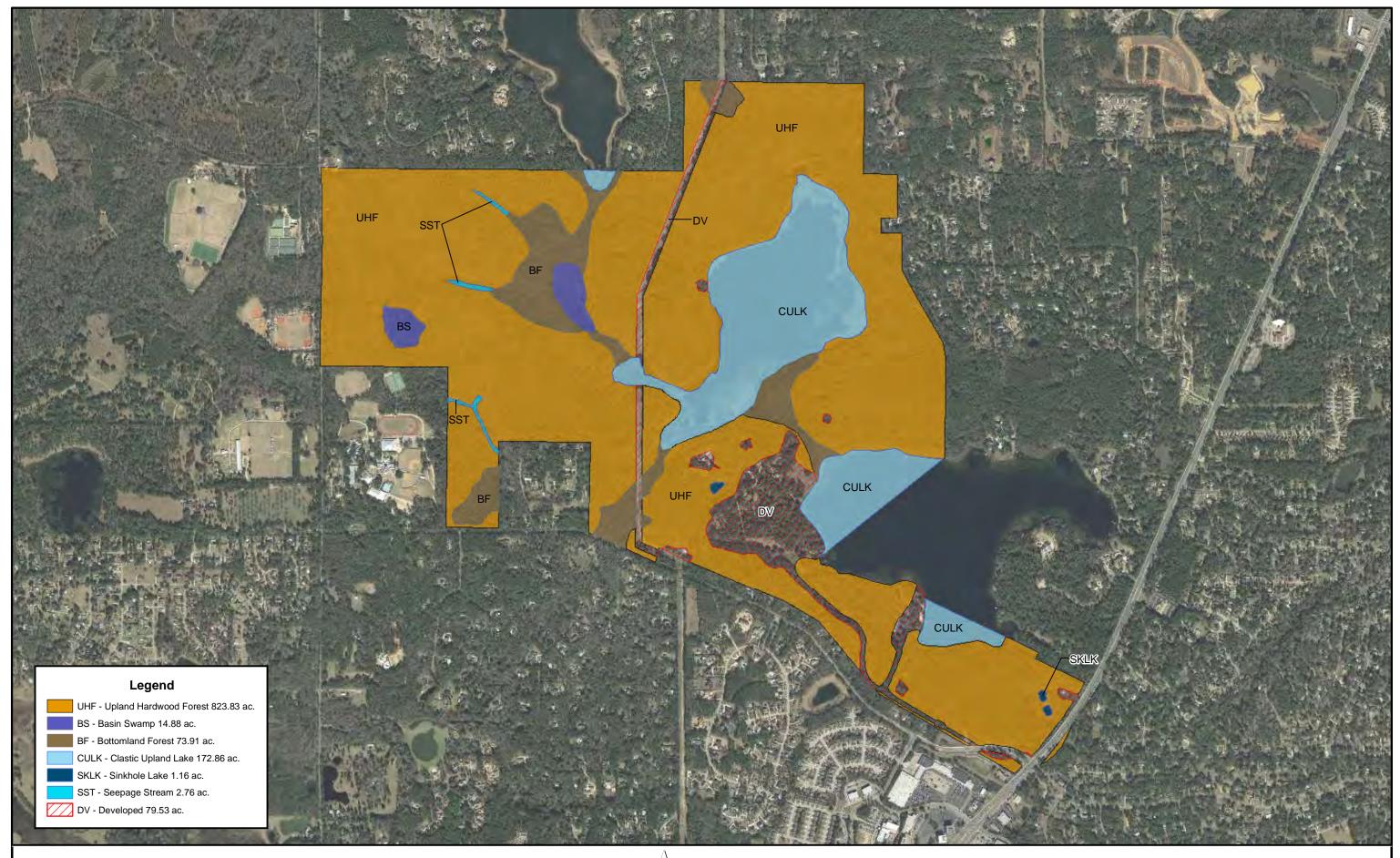
UPLAND HARDWOOD FOREST

Desired future condition: Mature, closed canopy hardwood forest typically occurring on slopes and rolling hills with generally mesic conditions. Overstory tree species may consist of southern magnolia (*Magnolia grandiflora*), sweetgum (*Liquidambar styraciflua*), live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), Florida maple (*Acer saccharinuum* subsp. floridanum), white oak (*Quercus alba*), and swamp chestnut oak

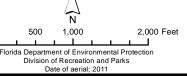
(*Quercus michauxii*). Understory species would include trees and shrubs such as American holly (*Ilex opaca*), flowering dogwood (*Cornus florida*), eastern redbud (*Cercis canadensis*), and beautyberry (*Callicarpa americana*). Ground cover would be comprised of shade tolerant herbaceous species, sedges and vines.

Description and Assessment: The majority of the terrestrial habitats in the park consist of upland hardwood forest. These areas had experienced extensive land use, especially agriculture, from the pre-Columbian era until the first half of the 20th century. As indicated in the Cultural Landscape Master Plan (CLMP; Jaeger and Penton 1999a), land use at any given time was far from uniform so that some areas were farmed as others were left fallow and succeeded to forest at different times. Consequently, one may observe a diversity of conditions in different regions of the park. For example, mature pines, such as longleaf and shortleaf pine (Pinus palustris and Pinus echinata), occur widely scattered throughout zones A and C amidst many species of hardwood trees. This area had been part of John Law's Lac-Cal quail hunting plantation around the turn of the 20th century, when it would have presumably been managed toward conditions favoring quail occupancy. Loblolly pines (Pinus taeda) had recruited in patches to some areas in proximity to Meridian Road when these areas were abandoned old fields decades ago, but they are now mature canopy-level individuals scattered among hardwood species with no significant growth of seedlings and hence minimal population regeneration. Isolated longleaf pine individuals may be occasionally observed scattered throughout the Overstreet Tract's upland hardwood forest. Despite the localized presence of pines occasionally encountered in this habitat, this community was here designated as upland hardwood forest instead of upland mixed woodland given the complete absence of fire at this time as well as the lack of fine fuels to carry a fire, lack of pine recruitment, more mesic character predominant in the community, and the closed canopy condition in the majority of areas providing varying degrees of shade to understory vegetation. Some of the plant species that may be observed here include water oak (Quercus nigra), laurel oak (Quercus hemisphaerica), southern red oak (Quercus falcata), sweetgum (Liquidambar styraciflua), Southern Magnolia (Magnolia grandiflora), American holly (Ilex opaca), pignut hickory (Carya glabra), American beech (Fagus grandifolia), red maple (Acer rubrum), beauty berry (Callicarpa americana), deer berry (Vaccinium stamineum), wax myrtle (Myrica cerifera), yaupon (Ilex vomitoria), sparkleberry (Vaccinium arboreum), grape (Vitis sp.), greenbriar (Smilax sp.), Virginia creeper (Parthenocissus quinquefolia), partridge pea (Chamaecrista fasciculata), slender woodoats (Chasmanthium laxum), poison ivy (Toxicodendron radicans), yellow jessamine (Gelsemium sempervirens), trumpet vine (Campsis radicans), peppervine (Ampelopsis arborea), and basket grass (Oplismenus hirtellus).

Preceding the major land use changes mentioned above, upland mixed woodland and upland pine had likely dominated the landscape now covered by upland hardwood forest in the Tallahassee Hills, including this state park (FNAI 2010, Clewell 2013). It is



ALFRED B. MACLAY GARDENS STATE PARK



NATURAL COMMUNITIES MAP

possible that the previous community types had occurred in a mosaic with higher topographical sites supporting upland pine and somewhat lower areas, transitioning toward adjacent wetter soils, supporting upland mixed woodland. Naturally occurring fire would be more frequent on the higher, dryer sites, intermediate in the transitional habitats, and rare in the wetter communities. The clay containing soils, which more readily retain moisture than sandy soils, should have supported the more abundant hardwood component of the upland mixed woodland stands. Clewell (2013) also argues that the more widespread clearing of the upland areas for agriculture by the 19th century would have promoted the proliferation of tree species formerly common on the wetter sites (e.g. sweet gum, red maple, laurel oak, water oak), poorly suited to crop production, into the upland hardwood forest stands as observed today.

Prior to the revisions of the FNAI natural community classification system in 2010, several stands now referred to as upland hardwood forest were then considered to be slope forests, and they occur in two general areas: along the three ravines in the western portion of the Overstreet Tract and along the steep slopes at the boundary with Thomasville Road. The central ravine contains the most well preserved of these forests in the park, a condition particularly remarkable given the long history of land use in this area. These slopes have a significant grade along most of this ravine's length, even attaining a relatively steep angle in some locations. Many of the trees are quite large, forming a dense canopy furnishing sufficient shade to maintain humid conditions to the understory. This enables a rich assemblage of herbaceous plants to thrive, including bloodroot, wakerobins, southern lady fern (*Athyrium asplenioides*), trout lilies (*Erythronium umbilicatum*), and green dragon. The only sign of significant past disturbance evident in this stand appears to have been the selective timbering of scattered trees.

The northerly ravine environment is drier than the central ravine, containing a more ephemeral seepage stream with typically limited water flow. The northern slope of this ravine supports a distinctive stand dominated by southern magnolia trees occupying about an acre that cover the ground surface in a thick layer of waxy leaves, hindering a thicker growth of groundcover herbs in the immediate vicinity. While this ravine achieves a significant grade in some locations, it is dominated by a much shallower slope than the central ravine. The southerly ravine is intermediate between the other two, but it is heavily infested with coral ardisia, bamboo, and other exotic plants.

The forests that occur in the vicinity of the sinkholes near Thomasville Road have a somewhat degraded understory, though there are many mature trees in this area that grow to impressive dimensions. The exotic plant infestation in this general vicinity, and throughout the eastern portion of zone A, was one of the most extensive in the park and this zone is adjacent to relatively dense suburban neighborhoods and a commercial

area; contractors have treated this area in the recent past and dramatically reduced the abundance of exotic plants with follow up treatments provided by park staff.

General management measures: Exotic plant control is the most significant management concern for this community. Especially given their unique conditions and the presence of rare plant species, the central and northern ravines are high priority areas for treating exotic plants when they are encountered to preserve habitat quality. Work should continue to reduce the infestations in the southerly ravine and adjacent to Thomasville Road.

Erosion is also an issue affecting the forests downslope from Thomasville Road. A major drainage structure was constructed at the site of a deep and spreading gully leading into the filled and now dry sinkhole; another gully is located to the south but the surrounding vegetation appears to be containing its spread. Erosion has also occurred from a bicycle trail crossing the northerly ravine. These areas and other steep slopes should be monitored for progressive loss of soil and corrective actions taken if deemed necessary to correct problem zones.

Otherwise, the upland hardwood forest requires minimal management measures since it does not typically burn and gap dynamics would serve to provide recruitment opportunities as the forest ages. Development, such as trail construction, should be minimized in portions of the park that currently lack significant penetration in order to maintain refugia for wildlife, especially in the north central areas of the park above Lake Overstreet and north of the multi-use trail that circles this lake.

CLASTIC UPLAND LAKE

Desired future condition: Clastic upland lakes are depressions or basins that occur over clay and organic substrates in upland environments. They range from shallow to relatively deep and are lentic (non-flowing) with surface water inflows but without significant regular outflows. The water is generally clear to colored, circum-neutral to slightly acidic, with low mineral content. Nutrient levels range from low (oligotrophic) to high (eutrophic) with corresponding levels of biological productivity depending on their geologic age and the surrounding upland habitats. Vegetation potentially associated with the shorelines or waters of these lakes includes bald cypress (*Taxodium distichum*), water hickory (*Carya aquatica*), water oak (*Quercus nigra*), sweetbay (*Magnolia viginiana*), sweetgum (*Liquidambar styraciflua*), Virginia willow (*Itea virginica*), wax myrtle (*Myrica cerifera*), St. John's wort (*Hypericum* spp.), elderberry (*Sambucus nigra* ssp. *canadensis*), sweetpepperbush (*Clethra alnifolia*), pickerelweed (*Pontederia cordata*), arrowheads (*Sagittaria* spp.), yellow waterlily (*Nymphaea mexicana*), American lotus (*Nelumbo lutea*), coontail (*Ceratophyllum demersum*), water milfoil (*Myriophyllum* spp.), bladderworts (*Utricularia* spp.), and pondweeds (*Potamogeton* spp.).

Description and Assessment: There are three clastic upland lakes occurring at least in part on park property: Lake Overstreet, Lake Hall, and Lake Elizabeth. Lake Hall is a 160 acre clastic upland lake of which approximately 56 acres are within park boundaries. Overall, the water of the lake is clear throughout most of the year, except after heavy rains and during periods of high visitation immediately around the swimming area. The lake is clay-bottomed with substantial organic deposits accumulating in deeper water. Submergent and emergent aquatic vegetation is thick along the shoreline. Substantial efforts are made by park staff to minimize the effect of fertilizers, pesticides, and herbicides from the ornamental garden along the Lake Hall shoreline. In addition, the swimming area on Lake Hall is a regionally important recreational resource and is heavily used on weekends during the summer. In the past, sand has been placed along the shoreline over the natural clay substrate to accommodate the recreational demand for a beach. The rare plant slender naiad (Najas *filifolia*) occurs in Lake Hall; this species is only known to occur in a relatively small assemblage of lakes in northern Florida and southern Georgia. The Invasive Plant Management Section (IPMS) of the Florida Fish and Wildlife Conservation Commission (FWC) monitors and treats Lake Hall for exotic plant species, especially hydrilla (*Hydrilla verticillata*).

Lake Overstreet, which is entirely on park property, is one of the last remaining lakes in Leon County with a completely undeveloped shoreline. In the perimeter shallows, the lake supports a diverse assemblage of native, aquatic flora. No exotic plant species have been yet observed in the lake. In February 2010, park staff observed that an eagle nest had been constructed along the western shoreline of Lake Overstreet. It was tended by a mating pair, which appeared to have successfully reared chicks and were seen to have carried food up to them. After a period of inactivity, the eagles apparently have returned during January 2013. Staff plan to continue to maintain a conservation buffer around the nesting area in order to prevent human interference to the eagles' behavior. Only the extreme southern tip of Lake Elizabeth, about 1.5 acres, falls within the park boundary; much of this is now usually dry following the construction of the retention structure in the vicinity of the park boundary. All lakes are linked by historic canals excavated during antebellum times that facilitate water flow down the elevation gradient to eventually end up in Lake Jackson.

General management measures: Exotic plant control is a very important measure undertaken for the lakes. As mentioned, Lake Hall is treated by the IPMS across jurisdictional boundaries as needed for aquatic exotic plant species. There is one boat available to park staff for access to Lake Overstreet; all other boats are prohibited from embarking on this lake in order to protect it from exotic plant infestation. Water quality is measured by Florida Lakewatch and should be preserved by limiting development on the lake shores. While the canals represent very significant alterations to the existing hydrological regime of the lakes, their status as important cultural features dating back more than a century and a half preclude any possibility or desirability for hydrological restoration of these ground features.

SINKHOLE LAKE

Desired future condition: Relatively permanent and typically deep lake characterized by clear water with a high mineral content formed in depressions within a limestone base. Vegetative cover may range from being completely absent, consist of a fringe of emergent species, or be completely covered with floating plants. Typical plant species may include smartweed (*Polygonum* spp.), duckweed (*Lemna* spp.), bladderwort (*Utricularia* spp.), and rushes (*Juncus* spp.). Desired conditions include minimizing disturbances that cause unnatural erosion and minimizing pollution to the connected aquifer system.

Description and Assessment: Three unaltered sinkhole lakes occur in the park surrounded by forest cover and away from areas receiving typical public visitation. One is located in the strip of land between the ornamental garden and Lake Overstreet, just west of the Bureau of Design and Construction complex; it is a substantial depression that is usually filled with water, but visitation during winter 2012 revealed it to be dry for the first time in park staffers' memory on account of an ongoing drought. Two others occur just downslope from Thomasville Road near the park's easternmost boundary; these lakes occasionally contain murky water and lacked significant coverage of aquatic vegetation at time of observation.

A couple years ago, the adjacent slopes below Thomasville Road had been extensively treated with herbicide by contractors for dense stands of exotic woody plants, such as coral ardisia (*Ardisia crenata*), camphor tree (*Cinnamomum camphora*), silverthorn (*Elaeagnus pungens*), nandina (*Nandina domestica*) as well as Japanese climbing fern (*Lygodium japonicum*). The treatment appears to have been rather effective as most targeted plants showed no significant sign of regrowth, though the groundcover vegetation is now sparse in areas. Once the native vegetation is able to reestablish in these areas, the water clarity may improve as sediment transport would decrease down the grade. Litter from the leaf fall may reduce to some degree the sediment reaching the water. There is a sizeable gully that extends along the slope and terminates in one of the lakes; it is fringed with extensive vegetation, including large trees, that anchors the soil around it and does not appear to have increased in recent times. The lake shoreline opposite the slope is heavily vegetated with typical upland hardwood forest species.

A third sinkhole along Thomasville Road had been severely impacted by the deposition of slope sediment from a different gully that had been enlarging at an alarming rate as it quickly lost soil. That sinkhole had been filled with enough material that it is currently a dry, sandy depression so lacking in sinkhole characteristics that it can now be considered a developed area. That erosion problem and the associated gully has been corrected with an extensive stormwater diversion structure in its place so that there now appears to be no significant loss of soil along that slope.

General management measures: As the surrounding habitat is treated for exotic plants and native vegetation replaces them over time, the area of exposed soil should decrease and deposit lower quantities of sediment into the water, which should improve water clarity. The sinkholes will continue to receive some degree of stormwater runoff from the well-traveled six-lane Thomasville Road; as mentioned above, county water diversion structures serve to decrease the quantity of stormwater flow down the slope so that much of this volume is transported to a retention pond north of this location off park property.

BASIN SWAMP

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

Description and Assessment: Two areas west of the powerline corridor may be described as basin swamps, which are named Gum Pond and Little Gum Pond. Gum Pond is linked to a complex hydrological system accepting water flow from two of the ravines and Lake Elizabeth overflow with the water flowing on to Lake Overstreet. Mature, buttressed black gum (*Nyssa biflora*) grows on the western portion of Gum Pond and red maple and sweet bay is common along its fringe. Water loosestrife (*Decodon verticillatus*) is common in the standing water of the swamp. Gum Pond has been observed over the years to support a rookery with great blue heron and anhinga nests. Little Gum Pond was naturally more isolated than Gum Pond and, being much shallower and gradual in relief, had a more ephemeral character. The overstory is dominated by sweetgum with red maple also present. Understory species include a scattering of persimmon, buttonbush, smartweed, meadow beauty, maidencane, big cord grass, peppervine, and St. John's Wort. The exotic tree Chinese tallow may also be

observed in varying age classes distributed around the basin. Distinctive features common to both swamps are the artificially excavated canals initially constructed during antebellum times in order to facilitate the drainage of surface water, thus increasing acreage available for productive agricultural fields or grazing. While the canals associated with Gum Pond promoted drainage through existing bottomland forest stands from Lake Elizabeth to Lake Overstreet, a deep canal linking Little Gum Pond to the western portion of the central ravine established a hydrological connection not previously present.

General management measures: While the canals represent very significant alterations to the existing hydrological regime of the basin swamps, their status as important cultural features dating back more than a century and a half preclude any possibility or desirability for hydrological restoration of these communities. The main management goal for these swamps is to control or prevent exotic plant establishment in these areas.

BOTTOMLAND FOREST

Desired future condition: A fairly low lying, mesic community prone to periodic flooding. Vegetation will consist of a mature closed canopy of deciduous and evergreen trees. Overstory species may consist of species such as sweetgum (*Liquidambar styraciflua*), sweetbay (*Magnolia viginiana*), water oak (*Quercus nigra*), live oak (*Quercus virginiana*), swamp chestnut oak (*Quercus michauxii*), loblolly pine (*pinus taeda*), red maple (*Acer rubrum*), and spruce pine (*Pinus glabra*). Under story may be open or dense. Understory species would typically include wax myrtle (*Myrica cerifera*), dwarf palmetto (*Sabal minor*), and swamp dogwood (*Cornus foemina*). Presence of groundcover is variable and may consist of witchgrass (*Dicanthelium* sp.) and various sedges (*Carex* spp.).

Description and Assessment: Bottomland forests occur along linear troughs that connect and ultimately drain the various water bodies during periods of high rainfall. Bottomland forest forms the natural high water connection via surface flow between Lake Hall, Lake Overstreet, Lake Elizabeth, Gum Pond, and Lake Jackson (off park property). All water bodies are now connected by excavated canals to facilitate water flow and drainage, ultimately exiting the park just west of the powerline corridor to eventually end up in Lake Jackson. It should be noted that hydrological alterations, most significantly the channeling of surface water flow within the canals, have most likely reduced the frequency of flooding over these soils so that it is now a relatively uncommon event. The prior character of this habitat was likely much wetter than it is now as sheet flow following rainy periods would have saturated the substrate.

Water flowing from the seepage streams passes from the northerly two ravines into the flat topography of the bottomland forest. From there, it enters Gum Pond on its way toward Lake Jackson. Two other relatively small areas of bottomland forest occur along

the park boundary near the northern end of the powerline corridor and near the southernmost ravine. The understory here is variable: some portions are occupied by tall trees with a thick canopy creating a moist environment for abundant herbaceous groundcover while other portions are dense with vegetation so as to be practically impenetrable. Plant species observed in this community type include black gum (*Nyssa biflora*), red maple (*Acer rubrum*), sugarberry (*Celtis laevigata*), sweetgum (*Liquidambar styraciflua*), laurel oak (*Quercus hemisphaerica*), ironwood (*Carpinus caroliniana*), Virginia willow (*Itea virginica*), sweetbay (*Magnolia virginiana*), horse sugar (*Symplocos tinctoria*), basswood (*Tilia americana*), lizard's tail (*Saururus cernuus*), royal fern (*Osmunda regalis*), netted chain fern (*Woodwardia areolata*), bog hemp (*Boehmeria cylindrica*), and sensitive fern (*Onoclea sensibilis*).

General management measures: While the canals represent very significant alterations to the existing hydrological regime of the alluvial forests, their status as important cultural features dating back more than a century and a half preclude any possibility or desirability for hydrological restoration of these communities. The main management goal for these forests is to control or prevent exotic plant establishment in these areas. Exotic plants, including coral ardisia, camphor tree, and Japanese honeysuckle, occur in sections of this community type, particularly adjacent to the canal between Lake Overstreet and Gum Pond.

SEEPAGE STREAM

Desired future condition: Narrow, relatively short perennial or intermittent stream formed by percolating water from adjacent uplands. Water color will be clear to slightly colored, with a fairly slow flow rate and fairly constant temperature. Bottom substrate is typically sandy, but may include gravel or limestone.

Description and Assessment: Rain falling on the uplands percolates over time through the semi-permeable soils to supply several seepage streams. These watercourses have been instrumental in shaping the dramatic topography of the ravines located in the western half of the park. There are three ravines in this area: two are north of the multi-use trail and flow into bottomland forest and then into the Gum Pond, and one south of this trail which flows off park property at the southern boundary. The central ravine, which receives water flow from the Little Gum Pond canal during heavy rains, carries the most water regardless of the canal input and usually has surface flow to some degree. The other two streams are of a lower magnitude and are more likely to lack surface flow during drier conditions, particularly the northerly one. The clear waters flow over sandy bottoms in most places, though in some locations the water has cut down to limestone bedrock to create a picturesque series of short waterfalls. The steeper banks adjacent to the streams support cool, moist conditions, allowing draperies of ferns such as southern lady fern and ebony spleenwort. Other plants found within or

adjacent to the streams include sphagnum moss, sensitive fern, chain ferns, partridge berry, Christmas fern, liverwort, cinnamon fern, and giant cane.

General management measures: The main management goal for these streams is to control or prevent exotic plant establishment. Control efforts have reduced the frequency and abundance of exotic plants in the vicinity of the central ravine's stream while establishment of exotic plants along the northerly stream had proceeded more slowly than the other two. However, the southerly stream is occupied by extremely dense stands of coral ardisia and, to a lesser extent, other species such as wild taro; dense infestations occur beyond the park boundary. Control efforts are currently focusing on the southerly ravine to reduce these infestations. The banks of the streams should be monitored for signs of erosion, particularly as the coral ardisia is treated along the southerly ravine.

DEVELOPED

Desired future condition: The developed areas within the park will be managed to minimize their effect on adjacent natural areas. Priority invasive plant species (FLEPPC Category I and II species) will be removed from developed areas. Stormwater management is another priority in these areas.

Description and Assessment: Developed areas include the picnic area, ornamental gardens, the Maclay estate, maintenance buildings, and vernacular homes as well as the Bureau of Design and Construction building complex. A north-south running powerline right-of-way, about 30 acres in size, cuts across upland hardwood forest, bottomland forest, and a portion of Lake Overstreet. A major erosional gully leading downslope from Thomasville Road into a sinkhole has been replaced with an elaborate stormwater diversion structure that has arrested soil loss on the slope.

General management measures: Park staff should continue to monitor developed areas for exotic plant species and stormwater flooding issues and provide treatment or corrective actions, respectively, as necessary.

Imperiled Species

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

Alfred B. Maclay Gardens State Park supports 14 imperiled plant species occurring in a variety of habitats. Most of the naturally occurring species occur in the ravines and, for some taxa, the adjacent bottomland forests to a lesser extent, including southern lady

fern (*Athyrium filix-femina*), dimpled trout lily (*Erythronium umbilicatum*), heartleaf wild ginger (*Hexastylis arifolia*), and green adder's mouth (*Malaxis unifolia*). The management imperative for most of these species is to maintain and/or enhance the habitat quality of the ravines by controlling exotic plant infestations, monitoring for erosion, and preserving natural buffers by minimizing foot disturbance off of existing trails. No signs of significant foot traffic were evident at the time of survey; if park staff observes unofficial trails penetrating this habitat, they should erect signage and try to divert this entry.

Bay starvine was particularly rare where it was known to occur in the central ravine. Four mature individuals were identified in the last five years at specific locations. Unfortunately, the tall southern magnolia supporting the largest specimen toppled over a couple years ago and the entire aboveground portion died in the following months; several small runners were observed in summer 2011 to have sprouted from its base. Two very small recruits were identified just downslope from the fallen vine and their locations have been marked. The other three known mature individuals have not been observed for several years and are believed to have died. In 2009, park staff collected seed and have grown seedlings in the park greenhouse for eventual reintroduction. Exotic plant control technicians are shown where the surviving vines occurred and instructed to use extreme caution when treating infestations to avoid non-target damage. Since the bay starvine may appear somewhat similar to the exotic Japanese honeysuckle (Lonicera japonica), these employees should be particularly aware of the difference between these species in order to avoid harming the imperiled plant. A search during fall 2012 failed to find any surviving individuals, which may be attributable to drought conditions prevalent during this time. Four potted seedlings, introduced to the vicinity during February 2012, also died and wire rings placed around them had been disturbed by wildlife. The staff continues to maintain seedlings in the greenhouse for future introductions and future stock plants.

The shallows of Lake Hall provide habitat for the rare aquatic species, the slender naiad (*Najas filifolia*), which infrequently occurs in a small assemblage of north Florida and south Georgia lakes. Active monitoring of this species during the growing season would assist with monitoring its persistence. Unfortunately, Lake Hall also harbors recurring infestations of aquatic exotic plants, particularly hydrilla. When IPMS personnel treat these infestations, they should survey for its presence and provide for its protection in the course of their herbicide applications in order to prevent non-target damage.

Other plants featured in Table 2 below are planted in the ornamental garden and are not currently known to occur naturally in the undeveloped habitats of the park. They are cared for and maintained as part of the routine upkeep of the garden. Many of these individuals, particularly the endangered Torreya trees (*Torreya taxifolia*), are quite healthy and robust even in comparison with their natural conspecifics occurring in other locations in the region. There are 100 Torreya individuals planted and incorporated into the ornamental gardens, which are carefully monitored and tended by the park staff; in the past, various staff members have conducted research involving seed propagation and fungal infestations in the Torreya trees.

There is also a variety of imperiled animal species occurring in the park. The wading birds may be commonly observed foraging or perched along the lakes or Gum Pond. Preserving the undeveloped condition along the shorelines, particularly Lake Overstreet, as well as retaining dead snags for perches in these locations assists in their persistence. Gopher tortoises are occasionally observed foraging on the grass along the powerline corridor; there have even been intermittent reports of burrows existing along this right-of-way. Staff operating mowers over this ground should watch for tortoises and avoid damage to the burrows. Observations of tortoises or suspected burrows are recorded by park staff in a log. There have been several reports over the past decade of Sherman's fox squirrels being observed in the park; it is not known whether these squirrels currently inhabit the park or may have been transients from nearby undeveloped parcels north of the park boundary.

Table 2 contains a list of all known imperiled species within the park and identifies their status as defined by various entities. It also identifies the types of management actions that are currently being taken by DRP staff or others, and identifies the current level of monitoring effort. The codes used under the column headings for management actions and monitoring level are defined following the table. Explanations for federal and state status as well as FNAI global and state rank are provided in Addendum 6.

Table 2: Imperiled Species Inventory								
Common and Scientific Name	Imperilec	Management Actions	Monitoring Level					
	FFWCC	USFWS	FDAC S	FNAI	Manage Actions	Monit		
PLANTS								
Southern lady fern <i>Athyrium filix-femina</i>			LT		2, 10, 13	Tier 1		
Dimpled trout lily <i>Erythronium umbilicatum</i>			LE	S2,G5	2, 10, 13	Tier 1		
Heartleaf wild ginger Hexastylis arifolia			LT	S3,G5	2, 10, 13	Tier 1		

Table 2: Imperiled Species Inventory							
Common and Scientific Name	Imperiled Species Status				Management Actions	Monitoring Level	
	FFWCC	USFWS	FDAC S	FNAI	Manage Actions	Monit	
Mountain laurel * Kalmia latifolia			LT	S3,G5	13	Tier 1	
Ashe's magnolia * <i>Magnolia ashei</i>			LE	S2,G2	2, 10, 13	Tier 1	
Green adder's mouth Malaxis unifolia			LE	S3,G5	2, 10, 13	Tier 1	
Southern crabapple Malus angustifolia			LT		2, 10, 13	Tier 1	
Slender naiad Najas filifolia			LT	S1,G1	2, 13	Tier 2	
Alabama azalea * Rhododendron alabamense			LE	S2,G4	13	Tier 1	
Orange azalea * Rhododendron austrinum			LE	S3,G3 G4	13	Tier 1	
Chapman's rhododendron * Rhododendron chapmanii		LE	LE	S1,G1	13	Tier 1	
Bay starvine Schisandra glabra			LE		2, 3, 13	Tier 2	
Florida yew * Taxus floridana			LE	S2,G2	13	Tier 1	
Florida torreya * <i>Torreya taxifolia</i>		LE	LE	S1,G1	13	Tier 1	
REPTILES							
American alligator <i>Alligator mississippiensis</i>		FT(S/A)		S4, G5	2, 10, 13	Tier 1	
Gopher tortoise Gopherus polyphemus	ST			S3, G3	10, 13	Tier 1	
BIRDS							
Little blue heron Egretta caerulea	SSC			S4	2, 10, 13	Tier 1	
Snowy egret Egretta thula	SSC			S4	2, 10, 13	Tier 1	

Table 2: Imperiled Species Inventory							
Common and Scientific Name	Imperiled Species Status				Management Actions	Monitoring Level	
	FFWCC	USFWS	FDAC S	FNAI	Manage Actions	Monit	
Tricolored heron Egretta tricolor	SSC			S4	2, 10, 13	Tier 1	
Southeastern American kestrel Falco sparverius paulus	ST			S3	2, 13	Tier 1	
Wood stork Mycteria americana		FE		S2, G4	2, 10, 13	Tier 1	
MAMMALS							
Sherman's fox squirrel Sciurus niger shermani	SSC			S2,G5 T2	10, 13	Tier 1	

* This plant species is found in the ornamental garden and is not known to occur in the natural communities.

Management Actions:

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

Monitoring Level:

Tier 1.Non-Targeted Observation/Documentation: includes documentation of
species presence through casual/passive observation during routine park

	activities (i.e. not conducting species-specific searches). Documentation
	may be in the form of Wildlife Observation Forms, or other district specific
	methods used to communicate observations.
Tier 2.	Targeted Presence/Absence: includes monitoring methods/activities that
	are specifically intended to document presence/absence of a particular
	species or suite of species.
Tier 3.	Population Estimate/Index: an approximation of the true population size
	or population index based on a widely accepted method of sampling.
Tier 4.	Population Census: A complete count of an entire population with
	demographic analysis, including mortality, reproduction, emigration, and
	immigration.
Tier 5.	Other: may include habitat assessments for a particular species or suite of
	species or any other specific methods used as indicators to gather
	information about a particular species.

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

Exotic and Nuisance Species

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

By far, the most significant threat to the integrity of natural habitats and imperiled species at the park consists of exotic plant infestation. The park, by virtue of its location near Tallahassee at a regional nexus of infestation and likely as a side effect of its long history of human habitation and agriculture, has a serious problem with these invasive plants. In some areas, the plants grow very dense and even achieve the dominant ground coverage in some stands. There is a general gradient in exotic plant infestation whereby frequency, abundance, and diversity of these pest plants increases from Meridian Road in the west to Thomasville Road in the east. Notable and unfortunate exceptions to this trend are the infestations that have at some time affected the most valuable habitat in the park, the ravines. The relatively cool, moist conditions so favorable for native plant growth in these habitats also have very productive potential for invasive plant growth and expansion once established. At present, vigorous treatment with herbicides or hand pulls has greatly reduced the occurrence of these plants in the central ravine. On the other end of the spectrum, the southerly ravine, proximal to very thick stands of exotic plants across the park boundary, supports extremely high densities of these species, especially monocultures of coral ardisia and dense areas of bamboo (Bambusa sp.; not a FLEPPC species); this area is currently the

primary target of intensive efforts to control these infestations. The northerly ravine supports a scattering of exotic plants, including coral ardisia, Japanese climbing fern, and Mariana maiden fern (*Macrothelypteris torresiana*; not currently a FLEPPC invasive species).

The prioritization of exotic plant control is based on treating or preventing infestations from particular areas or distinctive habitats. Given the importance of the ravines in terms of rare plant presence and maintaining habitat quality in general, these areas have the highest priority. Maintaining past progress in reducing infestations, and treating scattered exotic plants before they increase in abundance and become serious problems, in the northern and central ravines has the highest priority; surveillance and treatment when necessary should continue on an ongoing basis. The next highest priorities would entail long term efforts extending over the next planning cycle and includes: (1) reducing the very high densities of coral ardisia and other pest plants growing on and around the southerly ravine (zone L), (2) continuing to monitor and treat areas that had been intensively treated by IPMS or DRP staff in the recent past (zones A, B, C, F) in order to retain gains, and (3) targeting along and around corridors (trails, access roads, rights of way) where the likelihood of spreading propagules is higher. Predominant species occurring in these areas include coral ardisia, Japanese climbing fern, camphor tree, glossy privet, and nandina. Given the scale of the problem, these items are pursued in parallel throughout the year in order to prevent losing ground on any one item.

Up until a few years ago, staffing shortages have meant that making significant progress on treating these infestations was extremely challenging. At that time, a budgetary allocation dedicated toward exotic species control has enabled the hiring of multiple technicians solely committed to treatment efforts as well as the purchase of adequate equipment and herbicides to confront the problem. This has been an enormous boon in terms of reducing these infestations. These employees work in a variety of zones in the park, but effort is most concentrated at the sites with the highest need as a result of the most urgent threat to the valuable natural resources, the ravines. An exotic plant management plan is in effect to provide guidance toward establishing priorities for control.

Other labor sources are also utilized in order to combat the infestations. Every year, a proposal has been submitted to the Invasive Plant Management Section (IPMS) of FWC in order to seek contractor assistance on exotic plant control for selected target zones. While budget reductions in the last few years affecting IPMS have impacted its ability to fund all projects submitted, the contracted labor has been very helpful in confronting the exotic plant problem at the park. Most notably, these contractors have extensively treated exotic plants in zones A, B, and C to greatly reduce the extent of monocultures present in portions of these areas. Labor sources also utilized in this effort include

AmeriCorps volunteers as well as nonaffiliated volunteers living in the vicinity. IPMS employees have also treated aquatic invasive plants occurring on Lake Hall, especially the aggressive weed, hydrilla; they monitor the quantity of exotic infestation on the lake every year and treat it as needed, achieving significant control. They remain vigilant to avoid impacts to the imperiled species slender naiad (*Najas filifolia*), which also occurs in Lake Hall. Fortunately, aquatic exotic plants have not been observed so far on Lake Overstreet, which retains its high habitat quality; in order to preserve this condition, park staff restrict access on these waters and non-park watercraft are not permitted. They will continue to monitor this lake for exotic plants and arrange for control if necessary. Efforts to inform neighbors and the public at large about prevention of aquatic exotic plant spread between lakes are ongoing, including signage on site, educational handouts, incorporation into interpretive programs, and discussion at public meetings.

In the course of treating these dense infestations, several considerations must be kept in mind. Given the abundance of these exotic plants and the herbicide application necessary to control them, prevention of non-target effects on adjacent native plants should continue to be practiced. Thus far, no significant deleterious effects have been observed for the over- and understory in high intensity treatment areas; declines in native plants in the vicinity should always be monitored for so that adjustments to strategy can be implemented. Also, herbicides determined to have potentially damaging effects on water resources and the creatures that inhabit them (e.g. Garlon-4, Roundup) should not be applied in proximity to surface waters; a suitable herbicide safe for aquatic applications (e.g. Rodeo) should be used instead. In areas with intensive treatment and subsequent extermination of high densities of exotic plants, park staff should monitor for soil erosion, particularly along slopes or areas with flowing water, and provide corrective action if necessary.

Some of the same exotic plants currently impacting natural areas are included in portions of the ornamental garden and its vicinity, including about half a dozen very massive camphor trees. Given their longevity and original planting by the Maclays, they are now considered to be part of the cultural heritage of the park and its garden. The park staff work to ensure that these plants do not spread propagules to the surrounding landscape by closely monitoring the developed and natural areas in the vicinity of the gardens for seedlings and treating or hand pulling them when encountered. Park and district staff will collaborate on drafting a plan that seeks to remove the FLEPPC invasive exotic plant species from the ornamental gardens as part of an incremental approach over the next planning cycle.

Table 3 contains a list of the Florida Exotic Pest Plant Council (FLEPPC) Category I and II invasive, exotic plant species found within the park (FLEPPC, 2009). The table also identifies relative distribution for each species and the management zones in which

they are known to occur. An explanation of the codes is provided following the table. For an inventory of all exotic species found within the park, see Addendum 5.

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Table 3: Inventory of FLEP	PC Category I and	II Exotic Plant Sp	pecies
Common and	FLEPPC		Management
Scientific Name	Category	Distribution	Zone (s)
PLANTS			
Mimosa	т		A D
Albizia julibrissin	Ι	2	А, В
Tung oil tree	II	2	V I
Aleurites fordii	11	2	K, L
Coral ardisia	Ι	224	A, B, C, D, E, F, G,
Ardisia crenata	1	2,3,4	H, I, J, K, L, N
Camphor tree	Ι	224	F, I, K, M
Cinnamomum camphora	1	2,3,4	Γ , I, K, IVI
Wild taro	Ι	2,3	L
Colocasia esculenta	1	2,5	
Silverthorn	п	2,3	A, F, H
Elaeagnus pungens	11	2,0	11,1,11
Water hyacinth	Ι	3	М, О, Р
Eichhornia crassipes	1	5	WI, O, I
Japanese privet	I	2	А
Ligustrum japonicum	1	<u> </u>	21
Glossy privet	Ι	2,3	D, F, G
Ligustrum lucidum	1	2,5	0,1,0
Chinese privet	I	2,3	A, B, C, D, E, F, I
Ligustrum sinense	-	2,0	
Japanese honeysuckle	Ι	2	A, B, C, E, F, G,
Lonicera japonica	1	<u> </u>	H, I, K, L, N
Japanese climbing fern	I	2,3	A, B, C, E, F, G,
Lygodium japonicum	1	2,5	H, I, K, L, N
Cat claw vine	Ι	2	Ν
Macfedyena unguis-cati	1	<u> </u>	
Nandina	Ι	2	C, E, F, G, H, J, L,
Nandina domestica	1		N
Skunk vine	Ι	2,3	Ν
Paederia foetida		 ,0	± *
Golden bamboo	II	3	A, D, F, H, L
Phyllostachys aurea			

Table 3: Inventory of FLEPPC Category I and II Exotic Plant Species						
Common and	FLEPPC	Distribution	Management			
Scientific Name	Category	Distribution	Zone (s)			
Kudzu	T	2,3	Т			
Pueria montana	1	2,5	1			
Chinese tallow tree	T	2,3	B, K, L, N			
Sapium sebiferum	1	2,5	$D, \mathbf{R}, \mathbf{L}, \mathbf{N}$			
Tropical soda apple	T	2	A, C			
Solanum viarum	1	2	A, C			
Chinese wisteria	TT	2	А			
Wisteria sinensis	11	<i>∠</i>				

Distribution Categories:

- **0** No current infestation: All known sites have been treated and no plants are currently evident.
- **1** Single plant or clump: One individual plant or one small clump of a single species.
- 2 Scattered plants or clumps: Multiple individual plants or small clumps of a single species scattered within the gross area infested.
- **3** Scattered dense patches: Dense patches of a single species scattered within the gross area infested.
- 4 Dominant cover: Multiple plants or clumps of a single species that occupy a majority of the gross area infested.
- 5 Dense monoculture: Generally, a dense stand of a single dominant species that not only occupies more than a majority of the gross area infested, but also covers/excludes other plants.
- 6 Linearly scattered: Plants or clumps of a single species generally scattered along a linear feature, such as a road, trail, property line, ditch, ridge, slough, etc. within the gross area infested.

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

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

There are four exotic animals present in the park. Armadillos are considered an exotic species east of Louisiana. Armadillos are largely nocturnal but are occasionally seen foraging by day. These omnivorous mammals prey upon salamanders and compete with native fauna for insects and other forest invertebrates. Additionally, their rooting can affect sensitive ravine and bottomland forest herbs. Armadillos are a particular concern within the ornamental gardens where their rooting disturbs groundcover and deteriorates the cultural landscape. Especially given its developed surroundings, cats occasionally prowl within the park. They are capable of impacting native fauna by killing birds and small mammals and reptiles. Rats can be problematic to the park when they inhabit buildings by causing structural damage over time, thus accelerating deterioration and increasing maintenance issues; capable of carrying diseases affecting humans, they can also present health hazards. Coyotes have also been observed occasionally in sections of the Overstreet tract and around Lake Hall.

Native species such as southern pine beetles and alligators can be problematic within the park. Southern pine beetles have been known to attack some of the pines on a small scale. Of particular concern is the small area of mature longleaf pines above Lake Hall. Lightning struck pines in or near this area should be promptly removed in order to minimize the risk of infestation in adjacent longleaf pines. Beetle infested tree removals would be conducted in coordination with Florida Forest Service. Alligators occasionally move into the swimming areas. Interpretative signs have been erected to warn visitors not to feed the alligators. Alligators are removed only when staff efforts to discourage them from entering the swimming area prove unsuccessful.

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

Special Natural Features

The clastic upland lakes (Lake Hall and Lake Overstreet), sinkhole lakes, and ravines are considered special natural features at this park. Lake Overstreet is one of the last lakes of this size in Leon County with a completely forested and undeveloped shoreline, and it is unique in this area for not containing exotic plant infestations. Both Lake Overstreet and Lake Hall are important natural resources providing excellent habitat for freshwater fish, otters, alligators, turtles, and migratory wildfowl. The ravines are scenic drop-offs at the bases of which are natural seepage streams. The park's dramatic ravines and associated biota should be regarded as special natural features. These topographical features are unusual within the state of Florida and harbor a distinct habitat highly reminiscent of the Appalachian region. It should be noted that one of the primary emphases of the park is to preserve and interpret the cultural resources and history of human habitation, both from indigenous and modern historical times.

Cultural Resources

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

Condition Assessment

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

Level of Significance

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

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

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

Pre-Historic and Historic Archaeological Sites

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

Description: The park encompasses a landscape with a long history of pre-Columbian inhabitation, which has left many traces still evident in a multitude of archaeological sites (Doran 1992; Jaeger and Penton 1999a, 1999b; Keel 1999). The park property occupies an area known as the Tallahassee Hills, which is a subset of the wider region of the Red Hills and it contains some of its highest elevations. This rolling terrain is highly atypical of the rest of the landscape dominating the state and contains soils chiefly composed of clayey and sandy components, which provided productive land for agriculture. These soils, along with plentiful rain and abundant lakes formed in underlying limestone depressions, had permitted indigenous people, the Apalachee, to thrive and raise crops long before the arrival of the European explorers. Investigations thus far in the park have uncovered archaeological sites of camps and villages dating through the Deptford, Weeden Island, Fort Walton, and Leon-Jefferson periods as well as a number of prehistoric sites of uncertain age, representing a known span of about 2,000 to 3,000 years. Many of these sites were located by conducting shovel tests of areas deemed likely to have been utilized by prehistoric people based on their location in relation to significant landforms or resources, such as in proximity to lakes or on raised ground yielding good vantage points for the surroundings. Other sites have been located as a result of monitored construction activities or along existing trails. Still other archaeological artifacts were uncovered while studying historic structures and sites. While archaeological sites at this park may contain artifacts from a wide variety of past periods, the sites can often be generally described as having elements that are primarily dominated by prehistoric versus historic times (e.g. tenant house site with a diffuse scattering of pottery shards, likely Apalachee village site overlain with sparse

glass bottle fragments); of the park's 50 recorded archaeological sites, 32 are primarily prehistoric in nature and 18 are primarily dominated by a historic component.

The majority of prehistoric sites recorded to date consist of low-density artifact lithic and pottery scatters found throughout the park property. Tesar and Jones (Tesar et. al. 1995) have noted the possibility of more deeply buried Woodland and Late Archaic period deposits. In fact, given the abundance of rich natural resources in the vicinity that would have been available to prehistoric people for thousands of years, it is very likely that a wider variety of pre-Columbian artifacts and habitation sites exist than is currently known. Furthermore, while most artifacts discovered so far in terrestrial habitats have been hard items resistant to decomposition (e.g. shells, rocks, bones), several known sites segue into bodies of water, presenting the possibility that organic materials (e.g. wood, fabric, netting) may be someday uncovered as preserved in the oxygen-poor wet mucky soils.

Additionally, there are a number of historic sites scattered throughout the park, including the Three Oaks homesite, Ravine Road homesite, Purple Brick homesite, North Lake Overstreet dump, Gum Pond homesite, Near Dock homesite, Cedar Shake homesite, and Smith homesite. At the time of park property acquisition, some of these sites contained decrepit structures judged to be of such a poor condition and potential safety hazards to park visitors that it was determined that careful documentation followed by demolition was the best course of action. At the current time, supporting piers, staircase fragments, chimney bases and brick falls, other structural elements, and artifact scatters are still apparent aboveground; historic artifact scatters presumably remain beneath the soil surface around many of these locations. Remnants of the original landscaping vegetation are still present at some sites, which include both invasive and non-invasive exotic plants (e.g. hedge bamboo, palms versus coral ardisia, Chinese wisteria, nandina).

As mentioned above, there are multiple ditches excavated in the 19th century in order to facilitate drainage between the lakes and basin swamps on the property, including the Little Gum Pond-Lake Overstreet Drain, Lake Elizabeth-Gum Pond ditch, Gum Pond-Lake Overstreet ditch, and Lake Hall-Lake Overstreet ditch. There is a high likelihood that these drainage structures, at least in part, were excavated during antebellum times using slave labor. Other historic archaeological sites known to occur on park property include roads dating to pre-20th century times (many based on extant access trails established by pre-Columbian inhabitants) and trash dumps used as far back as the 19th century. Three of the historic buildings in the maintenance complex (the pull-through barn, Delia's cottage and the laundry building) burned down in a fire in December 2004; the structures were completely lost with only support piers still present. These sites are now treated as archaeological sites.

Development of a predictive model intended to elucidate likely areas for further investigation has been completed by the University of South Florida for District 1 state parks, which includes Alfred B. Maclay Gardens State Park. The report identified nine new sites, which have been recorded in the Florida Master Site File, and described six previously recorded sites that could not be relocated via visual inspection by DRP staff members. A Phase I archaeological survey has been undertaken as one segment of the preparation of the Cultural Landscape Master Plan (Keel 1999).

Condition Assessment: Of those archaeological sites in the park that were evaluated, they are generally in good condition. As long as the soil has not been disturbed or is not actively eroding, the configuration and content of artifacts within the soil profile should be intact for resources below ground. Of course, the actual contents found from shovel tests or past construction (e.g. modern roads, powerline corridor elements) were excavated, analyzed, and recorded in the course of studying these sites. The artifacts have been retained into the State of Florida's archaeological collections and the knowledge and context have been preserved. The survey undertaken to reconnoiter these sites for this plan did not locate all of the exact positions as the past FMSF files were variable in the amount of detail provided for where the excavations took place; however, no signs of ground disturbance of any kind, including soil removal from erosion or looting, were evident in the vicinity.

All historic ditches linking the lakes and basin swamps are in good condition overall and are fringed with woody and herbaceous vegetation in most locations, which serves to anchor the soil in place. In localized positions, tree falls or generalized erosive wear have somewhat diminished the integrity of the original canal morphology, such as along limited areas of the Little Gum Pond canal; park staff should monitor the condition of the canals over time, provide corrective action if necessary, and remove large dead trees at risk of imminent falls and substrate displacement.

The historic sites scattered throughout the Overstreet Tract are considered to be in good condition. As mentioned, the tenant houses were removed prior to the drafting of this plan following expert analysis. Thus, the structures themselves are gone, but the soil surface, pilings, brickfall, some of the ornamental vegetation, and other structural features associated with these sites are intact. The grounds surrounding the Cedar Shake house are mowed twice annually in order to maintain a clearing, which had been covered with a dense thicket prior to 2008; this area may be developed into an interpretative site given its proximity to the garden and the quality of its remaining elements. The Near Dock homesite is located very close to the multi-use trail fringing Lake Overstreet and represents another interpretive opportunity for park visitors; it has been lined with a wooden fence to protect it from impacts and some of the original wooden beams have been laid across floor pilings to creating a "ghosting" effect for where the house once stood. Other homesites have variable quantities of remnant

elements or may show little trace of their previous occupants, as is the case with the Smith homesite. In general, vandalism or looting is very rare at this park, which is particularly remarkable given its urbanized surroundings and the seclusion afforded at many sites in the Overstreet Tract.

Level of Significance: The Killearn Plantation Archaeological and Historic District (LE04303), listed on the National Register of Historic Places on August 16, 2002, includes twenty-seven contributing prehistoric archaeological sites and six contributing historic archaeological house sites. The District also included four contributing structures – irrigation ditches around Gum Pond, Lake Hall, and Lake Overstreet, which today are managed as archaeological sites. All of these archaeological sites are significant as an aggregate under Criterion D for their research potential.

The District's aboriginal archaeological sites span from the prehistoric Deptford to the protohistoric Leon-Jefferson periods. Together they offer the opportunity to learn more about changing land use and flora and fauna over thousands of years of fluctuating climate and evolving cultural development. Some of these sites possess the potential to contain subsurface features related to house sites and special use areas, as well as older more deeply buried components and preserved organics in wetland areas. Additionally, many of the sites possess a relatively high degree of integrity as they are located outside of areas previously used for agriculture.

The District's historic archaeological sites span from 1824 to 1953, when the area was first surveyed by the Federal Land Office to the State of Florida's purchase of the property from the Maclay family. Together they offer the opportunity to learn more about the ante- and post-bellum plantation agricultural practices, labor systems, and social hierarchies that persisted through the mid-twentieth century (NRHP 2002). Of note, these house sites represent the tangible remains of an African-American community whose subsistence and tenancy repeatedly shifted between enslavement, tenant farming and sharecropping, land ownership, and paid employment.

General management measures: In order to ensure their preservation, park staff should monitor these sites periodically for signs of disturbance and looting and provide remedies if necessary. Also, it is Division of Historic Resources policy that ground disturbance for construction or other development be observed by a trained Archaeological Resource Management Certified Monitor in order to protect and record archaeological sites uncovered in those locations.

Historic Structures

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

Description: The park property represents a vivid snapshot of the recorded history impacting the wider region (Jaeger and Penton 1999a, 1999b; Lindstrom 2008; U.S. Department of Interior 2007; Yates 2008). American settlement of the Tallahassee Hills followed the surveying of Leon County in the 1820s with most land in private ownership by the end of the 1830s. Lake Overstreet and Lake Hall were named after the original settlers in this vicinity. The park property was a portion of larger landholdings that passed through the ownership of various people, who planted most of their acreages in the antebellum staple crop, cotton.

With the Civil War virtually halting cotton exports and ending slavery, the plantation economy was disrupted. Many of the former slaves remained on the plantation lands and raised crops on scattered homesteads in exchange for a fixed price or proportion of their total harvest. These sharecroppers and tenant farmers usually worked about 40 acre allotments scattered around the planter's holdings. Few tenant farmers were able to buy their own land and were usually consigned to indebtedness to the large landowners; a notable exception was Spencer Robinson, who was able to purchase a parcel east of Lake Overstreet. His property was located in the vicinity of an African American community north of Lake Hall that eventually would support churches and several businesses; other portions of what would become park property also supported tenant farms. Despite attempts by the planters to diversify the crops raised in their fields in response to declining cotton production, the plantation economy languished.

By the end of the 19th century, wealthy northerners were beginning to buy up large tracts of land in order to establish quail hunting plantations. John Law established the 2000 acre Lac-Cal quail plantation and built its facilities along the western shore of Lake Hall; he originally constructed some of the focal buildings now associated with the maintenance complex and ornamental gardens, including the Maclay House.

Alfred Barmore Maclay purchased Law's plantation in 1923 and used his Killearn Plantation primarily as a winter retreat. It was he who designed and constructed the ornamental gardens with a goal of incorporating native and exotic plants into an impressive display, adapting and adding features over the next two decades. The current garden configuration represents the culmination of his vision with aesthetic elements incorporating sculpture and structural improvements (e.g. walled garden with gated entrances, fountains, reflecting pool to capture the Lake Hall vista), themed sections showcasing different assemblages of landscaping plants (e.g. azaleas, camellias), and wide walkways topped with bricks. He employed many of the African Americans living on the plantation and their employment gradually shifted from primarily agriculture to wage labor. After his death in 1944, his wife, Louise Fleischmann Maclay, assumed management of the gardens. Following an attempt to convert the gardens into a self sustaining tourist destination, she donated 307 acres centered on the gardens to the state for development of a state park in 1953. In 1965, Killearn Gardens was renamed Alfred B. Maclay State Gardens. Mrs. Maclay's nephew, John Mettler, sold the 877 acre Overstreet Tract to the state in 1996 to form the park as it is now constituted.

The Killearn Plantation Historic District National Register status was bestowed upon the park in 2002 in recognition of the cultural importance preserved on this property. In fact, the HDNR nomination form stipulates that the gardens and associated features, as well as the historic and prehistoric resources on the Overstreet Tract, are part of a significant cultural landscape. While the ornamental gardens are currently described as a significant component of the HDNR, the gardens themselves are not listed in their own right in the Florida Master Site File (FMSF); the park staff are working to have the gardens as a whole as well as noteworthy components to be featured individually in the FMSF. There is a wide variety of historic buildings dating to the early 20th century associated with the ornamental gardens and the maintenance complex that are still in use by the park staff.

The Maclay House was the original residence of Alfred and Louise Maclay and is currently used as a museum, which contains furniture owned by the Maclays as well as a series of exhibits showcasing the history of the garden and its owners. The park office and park manager's residence were initially built to be guest houses and were later adapted for utilitarian purposes when the parcel became a state park, as with many other buildings in this complex. The carriage house is now used for a wood shop, the horse stable is used as a maintenance shop, the pump house is used for storage, and the Gilliam residence (employee of the Maclays) was used as an office building in the Bureau of Design and Construction complex to the northwest of the park maintenance complex (now vacant after BDC moved its location to the Carr Building in Tallahassee). The gardener's cottage had been rehabilitated in 1999 for use as a meeting and reception facility for use by the public by appointment. Other historic buildings dating from the Maclay's ownership period include a large tractor barn with loft, a small tractor barn, a mower equipment shed, a tool shed, a fertilizer shed, a lumber storage shed, and a greenhouse. There is also an assemblage of buildings dating to shortly after the property became a state park for visitor use that are now historic, including the garden's entrance building and pavilion, lakeside pavilion, and a barbeque pit shelter and four picnic shelters located in the public use / swimming area along the southern shore of Lake Hall.

Condition Assessment: Most buildings associated with the park maintenance complex and visitor facilities are in good condition. This is primarily the result of vigorous maintenance and rehabilitation efforts on the part of the park staff. Actions undertaken in support of maintaining the various buildings in good condition over the past decade since the 2003 Unit Management Plan include replacing air conditioning / heating systems and duct work, replacing or repairing roofs, repainting exterior and interior walls, work on foundations, replacement of electrical systems and plumbing, maintenance to masonry and mortar, repairs and refinishing to flooring, replacement of windows and shutters, cleaning or replacement of cedar shakes, and clearing of woody vegetation from contacting buildings in order to retard deterioration. Several structures had been previously considered to be in fair condition, including the large and the small tractor barns, the lumber storage shed, and the greenhouse. Work projects to rehabilitate these structures were completed recently, so these features may now be described as being in good condition. Asbestos and lead paint analyses (Thakkar and DeLoach 2005) have determined that these substances are present on select components representing a small proportion of several buildings; however, if left undisturbed, these components pose an insignificant hazard to human health. If these components are altered or replaced, then appropriate safeguards would be observed to protect those involved in the work. The ornamental garden, the main attraction for the park, is in good condition and maintenance is addressed in the General Management Measures section.

Unfortunately, a fire caused by a utility transformer ignited and burned three historic structures to such an extent that they and their contents were almost completely lost: Delia's Cottage, the Laundry building, and the pull-through barn (Johnson Peterson Architects, Inc. 2006). A significant quantity of DRP records and objects also pertaining to other parks across the panhandle were stored in the pull-through barn and were subsequently destroyed. The only remnant of these buildings today is scattered foundational structures and short concrete pilings. These sites are now managed as archaeological sites.

Level of Significance: The Killearn Plantation Archaeological and Historic District (LE04303) was listed on the National Register of Historic Places on August 16, 2002. The district is considered significant under National Register Criteria A (Event), C (Design/Construction) and D (Information Potential) in the following areas of significance: landscape architecture, African American ethnic heritage, agriculture, architecture, historic (non-aboriginal) archaeology and prehistoric archaeology. Eighteen historic structures contribute to the National Register district. They are:

Maclay House (LE04304) Guest House 1 / Park Office (LE04305) Guest House 2/ Park Manager Residence (LE04306) Servant's Quarters/Delia's Cottage (LE04307) Pump House/Storage Building (LE04308) Laundry House (LE04309) Garage/Wood Shop / Carriage Shop (LE04310) Stables/Maintenance Shop (LE04311) Gardener's Cottage (LE04312) Metal Garage/Small Tractor Barn (LE05885) Large Tractor Barn / Vehicle Shed with Loft (LE05886) Tool Shed/Equipment Storage (LE05887) Tool Storage/Tool Shed/Mower Shed (LE05888) Seed & Fertilizer Storage Building (LE05889) Lumber Shed (LE05890) Greenhouse (LE05900) Storage Building (LE05977) Drive-Through Barn (LE05978)

In addition to the buildings noted above and several prehistoric and historic archaeological sites previously mentioned within this plan, the National Register listing also includes the designed Maclay Gardens; three of its associated objects: the Century Plant Sculpture, the Della Robbia Plaque, and the Janet Scudder Fountain; the historic road and trail system and the "Lac-Cal" gate column. The contributing buildings, structures, objects and sites combine to create an assemblage of agricultural resources which reflect the Red Hills region in the 19th and early to mid-20th centuries, in particular resort plantation era architecture, formal planned gardens, and the lifeways and structures associated with both tenant farming and operating a resort plantation.

The Servant's Quarters/Delia's Cottage (LE04307), the Laundry House (LE04309), and Drive-Through Barn (LE05978) were destroyed by fire in 2004. The remains of these three structures and their associated artifacts should be assessed for National Register eligibility as archaeological sites.

In consultation with DHR, the remains of two historic structures, the Near Dock House (LE01946B) and the Cedar Shake House (LE01947B) were demolished in 2009 due to safety concerns. As these ruins were associated with contributing archaeological sites in the National Register District (LE01946 and LE01947), their removal was considered to be an adverse effect to the district by the State Historic Preservation Officer (SHPO). A condition of mitigation of the adverse effect was development of an interpretative plan for the two structures. The Lake Overstreet Trail Interpretive Plan was completed in 2008 as a cooperative effort of the Bureau of Operational Services, the Bureau of Natural and Cultural Resources and the park.

The remaining historic buildings in the park are considered as non-contributing structures to the Killearn Plantation Archaeological and Historic District. Most of these buildings were designed for the Florida Park Service after the Maclay occupancy of the property and do not appear to meet the criteria for National Register eligibility either individually or combined within a new historic district. An exception is the Gilliam Residence/Design & Rec. Building 1 (LE05901). The original portion of this structure is

a tenant house from the Maclay period; however, it is currently considered noncontributing due to extensive additions and alterations. Plans are underway to return the building to more of its historic appearance as it is the last remaining tenant house on park property. At the completion of this process, a reevaluation of its National Register significance will need to be made to determine whether it then meets the criteria necessary for its inclusion as a contributing structure to the Killearn Plantation Archaeological and Historic District.

General management measures: Multiple reports have been created by various entities in order to formally assess some of the more significant structures and advise the staff on possible courses of action (Huffman / Tarmey Architecture P.A. 2003, Jaeger and Penton 1999a, Lindstrom 2008, Thakkar and DeLoach 2005, U.S. Department of Interior 2007, Yates et al. 2008). The Cultural Landscape Master Plan (Jaeger and Penton 1999a) was commissioned as a result of the need for such as expressed in the 2003 Unit Management Plan, which describes a holistic approach suggested for the management and interpretation of the rich cultural heritage and structures in Maclay Gardens State Park as well as the adjacent Elinor Klapp-Phipps Park (owned by the Northwest Florida Water Management District and managed by the city of Tallahassee).

A long term objective is to construct separate facilities to support the necessary administrative and maintenance needs of the park that are currently performed in some of the historic buildings. This would enable those historic structures to be adapted toward public visitation and cultural interpretation. At present, maintenance and rehabilitation efforts need to focus on providing a balance between historic preservation and staff utility.

As demonstrated by the Condition Assessment section, maintaining the historic buildings in good condition is an ongoing endeavor requiring significant effort to identify and provide corrective action to deteriorating components. Park staff will continue to perform or contract for pressing maintenance requirements. Another necessity is to evaluate for and construct elements that would permit visitor access in compliance with the Americans with Disabilities Act of 1990. Public restrooms in the maintenance complex area currently are located in the Maclay House and Pump House; construction of separate facilities would be favorable toward the goal of future interpretive uses for these buildings.

Pest control is an important additional requirement. General insect treatment is performed monthly at the Gardener's Cottage, given the public use of this building for events such as wedding receptions, and quarterly at the other structures. Termite inspections occur annually at all buildings with treatment performed if it is determined necessary. Rodent control is also conducted as required. Park staff should monitor historic sites in the Overstreet Tract to ensure that their integrity is not compromised by

vandalism, looting, or erosion; efforts to locate and study further historic sites, including unknown tenant farmer homesites, should continue. Park staff should also strive to preserve the culturally significant landscaping plants still remaining on these sites, including the non-invasive exotic species such as hedge bamboo and various palms.

The park staff devotes much of its available effort toward maintaining the ornamental garden. Many of these tasks are ongoing with regard to the care focused on the vegetation, including the pulling of weeds, monitoring and treating for pests and pathogens, pruning of woody plants (especially camellias and azaleas) to remove dead limbs or prevent accidents involving park visitors, pruning of ivy and other vines covering some of the brick walls, and rotating annual plants in some planters with the seasons and for variety. The iconic Aunt Jenny heritage camellia died and was extracted in August 2011; park staff have replanted a clone in its place. Repairs to the brick walks are an ongoing activity as necessary, which must be done using historically compatible materials. For example, a cedar tree fell from the center of the Camellia Walk in the 1980s, resulting in a recurring problem with mortar cracking around the bricks as the ground settles. Some of the sculptures and brick walls need cleaning periodically. Also, since the shaded brickwalks may become slick over time, park staff treat these surfaces with a very diluted HTH solution as needed to regain traction. The Reflecting Pool is drained weekly into the garden pond, cleaned, and refilled. It is then treated with Aqua-Shade blue dye in order to prevent algal growth; this chemical is very diluted and nontoxic enough to occasionally support tadpoles and insects. Fertilizers are applied judiciously in order to prevent the flow of excess nutrients in Lake Hall. The irrigation system was recently redesigned, adding a 5 horsepower pump to draw water from The Pond in the gardens in order to distribute water through the irrigation water lines. The 60 hp water pump previously operating the irrigation system is now used to refill The Pond as the water level drops.

In some cases, the DRP may elect to demolish or otherwise remove a historic structure. A specific case shall be made to justify the park's removal of the structure. Measures to document the structure prior to removal will also be discussed therein. Those historic structures slated for demolition shall be so indicated in the table below.

Collections

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

Description: The park possesses a wealth of collections objects harkening back to the Maclay era. These items include various types of furniture present in the Maclay House when Mrs. Maclay donated them to the state (e.g. living room, library, bedroom

articles), rugs and carpets, drapes and blinds, artistic wall displays, photographs, and other miscellaneous items (e.g. awards and trophies currently on exhibition). There are also books and archival items on display in Alfred Maclay's library and in storage in other park offices.

Condition Assessment: The collections objects range from fair to good condition. The furniture located within the interior of the Maclay House (e.g. chairs, couches, tables, desks, lighting fixtures) is generally in good condition. Since the bedroom is currently occupied by a series of display cases showcasing aspects of the Maclays' lives and the garden, this furniture set is in storage within the Pump House; when new visitor facilities are constructed as planned near the garden entrance, these displays can be moved to that location and the bedroom arranged with various original furniture articles in order to represent this room in a fashion similar to how it may have appeared during the Maclay era. The blinds and drapes, more exposed to sunlight, are in fair condition and need restructuring and fabric cleansing / minor tear repairs, respectively. Some of the articles on display in the cases are in fair condition. Restoring them to good condition would be a very delicate operation given their fragility and age; a possible solution would be to create replicas for exhibition while preserving the originals in storage. Some of the stuffed bird specimens also on display are in fair condition and could be replaced with better specimens if available.

Level of Significance: It should be noted that there are no established standards for collection items comparable to those for cultural sites and structures according to the National Register of Historic Places. Collection items possessed by the park include those related to the lifestyle and hobbies of the Maclay household as well as multiple Native American artifacts. Aside from their inherent cultural value, these items are significant in terms of their utility for interpreting the history and prehistory of this area as well as for their connection to the Maclay family.

General management measures: A Scope of Collections statement has been drafted for the items preserved in the park. Management of the collections was assisted by advice provided in 2001 by a Collections Conservation Assessment written by Alexandra Klingelhofer, Objects Conservator, as part of the Heritage Preservation Conservation Assessment Program. Dehumidifiers are used in the exhibition area to prevent the growth of mold. The Maclay House is a climate controlled environment with the summer and winter temperatures set on 77 and 68 degrees F, respectively. The Maclay house is subjected to a deep cleaning once per month with lighter cleaning once per week. This house is open to public visitation between January and April. In the off season, the living room furniture is clustered in the middle of the room and covered with the large carpet rolled up and stored in the dining room. The blinds are also drawn to avoid UV light damage to collections objects. Archival material is stored in

the Maclay House as well as the park administrative office, which is also climate controlled.

Detailed management goals, objectives and actions for the management of cultural resources in this park are discussed in the Cultural Resource Management Program section of this component. Table 4 contains the name, reference number, culture or period, and brief description of all the cultural sites within the park that are listed in the Florida Master Site File. The table also summarizes each site's level of significance, existing condition and recommended management treatment. An explanation of the codes is provided following the table.

Table 4: Cultura	Table 4: Cultural Sites Listed in the Florida Master Site File							
Site Name and FMSF #	Culture/Period	Description	Significance	Condition	Treatment			
Lake Hall LE00041	Fort Walton – Leon- Jefferson	Archaeologic al Site	NE	G	Р			
Andalusia Road LE00133	Leon-Jefferson – 19 th century	Archaeologic al Site	NE	NE	Р			
NN LE00541		Archaeologic al Site	NE	NE	Р			
Maclay #1 LE02339	Weeden Island	Archaeologic al Site	NR L	NE	Р			
Lake Overstreet #1 LE02340	Weeden Island	Archaeologic al Site	NR L	N A	Р			
Three Oaks Homesite LE 01867	19 th / 20 th century	Archaeologic al Site	NR L	G	Р			
Big Medial Biface Fragment LE 01868	Prehistoric	Archaeologic al Site	NR L	G	Р			
Ravine Road LE01869	19 th / 20 th century	Archaeologic al Site	NR L	G	Р			
Deer Stand Nine LE01870	Prehistoric – 20 th century	Archaeologic al Site	NR L	G	Р			

Table 4: Cultura	Table 4: Cultural Sites Listed in the Florida Master Site File						
Site Name and FMSF #	Culture/Period	Description	Significance	Condition	Treatment		
Deer Stand Eight LE01871	Prehistoric	Archaeologic al Site	NR L	G	Р		
Sandy Flat LE01928	Prehistoric – 19 th century	Archaeologic al Site	NR L	G	Р		
Dock LE01929	Prehistoric	Archaeologic al Site	NR L	G	Р		
Lake Connection LE01930	Prehistoric	Archaeologic al Site	NR L	G	Р		
Deer Stand Three LE01931	Prehistoric – 20 th century	Archaeologic al Site	NR L	N A	Р		
Southwest Shore LE01932	Prehistoric	Archaeologic al Site	NR L	G	Р		
Just West of Ditch LE01933	Prehistoric	Archaeologic al Site	NR L	N A	Р		
Border LE01934	Prehistoric	Archaeologic al Site	NR L	N A	Р		
Southeast Overstreet LE01935	Prehistoric	Archaeologic al Site	NR L	G	Р		
East Southeast Overstreet LE01936	Prehistoric / Deptford	Archaeologic al Site	NR L	G	Р		
Knob LE01937	Prehistoric	Archaeologic al Site	NR L	G	Р		
Northeast Overstreet LE01938	Prehistoric	Archaeologic al Site	NR L	G	Р		

Table 4: Cultura	Table 4: Cultural Sites Listed in the Florida Master Site File						
Site Name and FMSF #	Culture/Period	Description	Significance	Condition	Treatment		
Little Gum Pond Ditch LE01940	19 th century	Archaeologic al Site	NR L	G	Р		
Overstreet Drain Ditch LE01941	19 th century	Archaeologic al Site	NR L	G	Р		
Overstreet Drain Ditch Post WWII LE01941B	19 th - 20 th century	Archaeologic al Site	NR L	G	Р		
Purple Brick LE01942	20 th century	Archaeologic al Site	NR L	G	Р		
North Lake Overstreet Dump LE01943	20 th century	Archaeologic al Site	NS	G	Р		
Gum Pond House LE01945	20 th century	Archaeologic al Site	NR L	G	Р		
Near Dock House LE01946	19 th – 20 th century	Archaeologic al Site	NR L	G	Р		
Near Dock House LE01946B	19 th – 20 th century	Historic Structure (Demolished 2009)	NR L	Р	N/ A		
Cedar Shake House LE01947A	19 th – 20 th century	Archaeologic al Site	NR L	G	Р		
Cedar Shake House LE01947B	19 th – 20 th century	Historic Structure (Demolished 2009)	NR L	Р	N/ A		

Table 4: Cultura	Table 4: Cultural Sites Listed in the Florida Master Site File						
Site Name and FMSF #	Culture/Period	Description	Significance	Condition	Treatment		
Bureau of Design & Rec. Services LE02045	Ft. Walton – Leon-Jefferson	Archaeologic al Site	NR L	NE	Р		
Across-the- Ditch LE02205	Prehistoric	Archaeologic al Site	NR L	G	Р		
Powerline LE02206	Prehistoric	Archaeologic al Site	NR L	G	Р		
Fenceline LE02207	Weeden Island	Archaeologic al Site	NR L	G	Р		
NELO LE02208	Weeden Island	Archaeologic al Site	NR L	G	Р		
Duck's Head LE02209	Leon-Jefferson	Archaeologic al Site	NR L	G	Р		
Gum Pond North LE02210	Leon-Jefferson	Archaeologic al Site	NR L	G	Р		
Gardener's Cottage Site LE02211	Prehistoric / 20 th century	Archaeologic al Site	NE	NE	Р		
Lake Hall – Lake Overstreet Ditch LE02212	19 th – 20 th century	Archaeologic al Site	NR L	G	Р		
Lake Elizabeth - Gum Pond Ditch LE02213	19 th – 20 th century	Archaeologic al Site	NR L	G	Р		
Nursery LE02214	Leon-Jefferson - Weeden Island	Archaeologic al Site	NS	NE	Р		

Table 4: Cultura	Table 4: Cultural Sites Listed in the Florida Master Site File							
Site Name and FMSF #	Culture/Period	Description	Significance	Condition	Treatment			
Smith House Site LE02215	Prehistoric / 20 th century	Archaeologic al Site	NS	NE	Р			
North Corridor Bend LE02216	Prehistoric – 20 th century	Archaeologic al Site	NS	N A	Р			
Osprey Nest #2 LE02217	Prehistoric	Archaeologic al Site	NS	NE	Р			
Stinging Hornet's Nest LE02341	Deptford	Archaeologic al Site	NR L	N A	Р			
Ilex Vomitoria LE02342	Deptford – Ft. Walton	Archaeologic al Site	NR L	G	Р			
Maclay Bathhouse LE02413	Prehistoric – Leon-Jefferson	Archaeologic al Site	NR L	NE	Р			
Killearn Plantation Archaeological and Historic District LE04303	Archaic, Deptford, Weeden Island, Late Fort Walton, Leon- Jefferson, 19 ^{th -} 20 th century	District	NR L	G	Р			
Maclay House LE04304	American 20 th Century	Historic Structure	NR L	G	Р			
Guest House 1 /Park Office LE04305	American 20 th Century	Historic Structure	NR L	G	Р			
Guest House 2/Park Manager Residence LE04306	American 20 th Century	Historic Structure	NR L	G	Р			

Table 4: Cultura	Table 4: Cultural Sites Listed in the Florida Master Site File						
Site Name and FMSF #	Culture/Period	Description	Significance	Condition	Treatment		
Servant's Quarters/Delia 's Cottage LE04307	American 20 th Century	Historic Structure (Burned 2004)	NR L	Р	N/ A		
Pump House/ Storage Building LE04308	American 20 th Century	Historic Structure	NR L	G	Р		
Laundry House LE04309	American 20 th Century	Historic Structure (Burned 2004)	NR L	Р	N/ A		
Garage/Wood Shop / Carriage Shop LE04310	American 20 th Century	Historic Structure	NR L	G	Р		
Stables / Maintenance Shop LE04311	American 20 th Century	Historic Structure	NR L	G	Р		
Gardener's Cottage LE04312	American 20 th Century	Historic Structure	NR L	G	Р		
Metal Garage/Small Tractor Barn LE05885	American 20 th Century	Historic Structure	NR L	G	Р		
Large Tractor Barn / Vehicle Shed with Loft LE05886	American 20 th Century	Historic Structure	NR L	G	Р		
Tool Shed /Equipment Storage LE05887	American 20 th Century	Historic Structure	NR L	G	Р		

Table 4: Cultural Sites Listed in the Florida Master Site File									
Site Name and FMSF #	Culture/Period	Description	Significance	Condition	Treatment				
Tool Storage/Tool Shed/Mower Shed LE05888	American 20 th Century	Historic Structure	NR L	G	Р				
Seed & Fertilizer Storage Building LE05889	American 20 th Century	Historic Structure	NR L	G	Р				
Lumber Shed LE05890	American 20 th Century	Historic Structure	NR L	G	Р				
Garden Entrance & Gift Shop LE05891	American 20 th Century	Historic Structure	NS	G	RH				
Garden Pavilion LE05892	American 20 th Century	Historic Structure	NS	G	RH				
Lakeside Pavilion LE05893	American 20 th Century	Historic Structure	NS	G	RH				
Duplex Picnic Shelter 1 LE05894	American 20 th Century	Historic Structure	NS	G	RH				
Duplex Picnic Shelter 2 LE05895	American 20 th Century	Historic Structure	NS	G	RH				
Duplex Picnic Shelter 3 LE05896	American 20 th Century	Historic Structure	NS	G	RH				
Duplex Picnic Shelter 4 LE05897	American 20 th Century	Historic Structure	NS	G	RH				

Table 4: Cultural Sites Listed in the Florida Master Site File									
Site Name and FMSF #	Culture/Period	Description	Significance	Condition	Treatment				
Barbecue Pit Shelter LE05898	American 20 th Century	Historic Structure	NS	G	RH				
Entrance Station/Ranger Station LE05899	American 20 th Century	Historic Structure	NS	G	RH				
Greenhouse LE05900	American 20 th Century	Historic Structure	NR L	G	Р				
Gilliam Residence/Des ign & Rec. Building 1 LE05901	American 20 th Century	Historic Structure	NS	G	RH				
Historic Refuse #1 LE05990	American 20 th Century	Archaeologic al Site	NE	G	Р				
Historic Refuse #2 LE05991	American 20 th Century	Archaeologic al Site	NE	G	Р				
Historic Refuse #3 LE05992	American 20 th Century	Archaeologic al Site	NE	G	Р				
Pony Barn Remains LE05993	American 20 th Century	Historic Structure	NE	Р	Р				
Historic Refuse #4 LE05994	American 20 th Century	Archaeologic al Site	NE	G	Р				
Lake Overstreet Inn LE05995	American 20 th Century	Historic Structure	NE	F	Р				
The Juke Joint LE05996	American 20 th Century	Historic Structure	NE	F	Р				

Significance:

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

Condition

- G Good
- F Fair
- P Poor
- NA Not accessible
- NE Not evaluated

Recommended Treatment:

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

RESOURCE MANAGEMENT PROGRAM

Management Goals, Objectives and Actions

Measurable objectives and actions have been identified for each of the DRP's management goals for Maclay Gardens State Park. Please refer to the Implementation Schedule and Cost Estimates in the Implementation Component of this plan for a consolidated spreadsheet of the recommended actions, measures of progress, target year for completion and estimated costs to fulfill the management goals and objectives of this park.

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

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

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

Natural Resource Management

Imperiled Species Management

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

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

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

Ongoing inventory and monitoring of imperiled species in the state park system is necessary to meet the DRP's mission. Long-term monitoring is also essential to ensure

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

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

Plant and animal species within the park have been observed on multiple occasions in preparation of the species lists included in this plan. However, there remains an ongoing necessity to survey the property for additional imperiled species that may be present in the park. There is also the necessity to note cases for those rare taxa that have not been observed at the park for an appreciable interval. Except for those species noted elsewhere, imperiled plant and animal species will be monitored and documented by DRP staff at a Tier 1 (Non-Targeted Observation/Documentation) level as they are encountered at the park.

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

Annual monitoring for the slender naiad and the bay starvine should be undertaken in order to document the persistence of these rare species. The slender naiad has been known to occur in Lake Hall, which also happens to be a location with recurring infestations of aquatic exotic plants, especially hydrilla. It is necessary to treat these infestations when evident in order to preserve the water quality and prevent a bloom that would have the potential of occupying a large proportion of open water, however, non-target effects could adversely impact the slender naiad if provision is not made for its exclusion from herbicidal treatment. IPMS, which is responsible for treating exotic aquatic plant species in Lake Hall, is careful to avoid damage to the slender naiad and it takes account of this possibility when planning operations. Exotic plant control is also a priority for the central ravine where the bay starvine had occurred. Reintroduction of seedlings from the stock plants in the greenhouse will proceed in order to reestablish the population of this imperiled species. Subsequently, park staff will continue to monitor these individuals for persistence, provide for protective measures if possible, and remove exotic plant species from the vicinity while taking care to prevent nontarget effects.

Exotic Species Management

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

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

Objective: Annually treat 15 acres of exotic plant species in the park.

Exotic plant control is a pressing need in this park and a DRP natural resource priority. The last few years have provided valuable opportunities to reduce exotic plant infestations with several sources of labor. However, particularly given the budget issues affecting the state when this plan was written, the extent to whether these sources will be available over the next decade is uncertain. Other park staff members are stretched thin to cover all the obligations associated with other aspects of managing the park, especially maintenance of the ornamental garden. Additionally, treatment of very dense infestations is very time intensive so that literally thousands of exotic plants may occupy a relatively small acreage. For this reason, a minimum of 15 gross acres on average will be targeted annually, though current resources at hand will likely exceed this area. See the narrative description for more information on specifics and priorities involved with this objective. Predominant species occurring in targeted areas include coral ardisia, Japanese climbing fern, camphor tree, glossy privet, and nandina.

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

Control of the three nuisance and exotic animal species identified above (armadillos, cats, and rats) is an ongoing activity and conducted according to DRP policies.

Objective: Develop a plan to phase out and remove invasive exotic plants from the ornamental gardens over time.

Park and district staff will collaborate on drafting a plan that seeks to remove the FLEPPC invasive exotic plant species from the ornamental gardens as part of an incremental approach over the next planning cycle. The first step in the shorter term would be to remove the shorter-stature shrubby exotic species (e.g. coral ardisia, nandina) and replace them with other ornamental species that would optimally be similar in size or appearance so as to preserve the structural / aesthetic quality originally designed by the Maclays. Over the longer term, the park staff would seek to remove the larger exotic tree species, especially the camphor trees, starting with any diseased or unsightly specimens, progressing through those that are in locations less visible to the public, and ultimately including the more prominent individuals. The park would interpret the intentions and actions of this plan to the public and would continue to pass on the caveat that the DRP encourages the planting of noninvasive

plant species in their own personal gardens at home while striving to preserve the cultural heritage of the ornamental gardens at the park.

Special Management Considerations

While it is true that some localized sections of the park display scattered canopy indications of periodic burning, which possibly originated during the quail hunting era in the late 19th / early 20th century when management would have been directed toward prescribed burning for game habitat (though remnant long leaf pines also may be volunteers into cleared areas in the past), there are no plans at this time to initiate a prescribed burning program at this park. One of the main reasons for this strategy is that the park emphasizes the preservation and interpretation of the significant cultural landscape and its elements. Cultural artifacts from currently unknown sites are continually being located at the park and burning these areas would risk destroying the tangible evidence and reminders of this parcel's very long experience with substantial human occupation and land use extending back for well over a thousand years. This park provides a unique opportunity to learn about the past and potentially showcase an important era, particularly the decades prior to and following the Civil War, in the local and regional heritage. To restore the natural system into fire dependent community types would require enormous preparatory effort, including the construction and maintenance of an adequate fire infrastructure as well as the likely planting of pyric plant species that could effectively carry the fire and that are currently lacking in appreciable densities. It is true that there are scattered long leaf pines occasionally encountered in the canopy, but with the notable exception of a small hilltop stand in zone A, these remnant long leaf pines are not sufficiently clustered to form stands. Also, all known long leaf pine individuals are very mature and there is no evidence of population recruitment occurring. The zone A stand lacks the ground cover species or structure typical of a pyric community and is now primarily ruderal in nature. Another major impediment to a prescribed fire program would be the fact that the park is now surrounded by urban land covers, which would be classified as Critical Smoke Sensitive Areas (CSSAs). Even small acreage burns in heavy leaf litter would deliver significant smoke that would have to be sent into a direction that would not impact too many people, which does not appear to be possible anymore particularly with the zone A stand a very short distance from the densely populated Thomasville Road area.

Timber Management Analysis

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

establish old-growth characteristics to the degree practicable, with the exception of those communities specifically managed as early successional.

During the development of this plan, an analysis was made regarding the feasibility of timber management activities in the park. It was determined that the primary management objectives of the unit could be met without conducting timber management activities for this management plan cycle. Timber management will be re-evaluated during the next revision of the management plan.

Arthropod Control Plan

All DRP lands are designated as "environmentally sensitive and biologically highly productive" in accordance with Ch. 388 and Ch. 388.4111 Florida Statutes. If a local mosquito control district proposes a treatment plan, the DRP works with the local mosquito control district to achieve consensus. By policy of DEP since 1987, aerial adulticiding is not allowed, but larviciding and ground adulticiding (truck spraying in public use areas) is typically allowed. The DRP does not authorize new physical alterations of marshes through ditching or water control structures. Mosquito control plans temporarily may be set aside under declared threats to public or animal health, or during a Governor's Emergency Proclamation. There currently is an Arthropod Control Plan in effect for this state park. Since the park property is topographically heterogeneous and well drained, mosquito densities are not commonly observed to be excessive and are not significantly problematic under normal conditions. Thus, regular monitoring activities are not conducted by the local mosquito control personnel; rather, control activities would be prompted by nuisance complaints or by conditions determined to present a significant mosquito-related risk to human health. Control measures performed would potentially include ground-based adulticiding or larviciding activities, in which case the park manager or designee would be notified.

Cultural Resource Management

Cultural Resource Management

Cultural resources are individually unique, and collectively, very challenging for the public land manager whose goal is to preserve and protect them in perpetuity. The DRP is implementing the following goals, objectives and actions, as funding becomes available, to preserve the cultural resources found in Alfred B. Maclay Gardens State Park.

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

The management of cultural resources is often complicated because these resources are irreplaceable and extremely vulnerable to disturbances. The advice of historical and archaeological experts is required in this effort. All activities related to land clearing, ground disturbing activities, major repairs or additions to historic structures listed or eligible for listing in the National Register of Historic Places must be submitted to the

FDOS, Division of Historical Resources (DHR) for review and comment prior to undertaking the proposed project. Recommendations may include, but are not limited to concurrence with the project as submitted, cultural resource assessment survey by a qualified professional archaeologist, modifications to the proposed project to avoid or mitigate potential adverse effect. In addition, any demolition or substantial alteration to any historic structure or resource must be submitted to DHR for consultation and the DRP must demonstrate that there is no feasible alternative to removal and must provide a strategy for documentation or salvage of the resource. Florida law further requires that the DRP consider the reuse of historic buildings in the park in lieu of new construction and must undertake a cost comparison of new development versus rehabilitation of a building before electing to construct a new or replacement building. This comparison must be accomplished with the assistance of DHR.

Objective: Assess and evaluate 81 of 82 recorded cultural resources in the park.

Given the long history of human habitation and the rich cultural heritage of this park, there are many archaeological and historical sites currently recorded in the FMSF. Over the next planning cycle, park staff will assess and evaluate 81 of the total 82 cultural sites in order to document current condition and describe needed management measures. Of the 81 sites of interest indicated here, 50 are archaeological sites and 31 are associated with existing or former historic buildings possessing cultural significance integral to the interpretation of the park's past. For the archaeological sites, the most significant challenge would be to locate those with vague position descriptions and scant aboveground evidence; if not found, this attempt should be noted in the documentation. Once located, assessment of archaeological sites would emphasize whatever specific steps would be necessary for stabilization and preservation. Sites associated with historic structures would also be assessed in a similar manner. In addition, DRP staff would work to complete Historic Structure Reports (HSRs) for the 16 historic buildings on park property that are contributing structures as listed in the NRHP in addition to the Gilliam residence located in the former BDC office complex; these HSRs would prioritize stabilization, restoration, and rehabilitation projects needed to preserve these buildings. If possible, this effort should include the visual documentation of the condition via the cataloging of a photographic record and the completion of the appropriate forms. The one cultural resource not accounted for here comprises the Killearn Plantation Archaeological and Historic District at large, which describes the cultural resources collectively rather than individually.

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

The park staff expends ongoing effort to procure, provide, and research additional information describing the cultural resources on the property. They will work to ensure that all known cultural sites are recorded or the relevant information is updated as necessary in the Florida Master Site File (FMSF). Collins et al. (2012) at the University of South Florida have recently completed their Archaeological Resource Modeling project

for District 1 state parks, which created geodatabases for each park based on a host of spatially-explicit datasets in order to generate predictive models intended to indicate locations with low, medium, and high probability of harboring unknown cultural sites. This report is expected to be valuable by suggesting worthwhile areas to locate future excavations to researchers studying the park's cultural heritage. Since this property has been subject to multiple surveys and exploratory digs over the years, emphasis would be most productively placed at those areas that had not previously been scrutinized for archaeological or historical excavation projects.

The park staff plans to update their Scope of Collections statement draft and seek approval of this document. Staffers will also continue to seek out people, or relatives / acquaintances of those people, that had contributed to the cultural history of the park (e.g. previous DRP or Killearn plantation employees, descendants of the tenant farmers that had lived and worked on the property) and request to interview them in order to record further information about the park's past. Through exhaustive efforts over the years, the park staff have compiled a wealth of written documentation that describes various elements of the park's cultural heritage. While they have obtained virtually all information known by the DRP for their files, locating and cataloguing further resources is a continual need. Finally, as suggested by Lindstrom (2008), a major research need is to more fully explore the culture and interrelationships of the people inhabiting the Killearn Plantation and its antecedents, particularly the generations of African American tenant farmers that lived and worked here.

Objective: Bring 1 of 82 recorded cultural resources into good condition.

In order to maintain or improve the condition of cultural features, a crucial initial step is for the park staff to track how each feature's state may change over time in order to gauge the rate of deterioration and identify components needing repair or upgrade. Staffers will continue to monitor, or develop new protocols if necessary, all cultural resources in the park. Related to this item, a cyclic maintenance program for historic structures will also be developed, continued, or modified so that all such buildings would be maintained into the future. Most of the structures needing restoration work have already been addressed in recent years by various projects to bring them into good condition. One historic structure, the seed and fertilizer storage building, is planned to be restored to good condition over the next planning cycle.

Resource Management Schedule

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

Land Management Review

Section 259.036, Florida Statutes, established land management review teams to determine whether conservation, preservation and recreation lands titled in the name of the Board of Trustees are being managed for the purposes for which they were acquired and in accordance with their approved land management plans. The DRP considered recommendations of the land management review team and updated this plan accordingly.

Alfred B. Maclay Gardens State Park was subject to a land management review on August 24, 2011. The review team made the following determinations: The land is being managed for the purpose for which it was acquired. The actual management practices, including public access, complied with the management plan for this site.

LAND USE COMPONENT

INTRODUCTION

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

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

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

Alfred B. Maclay Gardens State Park is located within Leon County, in the City of Tallahassee in the northwest part of the state. The park is located within the Tallahassee Metropolitan Statistical Area (MSA) that includes Leon, Gadsden, Jefferson and Wakulla Counties.

There are many resource-based recreation areas within ten miles of the park, including Elinor Klapp-Phipps Park, Lake Jackson Aquatic Preserve, Lake Jackson Mounds Archaeological State Park, the Ochlockonee River and Lake Talquin, Lake Talquin State Forest, Apalachicola National Forest, and a network of smaller parks and greenways managed by the City of Tallahassee and Leon County (see vicinity map). Together, these areas provide an array of resource-based outdoor activities including hiking, biking, horseback riding, boating, fishing, hunting, and wildlife viewing.

Existing Use of Adjacent Lands

Meridian Road (County Road 155) runs along the western park boundary, Thomasville Road (US 319) parallels the east boundary, and Maclay Road is aligned with the park's southern boundary. Extensive single-family residential development now occurs along the north, east and southern boundaries of the park. Immediately south of the park entrance, extending to Interstate Highway 10, is an extensive commercial district serving the surrounding residential areas. The Maclay School is situated along Meridian Road and the southwest boundary.

Maclay Road parallels the southern park boundary. In 2005 it was realigned to intersect Thomasville Road directly across from Killearny Way, the entrance road to Killearn Estates subdivision to the east of the park. As part of the realignment project, the park entrance was relocated from Thomasville Road to Maclay Road at a point closer to the entrance station.

Meridian Road, adjacent to the western boundary of the park is a designated canopy road with special management guidelines to protect the roadside vegetation and scenic qualities of this historic corridor. Meridian Road is also significant in that its location is on the prime meridian from which all surveys of Florida land are based.

To the west of the park boundary, across Meridian Road, is the Elinor Klapp-Phipps Park owned and operated by the City of Tallahassee and the Northwest Florida Water Management District. This 685-acre park provides 20 miles of recreational trails with seven miles dedicated to hiking, three miles dedicated to biking and ten miles of shared-use trails that are open to hikers, bicyclists and horseback riders. Phipps Park also includes athletic fields and the Forest Meadows Athletic Center, located immediately west of the state park, across Meridian Road. The state park property and Elinor Klapp-Phipps Park comprise the Maclay-Phipps Heritage Greenway; a five-mile connected public open space from Thomasville Road west to Lake Jackson.

Planned Use of Adjacent Lands

The <u>Florida Statistical Abstract 2011</u> reported nearly 367,413 residents in the Tallahassee Metropolitan Statistical Area (MSA) in 2010 -- a 14.7 percent increase from 2000 (BEBR, 2011). Leon County's 275,487 residents account for the majority of this population growth. The City of Tallahassee, with a population of 181,376, is the largest urban area within the MSA. The northeast district, where the park is

located, accounts for approximately 30 percent of the City's population. While the growth rate in this sector has slowed in recent years with the economic downturn of 2008, a substantial increase in population is expected as the development of the 2,000 acre planned community of Welaunee gets underway. The projected population for this development is approximately 10,000 at build out (Glatting Jackson, et. al., 2002).

According to the Tallahassee-Leon Comprehensive plan, the future land uses adjacent to the park will remain as currently designated with recreation/open space to the west, residential development to the north, east, and south and a commercial activity center from the southeast corner of the park down to the intersection of Thomasville Road and Interstate 10.

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

The park contains nearly 800 acres of upland communities, including developed roads and public use areas. The park has been used for agricultural purposes over the past century and in various stages of succession. The property is characterized as rolling woodlands that are well suited for hiking, biking, horseback riding, and nature study.

The park contains about 28 acres of developed, ornamental gardens. The gardens have been well maintained since their donation to the state, and are heavily visited throughout the year, particularly during March and April when peak flowering season occurs. Native trees and shrubs, as well as a variety of exotic ornamental species have attained specimen proportions throughout the gardens. Planted pines and second or third growth upland hardwood forest make up the vegetative cover of the remaining undeveloped portions of the property.

Water Area

Nearly one third of Lake Hall's 160-acres is within the boundary of the park. Lake Hall is a deep, relatively clear, clastic lake that provides opportunities for swimming, fishing and non-motorized boating. A designated swimming area has been established near the picnic area.

Lake Overstreet is approximately 124 acres, all of which is within the park boundaries. The lake is an excellent example of a pristine, freshwater lake with an undeveloped shoreline. No boating is allowed on Lake Overstreet, other than for water quality monitoring by park and county officials. The southern tip of Lake Elizabeth extends into the park along the northern boundary. There is no public access to this lake within the park. The park also contains several seepage streams, and wetland communities that are connected to the open water areas. These are very sensitive to impacts from recreational use. The small sinkhole lakes of the park are not accessible to the public.

Shoreline

The park contains over 7,000 linear feet of shoreline along Lake Hall. About 150 feet of shoreline has been designated as a swimming area, providing recreational opportunities for a large number of visitors. Most of the shoreline of Lake Hall adjacent the picnic area is accessible for fishing. The Lake Hall shoreline adjacent to the gardens and the Maclay house serves as a scenic backdrop to the landscape of the park. Lake Overstreet has approximately 14,000 linear feet of shoreline, all of which is within the park, yet largely inaccessible to the public due to the presence of wetlands.

Natural Scenery

The park's rolling topography, forested landscape and access to open water provides high quality scenic value. The most outstanding natural scenery at this park are the views across Lake Hall and the clear, pristine waters of Lake Overstreet. Views of the slope forest along the central ravine system of the Lake Overstreet addition are also outstanding. At the base of these scenic drop-offs are natural seepage streams that add visual interest. Another excellent source of scenery at this park is the ornamental gardens, especially during the seasonal blooming periods. From late winter to mid-spring, numerous varieties of azaleas and camellias provide showy displays throughout the gardens. Several welldesigned vistas look outward over Lake Hall, and a large reflection pool in the interior of the gardens creates additional visual interest.

Significant Habitat

Both Lake Overstreet and Lake Hall provide an important habitat for freshwater fish, otters, alligators, turtles, ospreys, bald eagles, wading birds and migratory waterfowl. The undeveloped shoreline of Lake Overstreet and lack of public use make it the most significant wildlife habitat in the park. Deer, turkey, grey fox, and bobcat are also present on the park property. The small sinkhole lakes of the park provide additional aquatic habitat for a variety of species including wood ducks, alligators, and amphibians. The dense residential and commercial development surrounding the park has reduced or destroyed a great deal of wildlife habitat making this park even more important as a refuge for local wildlife populations. Although wildlife observation opportunities are important to park visitors, great care should be taken to avoid human disturbance of wildlife and their habitat.

The steep ravines and adjacent bottomland forests on the Lake Overstreet tract provide habitat for a number of imperiled species including southern lady fern, dimpled trout lily, heartleaf wild ginger, green adder's mouth, cinnamon fern, royal fern, and bay starvine.

Natural Features

The most significant natural features of the park are Lake Overstreet and Lake Hall, both clastic upland lakes that support an abundance of native vegetation and thriving fish, waterfowl, and wading bird populations. Lake Overstreet is one of the few lakes in the area with a vegetated, undeveloped shoreline, providing unique opportunities for nature observation and wildlife viewing in an urban context. Lake Hall is the focal point for picnicking, swimming, and boating. The ravine system and associated slope forest are also important natural features. Controlled access for interpretive purposes is suitable for these sensitive areas.

Archaeological and Historical Features

The property has played an important role in Florida's history dating back to the archaic period, as discussed in the resource management component of this plan. The prehistoric and historic cultural sites found on this property are fragile resources that require specialized investigation and management planning. Completed archaeological surveys and the Cultural Landscape Management Plan (CLMP) (Jaeger and Penton, 1999) have provided important guidance for the management of these resources and the planning of recreation activities within the Maclay-Phipps Heritage Greenway.

The nearly continuous interaction of human societies with the natural systems of the state property and the adjacent Elinor Klapp-Phipps Park provides a rich source for interpretive experiences for visitors. The cultural landscape theme proposed by this plan is intended to focus future planning, resource management and development efforts with a priority toward the conservation of these irreplaceable cultural resources.

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 fertile soils in this area have been used for farming from the time of the Apalachee Indians until the early 1900s. The park property later became part of a much larger plantation belonging to Alfred B. Maclay. Mr. Maclay designed the formal gardens, which are now the prominent cultural feature of the park. The property surrounding the gardens was used as a game plantation, with deer stands, roads, trails, and planted food plots. The land around Lake Overstreet has been in single ownership for many years, thus maintaining its undeveloped condition in a rapidly developing urban area.

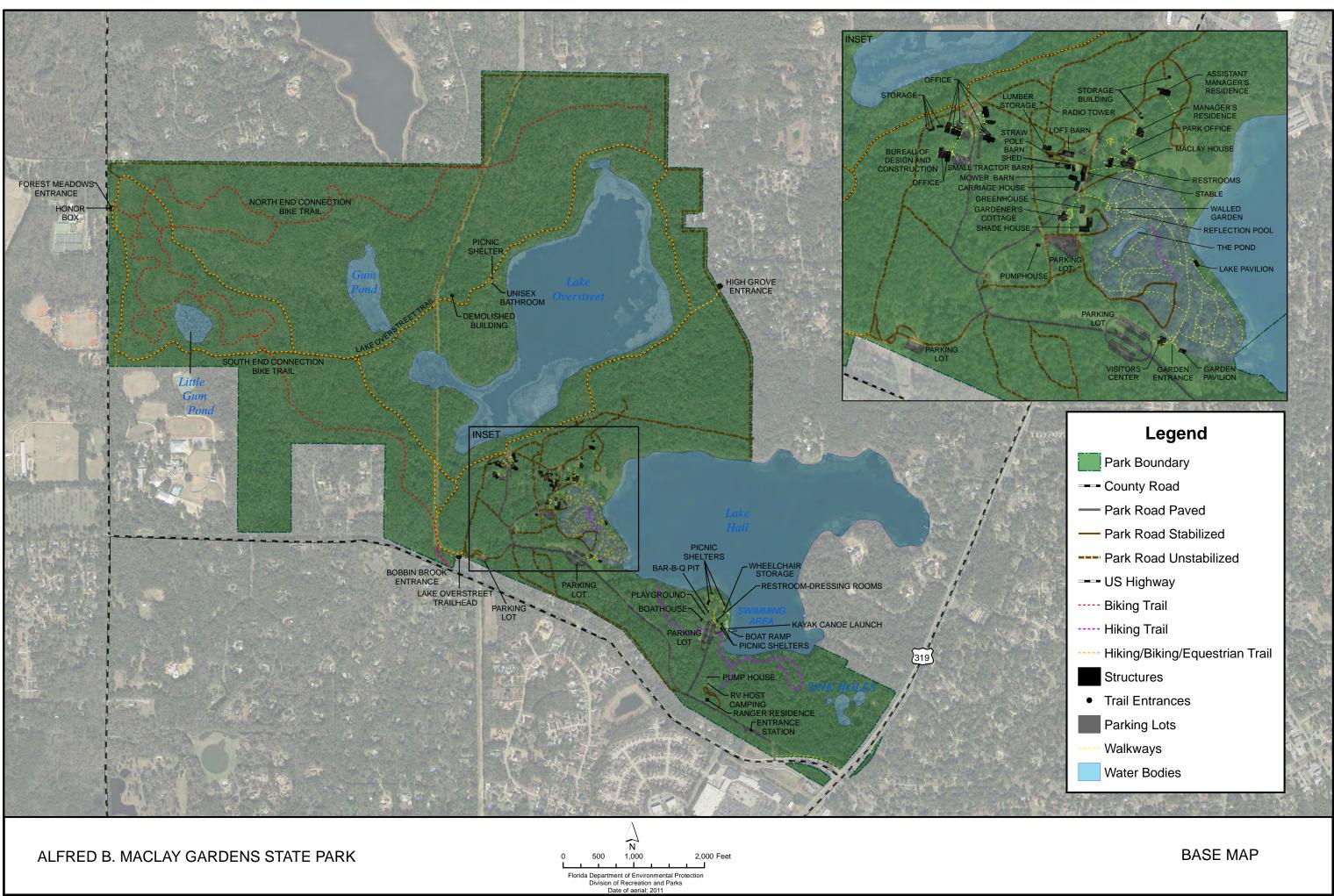
Future Land Use and Zoning

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

Two future land use (FLU) designations exist within the park boundary – Lake Protection (LP) and Recreation/Open Space (R/OS). The Lake Protection category was established to protect the water quality in Lake Jackson. It allows residential uses of one unit per two acres. The Recreation/Open Space category pertains to government owned lands which have active or passive recreational facilities, historic sites, forests, cemeteries, or wildlife management areas. Park zoning includes Lake Protection (LP) and Residential Preservation (RP-1). As with the FLU, the Lake Protection zoning category is intended to protect Lake Jackson. It allows residential uses of one unit per two acres. The purpose of the Residential Preservation category is to protect existing residential areas from incompatible land uses and density intrusions. Up to six dwelling units per acre are allowed under this designation. Typical park uses and facilities are permissible within the future land use and zoning categories. No conflicts to park development and management are anticipated (Harden, 2012, personal communication).

Current Recreational Use and Visitor Programs

The park offers opportunities for swimming, picnicking, fishing and boating at the Lake Hall Day Use Area. Swimming is a popular activity, especially during summer weekends. Reservations may be made for daytime and after-hours use of the large picnic pavilion. A boat ramp and floating dock near the swimming area provide access to Lake Hall. Boats launched in the park are prohibited from using internal-combustion engines with the exception of vessels used for park purposes, scientific research or water quality monitoring, and to serve as safety/rescue support for local student and adult crew teams, that use Lake Hall and the Recreation Area for training practices. Additional powerboat activity occurs through private access on the lake. After-hours fishing on Lake Hall is provided by permit. Two short nature



trails provide access to the Lake Hall shoreline.

The Maclay house and gardens are the focus of much of the visitation to the park. The historic Maclay House is open to the public from January through April. The gardens are open to the public year-round. December through April is the prime blooming season and the time of peak visitation. Open lawns, a lakeside pavilion, walled gardens and pools serve to enhance the scenic quality of the gardens. The interior of the Maclay House is much as it was when used by the Maclays, includes family memorabilia, and exhibits on the gardens. The gardens provide an idyllic setting for weddings or similar events and the Gardener's Cottage is available for receptions and meetings. Reservations can be made through a concessionaire.

The Lake Overstreet Trail is a roughly five-mile, double-loop, shared-use trail that winds through hardwood forests and around Lake Overstreet following the historic natural-surfaced roads of this property. In addition, nearly five miles of off-road biking trails have been constructed in the western portion of the park. These trails provide a variety of hiking, bicycling, and horseback riding experiences, as well as nature study and wildlife observation opportunities. The trails are also used by local schools and track clubs for cross country training.

Trail users can access park trails by way of the main park entrance on Maclay Road, at the Lake Overstreet Entrance along the northwest boundary by parking at the Forest Meadows Athletic Center. A signed crosswalk on Meridian Road serves as the current Greenway connection for cyclists and pedestrians. Trails are also accessible at the Bobbin Brook Entrance off Maclay Road, and the High Grove Entrance on the eastern boundary. These latter two locations provide access for adjacent neighborhoods and provide no parking.

The park hosts several special events and programs. Annual events include "Tour of Gardens" in May and "Camellia Christmas" in December. Monthly programs include plant care workshops and park interpretive programs including a wide range of natural and cultural history topics and recreational programs. Concerts are offered in the park on occasion. Kayak and paddle boat rentals and a weekend food concession are provided at Lake Hall.

Alfred B. Maclay Gardens State Park recorded 159,391 visitors in FY 2011/2012. By DRP estimates, the FY 2011/2012 visitors contributed \$7,702,071 million in direct economic impact and the equivalent of 154 jobs to the local economy (Florida Department of Environmental Protection, 2012).

Other Uses

A 100 foot wide power line right-of-way cuts across the property from north to south on the West Side of Lake Overstreet. The right-of-way is maintained by periodic mowing. The offices for the Division's Bureau of Design and Recreation Services are located within the park, in an area that is closed to the public. The Bureau offices occupy one of the historic structures and several modular structures connected with a series of covered walkways.

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 Alfred B. Maclay Gardens State Park over 300 acres, including the sinkhole lakes, slope forest, basin swamp, bottomland forest, floodplain forest, upland lakes and seepage streams, have been designated as protected zones as delineated on the Conceptual Land Use Plan.

Existing Facilities

Recreation Facilities

Two short nature trails as well as picnicking, swimming, fishing, and boating facilities are provided at the Lake Hall Day Use Area. Visitors enjoy the Formal Gardens via the visitor center, paved and grassy trails through the gardens, and interpretive displays in the Maclay House museum. Shared-use and biking trails are provided in the Lake Overstreet Area. Picnicking and wildlife viewing facilities are also located here.

Support Facilities

The existing ranger station serves as the primary contact point for visitors arriving to the park. Multiple structures of the Maclay complex of buildings provide maintenance, support and housing functions. The following is a comprehensive listing of existing recreation and support facilities. The precise locations of these facilities are indicated on the Base Map.

Lake Hall

Large picnic pavilion Restroom Small picnic shelters (4) BBQ shelter Playground equipment Scattered tables (80) and grills (12) Drinking fountains (4) Boat ramp and floating dock Swim area Kiosk Big Pine and Boy Scout Nature Trail (.5 and .25 miles) Bike rack Paved parking (86 spaces) Crew teams storage racks and shed

The Formal Gardens

Maclay House Gardener's Cottage Pavilions (2) Ticket office and restroom Paved parking (77 spaces)

Lake Overstreet

Shared-use trails (5 miles) Off-road biking trails (5 miles) Medium picnic shelter – 4 picnic tables Composting restroom Kiosks (4) Viewing platform Hitching posts 2 Benches (8) Honor box fee collection stations (3) Striped bicycle/pedestrian crossing Trailhead - stabilized parking

Support Facilities

Entrance station Residences (2) Guest Houses (2) Pump room (restroom/storage) Stable (maintenance shop) Carriage house (wood shop) Barns (2) (storage) Greenhouse Lumber shed Tool shed Storage buildings (3) Host RV sites (2) RV staff resident site (1)

CONCEPTUAL LAND USE PLAN

The following narrative represents the current conceptual land use proposal for this park. The conceptual land use plan is the long-term, optimal development plan for

the park, based on current conditions and knowledge of the park's resources, landscape and social setting (see Conceptual Land Use Plan). The conceptual land use plan will be reassessed during the next update of the park management plan. 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 as needed. 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 conceptual land use plan, DRP assessed the potential impacts of proposed uses or development on the park resources and applied that analysis to decisions for the future physical plan of the park as well as the scale and character of proposed development. Potential impacts are more thoroughly identified and assessed as part of the site planning process once funding is available for facility development. At that stage, design elements (such as existing topography and vegetation, sewage disposal and stormwater management) and design constraints (such as imperiled species or cultural site locations) are more thoroughly investigated. Municipal sewer connections, 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 limit and avoid resource impacts. Federal, state and local permit and regulatory requirements are addressed during facility development. This includes the design of all new park facilities consistent with the universal access requirements of the Americans with Disabilities Act (ADA). After new facilities are constructed, the park staff monitors conditions to ensure that impacts remain within acceptable levels.

Potential Uses

Public Access and Recreational Opportunities

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

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

Objective: Maintain the park's current recreational carrying capacity of 2,428 users per day.

The park will continue to provide opportunities for swimming, boating, fishing, picnicking, garden visitation, hiking, biking, horseback riding, and nature observation. Interpretive exhibits and programs will continue to be offered at the gardens.

LAKE OV

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Florida Department of Environmental Protection Division of Recreation and Parks Date of aerial; 2011

0.4 Miles

0.2



0.1

KE OVE

INTERPRETIVE AREA * Adaptive Reuse of Historic Struct in the Maclay Complex

> LAKE HALL * Fish

Legend

- Development Area Formal Garden Existing Biking Trail Existing Hiking Trail Existing Shared-Use Trail Proposed Shared Use Trail Proposed Equestrian Trail
- Park Drive Protected Zones
- Park Boundary

TRAIL HEAD/INTERPRETIVE . PE/ oretive Disp avside Intern Parking

LAKE OVERSTREET

ALFRED B. MACLAY GARDENS STATE PARK



CONCEPTUAL LAND USE PLAN

Objective: Expand the park's recreational carrying capacity by 360 users per day.

Lake Hall is a very popular recreation area and can become crowded with swimmer, picnickers, boaters, and anglers, particularly on weekends during the warmer months. Conflicts between boaters and anglers can occur at the floating dock and boat ramp if launching boats become entangled in fishing lines. To relieve pressure on the floating dock, fishing opportunities will be expanded on the north side of the swimming area.

There is a need for a comprehensive redesign of the Gardens entrance and creation of a multi-use Visitor Center. The design and placement of the existing ticket building limits the functionality and detracts from the visual character of the entrance itself. Visitors rarely use the nearby pavilion and enter the Gardens in a manner that fails to take advantage of the symmetry of the gated entrance. The ticket building should be removed, visitor circulation redirected, and a Visitor Center constructed nearby that would provide multi-purpose spaces for meetings, special functions, interpretive programs, and exhibitions to support the various public activities of the state gardens. Permanent exhibits and special event displays, historical and horticultural lectures, agency meetings, educational classes, receptions, a gift shop and book store, park offices, and a horticultural library are a few of the functions this facility could accommodate. The Visitor Center would provide meeting space to support the functions of local garden clubs, historic societies, The Friends of Maclay Gardens and other civic organizations. The operation of the Visitor Center by a concessionaire may be considered. The building has been designed in an architectural style that complements the existing historic structures, with site design and permitting completed, and only awaiting funding for construction. Environmental and all other permits (except a building permit, which would be drawn by a contractor upon beginning construction) have been extended through January 1, 2014.

The formal garden area is a very popular wedding venue. The high number of weddings is causing problems in terms of soil compaction, turf degradation, and conflicts that arise when wedding ceremonies affect the experience of other garden visitors. To protect the health and integrity of the formal gardens, the development of a designated wedding garden is proposed for a grassy clearing just outside of the historic area near the main entrance.

The Maclay house and the surrounding outbuildings are significant historic features with the potential for more effective interpretation of the lives and times of the former owners and their employees. Critical needs regarding the future use of the Maclay estate buildings include the removal of park operational uses, consistent

maintenance programs, and planning for better interpretive treatment of the complex.

The Maclay-Phipps Heritage Greenway, as proposed in the 1999 CLMP, has not yet achieved its full potential as a regional recreation and interpretive corridor. Coordination between the City of Tallahassee and DRP will be important to promote and manage the Greenway effectively. Consistency in signage and interpretive design elements will foster an understanding of the historic linkages between the properties, add a sense of identity and importance to the Greenway, and provide a seamless visitor experience as one moves through the landscape. Major and potential interpretive sites, as identified in the CLMP should guide the development and location of interpretive stations linked to the trail system.

The Lake Overstreet Trailhead is to be relocated to the former Bureau of Design and Construction office complex just west of the Maclay Interpretive Area. This location improves connectivity between the existing trails at Lake Overstreet, the Formal Gardens Area, and the park's popular day-use area located on Lake Hall. Additionally the proximity to the Gilliam residence, the last remaining tenant house in the park, provides an opportunity to promote interpretation of the history of tenant farming on the Maclay property and within the larger Red Hills region.

The park will continue to work with local equestrian groups to address the need for a designated equestrian trail within the park. This will enhance horseback riding opportunities and reduce the potential for user conflicts on the trails. Additional improvements to the Lake Overstreet trail system are needed to address accessibility, erosion prone areas, and conditions that pose potential safety hazards to users. The preservation of the character of the historic park roads also needs to be considered. The DRP will consult with trail user groups, including hikers, runners, bikers, and equestrians to gather input on potential further trail refinement and expansion during this planning period.

The widening of Thomasville Road and the realignment of the main park entry have facilitated bicycle and pedestrian access to the park. The construction of a shared-use trail from the park entrance to the new Lake Overstreet trailhead will enhance the Greenway experience by providing an uninterrupted trail linkage from Thomasville Road to Lake Jackson.

Trail connections outside the park are proposed in the Tallahassee- Leon County Greenways Master Plan that would allow bicycle and pedestrian travel from the Tom Brown Park area to roads that surround the park including Thomasville, Meridian, and Maclay Roads (Tallahassee-Leon County Planning Department, 2013). The Division supports the Tallahassee-Leon County Greenways Program and will coordinate with the Tallahassee-Leon Planning Department to provide access to the park from Greenway trails as trail routes are developed in the future.

Objective: Continue to provide the current repertoire of 6 interpretive, educational and recreational programs on a regular basis.

Guided tours of the gardens offered on weekends through the blooming season (January through April) and by request year round. The Maclay House Museum is open for touring with docents on duty January through April, seven days a week. Monthly plant care workshops presented at the gardens by horticultural staff. Monthly ranger interpretive programs, including nature and history hikes, are offered on a wide range of natural and cultural history topics. Recreational skills programs are regularly offered covering such topics as kayaking, fishing, photography, star gazing, flower arranging, plant propagation and other garden related skills. The park and citizen support organization promote several special events each year including the annual Camellia Christmas event, the annual tour of private gardens, an annual concert, and other special events from time to time.

Objective: Develop 3 new interpretive, educational and recreational programs.

As recommended in the 1999 Cultural Landscape Master Plan (CLMP), there is a need to link the interpretive function of the Maclay house with the complex of outbuildings to stories about the Maclays and the African-American community that lived and worked on the estate over time. Interpretive kiosks should be developed at all entrances and trailheads to provide an understanding of the historic linkage of the park with the adjacent Phipps property and to promote the concept of the Maclay-Phipps Heritage Greenway within the larger Red Hills landscape. The Gilliam residence at the Lake Overstreet Trailhead should be developed to serve as the interpretive gateway to the Lake Overstreet trails. Interpretive programming at this location could tell the story of the tenant farmers on the Maclay property, their association with the Maclay family and development of the Gardens, and the significance of the tenant farming system within the larger Red Hills region. The story introduced at the trailhead will be reinforced by a series of self-guided interpretive stations along the trail network. The stations will be located at major cultural sites as identified in the CLMP to highlight the sequence of historic periods that have shaped the park's landscape over time. Interpretive exhibits for the Maclay family and gardens will be updated and improved and relocated from the Maclay house to the new visitor center at the gardens entrance.

Proposed Facilities

Capital Facilities and Infrastructure

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

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

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

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

Objective: Improve/repair 5 existing facilities and 10 miles of trails.

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

Lake Hall Day Use Area: A new fishing dock will be constructed on Lake Hall to the north of the swimming area. This facility should relieve pressure from the existing dock on high use days.

Maclay House Interpretive Area: The Maclay house will be improved by removing some museum exhibits for gardens interpretation and relocating to the new Visitor Center when constructed. Museum exhibits about the Maclay Family need to be updated and renovated, if they are to remain in the Maclay House. It is proposed to re-introduce some pieces of the original bedroom furnishings, currently in storage, to enhance interpretation of the family and their lives in the park. Historic structures including the stable, carriage house, gardener's cottage, and two guest houses, currently used for the manager's residence and the park office, will be renovated and adapted to provide interpretive functions.

Lake Overstreet Trailhead Area: The Lake Overstreet trailhead will be relocated to the current Bureau of Design and Construction office area and will incorporate the existing utilities, structures, restrooms, and parking. It will also feature the Gilliam residence to provide an interpretive gateway to the Lake Overstreet Trails and the larger Maclay-Phipps Heritage Greenway.

Lake Overstreet Trails: A natural-surface, designated equestrian trail is recommended to reduce the potential for user conflicts and enhance the experience of all trail users. The equestrian trail may be required to share sections of the Lake

Overstreet shared-use trail in those areas that are constrained by the park boundary or sensitive features. The equestrian trail should also be aligned on a route that follows topographic contours to avoid erosion and be carefully coordinated with archaeological research for protection of cultural resources. Final equestrian trail alignment will be developed in concert with other single-use trails and trailhead needs as determined by a trails working group consisting of runners, hikers, bikers, and equestrians.

Two new observations platforms will be constructed to enhance wildlife viewing opportunities on Lake Overstreet. Six interpretive wayside stations will be constructed at significant interpretive sites as identified in the CLMP. These will be equipped with interpretive panels seating bike stands and hitching posts.

Park staff monitor the trails for signs of active erosion and implement corrective actions to mitigate soil loss where necessary. The installation of water bars has been effective in many areas and should continue. However, there are some challenging sections which need additional treatments (see soils description in the Resource Management Component). In these problem areas, it is recommended that photo documentation be implemented to record the rate and pattern of soil loss. A study should be conducted to assess the problem and provide recommendations for long-term mitigation.

Support Facilities: The ranger station is proposed to be renovated or replaced to provide safer and more accessible conditions for park visitors.

Objective: Construct 3 new facilities and 1 mile of trail.

Formal Gardens Area: A new visitor center will be constructed at the gardens entrance. This facility will provide multi-purpose spaces for meetings, administrative functions, interpretive programs, and exhibitions to support the various public activities of the gardens. The building has been designed in an architectural style that complements the existing historic structures and sited in a manner that preserves the character of the gated entryway.

The number of weddings in the gardens has increased dramatically in recent years to levels that are potentially damaging to paths and plantings. A new wedding garden is proposed for an area outside the formal gardens to prevent visitor conflicts and protect the integrity of this historic site.

The recommendation in the previous Unit Management Plan, for construction of a permanent stage for performances, is being deleted from this plan, based on the Market Analysis Study completed by ArtsMarket in 2000, with conclusion that such

a facility would not be in keeping with the mission of the park, and would not be economically viable.

Entrance Trailhead Area: A trailhead will be constructed near the main entrance at the intersection of the main park drive and the road to Lake Hall. A large picnic pavilion, interpretive kiosk, restroom and parking for up to twenty vehicles will be provided. The trailhead will be linked to the gardens and the Lake Overstreet Trailhead by a new shared-use trail segment to be constructed parallel to the main park drive. A spur trail will link the area to the Big Pine Trail along Lake Hall. The existing volunteer campsites in this area will be relocated.

Support Facilities: Due to space constraints, the current park office, manager's residence, and shop facilities are located in historic buildings in the Maclay complex. To improve the overall functionality of the park, it is recommended that these uses be moved to their own dedicated area. This will allow the historic buildings to be converted to interpretive facilities to better tell the story of the Maclays and their employees. It is recommended that the park office be moved into the buildings that will be vacated by the Bureau of Design and Construction. The new office location will require fencing and screening to physically and visually separate it from the new Lake Overstreet Trailhead next to the Gilliam residence. A new shop building, two staff residences and four volunteer campsites are proposed for an area just east of the new office. These should be accessed from the driveway that currently services the Bureau of Design and Construction to keep park vehicles from routinely driving through the Maclay Interpretive Area.

When the existing Lake Overstreet Trailhead is relocated, the area can be used to provide additional shop, administrative, and/or residence facilities as necessary. Crew team boat parking and storage should also be moved to this area once the trailhead is relocated. This would allow the current crew team boat parking area to be used as an overflow parking lot for special events. A service road is recommended to connect the main park drive to Maclay Road through the existing Lake Overstreet Trailhead Area. This would provide a back entrance into the park for staff use, service vehicles, and traffic management during special events.

Facilities Development

Preliminary cost estimates for these recommended facilities and improvements are provided in the Ten-Year Implementation Schedule and Cost Estimates (Table 6) located in the Implementation Component of this plan. These cost estimates are based on the most cost-effective construction standards available at this time. The preliminary estimates are provided to assist DRP in budgeting future park improvements, and may be revised as more information is collected through the planning and design processes. New facilities and improvements to existing facilities recommended by the plan include:

Lake Hall Day Use Area Fishing dock

Entrance Trailhead Area

Parking (20 vehicles) Trailhead kiosk (1) Restroom Picnic pavilion (large)

Formal Gardens Area

Visitor center Wedding garden (facility)

Maclay House Interpretive Area

Adaptive reuse of historic structures

Lake Overstreet Trailhead Area:

Trailhead kiosk (1) Viewing platforms (2) Restroom and water source Gilliam residence interpretive renovation Driveway and parking reconfiguration Interpretive wayside stations (6)

Parkwide

Shared-use trail (1 mile)

Support Facilities

Entrance station Residences (2) Volunteer campsites (4) Large shop building Service road (.25 miles)

Recreational Carrying Capacity

Carrying capacity is an estimate of the number of users a recreation resource or facility can accommodate and still provide a high quality recreational experience and preserve the natural values of the site. The carrying capacity of a unit is determined by identifying the land and water requirements for each recreation activity at the unit, and then applying these requirements to the unit's land and water base. Next, guidelines are applied which estimate the physical capacity of the

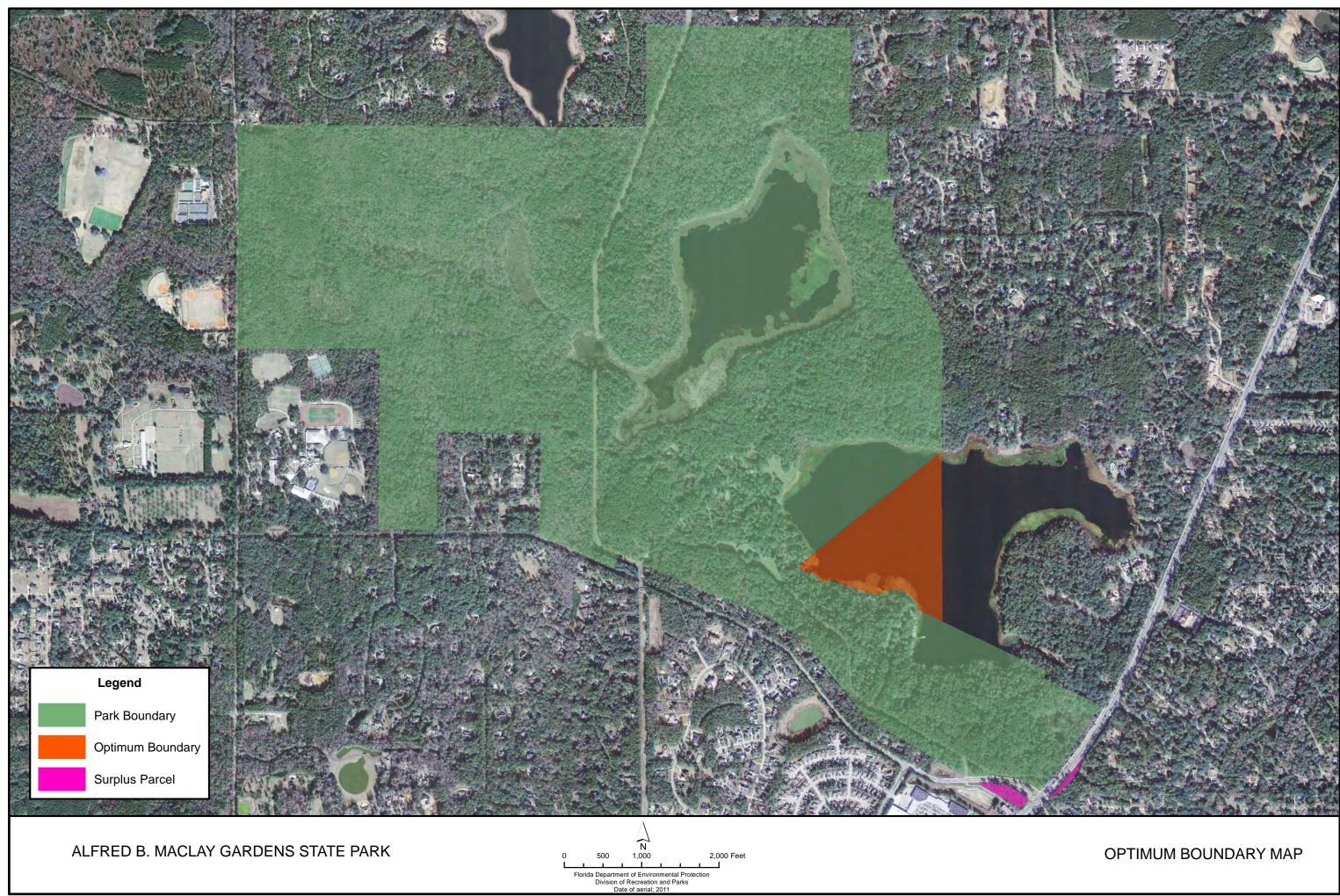
unit's natural communities to withstand recreational uses without significant degradation. This analysis identifies a range within which the carrying capacity most appropriate to the specific activity, the activity site and the unit's classification is selected (see Table 5).

The recreational carrying capacity for this park is a preliminary estimate of the number of users the unit could accommodate after the current conceptual development program has been implemented. When developed, the proposed new facilities would approximately increase the unit's carrying capacity as shown in Table 5.

Activity/Facility	Existing Capacity*		Proposed Additional Capacity		Estimated Recreational Capacity	
	One Time	Daily	One Time	Daily	One Time	Daily
Trails						
Big Pine Nature Trail	20	80			20	80
Lk. Overstreet Trail	50	200	10	40	60	240
Bike Trails	50	200			50	200
Equestrian Trail			40	80	40	80
Picnicking/Swimming	375	750			375	750
Fishing						
Shoreline	15	30			15	30
Dock			10	20	10	20
Boating						
Rowing	120	180			120	180
Canoeing/kayaking	32	64			32	64
The Formal Gardens	308	924			308	924
Visitor Center			300	300	300	300
TOTAL	970	2428	360	440	1330	2868

Optimum Boundary

The optimum boundary map reflects lands that have been identified as desirable for direct management by DRP as part of the state park. These parcels may include public as well as privately owned lands that improve the continuity of existing



parklands, provide the most efficient boundary configuration, improve access to the park, provide additional natural and cultural resource protection or allow for future expansion of recreational activities. The map also identifies lands that are potentially surplus to the management needs of DRP. As additional needs are identified through park use, development, or research, and changes to land use on adjacent private property occurs, modification of the park's optimum boundary may be necessary.

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

The proposed optimum boundary, which includes the western half of Lake Hall, would provide additional lake and shoreline protection. The two small parcels near the southeast corner of the park, separated from the main park boundary by Thomasville and Maclay Roads, have been identified for surplus.

IMPLEMENTATION COMPONENT

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

MANAGEMENT PROGRESS

Since the approval of the last management plan for Alfred B. Maclay Gardens State Park in 2003, significant work has been accomplished and progress made towards meeting the DRP's management objectives for the park. These accomplishments fall within three of the five general categories that encompass the mission of the park and the DRP.

Acquisition

• A quit-claim deed to approximately 2 acres was given to the park by a Lake Hall developer ca. 2000, as the survey done for new development showed him to own land traditionally included within the Gardens.

Park Administration and Operations

- The park's CSO has remained very active, continuing to conduct fund-raising and other activities to benefit the park, and to attract new members and retain long-term members. They have expended up to \$15,000 per year to meet park needs.
- Volunteer hours donated to the park average over 8,000 per year, equivalent to approximately 4 full time position equivalents per year. The park continues to recruit new volunteers as well as to retain long-term volunteers.
- The park has established effective partnerships with other area entities, including Florida A & M University, Florida State University (both providing interns and student volunteer projects), and the local Institute of Food and Agricultural Services, through the County Extension Office, for ongoing assistance with volunteers and research.
- Funded and completed a market analysis study, done by ArtsMarket, Inc., to determine feasibility of building a permanent stage for more frequent presentation of concerts.
- Visitation increased significantly.

• Park staff contribute to local publications, including the Tallahassee Democrat, on topics related to gardening, local history, and other related topics.

Resource Management

Natural Resources

- Increased Management Zones brought into maintenance condition for exotic plant control, through utilization of grants, Americorps members and OPS staffing provided by Exotics project funding, to supplement park staff efforts.
- Identified, documented and provided protective measures for 100+ endangered *Torreya taxifolia* seedling trees.
- Implemented restoration measures for Bay Star vine, *Schisandra glabra*, by propagation of plants to be re-introduced into the ravine habitat.

Cultural Resources

- Renovated several planting beds and areas within the historical gardens.
- Installed a new well and renovated the irrigation system for more effective watering of gardens plantings.
- Extensive renovations of Maclay House including replacement of cypress siding, rehabilitation of windows, structural foundation repairs, etc.
- Rewiring of several historical buildings, including Maclay House, the stables (currently used as maintenance shop), carriage shed (woodworking shop), Pump/barracks/men's restroom (supply storage), and greenhouse.
- Completed historical studies for African-American historical sites, including the Near Dock House, the Cedar Shake House and analysis of the Purple Brick site, with funding in part from a grant provided by DHR.
- Completed Historical Structures Reports for Maclay House and Guest Cottage (current Park Office), with funding in part from a DHR grant.
- Completed assessment and detailed drawings for documentation of three buildings that burned in December, 2004; the Drive-through Barn, the Servant's Cottage, and the laundry, with funding in part provided by a grant from DHR.
- Completed stabilization and structural repairs to three historical barns, The Tractor Barn, the Small Tractor Barn, and the Lumber Shed.
- Renovated three wrought-iron sculptures within the Gardens.
- The historical greenhouse was renovated to facilitate plant propagation efforts for the Gardens.

Recreation and Visitor Services

- Increased park and CSO special events offered annually, and increased interpretive program offerings.
- Completed a ramp to provide accessibility to the Maclay House.
- Established a contract with a concessionaire for provision of wedding rentals and other rental usage of the Gardener's Cottage and Gardens.

- The concessionaire expanded services to include a food concession at the Lake Hall Recreation area during summer weekends and holidays.
- Acquired equipment and implemented park rentals of kayaks, pedal boats and bikes.
- Developed two additional designated bike trails, the Southern Connector and the Northern Connector, both designed according to International Mountain Biking Association standards, for sustainability.
- The Lake Overstreet trailhead, accessed from the park Ranger Station, was realigned to create a more scenic entrance onto the shared-use and bike trails, rather than entering along the power-line right of way.
- ADA facilities, including picnic tables, grills, and an accessible walkway were added to the Recreation Area to facilitate circulation throughout the area by people with disabilities.
- A beach wheelchair, an electric wheelchair, and additional staff-driven golf carts were acquired to facilitate accessibility for all.
- Continued service provided to area rowing (crew) teams and cross-country running teams, by way of Non-exclusive Land Use Agreements.

Park Facilities

- Designed and permitted a new Visitor Center for the Gardens Entrance, that is awaiting funding, and that will also serve the Maclay/Overstreet/Phipps Heritage Greenway, when built.
- Constructed new large rental picnic pavilion and restrooms at Lake Hall Recreation Area.
- Provided safer trailhead crossing of Meridian Road, from City of Tallahassee Phipps Park at Forest Meadows, with funding in part from DOT grant.
- New park entrance developed as Maclay Road realignment completed.
- The Northern park boundary from Lake Hall to Meridian Road was re-fenced.
- The Southern park boundary was re-surveyed to clearly identify the property line.
- The shade house in the plant nursery was renovated to facilitate plant propagation.
- Completed landscape improvements to provide a stabilized pathway from the Gardener's Cottage to the Walled Garden.
- Renovated a culvert between Gum Pond and Lake Overstreet subsequent to damage done by Hurricane Dennis.

MANAGEMENT PLAN IMPLEMENTATION

This management plan is written for a timeframe of ten years, as required by Section 253.034 Florida Statutes. The Ten-Year Implementation Schedule and Cost Estimates (Table 6) summarizes the management goals, objectives and actions that are recommended for implementation over this period, and beyond. Measures are

identified for assessing progress toward completing each objective and action. A time frame for completing each objective and action is provided. Preliminary cost estimates for each action are provided and the estimated total costs to complete each objective are computed. Finally, all costs are consolidated under the following five standard land management categories: Resource Management, Administration and Support, Capital Improvements, Recreation Visitor Services and Law Enforcement.

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

Statewide priorities for all aspects of land management are evaluated each year as part of the process for developing the DRP's annual legislative budget requests. When preparing these annual requests, the DRP considers the needs and priorities of the entire state park system and the projected availability of funding from all sources during the upcoming fiscal year. In addition to annual legislative appropriations, the DRP pursues supplemental sources of funds and staff resources wherever possible, including grants, volunteers and partnerships with other entities. The DRP's ability to accomplish the specific actions identified in the plan will be determined largely by the availability of funds and staff for these purposes, which may vary from year to year. Consequently, the target schedules and estimated costs identified in Table 6 may need to be adjusted during the ten-year management planning cycle.

Table 6 Alfred B. Maclay Gardens State Park Sheet 1 of 4

NOTE: THE DIVISION'S ABILITY TO COMPLETE THE OBJECTIVES OUTLINED BY THE MANAGEMENT PLAN IS CONTINGENT ON THE AVAILABILITY OF FUNDING AND OTHER RESOURCES FOR THESE PURPOSES.

Goal I: Provide a	dministrative support for all park functions.	Measure	Planning Period	Estimated Manpower and Expense Cost* (10- years)
Objective A	Continue day-to-day administrative support at current levels.	Administrative support ongoing	C	\$1,070,000
Objective B	Expand administrative support as new lands are acquired, new facilities are developed, or as other needs arise.	Administrative support expanded	UFN	\$150,000
Goal II: Maintair	n, improve or restore imperiled species populations and habitats in the park.	Measure	Planning Period	Estimated Manpower and Expense Cost* (10- years)
Objective A	Update baseline imperiled species occurrence inventory lists for plants and animals, as needed.	List updated	С	\$10,000
Objective B	Monitor and document 2 selected imperiled plant species in the park.	# Species monitored	С	\$11,000
Action 1	Develop monitoring protocols for 2 selected imperiled plant species including slender naiad and bay starvine.	# Protocols developed	ST	\$1,000
Action 2	Implement monitoring protocols for 2 imperiled plant species including those listed in Action 1 above.	# Species monitored	С	\$6,000
	Propogate bay star vine individuals in greenhouse and plant in ravine(s)	# complete procedures implemented	LT	\$4,000
Goal III: Remove	e exotic and invasive plants and animals from the park and conduct needed maintenance-control.	Measure	Planning Period	Estimated Manpower and Expense Cost* (10- years)
Objective A	Annually treat 15 acres of exotic plant species in the park.	# Acres treated	С	\$46,000
Action 1	Annually update exotic plant management work plan.	Plan updated	С	\$16,000
Action 2	Implement annual work plan by treating 15 acres in park, annually, and continuing maintenance and follow-up treatments, as needed.	Plan implemented	С	\$30,000
Objective B	Implement control measures on 3 exotic and nuisance animal species in the park.	# Species for which control measures implemented	C	\$5,000

Table 6 Alfred B. Maclay Gardens State Park Sheet 2 of 4

NOTE: THE DIVISION'S ABILITY TO COMPLETE THE OBJECTIVES OUTLINED BY THE MANAGEMENT PLAN IS CONTINGENT ON THE AVAILABILITY OF FUNDING AND OTHER RESOURCES FOR THESE PURPOSES.

Goal IV: Protect, preserve and maintain the cultural resources of the park.	Measure	Planning Period	Estimated Manpower and Expense Cost* (10- years)
Objective A Assess and evaluate 81 of 82 recorded cultural resources in the park.	Documentation complete	LT	\$234,000
Action 1 Complete 48 assessments/evaluations of archaeological sites. Prioritize preservation and stabilizations of archaeological sites.	tion projects. Assessments complete	ST	\$4,000
Action 2 Complete 15 Historic Structures Reports (HSR's) for historic buildings and cultural landscapes. P stabilization, restoration and rehabilitation projects.	rioritize Reports and priority lists completed	UFN	\$230,000
Objective B Compile reliable documentation for all recorded historic and archaeological sites.	Documentation complete	LT	\$89,000
Action 1 Ensure all known sites are recorded or updated in the Florida Master Site File.	# Sites recorded or updated	ST	\$5,000
Action 2 Conduct Phase 1 archaeological survey for 11 priority areas planned for development which occu medium sensitivity areas.	r in high and Survey completed	UFN	\$44,000
Action 3 Develop and adopt a Scope of Collections Statement.	Document completed	ST	\$2,000
Action 4 Conduct oral history interviews .	Interviews complete	ST	\$4,000
Action 5 Compile documentation of park history.	Documentation compiled	С	\$4,000
Action 6 Conduct ethnographic research to explore the culture and interrelationships of the people inhabit Plantation.	ing Killearn Reseach conducted	UFN	\$30,000
Objective C Bring 1 of 82 recorded cultural resources into good condition	# Sites in good condition	LT	\$1,232,000
Action 1 Design and implement regular monitoring programs for 75 cultural sites.	# Sites monitored	С	\$2,000
Action 2 Create and implement a cyclical maintenance program for each historic building.	Programs implemented	С	\$1,220,000
Action 3 Bring 1 priority historic sites into good condition including the seed and fertilizer storage buildin	g. Projects completed	ST	\$10,000

Table 6 Alfred B. Maclay Gardens State Park Sheet 3 of 4

NOTE: THE DIVISION'S ABILITY TO COMPLETE THE OBJECTIVES OUTLINED BY THE MANAGEMENT PLAN IS CONTINGENT ON THE AVAILABILITY OF FUNDING AND OTHER RESOURCES FOR THESE PURPOSES.

Goal V: Provide	public access and recreational opportunities in the park.	Measure	Planning Period	Estimated Manpower and Expense Cost* (10- years)
Objective A	Maintain the park's current recreational carrying capacity of 2,548 users per day.	# Recreation/visitor	С	\$2,140,000
Objective B	Expand the park's recreational carrying capacity by 440 users per day.	# Recreation/visitor	UFN	\$300,000
Objective C	Continue to provide the current repertoire of 6 interpretive, educational and recreational programs on a regular basis.	# Interpretive/education programs	С	\$180,000
Objective D	Develop 3 new interpretive, educational and recreational programs.	# Interpretive/education programs	UFN	\$230,000
Goal VI: Develog management plar	p and maintain the capital facilities and infrastructure necessary to meet the goals and objectives of this n.	Measure	Planning Period	Estimated Manpower and Expense Cost* (10- years)
Objective A	Maintain all public and support facilities in the park.	Facilities maintained	С	\$1,780,000
Objective B	Continue to implement the park's transition plan to ensure facilities are accessible in accordance with the American with Disabilities Act of 1990.	Plan implemented	LT	\$320,000
Objective C	Improve and/or repair 5 existing facilites and 10 miles of trails.	# Facilities/Miles of Trail	UFN	\$1,050,000
Action 1	Improve and/or repair 5 existing facilites	# Facilities	UFN	\$1,005,000
1	T 1 , 1 , 1 , 1 , 1 , 1		TITINT	ΦΞ 000
Action 2	Implement photo monitoring to document trail erosion	Monitoring implemented	UFN	\$5,000
	Implement photo monitoring to document trail erosion Continue to implement corrective actions including water bars in problem areas	Monitoring implemented Corrective actions implemented	C	\$5,000
Action 3		Corrective actions		
Action 3	Continue to implement corrective actions including water bars in problem areas	Corrective actions implemented	C	\$20,000

Table 6 Alfred B. Maclay Gardens State Park Sheet 4 of 4

NOTE: THE DIVISION'S ABILITY TO COMPLETE THE OBJECTIVES OUTLINED BY THE MANAGEMENT PLAN IS CONTINGENT ON THE AVAILABILITY OF FUNDING AND OTHER RESOURCES FOR THESE PURPOSES.

Summary of Estimated Costs

Management Categories Management Categories Resource Management Capital Improvements Capital Improvements Recreation Visitor Services Law Enforcement Activities Management Categories Management Categories		
Administration and Support Capital Improvements Recreation Visitor Services Law Enforcement Activities ¹ 1Law enforcement activities FWC Division of Law Enforcement Activities	ies	Management Categories
Capital Improvements Recreation Visitor Services Law Enforcement Activities ¹ 1Law enforcement activities FWC Division of Law Endormer	ent	Resource Management
Recreation Visitor Services Law Enforcement Activities ¹ 1Law enforcement activities FWC Division of Law Enforcement Activities	ort	Administration and Support
Law Enforcement Activities ¹ 1Law enforcement activ FWC Division of Law Enforcement	nts	Capital Improvements
1Law enforcement active FWC Division of Law E	ces	Recreation Visitor Services
FWC Division of Law F	es ¹	Law Enforcement Activities ¹
	1Law enforcement activ	
agencies.		
	agencies.	

Total Estimated
Manpower and Expense
Cost* (10-years)
\$1,627,000
\$1,220,000
\$4,220,000
 \$4,690,000

tivities in Florida State Parks are conducted by the Enforcement and by local law enforcement

* 2014 Dollars ST = actions within 2 years LT = actions within 10 years C = long term or short term actions that are continuous or cyclical UFN = currently unfunded need Addendum 1 – Acquisition History

Purpose of Acquisition:

The State of Florida ("State") acquired Alfred B. Maclay Gardens State Park to maintain this property as a public state park.

Sequence of Acquisition:

On March 31, 1953, the State obtained title to a 307.6–acre property constituting the initial area of Alfred B. Maclay Gardens State Park. The State received the property from Trustees of Killearn Gardens, Inc. as a donation. The purpose of this donation was for the property to be used for the use and benefit of the Florida Board of Parks and Historic Memorials ("FBPHM"), predecessor in interest to the State of Florida Department of Environmental Protection, Division of Recreation and Parks ("DRP"), as a public park.

Since the 1953 initial donation, the State acquired one property, commonly referred to as "Lake Overstreet Property," and added it to Alfred B. Maclay Gardens State Park. This approximately 878-acre property was purchased from The Trust for Public Land Corporation for \$5,278,000. The City of Tallahassee contributed \$868,000 towards the purchase of the Lake Overstreet property, and the remaining amount was paid by the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida ("Trustees"). The Trustees' portion (share) of the purchase was funded through Preservation 2000 Additions and Inholdings ("P2000/A & I").

Management Leases:

On January 31, 1968, the Trustees leased Alfred B. Maclay Gardens State Park to FBPHM under a ninety-nine (99) generic lease, sometimes referred to as "Grand Father Lease," Lease No. 2324. In 1988, the Trustees assigned a new lease number, Lease No. 3607, to Alfred B. Maclay Gardens State Park, without changing any of the terms and conditions of Lease No. 2324.

According to Lease No. 3607, DRP manages Alfred B. Maclay Gardens State Park for the specific purpose of outdoor recreational, park, conservation, historic and related purposes.

Title Interest

The Trustees holds fee simple title to Alfred B. Maclay Gardens State Park.

Special Conditions on Use

Alfred B. Maclay Gardens State Park is designated single-use to provide resource-based public outdoor recreation and other park related uses. Uses such as water resource development projects, water supply projects, storm-water management projects, and linear facilities and sustainable agriculture and forestry are not consistent with the purposes for which DRP manages the park. For this reason, such activities are not

allowed in Alfred B. Maclay Gardens State Park unless they are specifically identified in the park's Unit Management Plan.

Outstanding Reservations

Following is a listing of outstanding rights and reservations that apply to Alfred B. Maclay Gardens State Park:

Type of Instrument:	Deed
Grantor:	Trustees of Killearn Gardens, Inc.
Grantee:	Trustees
Beginning Date:	March 31, 1953
Ending Date:	so long as the property is used for the
intended purpose.	

Outstanding Reservation and Restriction: The deed reserves to the grantor, its successors and assigns in title, a right-of- way for ingress and egress purpose. The deed is also subject to that said lands are used and maintained as a state park for exhibit and display to and use by the public. If the property is not used for the public use as stated in the deed, the title to the property shall revert to the grantors, their successors in trust, or assigns.

Type of Instrument: 29744.	Easement and Corrective Easement No.		
Grantor:	Trustees		
Grantee:	City of Tallahassee		
Beginning Date:	July 30, 1996 and corrected on March 10,		
1998			
Ending Date:	August 1, 2046		
Outstanding Rights:	The easement allows the City of Tallahassee		
to construct and maintain the realigned section of Maclay Road that passes through a			
portion of Alfred B. Maclay Gardens State Park. The corrective easement makes two			

minor revisions to the original easement.

Addendum 2–Advisory Group Members and Report

Local Government Representatives

The Honorable John Marks Mayor of Tallahassee 300 South Adams Street Tallahassee, FL 32301

Catherine Jones Chief of Staff to Commissioner Nick Maddox Leon County Board of County Commissioners Leon County Courthouse 301 South Monroe Street, 5th floor Tallahassee, FL 32301

Elizabeth H. Weidner, Park Manager Alfred B. Maclay Gardens State Park 3540 Thomasville Road Tallahassee, FL 32309

Agency Representatives

David Speake, Supervisory Forester Florida Division of Forestry 3125 Conner Boulevard Tallahassee, Florida 32399-1650

Stan Peacock, Supervisor Leon Soil and Water Conservation District 6992 Duck Cove Road Tallahassee, FL 32312

Mike Wisenbaker, Archaeology Supervisor Bureau of Archaeological Research Florida Division of Historical Resources 1001 DeSoto Park Drive Tallahassee, Florida 32301

Chuck Goodheart City of Tallahassee, Manager Elinor Klapp-Phipps Park 4000 North Meridian Road Tallahassee, FL 32312 Diana Pepe Florida Fish and Wildlife Conservation Commission Northwest Region Joe Budd Field Office 5300 High Bridge Road Quincy, FL 32351

Recreational User Representatives

Mr. Cliff Leonard Capital City Cyclists 1217 Leewood Hollow Tallahassee, FL 32312

Cathy Briggs Florida Trail Association 825 Ashlyn Forest Drive Tallahassee, FL 32303

Sue Noyes, President Southern Trail Riders Association 5800 Veterans Memorial Drive Tallahassee, FL 32309

Ms. Kim Walker, President Capital City Rowing Club, Inc. P. O. Box 38154 Tallahassee, FL 32315

<u>Tourist Development Council</u> <u>Representative</u>

Brian Hickey Tallahassee Area Convention and Visitors Bureau 106 East Jefferson Street Tallahassee, FL 32301

Environmental and Conservation Representatives

Marion McGee, Assistant Director John G. Riley House/Museum 419 E. Jefferson Street Tallahassee, FL 32301 Rebecca Adams, President Tallahassee Garden Club 3051 North Shannon Lakes Drive Tallahassee, Florida 32309

Holly Parker, Chair Sierra Club, Big Bend Group 1319 Cherry Street Tallahassee, FL 32303

Sean McGlynn, President Apalachee Audubon Society 568 Beverly Court Tallahassee, FL 32301

<u>Citizen Support Organization</u> Representative

Jennifer Humayun, President Friends of Maclay Gardens, Inc. c/o Maclay Gardens State Park 3540 Thomasville Road Tallahassee, FL 32309

Adjacent Landowner

Fred Calder, Jr., 3740 Ravine Drive Tallahassee, FL 32312 The Alfred B. Maclay Gardens State Park Advisory Group meeting was held in the Gardener's Cottage at the park on August 19, 2013. Dan Newman represented Kim Walker; Marty Quinn represented Rebecca Adams. Mayor Marks and Marion McGee were not able to attend. All other Advisory Group members were in attendance. Attending staff were Danny Jones, Tony Tindell, Arthur Stiles, Beth Weidner, Enid Ehrbar and David Copps.

Mr. Copps began the meeting by explaining the purpose of the Advisory Group, reviewing the meeting agenda, and summarizing the comments from public workshop that was held the previous evening at Chiles High School. Mr. Copps then asked each member of the Advisory Group to express his or her comments on the draft plan.

Summary of Advisory Group Comments

Chuck Goodheart questioned the science behind keeping Lake Overstreet closed to public access. He expressed support for opening the lake in a limited way for activities such as wade fishing. Mr. Goodheart recommended a redesign of the trails on the Lake Overstreet tract to reduce environmental impacts and achieve a more sustainable system. He recommended that a decision be made about the adjacent CSO-owned property on Maclay Road based on an evaluation of the benefits to the park.

Marty Quinn stated that Tallahassee Garden Club loves the formal gardens. She is concerned about the keeping exotic invasive plants out of the park including Lake Overstreet. She stated the Garden Club would like to work with partners including the Magnolia Chapter of the Florida Native Plant Society to control exotic invasives. She said that the Tallahassee Garden Club would consider providing some funds for these efforts.

Mike Wisenbaker said that the park should add interpretation to the stated goals of protecting, preserving, and maintaining the parks natural and cultural resources. He supports efforts to control erosion in the park to protect cultural sites. Mr. Wisenbaker supports the removal of exotic invasive plants in the park but pointed out that this should be done with sensitivity to the role of some of these as part of the cultural landscape. He described a discrepancy in the tally of archeological sites – DRP lists 50 sites compared to the DHR tally of 53. Mr. Wisenbaker supports the interpretation of the Cedar Shake House site. He mentioned that DHR no longer wants ARM certified monitors to do reporting. They should just contact DHR to provide those services. Mr. Wisenbaker is pleased that the formal gardens will be listed in the Florida Master Site File. He said that DHR would like to do more archaeological testing on the property.

Cathy Briggs commented that the plan was well written. She agrees with Mr. Goodheart about redesigning the trail system for greater sustainability. She supports the relocation of the Lake Overstreet Trailhead and likes the addition of the interpretive wayside stations along the trail. She also expressed support for the construction of a new visitor center at the garden's entrance. Ms. Briggs recommended that the new visitor center include interpretation of natural resources along with cultural resources.

Diana Pepe commented that the plan was well written. She recommended removing the reference to burn zones in the Introduction. Ms. Pepe noted that black bear should be removed

from the imperiled species list. She questioned whether or not that Sherman fox squirrel should be included on the list and asked staff to take a closer look at that.

Sue Noyes expressed safety concerns with horses on the shared-use trail. She recommended that a designated equestrian trail be developed on the Lake Overstreet tract. She said that she was unaware of the designated equestrian trail that was proposed in the last unit management plan. She recommended that the statement on page 90 regarding the removal of the proposed equestrian trail be deleted from the plan update. Ms. Noyes stated that it is difficult to park horse trailers at the Lake Overstreet trailhead. Beth Weidner said that horse trailers are allowed to park on the west side of the garden's grassy overflow parking area due to the less than ideal conditions at the trailhead. David Copps said that the relocation of the Lake Overstreet Trailhead will allow for a better parking design for all trail users. Ms. Noyes recommended raising the proposed interpretive signs along the Lake Overstreet trails to accommodate riders.

Dan Newman said that Capital City Rowing appreciates their good relationship with the park. He pointed out that the growth of dense aquatic vegetation in some areas along the north shore of Lake Hall near High Grove can be problematic for rowers.

Sean McGlynn appreciates the pristine quality of Lake Overstreet. He expressed support for allowing limited recreational access to the lake. Mr. McGlynn suggested that concern about boaters introducing exotic invasive plants into the lake should not be of great concern. He pointed out that wading birds are more likely to introduce them. Mr. McGlynn said that the exotic apple snail is a significant threat to the lake and will probably arrive in the near future as they are already in Lake Hall. He said that high levels of bacteria are sometimes a problem in Lake Hall and suggested that passive aerators should be considered for mixing lake surface layers to keep bacteria populations down.

Cliff Leonard recommended the development of a designated bike trail on the east side of Lake Overstreet which would connect to the other existing designated bike trails. He explained that this would aid in navigation, provide seclusion and separation for cyclists and keep high speed cyclists off the shared-use trail. Mr. Leonard also suggested that the designated bike trail would be desirable for special biking events at the park.

Fred Calder recommended that the Magnolia Chapter of the Florida Native Plant Society be recognized in the plan for their efforts in managing the native plant arboretum in the garden. He mentioned some changes that are occurring in Lake Hall and pointed out a siltation problem in the northeast portion of the lake. He suggested that this could be causing the dense growth of aquatic vegetation in that area. Mr. Calder mentioned the cultural resource assessment described on page 70 of the plan and explained that geographical information systems inventory and analysis are essential for the long term protection of these resources. He recommended that the park establish GIS layers of baseline information for natural and cultural resources to aid in future management. Mr. Calder said that the plan should mention possible impacts from the future extension of the City of Tallahassee' greenway system from Market Square north along the powerline corridor to Maclay Road at the park's southern boundary. Mr. Calder concluded his statements by mentioning that additional staff will be needed to accomplish all of the management objectives in the plan. He recommended that the objectives should be prioritized in

a way that is sensitive to the extra staff time and costs. Mr. Calder stated that the plan needs to consider the different use patterns in the park with high use on the weekends as compared to modest use during the week.

Jennifer Humayan thanked Beth Weidner for her good relationship with the Citizen Support Organization. She recognized the need for the CSO to do more community outreach to build membership. She invited all members of the advisory group to join the CSO. Ms. Humayan mentioned that the CSO helps with trail maintenance and she agreed with previous statements regarding the need for better trail design. Ms. Humayan asked that DRP evaluate the CSO owned property on Maclay Road (adjacent to the powerline) as a potential service road access to the park.

Holly Parker commented that the plan was well written with a good balance. She stated that the elimination of exotic invasive plants is a high priority and said that volunteers from the Sierra Club are willing to help in eradication efforts.

Stan Peacock expressed a concern about exotic invasive plants and erosion problems in the park. He is interested in environmental education programs for area youth. He described a high school competition sponsored by the Soil and Water Conservation Districts called "Envirothon". He said that the competition will be held in Leon County next year and that he may ask the park for help. Mr. Peacock stated that environmental education should address both natural and cultural resources. He supports the development of the Gillam House Interpretive Area and asked if local schools use the park for environmental education programs. Beth Weidner said that she does reach out to area schools.

David Speakes stated that he would like to see the establishment of more pine savannah areas such as the existing .5 acre interpretive patch. He recognized the difficulty of burning the oldfield pine area on the west side of the Lake Overstreet tract and recommended that a salvage plan be developed for that area in the event of large scale storm damage or insect infestation.

Catherine Jones stated that the park is a focal point for local ecotourism. She said that Leon County supports recreational access to Lake Overstreet and the establishment of a dedicated equestrian trail.

Brian Hickey stated that most visitors to Tallahassee come to see friends and family. He said that Visit Tallahassee promotes local knowledge to enhance the visitor experience. Mr. Hickey said that the park is an economic engine for the community and that the local economy will benefit by increasing visitation to the park. He said that recreational trails are very important for attracting visitors and suggested that the park's trails be integrated into the City and County GIS layers. Mr. Hickey recommended recreational access be provided to Lake Overstreet. He mentioned that stand-up paddle boards would be a good fit for the lake. Mr. Hickey said that users would need to be educated about the threats of exotic invasive species and how to prevent their spread. He expressed support for the new visitor center, wedding garden, and a public entrance to the trails from Maclay School and encouraged DRP to diversify marketing opportunities especially on social media. Mr. Hickey asked about the process of management plan approval, project funding and how the Advisory Group can help in lobbying for funding.

David Copps stated that the draft plan should be submitted to the Division of State Lands this fall for Acquisition and Restoration Council approval in early 2014. He said that once the plan is approved it will go on the DEP/DRP web site. Danny Jones explained the budgeting and funding process for state parks. He said that each year the five state park districts (161 parks) submit requests for funding new projects. He stated that there is usually a very limited amount of money to go around and that the funding received usually has to go for maintenance, repair, and day to day operations. Mr. Jones said that a good starting point for implementing the plan is for trail volunteers to work with the park manager to develop and implement a trail improvement plan.

Staff Recommendations

The staff recommends approval of the proposed management plans for Alfred B. Maclay Gardens State Park as presented, with the following significant changes.

- Amend the language in the Lake Overstreet Trails improvement discussion to retain a dedicated 5 mile equestrian trail as proposed in the 2003 management plan update.
- Provide language that addresses the need to improve the entire Lake Overstreet Trail system and that DRP will consult with trail user groups, including hikers, runners, bikers, and equestrians and with the City of Tallahassee to gather input on potential further trail refinement or expansion.
- Provide language recognizing that the northern terminus of the proposed Timberlane Greenway on Maclay Road is adjacent to the park boundary. State that DRP will consider the possibility of providing access to the park from the Greenway if requested by the Tallahassee/Leon County Planning Department.

The recommendation to allow recreational access to Lake Overstreet, including paddling and fishing, was made by several advisory group members. Since negative impacts to this unique and pristine body of water, such as the introduction of exotic aquatic plants, are a distinct possibility and park visitors already enjoy these recreational activities at the main day use area on Lake Hall, recreational aquatic activities on Lake Overstreet are not recommended.

Additional revisions were made throughout the document to address editorial corrections, consistency of spellings and notations, and other and the following minor corrections.

- Remove the reference to burn zones in the Introduction.
- Remove black bear from the Imperiled Species list.
- Address the discrepancy in the number of archaeological sites listed by DRP (50) and DHR (53).
- Recognize Florida Native Plant Society's Magnolia Chapter for their efforts in maintaining the native plant arboretum.

Notes on Composition of the Advisory Group

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

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

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

Addendum 3–References Cited

- Bureau of Economic and Business Research, Warrington College of Business Administration, University of Florida. 2011. <u>Florida Statistical Abstract</u>.
- Clewell, A.F. 2013. Prior Prevalence of Shortleaf Pine-Oak-Hickory Woodlands in the Tallahassee Red Hills. Castanea 78(4): 266-276.
- Collins, L.D., S. Fernandez, J. DuVernay, K. Driscoll, and T. Doering. 2012. Archaeologicalresource sensitivity modeling in Florida State Parks District 1: the northwest Florida region. Alliance for Integrated Spatial Technologies, University of South Florida. DEP contract number RP733.
- Doran, G.H. 1992. Archaeological Investigations of the Lake Overstreet Property, Leon County, Florida. Prepared for the Trust for Public Lands, Southeast Regional Office, Tallahassee, FL.
- Florida Department of Environmental Protection. 2011. Florida State Park System Economic Impact Assessment for Fiscal Year 2010/2011. Tallahassee, Florida.
- Florida Natural Areas Inventory (FNAI). 2010. Guide to the Natural Communities of Florida: 2010 Edition. Florida Natural Areas Inventory, Tallahassee, Florida.
- Glatting, Jackson, Kercher, Anglin, Lopez, Rinehart, Inc. 2002. Welaunee Critical Area Plan.
- Hardman, Greg. 2012. Pers. Comm. City of Tallahassee, Growth Management Department.
- Hendry, C.W. and C.R. Sproul. 1966. Geology and groundwater resources of Leon County, Florida. Florida Geologic Survey Bulletin 47.
- Huffman / Tarmey Architecture P.A. 2003. Alfred B. Maclay Gardens State Park: Historic Research Report. Tallahassee, Florida.
- Jaeger, D., and D. Penton. 1999a. Cultural Landscape Master Plan for the Maclay-Phipps Heritage Greenway: Leon County, Florida. The Jaeger Company: Gainesville, Georgia.
- Jaeger, D., and D. Penton. 1999b. From Plantation to Park: the Evolving Cultural Landscape of the Maclay – Phipps Heritage Greenway. The Jaeger Company: Gainesville, Georgia.
- Johnson Peterson Architects, Inc. 2006. Documentation of Burned Buildings at Maclay State Gardens. Tallahassee, Florida.

- Keel, F. 1999. An Archaeological Assessment of the Maclay-Phipps Heritage Greenway Leon County, Florida. The Jaeger Company: Gainesville, Georgia.
- Klingelhofer, A. 2001. Collections Conservation Assessment: Maclay Gardens State Park. Heritage Preservation Conservation Assessment Program.
- Leon County. 2010. Leon County Comprehensive Plan 2010. Leon County, Florida.
- Lindstrom, T. E. 2008. Historical Archaeology at the Cedar Shake House (8LE1947): the African-American Heritage of Alfred B. Maclay Gardens State Park. Master of Arts thesis report, Florida State University.
- Tallahassee-Leon County Planning Department. 2013. 2013 Tallahassee-Leon County Greenways Master Plan. Tallahassee, Florida.
- Tesar, L.D., B.C. Jones, J.M. Warzeski, and S. Martin. 1995. Alfred B. Maclay Gardens State Park / Lake Overstreet addition unit management plan revision, Leon County, Florida; June 7 1995 field trip results. Report. Florida Division of Historical Resources, Tallahassee, Florida.
- Thakkar, S. and J. DeLoach. 2005. Asbestos and Lead Based Paint Survey Report: Park Office. Mihir Environics, Inc.: Tallahassee, Florida.
- U.S. Department of the Interior, National Park Service. 2007. Historic Structure Assessment Report: Cedar Shake House and Near Dock House, Alfred B. Maclay Gardens State Park. Frederick, Maryland.
- Yates, E. M., et al. 2008. Archaeological Site Testing and Evaluation of 8LE1942, 8LE1946, and 8LE1947: Alfred B. Maclay Gardens State Park, Leon County, Florida. Southeast Archaeological Center, National Park Service: Tallahassee, Florida.

Addendum 4–Soil Descriptions

Albany Loamy sand 0 to 2 percent slopes - This nearly level, somewhat poorly drained soil is on lower elevations of uplands. Included with this soil in mapping are small areas of Troup and Plummer soils. This Albany soil has a seasonal high water 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 vegetation includes longleaf and slash pines and mixed hardwoods-white oak, live oak, laurel oak, sweetgum, hickory, dogwood, and persimmon tree. The understory consists of native grasses and shrubs including huckleberry, briers, and pineland threeawn.

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 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 15 inches is light yellowish brown sandy clay loam. Below 78 inches is light gray very fine sandy loam that had yellow and reddish yellow mottles.

Lucy fine sand, 0 to 5 percent slopes - This well drained, nearly level to gently sloping soil is on upland ridges. Slopes are smooth and uniform to irregular in shape. This Lucy soil does not have a water table within a depth of 80 inches. The available water capacity is low in the surface layers and medium in the subsoil. Permeability is rapid in the surface and subsurface layers and moderate in the subsoil. The vegetation includes slash and longleaf pines, live oak, post oak, red oak, and dogwood tree. The understory consists of native grasses and shrubs including huckleberry, southern dewberry, muscadine grape, yaupon, and sparse pineland threeawn.

Typically, the surface layer is dark grayish brown fine sand 5 inches thick. The subsurface layer is fine sand and extends to a depth of 26 inches – the upper 4 inches is dark yellowish brown, the next 7 inches is dark brown, and the lower 10 inches is strong brown. The subsoil is yellowish red sandy clay loam to a depth of 80 inches or more. Included with this soil in mapping are small areas of Orangeburg and Troup soils on the same slope positions as this Lucy soil. Small areas of Wagram and Blanton soils are on some top slopes. Also included in mapping are small areas where the surface layer is sand or loamy sand.

Lucy fine sand, 5 to 8 percent slopes - This sloping, well-drained soil is on upland hillsides. This Lucy soil has a water table below depths of 80 inches throughout the year. The available water capacity is low in the surface and subsurface layers and medium in the subsoil. Permeability and vegetation is as Lucy fine sand, 0 to 5 percent slopes.

Typically, the surface layer is dark brown fine sand about 5 inches thick. The next 8

inches is brown fine sand; extending to a depth of 30 inches is reddish yellow and strong brown fine sand. The subsoil extends to a depth of 80 inches or more – the upper 6 inches is yellowish red fine sandy loam, the next 39 inches is red sandy clay loam, and the lower 5 inches is yellowish red fine sandy loam.

Lynchburg fine sandy loam - This somewhat poorly drained, nearly level soil is in shallow depressional areas and on broad interstream divides. Slopes range from 0 to 2 percent. This Lynchburg soil has a water table that is 6 to 20 inches below the surface for 1 to 3 months during spring and winter months in most years. Permeability is rapid in the surface and subsurface layers and moderate in the subsoil. Native trees include sweetgum, blackgum, dogwood, longleaf pine, slash pine, loblolly pine; the understory is inkberry and pineland threeawn.

Typically, the surface layer is very dark grayish brown fine sand y loam about 8 inches thick. The subsurface is grayish brown fine sandy loam about 10 inches thick. The subsoil is sandy clay loam to a depth of about 65 inches. The upper 12 inches is brown that has gray and yellowish brown mottles. The substratum is gray sandy clay loam that had brownish yellow mottles. Included with this soil in mapping are small areas of Rains and Ocilla soils.

Ocilla fine sand - This somewhat poorly drained, nearly level soil is on moderately low uplands. Slopes range from 0 to 2 percent and are slightly convex. The water table is at a depth of 15 to 30 inches for 2 to 6 months. Soil reaction is strongly too extremely acid. The available water capacity is low in the surface and subsurface layers and medium in the subsoil. Permeability is rapid to moderately rapid in the surface and subsurface layers. Vegetation includes laurel oak, live oak, pin oak, and slash and loblolly pine. The understory includes greenbrier, honeysuckle, muscadine grapes, waxmyrtle, saw palmetto, inkberry, wild mulberry, and pineland threeawn.

Typically, the surface layer is dark gray fine sand about 3 inches thick. The subsurface layer extends to a depth of about 29 inches – the upper 3 inches is pale olive fine sand, the next 16 inches is light yellowish brown loamy fine sands, and the lower 7 inches is brownish yellow loamy fine sand. The subsoil extending to 80 inches or more is yellowish brown sandy clay loam that has gray mottles in the upper part and is dominantly gray sandy clay loam in the lower part. Included with this soil in mapping are small areas of Lynchburg, Albany, Plummer, Pelham, Blanton, and Chipley soils.

Orangeburg fine sandy loam, 2 to 5 percent slopes - This is a well drained, gently sloping soil that occurs on uplands. The water table of this Orangeburg soil is below 72 inches throughout the year. The available water capacity is low in the surface layer and medium in the subsoil. Permeability is moderately rapid in the surface layer and moderate in the subsoil. Native trees include longleaf pine, slash pine, and loblolly pine, and mixed hardwoods – white oak, re oak, live oak, laurel oak, sweetgum, hickory, dogwood, and persimmon. The understory is native grasses and shrubs including huckleberry, briers and pineland threeawn.

Typically, the surface and subsurface layers are fine sandy loam about 10 inches thick. The upper 5 inches is brown and the lower 5 inches is yellowish red. The subsoil that extends to a depth of 80 inches or more is yellowish red and red sandy clay loam. Included with this soil are small areas of Blanton, Lucy, and Troup soils.

Orangeburg fine sandy loam, 5 to 8 percent slopes - This well drained, sloping soil is on small areas on uplands. Slopes are irregularly shaped. The water table, permeability, and vegetation are as Orangeburg 2 to 5 percent slopes.

Typically, the surface layer is very dark grayish brown fine sandy loam about 6 inches thick. The subsurface layer is yellowish brown fine sandy loam about 12 inches thick. The subsoil is yellowish red sandy clay loam that extends to 80 inches or more. Included with this soil are small areas of Blanton, Lucy, and Troup soils.

Orangeburg fine sandy loam, 8 to 12 percent slopes - This well drained, strongly sloping soil is on upland hillsides. The water table, permeability, and vegetation is as Orangeburg.

Typically, the surface layer is very dark grayish brown fine sandy loam about 5 inches thick. The subsurface layer is yellowish brown fine sandy loam to a depth of about 19 inches. The subsoil is yellowish red sandy clay loam to about 64 inches. The substratum is mottled reddish yellow and red sandy clay loam that extends to 80 inches or more. Included with this soil are small areas of Blanton, Lucy, and Troup soils.

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. The water table of this Pelham soil is within 15 inches of the surface for 3 to 6 months in most years. Permeability is rapid in the surface and subsurface layers and moderate in the subsoil. Vegetation includes slash and loblolly pine, sweetgum, blackgum, and water oak. The understory includes greenbrier, waxmyrtle, and inkberry.

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 fine 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.

Plummer fine sand - This poorly drained, nearly level soil is in broad low areas and in poorly defined drainageways. Slopes range from 0 to 2 percent. The water table is within a depth of 15 inches for 3 to 6 months in most years. Permeability is moderately rapid in surface and subsurface layers and moderate in the subsoil. The native trees include loblolly pine and slash pine, sweetgum, black gum, and cypress. The understory includes inkberry, waxmyrtle, ferns, and pineland threeawn.

Typically, the surface layer is fine sand about 17 inches thick. The upper 6 inches is

very dark grayish brown, and the lower 11 inches is dark grayish brown. The subsurface layer is fine sand to a depth of about 61 inches – the upper 11 inches is gray, the next 8 inches is gray that has strong brown mottles, and the lower 25 inches is light gray. The subsoil extending to 80 inches or more is light gray fine sandy loam that has yellowish red mottles.

Orangeburg Urban land complex, 2 to 12 percent slopes - This map unit consists of Orangeburg fine sandy loam and Urban land. The Orangeburg soil and Urban Land are so intermingled that separating them was not practical at the scale used mapping. Much of this soil has been reworked or reshaped but is still recognizable as Orangeburg soil. The only occurrence of this soil type at Maclay State Gardens is a ruderal sliver of land along the eastern side of Thomasville Road. Typically, Orangeburg soil has a 6-inch thick very dark grayish brown fine sandy loam surface layer and a 12-inch thick yellowish brown fine sandy loam subsurface layer. The subsoil is yellowish red sandy clay loam that extends to depths greater

than 80 inches. The water table is below a depth of 72 inches throughout the year.

Addendum 5—Plant And Animal List

Alfred B. Maclay Gardens State Park

Plants

		Primary Habitat
Common Name	Scientific Name	(For Designated Species)
Glossy abelia ^{1,2}	Abelia grandiflora	
Three-seeded mercury	Abelia granaijiora Acalypha gracilens	
Box elder		
Japanese maple ^{1,2}	Acer negundo	
Broadleaf Japanese maple ^{1,2}	Acer palmatum	
Southern red maple	Acer palmatum atropurpur Acer rubrum	eum
Florida maple	Acer saccharum floridana	
Red buckeye	Acer saccharum fiortaana Aesculus pavia	
False foxglove	Agalinis fasciculata	
Century plant ^{1,2}	Agave americana	
White snakeroot	Ageratina altissima	
Spring bentgrass	Agrostis hyemalis	
Autumn bentgrass	Agrostis perennans	
Carpet bugle ^{1,2}	Ajuga sp.	
Mimosa ¹	Albizia julibrissin	
Tung-oil tree ¹	Aleurites fordii	
Hazel alder	Alnus serrulata	
Common ragweed	Ambrosia artemisiifolia	
Service berry	Amelanchier arborea	
Pepper vine	Ampelopsis arborea	
American hog-peanut	Amphicarpaea bracteata	
Fringed bluestar	Amsonia ciliata	
Bushy bluestem	Andropogon glomeratus	
Splitbeard bluestem	Andropogon ternarius	
Broomsedge	Andropogon virginicus	
Green silkyscale	Anthaenantia villosa	
Coral vine ¹	Antigonon leptopus	
Nodding-nixie	Apteria aphylla	
Devil's-walkingstick	Aralia spinosa	
Coral ardisia ¹	Ardisia crenata	
Green dragon	Arisaema dracontium	
Jack-in-the-pulpit	Arisaema triphyllum	
Switch cane	Arundinaria gigantea	
Carolina milkweed	Asclepias cinerea	
Swamp milkweed	Asclepias perennis	
Butterfly weed	Asclepias tuberosa	
Slimleaf pawpaw	Asimina angustifolia	
Small-flower pawpaw	Asimina parviflora	
Ebony spleenwort	Asplenium platyneuron	
Florida milk vetch	Astragalus obcordatus	
Southern lady fern	Athyrium filis-femina	
Japanese aucuba ^{1,2}	Aucuba japonica	
Smooth yellow false foxglove	Aureolaria flava	
Fernleaf yellow false foxglove	Aureolaria pedicularia	
Mosquito fern	Azolla caroliniana	
Saltbush	Baccharis halimifolia	
Blue Hyssop	Bacopa caroliniana	
1 Non-native Species		

1 Non-native Species

² Ornamental garden only

Alfred B. Maclay Gardens State Park

Plants

Common Name	Scientific Name	Primary Habitat (For Designated Species)
	Scientific Mane	(For Designated Species)
Hedge bamboo ¹	Bambusa multiplex	
White wild indigo	Baptisia alba	
Gopherweed	Baptisia lanceolata	
Pineland wild indigo	Baptisia lecontei	
Wintergreen barberry ^{1,2}	Berberis julianae	
Japanese barberry ^{1,2}	Berberis thunbergii	
Rattan vine	Berchemia scandens	
Soft greeneyes	Berlandiera pumila	
River birch	Betula nigra	
Cross-vine	Bignonia capreolata	
False nettle, bog hemp	Boehmeria cylindrica	
Southern grape fern	Botrychium biternatum	
Rattlesnake fern	Botrychium virginianum	
Water-shield	Brasenia schreberi	
Buckwheat vine	Brunnichia ovata	
American bluehearts	Buchnera floridana	
Hairsedge	Bulbostylis sp.	
Pindo palm ^{1,2}	Butia capitata	
Boxwood ^{1,2}	Buxus harlandii	
Common boxwood	Buxus sempervirens	
Fanwort	Cabomba caroliniana	
Beautyberry	Callicarpa americana	
Camellia ^{1,2}	Camellia japonica	
Camellia ^{1,2}	Camellia sasanqua	
Trumpet vine	Campsis radicans	
Bandana of the Everglades	Canna flaccida	
Indian shot ^{1,2}	Canna indica	
Sedge	Carex sp.	
Chaffhead	Carphephorus sp.	
Ironwood	Carpinus caroliniana	
Water hickory	Carya aquatica	
Pignut hickory	Carya glabra	
Shellbark hickory ²	Carya laciniosa	
Mockernut hickory	Carya tomentosa	
Wild sensitive plant	Cassia nictitans	
Chinquapin	Castanea pumila	
New Jersey tea	Ceanothus americanus	
Atlas cedar 1,2	Cedrus atlantica	
Deodar cedar ^{1,2}	Cedrus deodara	
Sugarberry	Celtis laevigata	
Asian coinwort	Centella asiatica	
Butterfly-pea	Centrosema virginianum	
Buttonbush	Cephalanthus occidentalis	
Eastern redbud	Cercis canadensis	
Hairyfruit chervil	Chaerophyllum tainturieri	
Partridge pea	Chamaecrista fasciculata	
European fan palm ^{1,2}	Chamaerops humilis	
1 Non-native Species	-	
2 Ornamental garden only		

2 Ornamental garden only

Plants

Common Name	Scientific Name	Primary Habitat (For Designated Species)
Hyssopleaf sandmat	Chamaesyce hyssopifolia	
Spotted sandmat	Chamaesyce myssopijona Chamaesyce maculata	
Indian woodoats	Chasmanthium latifolium	
Fringe tree	Chionanthus virginicus	
Golden aster ²	Chrysopsis gossypina	
Maryland golden aster	Chrysopsis mariana	
Water-hemlock	Cicuta mexicana	
Camphor tree ¹	Cinnamomum camphora	
Satincurls	Clematis catesbyana	
Swamp leather flower	Clematis crispa	
Sweet pepperbush	Clethra alnifolia	
Butterfly-pea	Clitoria mariana	
Finger rot	Cnidoscolus stimulosus	
Carolina coralbeads	Cocculus carolinus	
Blueridge horsebalm	Collinsonia serotina	
Wild taro ¹	Colocasia esculenta	
Blue mistflower	Conoclinium coelestinum	
American squaw root	Conopholis americana	
Canadian horseweed	Conyza canadensis	
Purple thistle	Cirsium horridulum	
Lichen	Cladonia sp.	
Flowering dogwood	Cornus florida	
Stiff cornel dogwood	Cornus foemina	
Japanese dogwood ^{1,2}	Cornus kousa	
Pampass grass ^{1,2}	Cortaderia selloana	
Yellowleaf hawthorn	Crataegus flava	
Parsley hawthorn	Crataegus marshallii	
Dwarf-thorn	Crataegus uniflora	
Green hawthorn	Crataegus viridis	
Slender scratch daisy	Croptilon divaricatum	
Rabbit-bells	Crotalaria rotundifolia	
Silver croton	Croton argyranthemus	
Vente conmigo	Croton glandulosus	
Pineland croton	Croton linearis	
Japanese cedar ^{1,2}	Cryptomeria japonica	
Waxweed ^{1,2}	Cuphea carthagenensis	
Portuguese cypress ^{1,2}	Cupressus lusitanica	
Italian cypress 1,2	Cupressus sempervirens	
Sago palm ²	Cycas revoluta	
Flat sedge	Cyperus sp.	
Titi Summer forevuell	Cyrilla racemiflora	
Summer farewell	Dalea pinnata Dagadar vartigillatus	
Water loosestrife	Decodon verticillatus	
Wood vamp, climbing hydrangea	Decumaria barbara Desmodium sp	
Beggar's lice	Desmodium sp. Dicerandra linearifelia	
Pennyroyal Pony-foot	Dicerandra linearifolia Dichondra carolinensis	
-	Dichonara carolinensis	
1 Non-native Species		

A 4 - 3

Plants

		Primary Habitat	
Common Name	Scientific Name	(For Designated Species)	
Southern crab grass	Digitaria ciliaris		
Carolina crabgrass	Digitaria cognatum		
Shaggy fingergrass	Digitaria villosa		
Poor joe	Diodia teres		
Buttonweed	Diodia virginiana		
Air potato ¹	Dioscorea bulbifera		
Rabbit-bells	Crotalaria rotundifolia		
Flatsedge	Cyperus sp.		
Ticktrefoil	Desmodium sp.		
Persimmon	Diospyros virginiana		
Water hyacinth ¹	Eichhornia crassipes		
Silverthorn ¹	Elaeagnus pungens		
Tall elephant's-foot	Elephantopus elatus		
Carolina elephant's-foot	Elephantopus carolinianus		
Beech drops	Epifagus virginiana		
Prairie fleabane	Erigeron strigosus		
Green-fly orchid	Epidendrum magnoliae	21,33	
Button rattlesnake master	Eryngium yuccifolium		
Creeping eryngo	Eryngium prostratum		
Coralbean	Erythrina herbacea		
Dimpled trout lily	Erythronium umbilicatum		
Bursting heart	Euonymus americanus		
Japanese euonymus ^{1,2}	Euonymus japonicus		
Yellow-leaved euonymus ^{1,2}	Euonymus japonicus aurens		
White thoroughwort	Eupatorium album		
Dog fennel	Eupatorium capillifolium		
Greater Florida spurge	Euphorbia floridana		
Eurya ^{1,2}	Eurya emarginata		
Eurya ^{1,2}	Eurya japonica		
•	Eutya Japonica Euthamia minor		
Flat-topped goldenrod	Fagus grandifolia		
American beech			
Japanese fatsia ^{1,2}	Fatsia japonica		
Pineapple guava ^{1,2}	Feijoa sellowiana		
Climbing fig ^{1,2}	Ficus pumila		
Swamp privet	Forestiera acuminata		
Kumquat ^{1,2}	Fortunella margarita		
White ash	Fraxinus americana		
Popash, Carolina ash	Fraxinus caroliniana		
Green ash	Fraxinus pennsylvanica		
Pumpkin ash	Fraxinus profunda		
Cottonweed	Froelichia floridana		
Elliot's milk-pea	Galactia elliottii		
Goosegrass	Galium aparine		
Hairy bedstraw	Galium pilosum		
Stiff marsh bedstraw	Galium tinctorium		
Cape jasmine ^{1,2}	Gardenia jasminoides		
Dwarf huckleberry	Gaylussacia dumosa		
1 Non-native Species			
2. Owners we stal and a stal			

Plants

Blue huckleberryGaylussacia frondosaWooly huckleberryGaylussacia mosieriYellow jessamineGelsemium sempervirensCatesby's gentianaGentiana catesbaeiCranesbillGeranium carolinianumWater locustGleditsia aquaticaHoney locustGleditsia triacanthosSweet everlastingGnaphalium obtusifoliumCudweedGnaphalium pensilvanicumCudweedGnaphalium purpureumCudweedGnaphalium spicatumLoblolly bayGordonia lasianthusSticky hedgehyssopGratiola brevifolia	Common Name	Scientific Name	Primary Habitat (For Designated Species)
Wooly huckleberryGaylussacia mosieriYellow jessamineGelsemium sempervirensCatesby's gentianaGentiana catesbaeiCranesbillGeranium carolinianumWater locustGleditsia aquaticaHoney locustGleditsia triacanthosSweet everlastingGnaphalium obtusifoliumCudweedGnaphalium purpureumCudweedGnaphalium purpureumLoblolly bayGordonia lasianthusSticky hedgehyssopGratiola brevifolia	Blue huckleberry	Gavlussacia frondosa	
Yellow jessamineGelsemium sempervirensCatesby's gentianaGentiana catesbaeiCranesbillGeranium carolinianumWater locustGleditsia aquaticaHoney locustGleditsia triacanthosSweet everlastingGnaphalium obtusifoliumCudweedGnaphalium pensilvanicumCudweedGnaphalium purpureumCudweedGnaphalium purpureumSticky hedgehyssopGordonia lasianthus			
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CranesbillGeranium carolinianumWater locustGleditsia aquaticaHoney locustGleditsia triacanthosSweet everlastingGnaphalium obtusifoliumCudweedGnaphalium pensilvanicumCudweedGnaphalium purpureumCudweedGnaphalium spicatumLoblolly bayGordonia lasianthusSticky hedgehyssopGratiola brevifolia	0	-	
Water locustGleditsia aquaticaHoney locustGleditsia triacanthosSweet everlastingGnaphalium obtusifoliumCudweedGnaphalium pensilvanicumCudweedGnaphalium purpureumCudweedGnaphalium spicatumLoblolly bayGordonia lasianthusSticky hedgehyssopGratiola brevifolia			
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Sweet everlastingGnaphalium obtusifoliumCudweedGnaphalium pensilvanicumCudweedGnaphalium purpureumCudweedGnaphalium spicatumLoblolly bayGordonia lasianthusSticky hedgehyssopGratiola brevifolia		-	
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CudweedGnaphalium purpureumCudweedGnaphalium spicatumLoblolly bayGordonia lasianthusSticky hedgehyssopGratiola brevifolia	6		
CudweedGnaphalium spicatumLoblolly bayGordonia lasianthusSticky hedgehyssopGratiola brevifolia	Cudweed		
Loblolly bayGordonia lasianthusSticky hedgehyssopGratiola brevifolia	Cudweed		
Sticky hedgehyssop Gratiola brevifolia	Loblolly bay		
		Gratiola brevifolia	
Florida hedgehyssop Gratiola floridana		Gratiola floridana	
Rough hedgehyssop Gratiola hispida	• • •		
Roundfruit hedgehyssop Gratiola virginiana		-	
Southern beeblossom Guara angustifolia		Guara angustifolia	
Slenderstalk beeblossom Guara filipes	Slenderstalk beeblossom	Guara filipes	
Bearded skeletongrass Gymnopogon ambiguus	Bearded skeletongrass		
Waterspider bog orchid Habenaria repens	-	Habenaria repens	
Carolina silverbell Halesia carolina	Carolina silverbell	Halesia carolina	
Two-wing silverbell Halesia diptera	Two-wing silverbell	Halesia diptera	
Witch hazel Hamamelis virginiana	Witch hazel	Hamamelis virginiana	
English ivy ^{1,2} <i>Hedera helix</i>	English ivy ^{1,2}	Hedera helix	
Algerian ivy 1,2Hedera helix canariensis	Algerian ivy ^{1,2}	Hedera helix canariensis	
Ray's supreme ivyHedera helix supremii		Hedera helix supremii	
Ginger lily ^{1,2} <i>Hedychium coronarium</i>	Ginger lily ^{1,2}	Hedychium coronarium	
Tiny bluetHedyotis crassifolia	Tiny bluet	Hedyotis crassifolia	
Common sneezeweed Helenium autumnale			
Narrow-leaved sunflower Helianthus angustifolius			
Orange day lily ^{1,2} <i>Hemerocallis fulva</i>	e	0	
Camphor weed <i>Heterotheca subaxillaris</i>	*		
Heartleaf wild ginger Hexastylis arifolia	6 6	5 5	
Queendevil <i>Hieracium gronovii</i>	-	_	
Bluet Houstonia sp.		-	
Garden hyacinth Hyacinthus orientalis	-	-	
Hydrangea ^{1,2} <i>Hydrangea opuloides</i>			
Oakleaf hydrangeaHydrangea quercifolia			
Many flowered marsh pennywort Hydrocotyle umbellata			
Whorled marsh pennywortHydrocotyle verticillata	1 4		
Waterpod <i>Hydrolea quadrivalvis</i>	*		
Spider-lily Hymenocallis rotata		•	
Coastalplain St. John's-wort <i>Hypericum brachyphyllum</i>	-		
Roundpod St. John's-wort Hypericum cistifolium			
St. Peter's-wort <i>Hypericum crux-andreae</i>			
Peelbark St. John's-wort Hypericum fasciculatum			
Bedstraw St. John's wort <i>Hypericum galioides</i>		nypericum gailotaes	

1 Non-native Species

Plants

1 failts			
		Primary Habitat	
Common Name	Scientific Name	(For Designated Species)	
Pineweed	Umariana contignoidos		
St. Andrew's cross	Hypericum gentianoides		
	Hypericum hypericoides		
Flatwoods St. John's wort	Hypericum microsepalum		
Dwarf St. John's wort	Hypericum mutilum		
Pineland St. John's wort	Hypericum suffruticosum		
Clustered bushmint	Hyptis alata		
Musky mint	Hyptis mutabilis		
Sweet gallberry	Ilex coriacea		
Chinese holly ^{1,2}	Ilex cornuta		
Possumhaw	Ilex decidua		
Mochi tree ^{1,2}	Ilex integra		
Inkberry, Gallberry	Ilex glabra		
Tarajo holly ^{1,2}	Ilex latifolia		
Myrtle dahoon	Ilex myrtifolia		
American holly	Ilex opaca		
Perny's holly	Ilex pernyi		
Yaupon holly	Ilex vomitoria		
Florida anise	Illicium floridanum		
Cogongrass ¹	Imperata cylindrica		
Wild indigo	Indigofera caroliniana		
Man-of-the-Earth	Ipomoea pandurata		
Iris	Iris sp.		
Virginia willow	Itea virginica		
Jacquemontia	Jacquemontia tamnifolia		
Butternut ²	Juglans cinerea		
Black walnut	Juglans nigra		
Leathery rush	Juncus coriaceus		
Soft rush	Juncus effusus		
Chinese juniper ^{1,2}	Juniperus chinensis		
Shore juniper ^{1,2}	Juniperus conferta		
Southern red cedar	Juniperus silicicola		
Himalayan juniper ^{1,2}	-		
Mountain laurel ²	Juniperus squamata Kalmia latifalia		
	Kalmia latifolia		
Virginia dwarf dandelion	Krigia virginica		
Crape myrtle ^{1,2}	Lagerstroemia indica		
Hairy pinweed	Lechea mucronata		
Leggett's pinweed	Lechea pulchella		
Pineland pinweed	Lechea sessiliflora		
Little duckweed	Lemna obscura		
Lepedeza	<i>Lespedeza</i> sp.		
Spring snowflake ^{1,2}	Leucojum vernum		
Coastal dog-hobble	Leucothoe axillaris		
Swamp dog-hobble	Eubotrys racemosa		
Chapman's gayfeather	Liatris chapmanii		
Slender gayfeather	Liatris gracilis		
Shortleaf gayfeather	Liatris tenuifolia		
Gopher-apple	Licania michauxii		
1 Non-native Species			
2. Owners and a sub-			

Plants

Common Name	Scientific Name	Primary Habitat (For Designated Species)
Japanese privet ¹	Ligustrum ignonioum	
Glossy privet ¹	Ligustrum japonicum Ligustrum lucidum	
California privet ^{1,2}	0	
Chinese privet ¹	Ligustrum ovalifolium	
*	Ligustrum sinense Limnobium spongia	
Frog's bit	Limnobium spongia Lindernia dubia	
False pimpernel		
Florida yellow flax	Linum floridanum	
Sweetgum Vollow nonlon	Liquidambar styraciflua	
Yellow poplar	Liriodendron tulipifera	
Big blue lily turf ¹	Liriope muscari	
Creeping lily turf ¹	Liriope spicata	
Japanese honeysuckle ¹	Lonicera japonicum	
Trumpet honeysuckle	Lonicera sempervirens	
Chinese witch hazel ^{1,2}	Loropetalum chinense	
Winged primrose willow	Ludwigia alata	
Seedbox	Ludwigia alternifolia	
Piedmont primrose willow	Ludwigia arcuata	
Winged primrose willow	Ludwigia decurrens	
Cylindric-fruited primrose willow	Ludwigia glandulosa	
Anglestem primrose willow	Ludwigia leptocarpa	
Narrowleaf primrose willow	Ludwigia linearis	
Smallfruit primrose willow	Ludwigia microcarpa	
Marsh seedbox	Ludwigia palustris	
Hairy primrose willow	Ludwigia pilosa	
Creeping primrose willow	Ludwigia repens	
Globefruit primrose willow	Ludwigia sphaerocarpa	
Savannah primrose willow	Ludwigia virgata	
Sundial lupine	Lupinus perennis	
Lady lupine	Lupinus villosus	
Golden spider lily ^{1,2}	Lycoris aurea	
Texas skeletonplant	Lygodesmia texana	
Japanese climbing fern ¹	Lygodium japonicum	
Fetterbush	Lyonia lucida	
Cat claw vine ¹	Macfedyena unguis-cati	
Ashe's magnolia ²	Magnolia ashei	
Yulan magnolia ^{1,2}	Magnolia denudata	
Southern magnolia	Magnolia grandiflora	
White ornamental magnolia ^{1,2}	Magnolia heptapeta	
Nigra lily-flowered magnolia ^{1,2}	Magnolia liliflora	
Chinese magnolia ^{1,2}	Magnolia soulangeana	
Star magnolia ^{1,2}	Magnolia stellata	
Sweetbay	Magnolia virginiana	
Leatherleaf mahonia ^{1,2}	Mahonia bealei	
Fortune's mahonia ^{1,2}	Mahonia fortunei	
Chinese holly grape ^{1,2}	Mahonia lomarifolia	
Green adder's mouth	Malaxis unifolia	
Southern crabapple	Malus angustifolia	
1 Non-native Species		

Plants

Common Name	Scientific Name	Primary Habitat (For Designated Species)
Purple crabapple ^{1,2}	Malus purpurea	
Flowering crabapple ^{1,2}	Malus sylvestris alexi	
Angle-pod	Matelea gonocarpa	
Bog-moss	Mayaca fluviatilis	
Mecardonia	Mecardonia acuminata	
Black medic ¹	Medicago lupulina	
Bur-clover ¹	Medicargo polymorpha	
Chinaberry ¹	Melia azedarach	
Banana shrub ^{1,2}	Michelia fuscata	
Micranthemum	Micranthemum umbrosum	
Micromeria	Micromeria brownei	
Climbing hempweed	Mikania scandens	
Sensitive brier	Mimosa quadrivalvis var. a	ngustata
Sharpwing monkeyflower	Mimulus alatus	0
Partridge berry	Mitchella repens	
Lax hornpod	Mitreola petiolata	
Swamp hornpod	Mitreola sessilifolia	
Green carpetweed	Mollugo verticillata	
Indian pipe	Monotropa uniflora	
Red mulberry	Morus rubra	
Wax myrtle	Myrica cerifera	
Parrot feather watermilfoil	Myriophyllum aquaticum	
Two leaf water milfoil	Myriophyllum heterophyllu	т
Dwarf myrtle ^{1,2}	Myrtus communis	
Slender naiad	Najas filifolia	
Brittle waternymph ¹	Najas minor	
Nandina ¹	Nandina domestica	
Primrose peerless narcissus ^{1,2}	Narcissus biflorus	
Jonquil ^{1,2}	Narcissus jonquilla	
Poet's narcissus ^{1,2}	Narcissus poeticus	
Trumpet daffodil ^{1,2}	Narcissus pseudo-narcissus	S.
Cream narcissus ^{1,2}	Narcissus tazetta	5
Yellow-lotus	Nelumbo lutea	
Canada toad-flax	Nuttallanthus canadensis	
American white waterlily	Nymphaea odorata	
Floating-hearts	Nymphoides aquatica	
Black gum	Nyssa sylvatica	
Weedy evening-primrose	Oenothera biennis	
Primrose	Oenothera curtissii	
Sundrops	Oenothera fruticosa Oenothera laciniata	
Cut-leaved evening-primrose Sensitive fern	Onoclea sensibilis	
Golden club Wild clive	Orontium aquaticum	
Wild olive	Osmanthus americana	
Fortune's osmanthus 1,2	Osmanthus fortunei	
Tea olive ^{1,2}	Osmanthus fragrans	
Holly osmanthus	Osmanthus heterophyllus	
1 Non-native Species		

Plants

Common Name	Scientific Name	Primary Habitat (For Designated Species)
Holly osmanthus	Osmanthus ilicifolius	
Cinnamon fern	Osmunda cinnamomea	
Royal fern	Osmunda regalis	
Eastern hop-hornbeam	Ostrya virginiana	
Lady's wood-sorrel	Oxalis corniculata	
Sourwood	Oxydendrum arboreum	
Skunk vine ¹	Paederia foetida	
Beaked panicum	Panicum anceps	
Maidencane	Panicum hemitomon	
Switchgrass	Panicum virgatum	
Baldwin's nailwort	Paronychia baldwinii	
Virginia creeper	Parthenocissus quinquefolia	ı
Japanese tanbark oak ^{1,2}	Pasania glabra	
Maypops, apricot vine	Passiflora incarnata	
Yellow passion-flower	Passiflora lutea	
Green arum	Peltandra virginica	
Eustis lake beardtongue	Penstemon australis	
Manyflower beardtongue	Penstemon multiflorus	
Ditch stonecrop	Penthorum sedoides	
Redbay	Persea borbonia	
Swamp bay	Persea palustris	
Savannah panic grass	Phanopyrum gymnocarpon	
Southern beech fern	Phegopteris hexagonoptera	
Scentless mock orange	Philadelphus inodorus	
Florida phlox	Phlox floridana	
Canary Island date palm ^{1,2}	Phoenix canariensis	
Oak mistletoe	Phoradendron leucarpum	
Red-leaf photinia ^{1,2}	Photinia glabra	
Red chokeberry	Photinia pyrifolia	
Chinese photinia ^{1,2}	Photinia serrulata	
American lop-seed	Phryma leptostachya	
Golden bamboo ¹	Phyllostachys aurea	
Cut-leaf ground cherry	Physalis angulata	
Pokeweed	Phytolacca americana	
Shortleaf pine	Pinus echinata	
Slash pine	Pinus elliottii	
Spruce pine	Pinus glabra	
Longleaf pine	Pinus palustris	
Loblolly pine	Pinus taeda	
Piriqueta	Piriqueta cistoides ssp. caro	oliniana
Japanese pittosporum	Pittosporum tobira	
Planer tree	Planera aquatica	
Hoary plantain	Plantago virginica	
Camphor weed	Pluchea camphorata	
Stinking camphor weed	Pluchea foetida	
Yew plum pine ^{1,2}	Podocarpus macroyphylla	
Nagi ^{1,2}	Podocarpus nagi	
1 Non-native Species		

Plants

	1 faits	
		Primary Habitat
Common Name	Scientific Name	(For Designated Species)
Showy milkwort	Polygala violacea	
Bog bachelor's button	Polygala lutea	
Candyroot	Polygala nana	
Racemed milkwort	Polygala polygama	
Low pinebarren milkroot	Polygala ramosa	
Smooth Solomon's-seal	Polygonatum biflorum	
Tall jointweed	Polygonella gracilis	
Smartweed	Polygonum densiflorum	
Swamp smartweed	Polygonum hydropiperoides	
Dotted smartweed	Polygonum punctatum	
Jumpseed	Polygonum virginianum	
Resurrection fern	Polypodium polypodioides	
Rustweed	Polypremum procumbens	
Christmas fern	Polystichum acrostichoides	
Trifoliate orange ¹	Poncirus trifoliata	
Pickerelweed	Pontederia cordata	
Cottonwood	Populus deltoides	
Swamp cottonwood	Populus heterophylla	
Mermaid-weed	Proserpinaca palustris	
Proserpinaca	Proserpinaca pectinata	
Wild plum	Prunus americana	
Chickasaw plum	Prunus angustifolia	
Winter flowering cherry ^{1,2}	Prunus campanulata	
Carolina laurelcherry	Prunus caroliniana	
English laurel ^{1,2}	Prunus laurocerasus	
-	Prunus serontina	
Black cherry Japanese cherry ^{1,2}	Prunus serrulata	
Flowering peach ^{1,2}	Prunus triloba	
	Prunus imbellata	
Hog plum Buckroot	Pediomelum canescens	
Bracken fern		
	Pteridium aquilinum	
Mock bishopweed Kudzu ¹	Ptilimnium capillaceum	
	Pueraria lobata	
Whiteleaf mountain mint	Pycnanthemum albescens	
Scarlet firethorn ¹	Pyracantha coccinea	
Flowering pear ¹	Pyrus betulsefolia	
White oak	Quercus alba	
Red oak	Quercus falcata	
Blue Japanese oak ^{1,2}	Quercus glauca	
Laurel oak	Quercus hemisphaerica	
Bluejack oak	Quercus incana	
Diamond oak	Quercus laurifolia	
Overcup oak	Quercus lyrata	
Sand post oak	Quercus margaretta	
Swamp chestnut oak	Quercus michauxii	
Japanese evergreen oak ^{1,2}	Quercus myrsinaefolia	
Water oak	Quercus nigra	
1 Non-native Species		

Plants

Common Name	Scientific Name	Primary Habitat (For Designated Species)
Running oak	Quercus pumila	
Shumard oak	Quercus shumardii	
Post oak	Quercus stellata	
Black oak	Quercus stetutina	
Live oak	Quercus virginiana	
Littleleaf buttercup	Ranunculus abortivus	
India hawthorn ^{1,2}	Rhaphiolepsis indica	
Yeddo hawthorn	Rhaphiolepsis umbellata	
Savannah beauty	Rhexia alifanus	
Pale meadow beauty	Rhexia mariana	
Handsome harry	Rhexia virginica	
Alabama azalea ²	Rhododendron alabamense	
Florida flame azalea ²	Rhododendron austrinum	
Flame azalea ²	Rhododendron calendulaceu	1m
Piedmont azalea ²	Rhododendron canescens	
Chapman's rhododendron ²	Rhododendron chapmanii	
Multiple hybrids ^{1,2}	Rhododendron indicum	
Multiple hybrids ^{1,2}	Rhododendron obtusum	
Winged sumac	Rhus copallina	
Royal snoutbean	Rhynchosia cytisoides	
Doubleform snoutbean	Rhynchosia difformis	
Michaux's snoutbean	Rhynchosia michauxii	
Dollarleaf	Rhynchosia reniformis	
Twining snout bean	Rhynchosia tomentosa	
Narrowfruit horned beaksedge	Rhynchospora inundata	
Sandyfield beaksedge	Rhynchospora megalocarpa	
South American Mexican clover ¹	Richardia humistrata	
Rough Mexican clover ¹	Richardia scabra	
Cherokee rose ^{1,2}	Rosa laevigata	
Swamp rose	Rosa palustris	
Toothcups	Rotala ramosior	
Sand blackberry	Rubus cuneifolius	
Highbush blackberry	Rubus ergutus	
Dewberry	Rubus trivialis	
Carolina wild petunia	Ruellia caroliniensis	
Curled dock ¹	Rumex crispus	
Sourdock	Rumex hastatulus	
Cabbage palm	Sabal palmetto	
Swamp pink	Sabatia calycina	
Trailing pearlwort	Sagina decumbens	
Springtape	Sagittaria kurziana	
Carolina willow	Salix caroliniana	
Black willow	Salix nigra	
Lyre-leaved sage	Salvia lyrata	
Elderberry	Sambucus canadensis	
Pineland pimperel	Samolus valerandi var. parv	iflorus
Bloodroot	Sanguinaria canadensis	
1 Non-native Species		

Plants

Common Name	Scientific Name	Primary Habitat (For Designated Species)
Cours diem bile de sur dieme et	C · 1 · 1 ·	
Canadian black snakeroot	Sanicula canadensis	
Maryland black snakeroot	Sanicula marilandica	
Small's black snakeroot	Sanicula smallii	
Chinese tallow ¹	Sapium sebiferum	
Sassafras	Sassafras albidum	
Lizard's-tail	Saururus cernuus	
Bay starvine	Schisandra glabra	
Little bluestem	Schizachyrium scoparium	
Woolgrass	Scirpus cyperinus	
Littlehead nutrush	Scleria oligantha	
Hoary skullcap	Scutellaria incana	
Helmet skullcap	Scutellaria integrifolia	
Sebastian bush	Sebastiania fruticosa	
Chinese spike moss ¹	Selaginella braunii	
Spike moss	Selaginella sp.	
Saw palmetto	Serenoa repens	
Chinese boxorange ^{1,2}	Severinia buxifolia	
Yaupon black senna	Seymeria cassioides	
Piedmont black senna	Seymeria pectinata	
Indian hemp	Sida rhombifolia	
Black-haw, gum bumelia	Sideroxylon lanuginosa	
Starry rosin weed	Silphium asteriscus	
Earleaf greenbrier	Smilax auriculata	
Saw greenbrier	Smilax bona-nox	
Wild sarsparilla	Smilax glauca	
Sarsaparilla vine	Smilax pumila	
Jackson vine	Smilax smallii	
Hogbrier	Smilax tamnoides	
Coral greenbrier	Smilax walteri	
American black nightshade	Solanum americanum	
Tropical soda apple ¹	Solanum viarum	
Canada goldenrod	Solidago altissima	
Sweet goldenrod	Solidago odora	
Texas mountain laurel ^{1,2}	Sophora secundiflora	
Yellow Indiangrass	Sorghastrum nutans	
Lopsided Indiangrass	Sorghastrum secundum	
Woodland false buttonweed	Spermacoce remota	
Roughfruit scale-seed	Spermolepis divaricata	
Indian pink	Spigelia marilandica	
Reeves spirea ^{1,2}	Spiraea cantoniensis	
Bridlewreath ^{1,2}	Spiraea prunifolia	
Thunberg spirea ^{1,2}	Spiraea thunbergii	
Vanhoulte spirea ^{1,2}	Spiraea vanhouttei	
Florida hedge nettle	Stachys floridana	
Silky camellia	Stewartia malacodendron	
Queen's delight	Stillingia sylvatica	
Pineland scalypink	Stipulicida setacea	
1 Non-native Species		
2 Ornamental garden only	4 4 10	

Plants

	a	Primary Habitat	
Common Name	Scientific Name	(For Designated Species)	
Southern dawnflower	Stylisma humistrata		
Carolina false vervain	Stylodon carneum		
Sidebeak pencil flower	Stylosanthes biflora		
Storax	Styrax americanus		
Scale-leaf aster	Symphyotrichum adnatum		
Eastern silver aster	Symphyotrichum concolor		
Rice button aster	Symphyotrichum dumosum		
Calico aster	Symphyotrichum lateriflorum	1	
Horse sugar	Symplocos tinctoria	-	
Pond cypress	Taxodium ascendens		
Bald cypress	Taxodium distichum		
Hick's yew ^{1,2}	Taxus cuspidata hicksii		
Florida yew ²	Taxus floridana		
Hybridized yew ^{1,2}	Taxus media		
Spiked hoary pea	Tephrosia spicata		
Japanese cleyera	Ternstroemia gymnanthera		
Pineland nerveray, squarehead	Tetragonotheca helianthoide	S	
Wood sage	Teucrium canadense	0	
Carolina basswood	Tilia caroliniana		
Spanish moss	Tillandsia usneoides		
Torreya tree ²	Torreya taxifolia		
Poison oak	Toxicodendron pubescens		
Poison ivy	Toxicodendron radicans		
Poison sumac	Toxicodendron vernix		
Chinese windmill palm ^{1,2}	Trachycarpus fortunei		
Wavyleaf noseburn	Tragia urens		
Lesser marsh St. John's-wort	Triadenum tubulosum		
Virginia marsh St. John's-wort	Triadenum virginicum		
Greater marsh St. John's-wort	Triadenum walteri		
Forked blue curls	Trichostema dichotomum		
Tall redtop	Tridens flavus		
Longbract wake robin	Trillium underwoodii		
Small venus's looking-glass	Triodanis biflora		
Winged elm	Ulmus alata		
American elm	Ulmus americana		
Bladderwort	Utricularia inflata		
Florida merrybells	Uvularia floridana		
Sparkleberry	Vaccinium arboreum		
Highbush blueberry	Vaccinium corymbosum		
Blueberry	Vaccinium darrowii		
Shiny blueberry	Vaccinium myrsinites		
Sandpaper verbena	Verbena scabra		
Tall ironweed	Vernonia angustifolia		
Giant ironweed	Vernonia gigantea		
Neckweed	Veronica peregrina		
Southern arrow-wood	Viburnum dentatum		
Chindo viburnum ^{1,2}	Viburnum awabuki		
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1 Non-native Species 2 Ornamental garden only			
	$\Delta A = 13$		

Plants

Common Name	Scientific Name	Primary Habitat (For Designated Species)
Possum haw	Viburnum nudum	
Walter viburnum	Viburnum obovatum	
Rusty-haw	Vibernum rufidulum	
Sandankwa viburnum ^{1,2}	Viburnum suspensum	
Bigleaf periwinkle ^{1,2}	Vinca major	
Bog white violet	Viola lanceolata	
Early blue violet	Viola palmata	
Primrose-leaf violet	Viola primulifolia	
Common blue violet	Viola sororia	
Prostrate blue violet	Viola walteri	
Summer grape	Vitis aestivalis	
Muscadine grape	Vitis rotundifolia	
Frost grape	Vitis vulpina	
Sixweek fescue	Vulpia octoflora	
Sessile-leaf pinelandcress	Warea sessilifolia	
American wisteria	Wisteria frutescens	
Chinese wisteria ¹	Wisteria sinensis	
Bog-mat	Wolffiella sp.	
Netted chain-fern	Woodwardia areolata	
Virginia chain-fern	Woodwardia virginica	
Spanish bayonet	Yucca aloifolia	
Beargrass	Yucca flaccida	
Coontie ²	Zamia floridana	
Atamasco-lily	Zephyranthes atamasca	

1 Non-native Species

Animals

Common Name	Scientific Name	Primary Habitat (For All Species)
	FISH	
Lake chubsucker	Erimyzon sucetta	43
Scalyhead darter	Etheostoma fusiforme baratti	43
Starhead topminnow	Fundulus notti	43
Mosquitofish	Gambusia affinis	43
Yellow bullhead	Ictalurus natalis	43
Brown bullhead	Ictalurus nebulosus	43
Brook silverside	Labidesthes sicculus	43
Warmouth	Lepomis gulosus	43
Bluegill	Lepomis macrochirus	43
Largemouth bass	Micropterus salmoides	43
Golden shiner	Notemigonus crysoleucas	43
Black crappie	Pomoxis nigromaculatus	43
	AMPHIBIANS	
Southern cricket frog	Acris gryllus gryllus	17,25,28,43,54
Marbled salamander	Ambystoma opacum	25,43,54
Southern toad	Bufo terrestris	MTC
Southern dusky salamander	Desmognathus fuscus	25,43,54
Dwarf salamander	Eurycea quadridigitata	25,43,54
Eastern narow-mouth toad	Gastrophyrne carolinensis	MTC
Green treefrog	Hyla cinerea	MTC
Southern spring peeper	Hyla crucifer	MTC
Barking treefrog	Hyla gratiosa	MTC
Squirrel treefrog	Hyla squirella	MTC
Gray treefrog	Hyla versicolor	MTC
Central newt	Notophthalmus viridescens	25,43,54
Slimy salamander	Plethodon glutinosus	25,43,54
Bullfrog	Rana catesbeiana	25,43
Bronze frog	Rana clamitans	25,43
Pig frog	Rana grylio	25,43
Southern leopard frog	Rana sphenocephala	17,25,43
Eastern spadefoot	Scaphiopus holbrooki	25,43
Greater siren	Siren lacertina	25,43
	REPTILES	
Florida cottonmouth	Agkistrodon piscivorus	MTC
American alligator	Alligator mississippiensis	25,43
Green anole	Anolis carolinensis	MTC
Scarlet snake	Cemophora coccinea	MTC
Florida cooter	Chrysemys floridana	17,25,43
Yellow belly slider	Chrysemys scripta	17,25,43
Black racer	Coluber constrictor	MTC
Six-lined racerunner	Cnemidophorus sexlineatus sexlineatus	MTC
Eastern diamondback rattlesnake	crotalus adamanteus	MTC
1 Non-native Species		
2 Ornamental garden only	A A 17	

Animals

Common Name	Scientific Name	Primary Habitat (For All Species)
Southern ringneck snake	Diadophis punctatus	MTC
Red rat snake	Elaphe guttata	MTC
Gray rat snake	Elaphe obsoleta	MTC
Five-lined skink	Eumeces fasciatus	MTC
Broadhead skink	Eumeces laticeps	MTC
Eastern mud snake	Farancia abacura	MTC
Gopher tortoise	Gopherus polyphemus	20,81
Eastern hognose snake	Heterodon platyrhinos	MTC
Eastern mud turtle	Kinosternon subrubrum	MTC
Eastern kingsnake	Lampropeltis getulus	MTC
Scarlet kingsnake	Lampropeltis triangulum	MTC
Redbelly water snake	Nerodia erythrogaster	43
Banded water snake	Nerodia fasciata	43
Rough green snake	Opheodrys aestivus	MTC
Eastern glass lizard	Ophisaurus ventralis	MTC
Southern fence lizard	Sceloperus undulatus	MTC
Ground skink	Scencella lateralis	MTC
North Florida swamp snake	Seminatrix pygaea	43
Dusky Pigmy Rattlesnake	Sistrurus miliarius barbouri	20
Stinkpot	Sternotherus odoratus	17,25,43
Florida redbelly snake	Storeria occipitomaculata	MTC
Florida box turtle	Terrapene carolina bauri	MTC
Eastern garter snake	Thamnophis sirtalis	MTC
Eastern earth snake	Virginia valeriae	MTC
Eastern earth shake	virginia valeriae	MIC
	BIRDS	
Sharp-shinned hawk	Accipiter striataus	OF
Spotted sandpiper	Actitus macularia	43
Red-winged blackbird	Agelaius phoeniceus	25,43
Wood duck	Aix sponsa	17,25,43
American wigeon	Anas americana	17,25,43
Green-winged teal	Anas crecca	17,25,43
Blue-winged teal	Anas discors	17,25,43
Mallard	Anas platyrhynchos	43
American black duck	Anas rubripes	43
Gadwall	Anas strepera	43
Anhinga	Anhinga anhinga	17,25,43
American pipit	Anthus spinoletta	25,43
Ruby-throated hummingbird	Archilochus colubris	MTC
Great egret	Ardea alba	43
Great blue heron	Ardea herodias	17,25,43
Lesser scaup	Aythya affinis	25,43
Redhead	Aythya americana	43
Ring-necked duck	Aythya collaris	25,43
Cedar waxwing	Bombycilla cedrorum	MTC
Canada goose	Branta canadensis	OF
1 Non-native Species		
2 Ornamental garden only	A 4 - 16	

Animals

Common Name	Scientific Name	Primary Habitat (For All Species)
Great horned owl	Bubo virginianus	20,28
Cattle egret	Bubulcus ibis	MTC
Bufflehead	Bucephala albeola	43
Common goldeneye	Bucephala clangula	43
Red-tailed hawk	Buteo jamaicensis	OF
Red-shouldered hawk	Buteo lineatus	OF
Broad-winged hawk	Buteo platypterus	OF
Green heron	Butorides striatus	17,25,43
Least sandpiper	Calidris minutilla	43
Chuck-will's-widow	Caprimulgus carolinensis	20
Whip-poor-will	Caprimulgus vociferus	20
Canada warbler	Cardellina canadensis	MTC
Northern cardinal	Cardinalis cardinalis	20,28
Pine siskin	Carduelis pinus	20
American goldfinch	Carduelis tristis	20
Purple finch	Carpodacus purpureus	20
Great egret	Casmerodius albus	17,25,43
Turkey vulture	Cathartes aura	OF
Veery	Catharus fuscescens	20
Hermit thrush	Catharus guttatus	20
Gray-cheeked thrush	Catharus minimus	20
Swainson's thrush	Catharus ustulatus	20
Brown creeper	Certhia americana	20
Belted kingfisher	Ceryle alcyon	25,43
Chimney swift	Chaetura pelagica	OF
Killdeer	Charadrius vociferus	43
Black tern	Chlidonias niger	43
Common nighthawk	Chordeiles minor	OF
Northern harrier	Circus cyaneus	OF
Marsh wren	Cistothorus palustris	43
Sedge wren	Cistothorus platensis	43
Yellow-billed cuckoo	Coccyzus americanus	20
Black-billed cuckoo	Coccyzus erythropthalmus	20
Northern flicker	Colaptes auratus	20,28
Northern bobwhite	Colinus virginianus	20,28
	8	20 20
Common ground dove	Columbina passerina Contonus virens	20 20
Eastern wood pewee	Contopus virens	20 OF
Black vulture	Coragyps atratus	
Common crow	Corvus brachyrhynchos	MTC
Fish crow	Corvus ossifragus	43 MTC
Blue jay	Cyanocitta cristata	MTC
Bobolink	Dolichonyx oryzivorus	20,28
Pileated woodpecker	Dryocopus pileatus	20,28
Gray catbird	Dumetella carolinensis	MTC
Little Blue heron	Egretta caerulea	25,43
Snowy egret	Egretta thula	25,43
Tricolored heron	Egretta tricolor	25,43
1 Non-native Species		

Animals

Common Name	Scientific Name	Primary Habitat (For All Species)
Swallow-tailed kite	Elanoides forficatus	MTC
Acadian flycatcher	Empidonax	20
Yellow-bellied flycatcher	Empidonax flaviventris	MTC
Least flycatcher	Empidonax minimus	MTC
White ibis	Eudocimus albus	17,25,43
Rusty blackbird	Euphagus carolinus	MTC
American kestrel	Falco sparverius sparverius	OF
American coot	Fulica americana	43
Common snipe	Gallinago gallinago	25,43
Common moorhen	Gallinula chloropus	43
Common loon	Gavia immer	43
Common yellowthroat	Geothlypis trichas	MTC
Sandhill crane	Grus canadensis	OF
Blue grosbeak	Guiraca coerula	MTC
Bald eagle	Haliaeetus leucocephalus	OF
Worm-eating warbler	Helmitheros vermivorus	MTC
Barn swallow	Hirundo rustica	OF
Wood thrush	Hylocichla mustelina	20
Yellow-breasted chat	Icteria virens	20
Northern oriole	Icterus galbula	20
Orchard oriole	Icterus spurius	20
Mississippi kite	Ictinia mississippiensis	OF
Least bittern	Ixobrychus exilis	43
Dark-eyed junco	Junco hyemalis	MTC
Loggerhead shrike	Lanuis ludovicianus	MTC
Herring gull	Larus argentatus	43
Ring-billed gull	Larus delawarensis	43
Bonaparte's gull	Larus philadelphia	43
Laughing gull	Leucophaeus atricilla	43
Swainson's warbler	Limnothlypis swainsonii	MTC
Hooded merganser	Lophodytes cucullatus	43
Red-bellied woodpecker	Melanerpes carolinus	MTC
Red-headed woodpecker	Melanerpes erythocephalus	MTC
Wild turkey	Meleagris gallopavo	20
Swamp sparrow	Meleagnis ganopavo Melospiza georgiana	25,28
Song sparrow	Melospiza melodia	MTC
Red-breasted merganser	Mergus serrator	43
Northern mockingbird	Miergus serraior Mimus polyglottos	MTC
Black-and-white warbler	Mimus porygionos Mniotilta varia	MTC
Brown-headed cowbird	Molothus ater	MTC
Wood stork	Mycteria americana Muigrobus oir organoms	25,43 MTC
Ash-throated flycatcher	Myiarchus cinerascens	MTC
Great crested flycatcher	Myiarchus crinitus	MTC
Kentucky warbler	Oporornis formosus	MTC
Eastern screech-owl	Otus asio	MTC
Ruddy duck	Oxyura jamaicensis	43
Osprey	Pandion haliaetus	43
1 Non-native Species		
2 Ornamontal gardon only		

Animals

Common Name	Scientific Name	Primary Habitat (For All Species)
Tufted titmouse	Parus bicolor	20,28
Carolina chickadee	Parus carolinensis	MTC
Savannah sparrow	Passercules sandwichenis	MTC
Fox sparrow	Passerella iliaca	MTC
Indigo bunting	Passerina cyanea	20,28
American white pelican	Pelecanus erythrorhynchos	43
Double-crested cormorant	Phalacrocorax auritus	25,43
Rose-breasted grosbeak	Pheucticus ludovicianus	20,28
Downy woodpecker	Picoides pubescens	MTC
Eastern towhee	Pipilo erythrophthalmus	MTC
Scarlet tanager	Piranga olivacea	MTC
Summer tanger	Piranga rubra	MTC
Glossy ibis	Plegadis falcinellus	43
Horned grebe	Podiceps auritus	25,43
Pied-billed grebe	Podilymbus podiceps	25,43
Blue-gray gnatcatcher	Polioptila caerulea	20,28
Purple gallinule	Porphyrula martinica	25,43
Purple martin	Progne subis	MTC
Prothonotary warbler	Protonotaria citrea	MTC
Boat-tailed grackle	Quiscalus major	MTC
Common grackle	\tilde{Q} uiscalus quiscala	MTC
Ruby-crowned kinglet	Regulus calendula	MTC
Golden-crowned kinglet	Regulus satrapa	MTC
Eastern phoebe	Sayornis phoebe	20
American woodcock	Scolopax minor	MTC
Ovenbird	Seiurus aurocapillus	MTC
Northern waterthrush	Seiurus noveboracensis	25,43
Louisiana waterthrush	Seiurus motacilla	25,43
Northern parula	Setophaga americana	MTC
Cerulean warbler	Setophaga cerulea	20,28
Yellow-rumped warbler	Setophaga coronata	20,28
Prairie warbler	Setophaga discolor	20,20
Blackburnian warbler	Setophaga fusca	20,28
Magnolia warbler	Setophaga magnolia	20,28
Palm warbler	Setophaga palmarum	20,28
Chestnut-sided warbler	Setophaga pensylvanica	20,28
Yellow warbler		20,28
Pine warbler	Setophaga petechia Setophaga pipus	20,28
	Setophaga pinus Setophaga tigring	20 MTC
Cape May warbler Black throated green warbler	Setophaga tigrina Setophaga virens	20 MIC
Black-throated green warbler	Setophaga virens Sialia sialia	
Eastern bluebird	Sialia sialis Sitta canadonsis	20
Red-breasted nuthatch	Sitta canadensis	20
Brown-headed nuthatch	Sitta pusilla	20 MTC
Yellow-bellied sapsucker	Sphyrapicus varius	MTC
Chipping sparrow	Spizella passerina	MTC
Field sparrow	Spizella pusilla	MTC
Northern rough-winged swallow	Stelgidopterix serripennis	MTC
1 Non-native Species		
2 Ornamental garden only	4 4 10	

Animals

Common Name	Scientific Name	Primary Habitat (For All Species)
Forster's tern	Sterna forsteri	43
Least tern	Sternula antillarum	43
Barred owl	Strix varia	MTC
Eastern meadowlark	Sturnella magna	MTC
Tree swallow	Tachycineta bicolor	20,28
Carolina wren	Thryothorus ludovicianus	MTC
Brown thrasher	Toxostoma rufum	MTC
Lesser yellowlegs	Tringa flavipes	25,43
Greater yellowlegs	Tringa melanoleuca	43
Solitary sandpiper	Tringa solitaria	25,43
House wren	Troglodytes aedon	MTC
Winter wren	Troglodytes troglodytes	MTC
American robin	Turdus migratorius	MTC
Eastern kingbird	Tyrannus tyrannus	MTC
Orange-crowned warbler	Vermivora celata	MTC
Golden-winged warbler	Vermivora chysoptera	MTC
Blue-winged warbler	Vermivora cyanoptera	MTC
Tennessee warbler	Vermivora peregrina	MTC
Yellow-throated vireo	Vireo flavifrons	MTC
White-eyed vireo	Vireo griseus	MTC
Red-eyed vireo	Vireo olivaceus	MTC
Philadelphia vireo	Vireo philadelphicus	MTC
Blue-headed vireo	Vireo solitarius	MTC
Hooded warbler	Wilsonia citrina	MTC
Mourning dove	Zenaida macroura	MTC
White-throated sparrow	Zonotrichia albicollis	MTC
-	MAMMALS	
Short-tailed shrew	Blarina brevicauda	MTC
Nine-banded armadillo ¹	Dasypus novemcinctus	MTC
Virginia oppossum	Didelphis virginiana	MTC
Bobcat	Felis rufus	MTC
Southeastern pocket gopher	Geomys pinetis	20
Southern flying squirrel	Glaucomys volans	20
River otter	Lutra canadensis	43
Pine vole	Microtus pinetorum	20
Eastern wood rat	Neotoma floridana	20
White-tailed deer	Odocoileus virginianus	MTC
Cotton mouse	Peromyscus gossypinus gossypinus	
Golden mouse	Peromyscus nuttalli	MTC
Raccoon	Procyon lotor	MTC
Brown rat ¹	Rattus norvegicus	82
Black rat ¹	Rattus rattus	82
Eastern mole	Scalopus aquaticus	MTC
Gray squirrel	Sciurus carolinensis	MTC
Fox squirrel	Sciurus niger shermani	20
Hispid cotton rat	Sigmodon hispidus	MTC
1 Non-native Species		-
2 Ornamental garden only	A 4 - 20	

Animals

Common Name	Scientific Name	Primary Habitat (For All Species)
Marsh rabbit	Sylvilagus palustris	MTC
Gray fox	Urocyon cinereoargenteus	MTC
Florida black bear	Ursus americanus floridanus	MTC

1 Non-native 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. Coastal Grasslands
- **10.** Pine Rockland
- **11.** Prairie Hammock
- **12.** Rockland Hammock
- 13. Sandhill
- 14. Scrub
- **15.** Scrubby Flatwoods
- 16. Shell Mound
- 17. Sinkhole
- **18.** Slope Forest
- 19. Upland Glade
- 20. Upland Hardwood Forest
- 21. Upland Mixed Forest
- **22.** Upland Pine Forest
- 23. Xeric Hammock

Palustrine

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

Lacustrine

- 43. Clastic Upland Lake
- 44. Coastal Dune Lake
- **45.** Coastal Rockland Lake

Lacustrine—Continued

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

<u>Riverine</u>

- **52.** Alluvial Stream
- 53. Blackwater Stream
- **54.** Seepage Stream
- 55. Spring-Run Stream

Estuarine

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

<u>Marine</u>

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

<u>Subterranean</u>

- 79. Aquatic Cave
- 80. Terrestral Cave

Miscellaneous

- 81. Ruderal
- 82. Developed
- MTC Many Types Of Communities
- **OF** Overflying

Addendum 6-Imperiled Species Ranking Definitions

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

G1Critically imperiled globally because of extreme rarity (5 or fewer
occurrences or less than 1000 individuals) or because of extreme
vulnerability to extinction due to some natural or fabricated factor.
G2Imperiled globally because of rarity (6 to 20 occurrences or less than 3000
individuals) or because of vulnerability to extinction due to some natural
or man-made factor.
G3Either very rare or local throughout its range (21-100 occurrences or less
than 10,000 individuals) or found locally in a restricted range or
vulnerable to extinction of other factors.
G4apparently secure globally (may be rare in parts of range)
G5demonstrably secure globally
GHof historical occurrence throughout its range may be rediscovered (e.g.,
ivory-billed woodpecker)
GXbelieved to be extinct throughout range
GXCextirpated 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#Qrank 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#Qsame as above, but validity as subspecies or variety is questioned.
GUdue to lack of information, no rank or range can be assigned (e.g., GUT2).
G?Not yet ranked (temporary)
S1Critically 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.
S2Imperiled 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.
S3Either very rare or local throughout its range (21-100 occurrences or less
than 10,000 individuals) or found locally in a restricted range or
vulnerable to extinction of other factors.
S4apparently secure in Florida (may be rare in parts of range)
S5demonstrably secure in Florida
SHof historical occurrence throughout its range, may be rediscovered (e.g.,
ivory-billed woodpecker)
SXbelieved to be extinct throughout range
SAaccidental in Florida, i.e., not part of the established biota
SEan exotic species established in Florida may be native elsewhere in North
America
SNregularly occurring but widely and unreliably distributed; sites for
conservation hard to determine
SUdue to lack of information, no rank or range can be assigned (e.g., SUT2).
S?Not yet ranked (temporary)
NNot currently listed, nor currently being considered for listing, by state or
federal agencies.

LEGAL STATUS

FEDERAL

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

- LE....Listed as Endangered Species in the List of Endangered and Threatened Wildlife and Plants under the provisions of the Endangered Species Act. Defined as any species that is in danger of extinction throughout all or a significant portion of its range.
- PE.....Proposed for addition to the List of Endangered and Threatened Wildlife and Plants as Endangered Species.

- LT.....Listed as Threatened Species. Defined as any species that is likely to become an endangered species within the near future throughout all or a significant portion of its range.
- PT.....Proposed for listing as Threatened Species.
- CCandidate Species for addition to the list of Endangered and Threatened Wildlife and Plants. Defined as those species for which the USFWS currently has on file sufficient information on biological vulnerability and threats to support proposing to list the species as endangered or threatened.
- E(S/A)....Endangered due to similarity of appearance.
- T(S/A).....Threatened due to similarity of appearance.

EXPE, XEExperimental essential population. A species listed as experimental and essential.

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

STATE

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

- ST.....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 therefore is destined or very likely to become an endangered species within the near future.
- SSCListed 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 that, in the near future, may result in its becoming a threatened species.

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

LE....Listed as Endangered Plants in the Preservation of Native Flora of Florida Act. Defined as species of plants native to the state that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue, and includes all species determined to be endangered or threatened pursuant to the Federal Endangered Species Act of 1973, as amended.

LT.....Listed as Threatened Plants in the Preservation of Native Flora of Florida Act. Defined as species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in such number as to cause them to be endangered. Addendum 7—Cultural Information

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

A. General Discussion

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

B. Agency Responsibilities

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

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

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

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

C. Statutory Authority

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

D. Management Implementation

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

A 7 - 1

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

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

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

E. Minimum Review Documentation Requirements

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

http://www.flheritage.com/preservation/compliance/docs/minimum_review_docum entation_requirements.pdf

* * *

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

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

Phone: (850) 245-6425

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

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

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

- e) a reconstructed building, when it is accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and no other building or structure with the same association has survived; or a property primarily commemorative in intent, if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
- **f)** a property achieving significance within the past 50 years, if it is of exceptional importance.

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

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

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

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

Addendum 8 – Land Management Review

Memorandum

Florida Department of Environmental Protection

October 21, 2011

- TO: Marianne Gengenbach, Program Administrator Division of State Lands
- FROM: Parks Small, Chief, Bureau of Natural and Cultural Resources

Albert Gregory, Chief, Office of Park Planning AC Division of Recreation and Parks

SUBJECT: Response to Draft Land Management Review (LMR) Alfred B. Maclay Gardens State Park

The Land Management Review draft report provided to DRP determined that management of Alfred B. Maclay Gardens State Park by the Division of Recreation and Parks met the two tests prescribed by law. Namely, the review team concluded that the land is being managed for the purposes for which it was acquired and in accordance with the land management plan.

Below are Additional Recommendations and Checklist Findings (items the LMR determined should be further addressed in the management plan update) of the draft LMR report, with our Manager's Response to each. The responses were prepared via a coordinated effort of the park, district office, and our offices.

The team recommends the implementation of the planned visitor center. (VOTE: 4+, 0-) Managing Agency Response: Agree: The proposed Visitor Center has been designed and permitted and funding is being sought for construction.

The team recommends that area parks and managed areas that focus on historical resources, cooperate in the development of a regional history that explains the historical land usage over time. (VOTE: 4+, 0-)

Managing Agency Response: Agree: The park staff are supportive of collaborating with other personnel managing nearby parcels and would participate in inter-agency efforts seeking to improve interpretative features and programs describing the historical usage of the regional landscape.

PLAN REVIEW

Increased protection of listed species, specifically the bay star vine, with documentation in the management plan.

Managing Agency Response: Agree: Measures seeking to provide for the protection of imperiled species will be addressed in the next unit management plan. The current draft of that plan includes mention of known locations of imperiled species (e.g. within the ornamental garden, within the ravines habitat), monitoring for the bay star vine and the slender naiad, and general plans for the planting of bay star vine seedlings propagated from existing individuals located in the central ravine.

Adjacent property concerns regarding the discussion of potential surplus land determination and the surplus lands already identified, with documentation in the management plan.

Managing Agency Response: Agree: The Division will address adjacent property concerns and the determination of surplus lands in the update of the management plan.

Managed area uses, specifically the proposed performance facility, with documentation in the management plan.

Managing Agency Response: Agree: The Division of Recreation and Parks, in cooperation with the Friends of Maclay Gardens, Inc., contracted an independent feasibility study completed in November, 2004, to determine the viability of the proposal to construct a permanent performance facility in the park. The results of the analysis determined that this would not be an economically viable project; the Division will consider these recommendations during the next unit management plan revision.

Thank you for your attention.

GK

CC: Danny Jones, Chief, Bureau of Parks District 1 Tony Tindell, Assistant Chief, Bureau of Parks District 1 Beth Weidner, Park Manager, Alfred B. Maclay Gardens State Park John Bente, Environmental Specialist, Bureau of Parks District 1