Ravine Gardens State Park

Advisory Group Draft
Unit Management Plan

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Recreation and Parks
May 2023

TABLE OF CONTENTS

INTRODUCTION 1
Acquisition History 1
Purpose and Scope of the Plan 1
Unit Classification 1
PARK INTERPRETATION 5
RESOURCE MANAGEMENT COMPONENT 7
Topography 8
Geology 8
Soils 8
Minerals 13
Hydrology 13
Hydrological Management 13
Natural Communities 13
Natural Communities Management 18
Imperiled Species 18
Imperiled Species Management 20
Invasive Species 21
Invasive Species Management 25
CULTURAL RESOURCES 25
Cultural Resource Management 28
LAND USE COMPONENT 33
Public Access Management 33
Infrastructure Management. 47
Optimum Boundary 49
PUBLIC ACCESS MANAGEMENT 33
Park Visitation 33
Existing Facilities 33
IMPLEMENTATION COMPONENT 53
Natural Resources 53
Cultural Resources 53
Recreation & Visitor Service. 53
Park Administration and Operations 54
Park Facilities 54

TABLES

TABLE 1 – Ravine Gardens State Park Management Zones 7
TABLE 2 – Imperiled Species Inventory 19
TABLE 3 – Inventory of FISC Category I and II Exotic Plant Species 23
TABLE 4 – Cultural Sites Listed in the Florida Master Site File 32
TABLE 5 – Implementation Schedule and Cost Estimates 55

MAPS

Vicinity Map 3
Management Zones Map..... 9
Soils Map..... 11
Natural Communities Map..... 15
Base Map..... 35
Conceptual Land Use Plan Map 45
Optimum Boundary Map. 51

LIST OF ADDENDA

ADDENDUM 1
Acquisition History ..... A 1 - 1
ADDENDUM 2
Advisory Group Members and Report..... A 2 - 1
ADDENDUM 3
References Cited ..... A 3 - 1
ADDENDUM 4
Soil Descriptions ..... A 4 - 1
ADDENDUM 5
Plant and Animal List ..... A 5 - 1
ADDENDUM 6
Imperiled Species Ranking Definitions ..... A 6 - 1
ADDENDUM 7
Cultural Information ..... A 7 - 1
ADDENDUM 8
Local Government Comprehensive Plan Compliance ..... A 8 - 1

Ravine Gardens State Park Executive Summary

Lead Agency: Department of Environmental Protection
Division of Recreation and Parks

Common Name of Property: Ravine Gardens State Park

Location: Putnam County

Acreage: 152.67 Acres

Acreage Breakdown

Natural Communities	Acres
Slope Forest	50.48
Upland Hardwood Forest	7.64
Floodplain Forest	42.39
Floodplain Marsh	1.89
Floodplain Swamp	31.77
Blackwater Stream	8.21
Seepage Stream	1.04
Ruderal	2.81
Developed	6.40

Lease/Management Agreement Number: 2531

Use: Single Use

Management Responsibilities

Agency: Dept. of Environmental Protection, Division of Recreation and Parks

Responsibility: Public Outdoor Recreation and Conservation

Designated Land Use: Public outdoor recreation and conservation is the designated single use of the property.

Sublease: None

Encumbrances: See Addendum 1 for details.

Type of Acquisition(s): The Board of Trustees was donated the property from the City of Palatka. Management authority was conveyed to the Division of Recreation and Parks under Lease No. 2531. See Addendum 1 for details.

Unique Features

Overview: The park is currently 152.67 acres. The purpose of Ravine Gardens State Park is to protect the sensitive natural communities of the surrounding Whitewater Branch and St. Johns River, which are home to rare and endangered species. The park supplements the protection provided by the

nearby Horseshoe Point and Rice Creek Conservation Areas while providing resource-based recreation to Florida residents and visitors. The ravine system, suspension bridges, and ornamental garden reminds visitors that this park was once a beautification project for the City of Palatka that still preserves unique natural features for recreational and interpretive opportunities.

Natural: The ravine was created over thousands of years by water flowing from the sandy ridges of the St. Johns River. Historically, from 1886 to 1986 the seepage stream, the Whitewater Branch supplied the City of Palatka with treated potable water. The seepage stream, the 120 feet deep bluffs, and the 18 different types of azaleas provide a unique experience for visitors in Florida. These protected communities provide habitats for imperiled species like the Eastern indigo snake (Drymarchon corais couperi), Gopher tortoise (Gopherus polyphemus), and the West Indian manatee (Trichechus manatus).

Archaeological/Historic: The park preserves and interprets significant prehistoric and historic cultural sites, many formed during the WPA era. These sites include the Water Fountain and Amphitheater, suspension bridges, entrance station, FDR Obelisk, Garden Club, Court of States, Azalea Fountain and terraces, Roy Campbell Civic Center, a prehistoric campsite (Rundle Site), and the Palatka Ravine Gardens District.

Management Goals, Objectives, and Actions

Measurable objectives and actions have been identified for each of the management goals for Ravine 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 Division of Recreation and Parks 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.

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, DRP 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 Chapters 253.034 and 259.032, Florida Statutes.

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

Natural Resource Management

Hydrological Management

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

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

Natural Communities Management

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

- *Objective: Conduct natural community/habitat improvement activities on four acres of upland hardwood forest natural community.*

Imperiled Species Management

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

- *Objective: Develop/Update baseline imperiled species occurrence inventory lists for plants and animals.*
- *Objective: Monitor and document four selected imperiled animal species in the park.*
- *Objective: Monitor and document one selected imperiled plant species in the park.*

Invasive and Nuisance Species Management

Goal: Remove invasive species and conduct maintenance control.

- *Objective: Annually treat five infested acres of invasive plant species.*
- *Objective: Implement control measures on two nuisance species in the park.*

Cultural Resource Management

Cultural Resource Management

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

- *Objective: Assess and evaluate all twelve recorded cultural resources in the park.*

- *Objective: Bring one of twelve recorded cultural resources into good condition.*

Ten-Year Implementation Schedule and Cost Estimates: See Cost Estimates Table, page 55.

Acquisition Needs/Acreage: The following parcels, totaling approximately 66.72 acres, should be considered for addition to Ravine Gardens State Park:

- North of the park, along Whitewater Drive, is the historic Water Works facility that totals 7.74 acres.
- Along Twigg Street and the Court of Flags, bordering the park is a 0.51-acre abandoned pool house building.
- Just south of the Water Works facility, to the east of the CSX railroad is a 7.23-acre parcel that provides access to a residence.
- Five apartments and houses along the park's northeastern boundary, along Twigg Street and South 15th Street.
- North of the Water Works facility, along South 13th Street is a 0.17-acre Murphy Act parcel that is zoned single-family residential.
- North of the river tract is a 49-acre parcel that borders the St. Johns River with vacant and disturbed wetlands.

Surplus Lands/Acreage: No lands are considered surplus to the needs of the park.

Public Involvement: DRP provided an opportunity for public input by conducting a public open house meeting and advisory group process to present the draft management plan to stakeholders. This meetings was held on May 24, 2023. Meeting notices were published in the Florida Administrative Register, (DATE) Volume X, Issue X, 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).

Summary of Significant Changes in the Management Plan Update

Park Road and Parking Areas

1. Redesign parking lot and improve traffic circulation
    a. Create organized parking at the entrance
2. Conduct an engineering study for the park's loop drive with emphasis on sustainable measures for stormwater mitigation. This study should sequentially follow and carefully consider information identified in the recommended hydrological study referenced below under Ravine Area
3. The engineering study should consider stabilization and repaving of the park loop drive
4. Consider widening the park loop drive where necessary
5. Evaluate the feasibility of setbacks along the park's loop drive
6. Increase interpretation along the road informing visitors of vehicular erosion formation and its impacts to the ravine

7. Continue to prohibit parking on the vegetation along sides of loop road

Court of States

1. Restore and maintain the log trellises, where necessary

Civic Center

1. Use a portion of the center for passive interpretation
2. If Water Works is acquired, connect the acquisition to the Civic Center with an interpretive trail

Formal Garden Area

1. Develop a planting plan
2. Install interpretive signage about the garden's historical significance in the picnic area or approach to the parking area

Ravine Area

1. Update all the interpretive and directional signage and replace as needed
2. Conduct an annual inspection to evaluate the long-term stability of the suspension bridges
3. Consider conducting a hydrological study
    a. If completed, detail any needed stormwater control structures in the proposed stormwater management plan
4. Form a stormwater management plan for the loop drive and boundary that fully addresses erosion issues

Support Area

1. Provide a 3-bay shop building and equipment shelter in the shop area
    a. Reconfigure shop area
2. Work with the adjacent utility provider to bury the overhead powerlines

Park Boundary

1. Consider replacing the existing fence and installing a new fence with elements that better control sheet flow

River Tract

1. Work with CSX to provide an off-grade path across the railroad tracks
2. Construct a bridge crossing along the existing berm
3. Create an observation platform at the end of the berm trail

Residence

1. Replace assistant park manager residence (aging mobile home) with a permanent structure and consider relocation of the site
2. Routinely investigate the five optimum boundary parcels for potential of acquisition

INTRODUCTION

Ravine Gardens State Park is located in Putnam County, Florida. Access to the park is from U.S. Highway 17 south on Moseley Avenue and one block east on Twigg Street. The Vicinity Map reflects significant land and water resources existing near the park.

Ravine Gardens was initially acquired on January 1, 1970. The park currently comprises 152.67 acres, which are split between the Gardens tract and the River tract. The Board of Trustees of the Internal Improvement Trust Fund (Trustees) hold fee simple title to the park and on June 8, 1971, the Trustees leased (Lease Number 2531) the property to DRP under a 99-year lease. The current lease will expire on June 7, 2070.

Ravine Gardens is designated single use to provide public outdoor recreation and conservation. There are no legislative or executive directives that constrain the use of this property (see Addendum 1). A legal description of the park property can be made available upon request to the Department of Environmental Protection.

Purpose of the Park

The purpose of Ravine Gardens State Park is to provide aesthetic gardens for the public and protect the city's vulnerable watershed. The park's blooming azaleas and steephead ravines provide educational and resource-based recreational opportunities for Florida residents and visitors to enjoy.

Park Significance

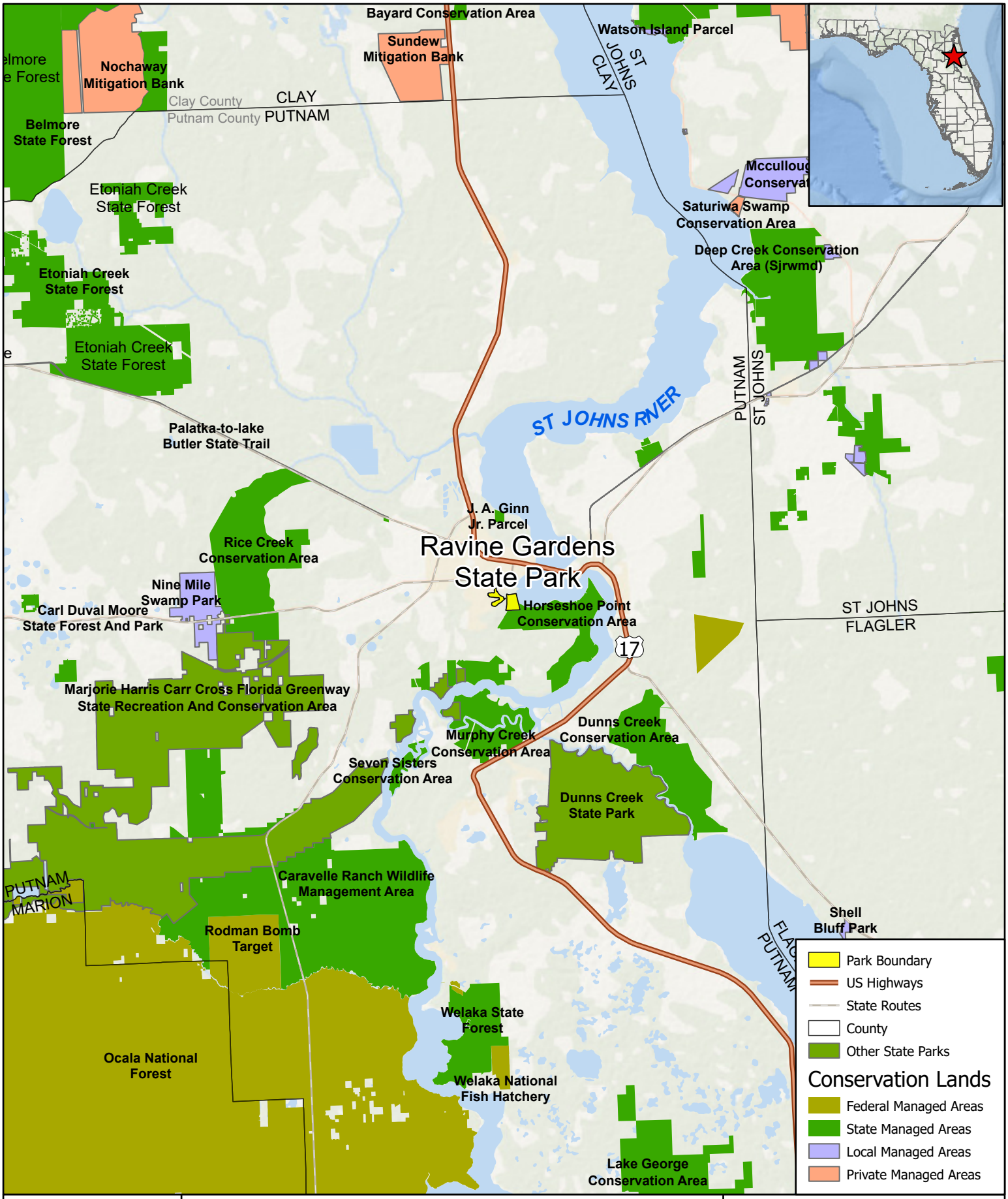
- Ravine Gardens is one of the nine New Deal era state parks in Florida and was created to stimulate economic recovery with tourism after the Great Depression.

- Historically, there was an annual Azalea Festival and Pageant hosted at the park. Currently, the gardens attract visitors every year for its peak flowering season in the spring.

- From 1886 to 1986, the park's Whitewater Branch supplied the City of Palatka with treated water through the historic Water Works building, east of the park.

- The park protects the Whitewater Branch which is a collection of seepage streams that have been altered in the past. All water in this park is considered Outstanding Florida Waters and are preserved to sustain their quality.

Ravine Gardens is classified as a state garden in the DRP's unit classification system. In the management of a state garden, 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. Development in the park has been limited to picnicking, a nature trail and necessary support facilities. Park programs emphasize interpretation of the natural and cultural attributes.



RAVINE GARDENS STATE PARK
Vicinity Map

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Park Interpretation

Interpretation is a mission-based communication process that forges emotional and intellectual connections between the interests of the audience and meanings inherent in the resource. Interpretive themes are the key concepts for communicating the meanings inherent in a Florida State Park. A central park theme is a short, dynamic interpretive statement that reflects the significance of a park by highlighting distinctive features and essential visitor experiences. In addition to a central park theme, each park has primary interpretive themes. These themes serve as a starting point for park staff to plan interpretive and educational content by outlining the main stories of the park's natural and cultural resources. Further interpretive planning can branch off from these themes but should ultimately help reinforce the main interpretive messages of the park.

Central Park Theme

Once a major tourist attraction, the preserved ornamental garden and steephead ravine system juxtapose Ravine Gardens' natural features and historic development, providing visitors the opportunity to learn how human actions affect natural processes.

Primary Interpretive Themes

Historic Use
This past ravine beautification and city revitalization project provided Ravine Gardens visitors abundant amounts of botanical vegetation, several relics, and festivals that educate visitors about human impacts on the natural landscape.

Cultural Resources
Ravine Gardens preserves Federal Works Program Administration development, a New Deal era landscape, and an 1862 Civil War encampment for the 5th Florida Volunteers (Camp Call) for the betterment of visitors and the surrounding landscape.

Hydrologic Features
A symbiotic relationship, the St. Johns River, and Ravine Gardens' steephead ravines show how they can form and sustain one another while feeding into Florida's natural watershed, the Floridan aquifer.

Interpretive Application

Interpretation is a DRP priority for the inherent value of visitor engagement and as a tool for promoting stewardship and conservation. Interpretation also plays an important role in achieving many other park management objectives.

Non-Personal Interpretation

- A few areas of the park offer visitors interpretive panels. The Court of States' Franklin Roosevelt Memorial Obelisk, the Water Works building, and the vegetated amphitheater all have interpretive panels explaining the history and significance of these features.

Personal Interpretation

- Conducted interpretive programming and provided tours; some were partnered with the Florida Public Archaeology Network.

Park Accomplishments

1. Planted over 600 native plants and 50 native wildflower seed packages throughout the park.
2. 2018-2020 Erosion Control Projects: Construction of minor bulk heads, construction of two major bulkheads, laying or rock, terracing and other erosion control measures.
3. Cultural resource review–all cultural sites monitored and documented.
4. Over 150 programs and small events including field trips, interpretive programs, tours, National Public Lands Day, volunteer workdays, first day programming, Dog Days. Provided a large number of cart tours by request for ADA purposes due to the drive being down and ADA access being limited. Partnered with the Florida Public Archaeology Network to host a series of programs.
5. Hosted six major park events, including Holiday at the Ravines, Azalea Days, and the Halloween Spooktacular.
6. Since 2016, the park treated 843 acres of invasive plant infestations focusing on Cat I and II invasive plants.
7. Removed three acres of bamboo from one of the seepage streams which was impeding water flow.

RESOURCE MANAGEMENT COMPONENT

The DRP has implemented resource management programs for the perpetual preservation of representative examples of the state's significant natural and cultural resources. This component of the 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 DRP's overall mission.

The DRP's resource management philosophy is guided by the principles of natural systems management. Emphasis is placed on restoring and maintaining 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 can be accommodated on a case-by-case basis and should be compatible with the maintenance and restoration of natural processes.

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 contributing to the history of Florida. This goal often entails measures to stabilize, reconstruct, restore, or rehabilitate cultural resources. Appropriate public use of cultural resources will be considered according to the park's unit classification and the sensitivity of the resources.

Park units are often components of larger ecosystems and proper management can be affected by conditions that occur beyond park boundaries. Ecosystem management is implemented through an evaluation program that assesses resource conditions, refines management activities, and reviews development permit applications for park impacts.

The entire park is divided into management zones that delineate areas on the ground that are used to coordinate management activities. The shape and size of each zone may be based on natural community type, burn zone, and the location of existing roads and fire breaks. Table 1 reflects the management zones with the acres of each zone.

Management Goals, Objectives, and Actions

Measurable objectives, and actions have been identified for the park's management goals. The goals, objectives, and actions identified will serve as the basis for developing annual work plans for the park. The annual work plans 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.

Table 1. Ravine Gardens State Park Management Zones

Management Zone	Acreage	Managed with Prescribed Fire	Contains Cultural Resources
RG-1	9.1188	N	Y
RG-2	26.1515	N	Y
RG-3	23.6676	N	Y
RG-4	93.7314	N	Y

Topography

Ravine Gardens State Park is comprised of two, nearly adjacent parcels located within the Eastern Flatwoods Physiographic District (Brooks, 1981a). The western parcel is divided into the Palatka Relic Hills division, which is characterized by having residual hills composed of sand, silt, and clay of Plio-Pleistocene Age. It is located on the southeastern end of the Palatka Hill and the eastern side of the Penholoway Terrace. Elevations range from 15 to 75 feet above sea level. The eastern parcel is divided into the Crescent Lake Basin division. This division is characterized as lowland underlain by estuarine and lagoonal silt, clay, and fine sand. It is located on the St. Johns River offset of the Pamlico Terrace with elevations averaging two feet above sea level.

Geology

The unit is underlain by two different geological formations, which are Plio-Pleistocene and Pleistocene deposits. The first formation, found in the western parcel, is characterized as having preglacial Pleistocene lagoonal and prograded, with unlithified Coastal shelly sand, and silty gray to greenish-gray sand. In northeast Florida, sand and clayey sand are deeply weathered, orange and red, with some heavy mineral concentrations (Brooks, 1981b). The second formation, located in the eastern parcel, is characterized as having slope beach and dune sand and shell with silty sand, silt, and clay representing lagoonal and estuarine facies (Brooks, 1981b).

Soils

The Natural Resources Conservation Service identified four soil types in Ravine Gardens State Park in the soil survey of Putnam County (Readle 1980). The Candler fine sand series is found in the higher elevations of the sandhill community on 15 to 25% slopes. This moderately steep to steep, excessively drained soil has a high-water table below a depth of 80 inches. Typically, the surface layer is a dark grayish brown fine sand about 4 inches thick. The hydrologic soil group is A (Readle 1980). The lower elevations at the bottom of the ravine consist of Placid-Pompano association. This nearly level, very poorly drained association of soils has a high-water table that is within ten inches of the soil surface for more than six months in most years. It is frequently flooded for brief periods with water found above the soil surface. The Pompano soils make up about 30% of the association, the Placid soils make up 55%, with the remaining percentage being made up by other soils. The eastern portion of the unit is located in the 100-year flood prone area and is considered predominantly a wetland. The soil type found in this area is called Terra-Ceia muck. This very poorly drained soil is found on floodplains along the St. Johns River and its tributaries. The high-water table is above the soil surface during the rainy season. During dry periods, the water table is found at or near the soil surface. Typically, the soil is dark reddish-brown muck to 28 inches and black muck to 80 inches or more. Finally, the udorthents soil type is found along the railroad track and the residence area on the east side of the tracks. This soil type is typical in areas that have been disturbed by excavation. This area may have been used as a borrow site when the gardens were under construction. It is now used mainly as a residence site.

Soil erosion resulting from poor stormwater management is a major concern at this unit. Although a stormwater management plan was previously completed and partially implemented, it was determined to be ineffective. A new plan will need to be developed. The areas with the highest erosion need to be stabilized with appropriate vegetation

RAVINE GARDENS STATE PARK
Management Zones

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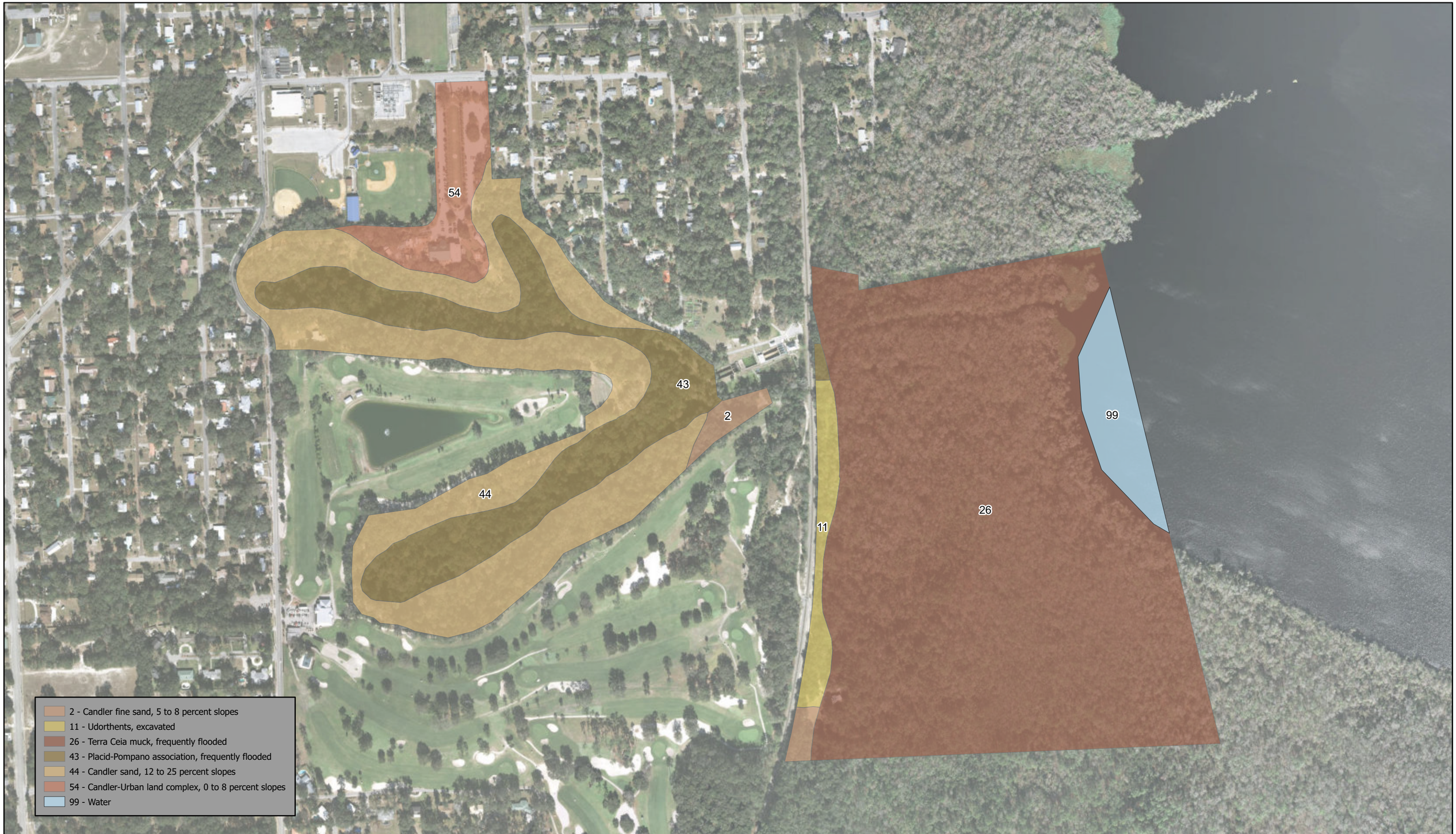

RAVINE GARDENS STATE PARK
Soils Map

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Minerals

No deposits of commercially valuable minerals are known from this unit.

Hydrology

Ravine Gardens State Park is located approximately one quarter of a mile from the St. Johns River, which is the drainage basin for this portion of Putnam County. The park is associated with the Floridan aquifer and serves as a recharge and discharge area (Hyde 1965). The groundwater supply comes mostly from rainfall and, therefore, is considered a non-artesian aquifer. At the bottom of the ravine, the groundwater becomes surface water through numerous groundwater seeps before emptying into the St. Johns River (Hand et. al. 1996). The steep-head streams have been severely altered by stormwater runoff and its resultant erosion from surrounding land use modifications. In addition, Federal Works Program Administration (WPA) alterations from the 1930s have lengthened the hydroperiod in the lower portions of the streams.

A stormwater management plan for the park was previously completed and partially implemented. The plan included the constructing retention ponds on the golf course and the park to handle rainfall from a 25-year storm. While retention ponds were constructed both on the golf course and the adjacent baseball field, they were ineffective, and erosion continues to worsen. Stormwater management is a significant issue that needs to be addressed in order to insure protection of the resource.

Hydrological Management

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

The natural hydrology of most state parks has been impaired prior to acquisition to some degree. Florida's native habitats are precisely adapted to natural drainage patterns and seasonal water level fluctuations, and variations in these factors frequently determine the types of natural communities that occur on a particular site. Even minor changes to natural hydrology can result in the loss of plant and animal species from a landscape.

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

Action 1 Develop and implement an updated stormwater management plan.

A stormwater management plan was previously completed for the park. However, despite retention ponds being constructed on the golf course and work being completed on the adjacent baseball field, the plan has been ineffective. A new plan needs to be developed to help reduce the effects from stormwater and erosion on the resources of the park.

Natural Communities

This section of the management plan describes and assesses each of the natural communities found in the state park. It also describes 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.

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.

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, ongoing control of invasive species, maintaining natural hydrological functions, preserving biodiversity and vegetative structure, protecting viable species populations, and preserving intact ecotones that link natural communities across the landscape.

Upland Hardwood Forest – 47.44 acres

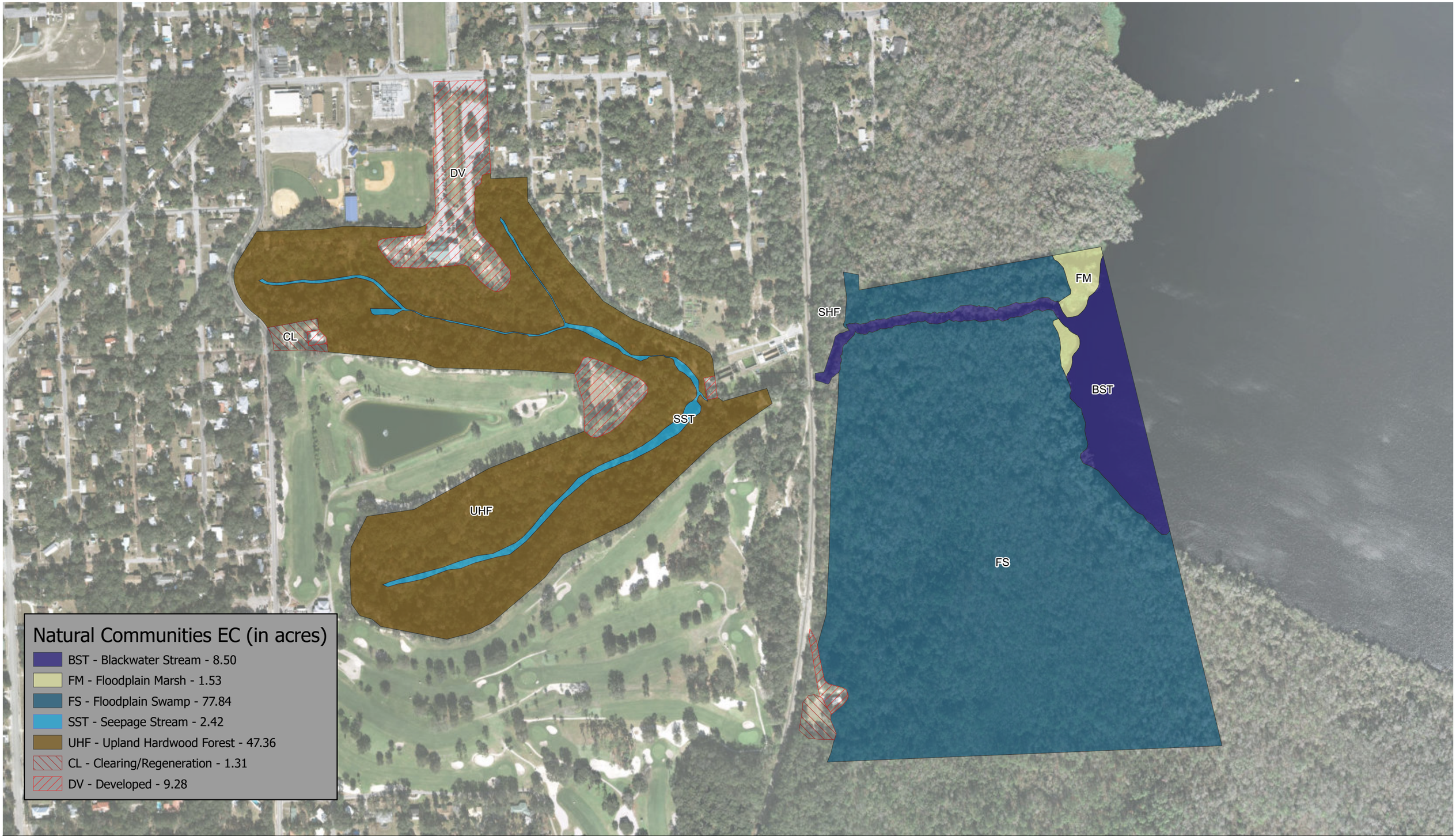
Desired future condition: Mature, closed canopy hardwood forest typically occurring on slopes and rolling hills with generally mesic conditions. Overstory tree species may consist of southern magnolia (*Magnolia grandiflora*), sweetgum (*Liquidambar styraciflua*), live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), Florida maple (*Acer saccharum* subsp. f*loridanum*), white oak (*Quercus alba*), swamp chestnut oak (*Quercus michauxii*) and American beech (*Fagus grandifolia*). Understory species will include trees and shrubs such as American holly (*Ilex opaca*), flowering dogwood (*Cornus florida*), eastern redbud (*Cercis canadensis*), red bay (*Persea borbonia*), horse sugar (*Symplocos tinctoria*), and beautyberry (*Callicarpa americana*). Ground cover will be comprised of shade tolerant herbaceous species, sedges and vines.

Description and assessment: The upland hardwood forest community has been highly disturbed by the construction of the formal gardens in the 1930s. Invasive plants, such as air potato (*Dioscorea bulbifera*), cats-claw vine (*Dolichandra unguis-cati*), tuberous sword fern (*Nephrolepis cordifolia*), and Chinese bamboo (*Bambusa sp.)* have invaded the slopes and shaded out portions of the understory vegetation (both native and ornamental). This community is in fair condition and requires extensive invasive plant removal, ground stabilization, and re-planting with both native and non-invasive ornamental plants. The upper slopes of the ravines have been developed into a paved park drive and surrounding suburban uses. This has altered the microclimate of the forest community and has created erosion problems on the slopes from stormwater runoff.

General Management Measures: The main goal for this community is to restore it to the description of desired future conditions, to the extent possible. AmeriCorps, OPS invasive plant techs, and volunteers along with FWC invasive plant funds will be used to help remove invasive plants. Native plants and azaleas will be planted when possible to control erosion, and stormwater drainage will be assessed. This community is highly altered and within an urban environment. These factors will guide restoration efforts.

Floodplain Swamp – 77.81 acres

Desired future condition: Floodplain swamps are frequently or permanently flooded in low-lying areas along streams & rivers. The closed canopy will typically be dominated by bald cypress (*Taxodium distichum*) but commonly includes tupelo species (*Nyssa* spp.), water hickory (*Carya aquatica*), red maple (*Acer rubrum*) & overcup oak (*Quercus lyrata*). Tree bases are typically buttressed. Understory will typically be sparse.



Natural Communities EC (in acres)

- BST - Blackwater Stream - 8.50
- FM - Floodplain Marsh - 1.53
- FS - Floodplain Swamp - 77.84
- SST - Seepage Stream - 2.42
- UHF - Upland Hardwood Forest - 47.36
- CL - Clearing/Regeneration - 1.31
- DV - Developed - 9.28

RAVINE GARDENS STATE PARK
Natural Communities - Existing Conditions

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Sources: ESRI; Florida Department of Environmental Protection
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Description and Assessment: The floodplain swamp community represents the largest area of natural vegetation in the park and is located on the river tract, east of the railroad bed. This community is in good condition with some disturbance. Disturbances to the area include past logging, construction of an old causeway road running to the river, and an infestation of various invasive exotic plants such as air-potato, coral ardisia (*Ardisia crenata*) and Chinese tallow (*Sapium sebiferum*). The integrity of this area should be maintained, and passive recreation should be limited to staff-led activities.

General management measures: The goal is to remove invasive exotic infestations using OPS staff, AmeriCorps, and FWC invasive plant funding.

Blackwater Stream – 9.99 acres

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

Description and assessment: Whitewater Branch becomes a blackwater stream east of the railroad tracks. It flows directly into the St. Johns River. In addition, a small section of the St. Johns River, considered a blackwater stream, occurs along the eastern boundary. This stream contains invasive aquatic species such as water hyacinth (*Eichhornia crassipes*) and hydrilla (*Hydrilla verticillate*) which are not treated by FWC or the USACOE due to the depth of the stream and access to it. No vegetation has been sprayed in this area but hydrilla has been sprayed by the SJRWMD at the source of the water flow in the seepage stream in zones RG-1 and RG-3 with little results.
General management measures: Continue to work with FWC invasive plant management and the SJRWMD to control aquatic invasive exotic plants within this community.

Seepage Stream – 2.42 acres

Desired future condition: A seepage stream can be characterized as a narrow, relatively short perennial or intermittent stream formed by percolating water from adjacent uplands. As they are typically sheltered by a dense overstory which block out much of the sunlight, the flora within seepage streams is often depauperate but may include filamentous algae, ferns and liverworts growing in clumps at the streams edge. Water color will be clear to slightly colored, with a fairly slow flow rate and fairly constant temperature. Bottom substrate is typically sandy but may include gravel or limestone.

Description and assessment: The seepage streams collectively called Whitewater Branch have been altered due to dredging, channelization, damming and invasion by exotic plants, sedimentation and eutrophication. This community is in poor condition. The actual steepheads have been overrun by exotic plants, which have shaded out the ornamental and native understory. Aggressive invasive removal and re-vegetation with non-invasive ornamental and native plants could help restore these areas.

General management measures: Control of invasive vegetation has been ongoing and will continue. Air potato is the main species that has shaded out vegetation in the past, but in the last eight years it has been greatly reduced. The air potato beetle has been released several times in the last six years as well as several FWC invasive plant contracts have taken place to improve the habitat. Erosion and stormwater management will need to be addressed in order to slow the amount of sedimentation into the stream.

Natural Communities Management

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

The DRP practices natural systems management. In most cases, this entails returning fire to its natural role in fire-dependent natural communities. Other methods to implement this goal include large-scale restoration projects as well as smaller scale natural communities' improvements. Fire-dependent natural communities are not present, and prescribed fire will not be utilized as a management tool at Ravine Gardens State Park at this time. Restoration activities are not required at the park.

Natural Community Improvement

Improvements are similar to restoration but on a less intensive scale. This typically includes small-scale vegetative management activities or minor habitat manipulation.

Objective A: Conduct natural community/habitat improvement activities on four acres of upland hardwood forest natural community.

Action 1 Continued removal of Chinese bamboo.

Chinese bamboo is the dominant cover along the bottom of one of the ravines. Several attempts have been made to reduce the aerial coverage of this species A private contractor was hired in January 2023 to remove a majority of the bamboo from the bottom of the ravine. DRP staff will continue to treat resprouting vegetation as well as other bamboo clumps that continue to be a problem in other areas of the park.

Imperiled Species

Imperiled species are those that are tracked by FNAI as critically imperiled or imperiled or listed by the U.S. Fish and Wildlife Service, Florida Fish and Wildlife Conservation Commission or the Florida Department of Agriculture and Consumer Services as endangered, threatened or of special concern.

The only listed vertebrate species known to be a permanent resident at the park is the gopher tortoise (*Gopherus polyphemus*). They can be found along the main park drive. Management of this species will be focused on public education and outreach while protecting burrows and animals.

The eastern indigo snake (*Drymarchon corais couperi*), the Florida pine snake (*Pituophis melanoleucus mugitus*) and the West Indian manatee (*Trichechus manatus*) have been seen on occasion. When these species are found, they will be recorded in our DRP districtwide occurrence database.

There is one listed plant species, Florida milkvine (*Matelea floridana)*, which can be found throughout the ravines of the park. The main threat to this species is from herbicide spray for exotic species control. Someone may mistake this species for winged yam (*Dioscorea alata*) or air potato and treat it with herbicide. Also, drift from spraying may unintentionally land on the leaves if care is not taken to protect these plants. To prevent this, known locations of milkvine will be marked on the ground prior to treatment and illustrated on maps that are given to contractors and field staff.

A systematic survey of the unit is needed for both plants and animals. It is possible that further survey work will identify listed species using the seepage slopes and streams. If found, management recommendations will be developed.

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	**Imperiled Species Status**				**Management Actions**	**Monitoring Level**
	FWC	**USFWS**	**FDACS**	**FNAI**		
PLANTS						
Florida milkvine *Matelea floridana*	SE			G2,S2	10	Tier 1
REPTILES						
Eastern indigo snake *Drymarchon corais couperi*	ST	LT		G4T3/S3	10,13	Tier 1
Gopher tortoise *Gopherus polyphemus*	ST	LT		G3,S3	10,13	Tier 2
Florida pine snake *Pituophis melanoleucus mugitus*	ST			G4T3/S3	10,13	Tier 1
MAMMALS						
West Indian manatee *Trichechus manatus*	FT	LT		G2	10,13	Tier 1

Management Actions:

1. Prescribed Fire
2. Invasive 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

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.

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 native species or compromise park values. In the preparation of this management plan, DRP staff consulted with staff of the FWC and other appropriate agencies for assistance in developing imperiled animal species management objectives and actions. For imperiled plant species, DRP staff consulted with FDACS. Data collected by the USFWS, FWC, FDACS and FNAI as part of their ongoing research and monitoring programs will be reviewed by park staff periodically to inform management of decisions that may have an impact on imperiled species.

Ongoing inventory and monitoring of imperiled species in the state park system is necessary to meet the DRP's mission. 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. Priority must be given to those species that can provide valuable data to guide adaptive management practices.

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

Objective B: Monitor and document four selected imperiled animal species in the park.

Action 1 Develop monitoring protocols for selected imperiled animal species including the eastern indigo snake, gopher tortoise, Florida pines Snake, West Indian manatee.

Listed as State-threatened, the gopher tortoise population should be monitored and documented with GPS locations yearly to keep track of park population.

Eastern indigo snake, Florida pine snake, and West Indian manatee should be observationally and passively monitored over the course of a year and observations submitted to District office as species occurrences.

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

Action 1 Develop monitoring protocols for one imperiled plant species.

Florida milkvine or *Matelea floridana* should be monitored throughout the park and flagged where present to prevent invasive plant treatment. Florida milkvine can appear like the invasive species air potato or wild yam which are both in the genus *Dioscorea.*

Invasive Species

Invasive 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. If left unchecked, invasive plants and animals alter the character, productivity and conservation values of the natural areas they invade.

Nuisance 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 nuisance animals, the DRP actively removes nuisance animals from state parks, with priority being given to those species causing the greatest ecological damage.

Major emphasis is put on the management of invasive plant species at this unit. There are many non-native plants at this park since it is an ornamental garden. The removal program at this park focuses on invasive non-native plant species. Using the Florida Invasive Species Council's list of invasive species, 15 species of Category I and seven species of Category II plants are known to occur in the park. The following discussion lists the invasive species in priority order of their perceived degree of threat.

Air potato (*Dioscorea bulbifera*), winged yam (*Dioscorea alata*), golden rain tree/ flamegold (*Koelreuteria elegans*), Chinese tallow (*Triadica sebifera*), cat's claw vine (*Dolichandra unguis-cati*), hydrilla (*Hydrilla verticillate*), and coral ardisia/scratch throat (*Ardisia crenata*) should remain the main targets for removal as well as queen palm (*Syagrus romanzoffiana*) and yew podocarpus (*Podocarpus macrophyllus*).

Infestations of air potato on the ravine slopes and at the bottom of the ravine have shaded out understory and ground cover species. Although chemical and mechanical removal has been successful in reducing the numbers of this plant in the gardens, large areas along the slope were left almost completely bare, creating more erosion problems. These areas should be re-planted with either azaleas or native understory species. In cooperation with the UF, the air potato beetle was first released at the park in 2014 and several times since then. The beetles have been doing an excellent job in controlling the spread of the vines throughout the park. Since 2015, the number of air potato barbules has dramatically declined due to the release of the air potato beetle (*Lilioceris cheni*), volunteer efforts, and several large-scale herbicide contracts funded by FWC.

Although occurring in smaller numbers, coral ardisia, cat's claw vine, and Japanese climbing fern pose a serious threat to the native species at the park and should be removed immediately when found. Goldenrain tree, camphor tree, Chinese tallow, queen palm, and yew podocarpus saplings will be sprayed and/or removed by hand when they are found. Because some of these species are very visible from use areas, an invasive species removal interpretive plan will be developed before large scale removal projects take place. Large areas of the ravine bottoms have been overtaken by invasive bamboo (*Bambusa* sp.). Several attempts to eradicate this species from the park have failed since it is so labor intensive to remove the woody biomass once the stems are cut and then hauled upslope. Follow-up treatments will continue with contractors and park staff when available. All of the above listed plant species are as invasive as air potato and could pose a major problem if ignored. Other less invasive invasives such as paper mulberry, giant elephant ear (*Xanthosoma sagittifolium*), and Caesar's weed (*Urena lobata*) should be removed when possible. An annual removal plan will be developed.

The reflecting pond and associated seepage stream are infested with hydrilla. A specific removal plan will be developed for this species that will focus on chemical treatments applied by the SJRWMD. Park and district staff will continue to work with FWC's Invasive Plant Management staff to prioritize and fund invasives species treatment projects.

Carolina laurel cherry (*Prunus caroliniana*) is considered a nuisance species in the park. It is fast growing, can form thick stands, and can block scenic vistas. Saplings are thinned in areas of concern. Queen palm,yew podocarpus, and several species of date palms are invasive ornamental species that are spreading throughout the park and are blocking the view of the ravine from the driving trail. Neither species should be planted and removal efforts should continue throughout the park with priority given to areas within the ravines where their spread is obvious. Several representive specimens may be left in the formal gardens and Court of States because of their historical significants to the oringial plantings of the park.

Table 3 contains a list of the Florida Invasive Species Council (FISC) Category I and II invasive, invasive plant species found within the park (FISC, 2011). The table also identifies relative distribution for each species and the management zones in which they are known to occur. An explanation of the codes is provided following the table. For an inventory of all invasive species found within the park, see Addendum 5.

Table 3: Inventory of FISC Category I and II Invasive Plant Species			
Common and Scientific Name	**FISC Category**	**Distribution**	**Management Zone (s)**
PLANTS			
coral vine *Antigonon leptopus*	II	2	RG-1
coral ardisia *Ardisia crenata*	I	2	RG-1, RG-3
		3	RG-2, RG-4
wax begonia *Begonia cucullate*	II	2	RG-1, RG-2
camphor tree *Cinnamomum camphora*	I	1	RG-3
		2	RG-1, RG-4
wild taro *Colocasia esculenta*	I	2	RG-3
		2	RG-2
winged yam *Dioscorea alata*	I	2	RG-1, RG-2
air potato *Dioscorea bulbifera*	I	2	RG-1, RG-4
		3	RG-2, RG-3
cat's claw vine *Dolichandra unguis-cati*	I	2	RG-1
		3	RG-2, RG-3, RG-4
water hyacinth *Eichhornia crassipes*	I	2	RG-4
hydrilla *Hydrilla verticillate*	I	3	RG-1-4
goldenraintree *Koelreuteria formosana*	II	2	RG-4
lantana *Lantana camara*	I	2	RG-1, RG-4
Japanese honeysuckle *Lonicera japonica*	I	2	RG-4
Japanese climbing fern *Lygodium japonicum*	I	1	RG-2
		2	RG-1, RG-4
chinaberry *Melia azedarach*	II	2	RG-4
Natal grass *Melinis repens*	I	2	RG-4
tuberous sword fern *Nephrolepis cordifolia*	I	2	RG-1
		3	RG-3, RG-4
		5	RG-2
Mexican petunia *Ruellia simplex*	I	2	RG-1
queen palm *Syagrus romanzoffianum*	II	2	RG-1, RG-2, RG-3, RG-4
Caesar's weed *Urena lobata*	I	2	RG-1, RG-2, RG-4
Chinese wisteria *Wisteria sinensis*	II	2	RG-1
elephant ear *Xanthosoma sagittifolium*	II	1	RG-4
		2	RG-2

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.

Invasive Species Management

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

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

Objective A: Annually treat five infested acres of invasive plant species in the park.

Action 1 Annually develop/update invasive plant management work plan.
Action 2 Implement annual work plan by treating five infested acres in park, annually, and continuing maintenance and follow-up treatments, as needed.

The numbers of invasive plants treated per year is likely to vary depending on the status of current infestations and any new infestations that might arise during the life of this management plan. Goldenraintree, camphor tree, Chinese tallow, queen palm, and yew podocarpus saplings will be sprayed and/or removed by hand when they are found.

Objective B: Implement control measures on two nuisance species in the park.

Action 1 Annually develop/update invasive animal species management plan.
Action 2 Nuisance animals are dealt with on a case-by-case basis in accordance with the DRP's Nuisance Animal Removal Standard.

Feral hogs (*Sus scrofa*) and nine-banded armadillo (*Dasypus novemcinctus*) are to be removed on a case-by-case basis in accordance with DRP standards.

Cultural Resources

The Florida Department of State (FDOS) maintains the master inventory of cultural 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 cultural sites and structures 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.

For the purposes of this plan, significant archaeological site, significant structure, and significant landscape means those sites listed or eligible for listing in the National Register of Historic Places. The terms archaeological site, historic structure or historic landscape refer to 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 (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 accelerating decline and suffers obvious declines in physical integrity from year to year. A poor condition suggests action is needed to re-establish physical stability.

Park History

Ravine Gardens State Park, located in the City of Palatka, was created as a botanical garden in 1933 with funding provided by the Civil Works Administration (CWA), the Federal Emergency Relief Administration (FERA) and later the Work Progress Administration (WPA). It is centered on deep steephead ravines naturally created by water seeping from beneath the sandy ridges that flank the west shore of the St. Johns River. The park was listed on the National Register of Historic Places in 1999.

Before development, the deep steephead ravines of this unit were a distinctive, high quality natural resource. The Palatka ravines are as deep as 90 feet with some slopes that are north facing and are isolated from other major ravine systems in the state.

Steephead ravines are naturally prone to erosion. Various impacts in the late 1800s to early 1900s accelerated erosion in the ravines to the degree that by the 1930s, it was considered a serious problem and a threat to Palatka's drinking water, which had been Whitewater Branch. Development of the ravines began in earnest in March 1933 with Federal Emergency Relief Administration (FERA) support. A design drawing from the 1930s exists, but the degree to which it was implemented is not known. The plans called for construction of an administration building, concession building, entrance station, limestone fountain and gardens, dams, rustic benches, a sprinkler system, terracing, construction of retaining walls, and improvement of existing roads.

Numerous limestone walls were constructed to stabilize the ravines and prevent further erosion of its steep sides. Brick retention walls and gullies were also constructed to protect areas where heavy erosion had occurred. Palmetto log terracing was used to stabilize the sink, and in other areas not accessible to the public. Three suspension bridges were constructed to provide access to the ravine interior without disturbing the lower slopes. The municipal golf course, which was at least partially constructed during the 1930s, posed a threat to the ravines. City records indicate that golfers often hit balls into the ravines and disturbed its slopes while chasing after them. Fences eventually were established to protect the ravines.

According to the Phase I Archaeological Survey conducted in 1998, it is thought that the combination of the natural terrain and subsequent cultural modification probably resulted

in the obliteration of most prehistoric or prior historic cultural remains assuming that any existed on the steep slopes. Cultural materials would either be displaced by construction or erosion or buried beneath silt in the bottom of the ravine.

The gardens proper were developed during the Great Depression of the 1930s as a joint effort between the CWA, the FERA and later the WPA, the City of Palatka, and private individuals. Roads were constructed around and into the ravines, the slopes were terraced, the understory was essentially denuded, tons of Ocala fieldstone were brought in for landscaping, a dragline was used to alter the ravine bottoms and stream channels.

By March of 1934 over 95,000 azaleas, including 64 of the 72 known varieties, had been planted along with 11,000 palms and more than 200,000 other tropical plants. By the end of 1934, the Gardens had largely reached their final form, becoming a major tourist attraction. The entrance building, Administration building, Azalea Fountain, terraces, water wheel, lakes and plantings were completed, and the Court of States was near completion. It was at this time that the City of Palatka took over the management of the gardens, with FERA continuing to provide labor and supervision within the limits of the funding available.

In 1935, the obelisk was completed. In 1937, Ravine Gardens was called the "Nation's Outstanding CWA Project." A 1938 summary of the plantings in the Gardens lists: 105,000 azaleas, 25,000 chrysanthemums, 11,000 palms, 2,500 japonicas, 2,500 Japanese magnolias, 2,000 crepe myrtles, 2,000 flame vines, 1,500 dogwoods, 2,000 Cherokee roses, 1,000 bougainvilleas, 100,000 Australian pines as well as 200,000 other subtropical plants and shrubs. Development of the Gardens continued, with a number of improvements being made, including the addition of the amphitheater in 1939. World War II brought an end to the WPA, as well as to construction in the Gardens, although routine maintenance presumably continued.

After the War, the City continued to promote the Gardens through tourist brochures. In 1956, the City built a swimming pool to the south of the Court of States. The original Administration building was also moved during this time, with the Civic Center being built its previous location. As the 1960's drew to a close, management of the Gardens became increasingly difficult and expensive for the City, resulting in limited hours and finally closure of the park. At one point the Gardens were run by private individuals, who ended up removing truckloads of plants out of the Gardens. In 1969 the City offered a proposal to the State to acquire the Gardens as part of the state park system. In January 1970, the Gardens, with exception of the swimming pool, were added to the park.

The overall condition of the ravine portion of the Gardens is presently fair to poor. The major reasons are invasive species infestation, unmanaged stormwater, erosion gullies, and destabilized WPA rockwork. It was determined that it is not feasible to provide staffing and funding to manage the entire ravine system as a formal ornamental garden.

There are two significant recorded sites nearby off park property, 8PU00103 Palatka Waterworks and 8PU842 Wilson Cypress Company (Florida Department of State, 8PU103 and 8PU842) that fall within the current optimum boundary for the park.

All significant sites, structures, and collections 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.

Prehistoric and Historic Archaeological Sites

The Florida Master Site File (FMSF) lists two recorded sites in the park: 8PU00091 Palatka Azalea Ravine Garden Historic District, which encompasses the ravines and outbuildings, and 8PU01215 Rundle Site, a possible Archaic campsite. Staff and local residents have frequently found potshards and flakes in the ravines (Alogna 1994).

Historic Structures

Prehistoric Campsite (Rundle Site) - 8PU1215*:* Prehistoric campsite
Condition Assessment: Good

General Management Measures: This site has been impacted by landscaping and structures. Some erosion around site, however the site itself is stable and subject to foot traffic, mowing and storm damage. This site should continue to be monitored every two years and after storms.

Court of States - 8PU730*:* The Court of States, completed in November of 1934, was one of the original landscape features of the Gardens and a key element in the overall design. It was originally conceived as two rows of paired limerock pillars topped by cypress logs to form a trellis, with three fountains in the central area between the pillars. Initially built as 48 pairs of columns, two additional pairs were added after Hawaii and Alaska became a state. As conceived, flags from each state could be flown from the cypress poles between the stone columns on national holidays. The outer limits of the Court of States are defined by low limerock walls which form a half circle at the north end of with stairs to the Roosevelt Obelisk and another at the south end with an opening to the entry driveway. The three fountains located in the center of the Court of States consisted of crude limerock columns with circular limerock walls. Over time, the cypress logs were replaced with steel pipe/fence and the fountains were removed and replaced with planters. A restoration of the Court of States was completed in 2003, where the current wooden trellis structure was installed to mimic the cypress that was once used, and the planters were restored back to fountains.

Condition Assessment: Good Condition.

General Management Measures: The limestone columns need to be monitored for deterioration. Natural and planted vines were removed 2015 to prevent further deterioration to the structures and should not be allowed to grow. Care should be given when removing or spraying vegetation on this site. The fountains need to be monitored for damage caused by visitor disturbance. They will need to be worked on year to year to ensure they remain stable and functional. All of the wooden post and beams installed in 2003 will need to be replaced due to rot. Replacement should be cypress. Site should be monitored for animal disturbance as well as visitor disturbance.

Azalea Fountain and Terraces - 8PU731*:* This feature, developed in 1934, was originally conceived as a fountain and a series of terraces stepping down to the ravine. Although there have been a number of changes, the basic form remains recognizable. Construction consists of limerock walls and concrete, with the later addition of brick paths made from salvaged street pavers. The upper terrace contains the fountain, surrounded by four pairs of 15-foot tall limerock piers which originally supported palmetto log trellises. The palmetto logs had rotted over time and were removed, and the fountain was turned into a planter at one point. Replicas of the palmetto logs that

once formed the trellises were installed during the 2003 restoration project. The fountain was restored at this time. Precast concrete stairs on either side of the terrace lead down to a landing in front of a niche in the limerock terrace wall. This niche originally held a water fountain. Another set of stairs leads down to the walled second terrace which was originally the location of the plantings of various labeled azalea specimens. A central set of stairs between two limerock columns leads down to the third terrace which contains a limerock fountain in the northeast corner in the shape of Florida. Another set of stairs provide access to the fourth terrace. The fourth terrace is relatively small and provides access via steps between two limestone piers on the west side to the ravine. Limestone retaining walls several feet high formed the garden terraces and were placed in many locations throughout the ravines. The stone blocks were laid on sand and mortared in between. Storm water washes down the terraces, washing out sand and causing sections of stones to periodically collapse. One of the stone walls is currently leaning and at risk of becoming damaged. This situation is difficult to rectify. The section may need to be rehabilitated while redirecting stormwater away from the area. Steps will need to be taken to stabilize the walls. Redirection of the stormwater may be needed.

Conditions Assessment: Good Condition.

General Management Measures: Staff will continue to work on stabilizing and improving the functionality of the fountains. The limestone terrace walls will need to be monitored for further deterioration. Restoration of these walls will be needed. A stormwater management plan is needed to assess what actions should be taken.

Entrance Station - 8PU728*:* The entrance station to the ravines was constructed in 1934 and used the same architecture as the administration building. Architectural features include its hewn log roof trusses and knee braces, paired massive limestone columns delineating the wings of the building and central wood frame unit with cypress plank exterior wall fabric. The roof, with its four gable dormers, has been resurfaced with cypress shakes. Although restored in the 1990s, where cypress trusses and purlins were replaced and restroom was added, the building retains much of its original integrity.

Condition Assessment: Good Condition.

General Management Measures: The building should be inspected annually for mildew and termites. Care should be given by monitoring foot and vehicle traffic. Can be threatened by high winds. Windows showing decay on frames and could be replaced. Cypress shake shingles on the roof are showing sign of wear and need to be assessed.

Historic Administration Building/Garden Club - 8PU727*:* This structure was completed in November 1934. Its design emulated the cypress building featured at the Century of Progress Exposition, which was part of the 1933 World's Fair in Chicago. Constructed of cypress, the significant architectural details of the building included a cruciform design with gable roof with wood framing, a large entrance porch, pecky cypress half-round exterior wall fabric, four gable dormers accenting doorway and window openings, exposed rafter ends, limestone chimney, and casement windows. Contemporary master plans and picture post cards suggest that the building was originally located at the south end of the Court of States, rather than at its present location on the east side of that historic landscape design. It originally served as the Administration Office. Presently it is leased to the Garden Club of Palatka.

Condition Assessment: Fair Condition.

General Management Measures: While a new roof was installed in 2016, the building continues to decline. The building continues to suffer from rot, primarily affecting the foundation and the porch. Electrical issues continued to be present as well. The building should be inspected annually for signs of termite damage.

FDR Obelisk - 8PU72: A limestone obelisk, sixty feet in height, commemorating Franklin D. Roosevelt, was constructed at the north end of the Court of States. It was completed in 1935 and dedicated in 1936. The Obelisk was financed by donations from the workers at the Gardens and the townspeople of Palatka in appreciation for the Roosevelts administration's efforts to speed recovery from the Depression. Notable architectural features include its limestone surfaces with concrete block quoins. The monument retains much of its original integrity, although it originally had an aluminum cap and had a light(s) in the top that shone through openings in the four faces. The aluminum cap is gone and the entrance to the structure has been walled in.

Conditions Assessment: Good Condition.

General Management Measures: Monitor visitor foot traffic and wind erosion over time.

Roy Campbell Civic Center - 8PU1214: The Roy Campbell Civic Center, constructed in 1956, sits between the Court of States and the terraced gardens on the original site of the administration building. The Administration Building was moved to its present location east of the Court of States when the Civic Center was built. The demolished concession building was located immediately west of the Civic Center in what today is a support area. The Civic Center is a vernacular addition to the New Deal era cultural landscape at Ravine Gardens. It represents a nearly seventy-year-old example of civic architectural design. The building was extensively renovated in 2002 through a Partnership in Parks (PIP) project with the Rotary Club of Palatka. The second floor was added during this renovation.

Condition Assessment: Good Condition.

General Management Measures: The design of the roof has caused continuous issues with leaks that will need to be monitored. The air conditioning units fail to support the needs of the building despite the downstairs unit being replaced in 2015 and the three remaining units being replaced in 2016. Part of the issue with the air conditioning units can be solved with the replacement of the zoning system. There is active erosion in the back of building that is causing foundation issues. The floor tile in the building continuously buckles and cracks due to the settling of the building.

Amphitheater and Water Fountain - 8PU724: Construction of an amphitheater, comprising a stage and terraced seats, was completed in 1939. The seating area was arranged in a series of five terraces defined by limestone walls. The stage, with its back to the ravines, was elevated with fill dirt and trimmed with limestone walls. Steps were constructed on each side of the stage. A water fountain was built at the south end of the stage. Architectural features include its obelisk shape and limestone construction. Both the amphitheater and the water fountain retain much of their original integrity.

Condition Assessment: Good Condition.

General Management Measures: Ravine areas on the border of the amphitheater are facing erosion issues that should be addressed. Monitor rock, park visitors have been known to move it on occasion. Site is at a low risk for damage, just needs attention every two years and after major storms to ensure no damage.

Reflecting Pools – 8PU91*:* The reflecting pools are the best-preserved examples of the original lakes designed by Richard Forester. There are also channels of brick and limerock at the junction of the branches which funnel water along the south side of the Water Works complex out to a canal to the St. Johns River. An artesian well had been tapped at this junction and flows from a limerock-enclosed tap into a concrete channel. All of the original reflecting pools have sediment loads, largely due to erosion caused by runoff from the surrounding golf course and ball field. A working committee was formed in 2005 to evaluate the feasibility of removing the sediment from the pools. It was determined that the material could be removed in a manner to cause the least amount of disturbance to the plants and animals in the pools. The material should be removed to restore the pools to their historic condition. Although it was determined to be possible, it was thought to be cost prohibitive.

Condition Assessment: Fair Condition.

General Management Measures: Currently, sedimentation and invasive hydrilla are on-going problems and should be monitored by park staff. De-mucking of reflecting pools is cost prohibitive. A wall in the concrete channel that funnels the water through to Water Works is deteriorating and will need to be restored.

Suspension Bridges - 8PU732, 8PU726, 8PU725*:* There were originally three pedestrian suspension bridges within the Gardens, one at the base of the terraces and two adjacent to the junction of the ravines. At this time only suspension bridge number 1 (PU00732) and number 3 (PU00725) remain, and these are replacements of the original structures. Suspension bridge number 2 (PU00726) was removed prior to 1998 due to unsafe conditions. The concrete bases are still in their original location. The previous study of New Deal Era resources indicates that the 1930s suspension bridges were a restoration of the mill suspension bridges, suggesting that there were possibly lumber mills, and suspension bridges prior to development of the Gardens. However, the interviews with Gillespie and Herb Underwood indicate that the only developments in the Ravines prior to 1933 were associated with the Water Works. The bridges were constructed with concrete bases at either end, limerock anchors for the cables, steel cables paired reinforced concrete masts at the ends, square hewn timbers for the span and board surfaces. The two remaining bridges were restored in 2005. Originally an ornamental waterwheel was located approximately 125 feet downstream from bridge number 1. Only portions of the downstream wheel concrete support remain visible.

Condition Assessment: Good Condition.

General Management Measures: Suspension bridge 1, located behind the formal gardens is in good condition but susceptible to erosion from wind, storms, rot and visitor traffic. Management of vegetation may be required. Suspension bridge 2 is no longer there but area should be monitored for vegetation over-growth. Suspension bridge 3 should be monitored for active erosion from wind and visitor traffic as well as rot. Maintenance of wood needed; boards need replacement.

Table 4. Cultural Sites Listed in the Florida Master Site File					
Site Name and FMSF #	**Culture/Period**	**Description**	**Significance**	**Condition**	**Treatment**
Rundle 8PU1215	Prehistoric/Archaic	Archeological	NE	G	P
Palatka Ravine Gardens District 8PU91	Historic/WPA	District	NRL	G	P
Water Fountain/Amphitheater 8PU724	Historic/WPA	Structure	NR	G	P
Suspension Bridges 8PU725 and 8PU732	Historic/WPA	Structures	NR	G	P
Suspension Bridge 8PU726	Historic/WPA	Ruin site	NR	P	P
Entrance Station 8PU728	Historic/WPA	Structure	NR	G	P
FDR Obelisk 8PU729	Historic/WPA	Structure	NR	G	P
Administration/Garden Club 8PU727	Historic/WPA	Structure	NR	F	RH
Court of States 8PU730	Historic/WPA	Structure	NR	G	P
Azalea Fountain and Terraces 8PU731	Historic/WPA	Structure	NR	G	ST
Roy Campbell Civic Center 8PU1214	Historic	Structure	NE	G	P

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

LAND USE COMPONENT

This component of the plan includes an inventory and brief description of the existing recreational uses, facilities, and special conditions on use. Specific areas within the park that will be given special protection are also identified. The Land Use Component then summarizes the Conceptual Land Use Plan (CLUP) for the park and identifies large-scale repair and renovation projects, new building and infrastructure projects, and new recreational amenities that are recommended over the next ten-year planning period.

Public Access Management

For almost 100 years, Ravine Gardens State Park has provided resource-based recreation opportunities for visitors, providing unique attractions within the state park system. Though some of these opportunities, like the former pool house and the Azalea Festival, are no longer provided, visitors can still experience the natural history of the ravines and the aesthetic beauty of the gardens. The ravine gardens offer visitors flowering shrubbery, reflecting pools, and a variety of trails and bridges with scenic vistas.

Park Visitation

From 2012 to 2022, Ravine Gardens State Park received a total of 2.4 million visitors. In Fiscal Year (FY) 2021/2022, the park received a record annual attendance of over 400,000 visitors. In the past ten years, visitation has more than doubled consistent with the tremendous population growth in nearby counties. Though certain times of the year are heavily visited, other times still offer visitors the relative seclusion of the ravines and garden area for nature appreciation and exercise.

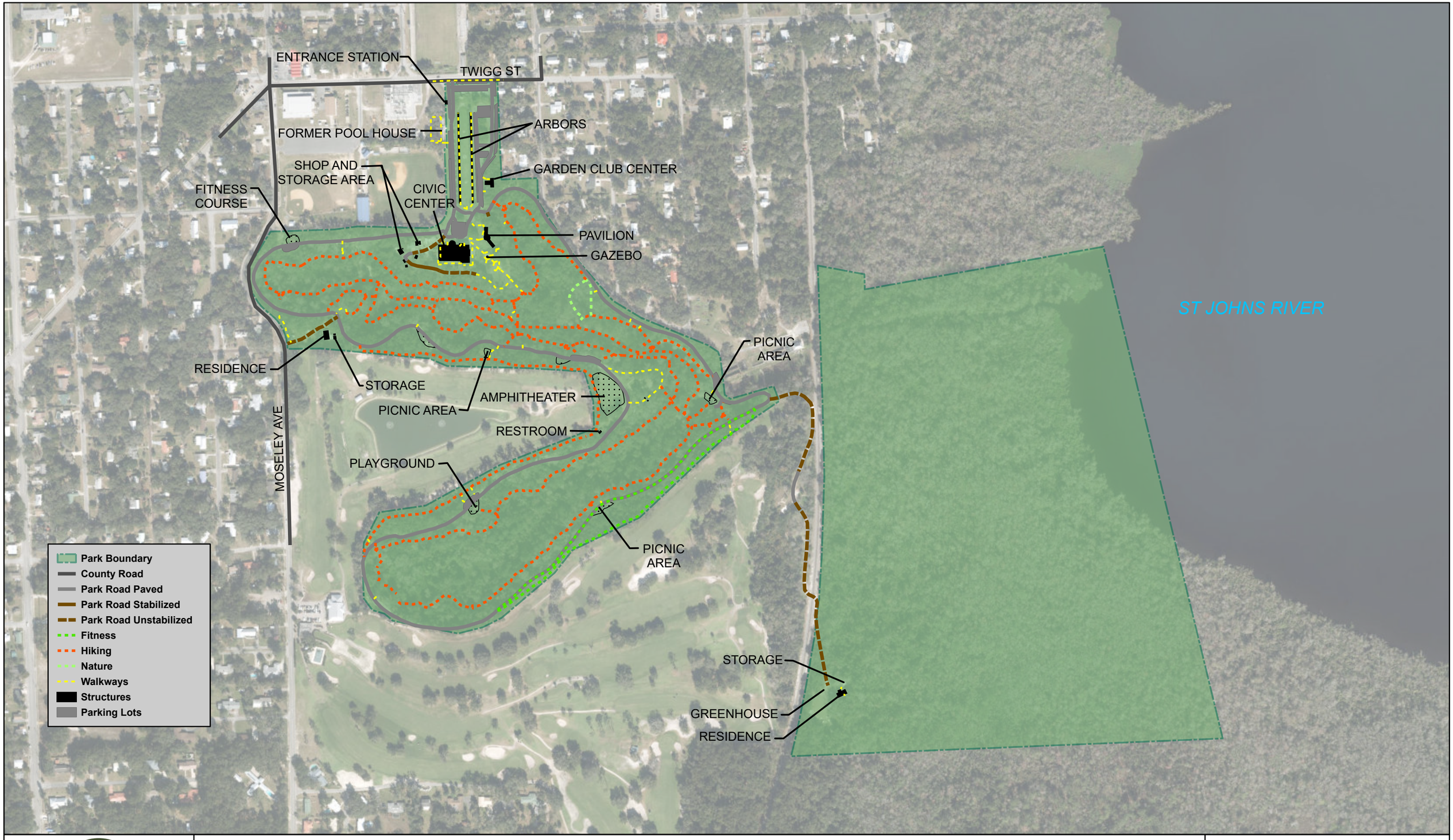
The gardens experience the most visitation between February and May and the least from July to January. The highest recorded month on record for attendance was March 2020 with 74,375 visitors. Blooming azaleas are a major tourist attraction, and the blooming season significantly influences visitation. Attendance is typically higher in the Spring, coinciding with peak flowering season. The attendance is lowest from summer through fall corresponding with hot humid weather and a relative decrease in overall flowering within the gardens.

By DRP estimates, in the 2021/2022 FY, visitors contributed 52.4 million dollars in direct economic impact, the equivalent of adding 734 jobs to the local economy (FDEP 2022).

Existing Facilities

Park Road and Parking Areas

When entering the park off Twigg Street, visitors can park in a .27-acre parking lot with 35 spaces. Past this lot, visitors pass through an historic entrance station with an honor box. This 1934 structure is architecturally distinct and was constructed along with the original Administrative Building. Further down this stretch, visitors are offered 28 parking spaces on the left and another 24 spaces on the right.



RAVINE GARDENS STATE PARK
Basemap - Existing Facilities

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0 500 Feet 1,000

Sources: ESRI, Florida Department of Environmental Protection
This graphical representation is provided for informational purposes and should not be considered authoritative for navigational, engineering, legal, and other uses.

***1934 Entrance Station**: This historic and noteworthy feature of the park is no longer in use. Resuming some adaptive use of this entrance feature for park events and holidays would help ensure general upkeep and maintenance.*

The Civic Center complex offers a .14-acre parking area with 19 spaces. Circling past the center leads visitors to another 28 parking spaces to their right along the boundary and another 18 spaces to their left along the Court of States. In the middle of these spaces, is a large tree island. Additional parking occurs north and south of the tree island with a combined 30 more spaces.

***Parking Area**: Weathered parking areas at Ravine Gardens State Park. The need for such large parking areas has diminished as high attendance events such as the Azalea Festival have declined.*

In total, the entrance parking provides 182 spaces, encompassing nearly two acres. Vegetated green spaces within the parking area total nearly 1.5 acres. The current amount of parking for the state garden is more than adequate, and additional parking is not necessary. The total amount of impervious surface associated with the parking areas detracts from the park's greenspace and contributes to stormwater runoff issues.

Located along the segment of park drive that loops around the ravine is a small outdoor fitness course with five parking spaces. Further down by the amphitheater, there are a few more spaces that provide access to the middle of the park. Towards the end of the loop drive, there is a four-space parking lot next to the former City of Palatka Water Works facility.

Across from this lot is the trailhead for "Ravine Bottom Road" or the "Azalea Trail". This trail offers an immersive experience into the ravine system and is popular among visitors. The trail's paved surface is cracking and crumbling in places along the edges. Driving with small utility vehicles (UTVs) should be kept at the minimum required to access the ravine bottom areas for the upkeep of the trail and associated structural features. Consideration should be given to replacing the impervious surface with pervious materials that would reduce surface water runoff and associated erosion along portions of the trail, particularly those segments closer to the adjacent seepage stream. There is a lack of natural vegetation separating the Ravine Bottom Trail and the ravine's seepage stream, such that the stream is not distinctly set apart as a natural feature. This lack of distinction impacts the interpretive value of the walking path. Driving UTVs in the spaces between the stream and trail contributes to the lack of natural streamside vegetation.

***Azalea Trail**: The trail, also named "Ravine Bottom Road" allows visitors to walk alongside the ravine's clearwater seepage stream. The trail is also used by park staff for maintenance routines. Driving along this trail should be kept to a minimum to help maintain the historic landscape.*

The whole park drive is nearly two miles long. An engineering study should be completed for the portion that loops around the ravines to address erosion issues. The loop portion around the ravines also requires repaving. Widening should be considered where feasible, though spatial restraints may pose challenges. Preserving the scenic value of this segment of park road and mitigating the impacts of surface water runoff should be the priority. Recognizing the erodibility of the ravine slopes, the road should be set back from the ravine's edge to the extent feasible to allow a buffer of natural vegetation. The potential setback distance along the road will vary depending on available space. Consideration should be given to the use of pervious soil stabilization measures or materials along necessary portions of the park loop drive to address erosion scars and allow vegetation to establish.

The entrance parking area needs to be redesigned to improve traffic circulation while still being sensitive to the historic and cultural landscape. Currently, the parking feels disconnected, and there should be more organization. All parking areas show signs of age and require maintenance. Given their proximity to the ravines, a redesign that incorporates pervious materials should be considered as opposed to standard repaving.

Pool House

This facility was built in 1956 and is still owned by the City of Palatka. This building was repurposed for a time and operated by the Friends of Ravine Gardens as a gift shop. Although of historic age, the pool house contains asbestos and is at a level of disrepair that warrants its removal.

***Former Pool House**: Former City of Palatka amenity and attraction. Because the structure has fallen into disrepair and is prone to vandalism, the Florida Park Service should work with the city to transfer the title so that it can be properly dismantled and removed. To enhance the Court of States, this space should be restored with natural vegetation.*

Court of States

The garden's long entrance, the Court of States, has limestone and cypress log trellises with fountains in between. The court's 48 pairs of columns and sported flags, displayed on special occasions, represent each state of the Union circa time of construction in the 1930s. At the north end of the court, past the trellises, stands a 65-foot obelisk in honor of Franklin Roosevelt with six benches surrounding it and one interpretive panel.

***Court of States**: This uniquely styled entrance reminds visitors of the purpose of this park as an FDR New Deal beautification project for the City of Palatka in the 1930s. This feature should be repaired and sustained for future generations to observe.*

The Court of States requires restoration to address deterioration due to age. Some of the feature's elements like the log trellises were restored in 2003 but once again need restoration.

Historic Administrative Building

This building is an original WPA structure from the 1930s and was used as the original administration building. Along with the entrance station, it was constructed with lumber donated by nearby Wilson Cypress Company (see Optimum Boundary section for more details). The building was originally located at the south end of the Court of States but was relocated to the east end next to the William Bartram Trail historical marker.

Currently, this structure is leased and maintained by the Palatka Garden Club. The garden club meets here monthly and occasionally hosts events. Some members also work with nearby organizations that upkeep gardens like the one at Water Works. The park should consider a cooperative partnership with the garden club to help with the landscape upkeep, enhancement, and beautification of the park's garden areas.

Civic Center

The Roy E. Campbell Civic Center offers an auditorium, meeting rooms, conference rooms, and banquet facilities. These facilities generate revenue for the park through rentals for special events and conferences. Currently, a local Rotary Club meets weekly in the civic center.

A portion of the Civic Center might be used to provide passive interpretation to more inaccessible park facilities like ravines, slopes, and WPA era artifacts. With the eventual acquisition of the Water Works facility, this area might connect by trail to educate visitors about the history of the park and city.

Formal Garden Area

One of the primary recreational resources of this park is the historic ornamental garden. This area includes a fountain, gazebo, and stone terraces. The associated picnic area provides tables, grills, and a pavilion. Interpretive exhibits should be installed here or at the parking area approach to present visitors an overview of the garden's historical significance.

The ornamental gardens started as a ravine beautification project by the Federal Works Program Administration (WPA) in the early 1930s. At the time, 100,000 azaleas and more than a quarter million sub-tropical shrubs and flowers were planted in the ravines. Historically, there were over 1,600 workers curating the gardens compared to the current small number of park staff.

A planting plan, perhaps in coordination with the Palatka Garden Club, should be developed and implemented to restore the ornamental gardens. The planting plan should address the historic landscape, follow national registry guidelines, and consider sustainable concepts. The practice of driving maintenance vehicles through the grass should be discouraged to help restore and preserve the historic beauty of the area.

***Formal Garden**: Continuing the same architectural style as the adjacent Court of States, structural features of the Formal Garden should be maintained in a similar fashion. The historic 1930s era landscape should remain intact for visitors to admire and enjoy.*

Ravine Area

The park provides three trails in this use area: The Springs Trail, Azalea Trail, and Loop Trail. All the trails are up to three miles long and incorporate two suspension bridges. The trails offer a few picnic areas and six overlooks for visitors to rest and admire the scenery. Adjacent to the historic Water Works entrance and reflecting pools there are more trails, foot bridges, picnic tables, benches, and grills. One footbridge is currently in poor condition. All the footbridges should be evaluated and replaced as needed. This area also holds the Azalea Trail trailhead. Improved interpretive signage is needed along with trail directional signage.

A family restroom is provided near the amphitheater. Across from the amphitheater is a small trail that has a picnic pavilion and gazebo. Past the amphitheater is a small playground with an adjacent pathway that links to the Azalea Trail. When the property was managed by the City of Palatka, the amphitheater was the eighth tee on the historic Palatka Golf Course, and it hosted the annual Azalea Festival's Pageant. Resuming the Azalea Festival, perhaps to a smaller more manageable extent, should be considered as the event was historically a major theme of the park.

***The Ravine**: The 1934 suspension bridges found in the ravine area provide visitors a special way to observe the different features of this park. The two existing bridges were restored in 2005 but should be inspected for structural integrity again and repaired as necessary.*

To provide for visitor safety, an annual inspection to evaluate the long-term stability of the suspension bridges should be completed. The inspection could be included as a component of a larger, park-wide, engineering survey with primary focus on improving stormwater management. Any engineering recommendations, in regard to stormwater improvements, would rely on a preceding hydrological study to assist in determining more environmentally appropriate and sustainable implementations such as permeable soil stabilization materials, as well as more conventional measures such as French drains, culverts, and retention structures. Suggested actions should be detailed in a stormwater management plan produced by the engineering study.

River Tract

Much of the River Tract is undeveloped, but it does contain a staff residence and a storage building, with a road connecting the east and west areas of the park.

To access the proposed trail, DRP should work with CSX to provide an off-grade path across the railroad tracks. Adjacent to the railroad tracks is a berm that could be easily modified and used as a bridge crossing to the St. John's River to the west. If such a crossing along the berm is constructed, an observation platform should be created to enhance interpretation and provide a resting spot.

Support Areas

This 152.67-acre park is supported with a shop building, two equipment shelters, and two residences, one by the ravine and another by the River Tract.

The park needs a new 3-bay shop building and another equipment shelter. For the shop to function better, it should be reconfigured to include the new structures. To provide for security, improved shop space, and staff residence opportunities, additional properties are needed such as those towards the northeast boundary along Twigg Street (see Optimum Boundary section for more details). Relocation of the current shop area is contingent on acquiring other optimum boundary parcels.

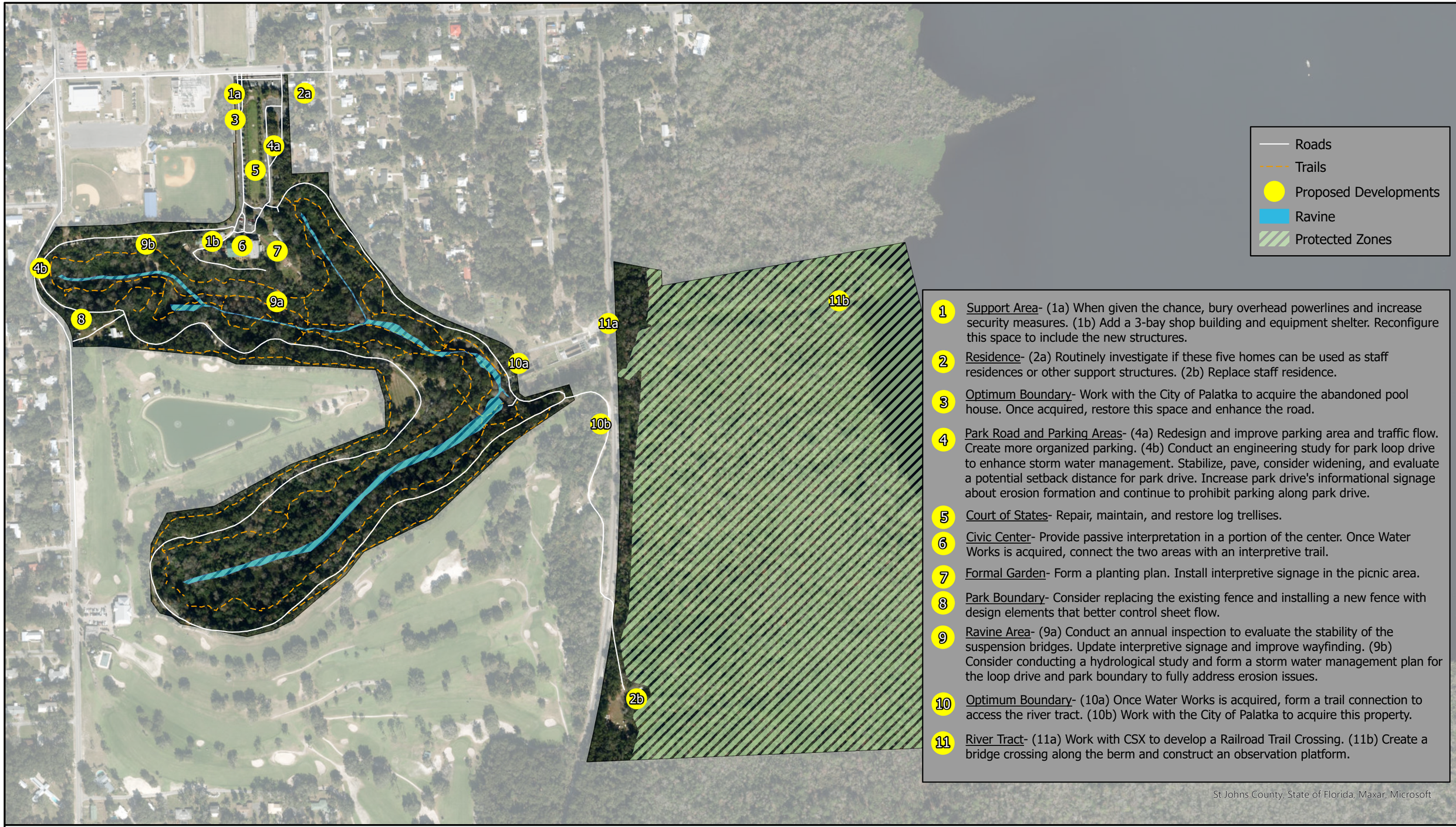
The Park Manager's residence consists of a concrete block house that is located along the western edge of the upper ravine near the city golf course. The Assistant Park Manager's house is a mobile home that is located on the east side of the railroad track on the river tract. It is an old structure that is difficult to access and needs to be replaced.

To enhance the scenic quality of the gardens, the overhead powerlines on the western boundary should be buried. Since the easements for the powerlines came with the deed for this park, this should be completed or at least proposed whenever there is an opportunity to review the easement terms.

Park Boundary

The existing fence along the park and golf course boundary is falling and contributing to erosion spots in the ravine. Consideration should be given to replacing the existing fence along the park's boundary with a new fence. This new fence should incorporate design elements that better focus on controlling heavy sheet flow to reduce erosion impacts. A new fence structure might consider accompanying features such as water bars that attenuate and disperse high velocity sheet flow into an appropriate mix of rip rap aggregate and natural vegetation.

In the past, the park has constructed brick retention walls around the park boundary to provide privacy and help protect areas where heavy erosion occurs. These walls should be evaluated for condition and function. Individual sections should be maintained or removed as determined appropriate.



1. Support Area- (1a) When given the chance, bury overhead powerlines and increase security measures. (1b) Add a 3-bay shop building and equipment shelter. Reconfigure this space to include the new structures.
2. Residence- (2a) Routinely investigate if these five homes can be used as staff residences or other support structures. (2b) Replace staff residence.
3. Optimum Boundary- Work with the City of Palatka to acquire the abandoned pool house. Once acquired, restore this space and enhance the road.
4. Park Road and Parking Areas- (4a) Redesign and improve parking area and traffic flow. Create more organized parking. (4b) Conduct an engineering study for park loop drive to enhance storm water management. Stabilize, pave, consider widening, and evaluate a potential setback distance for park drive. Increase park drive's informational signage about erosion formation and continue to prohibit parking along park drive.
5. Court of States- Repair, maintain, and restore log trellises.
6. Civic Center- Provide passive interpretation in a portion of the center. Once Water Works is acquired, connect the two areas with an interpretive trail.
7. Formal Garden- Form a planting plan. Install interpretive signage in the picnic area.
8. Park Boundary- Consider replacing the existing fence and installing a new fence with design elements that better control sheet flow.
9. Ravine Area- (9a) Conduct an annual inspection to evaluate the stability of the suspension bridges. Update interpretive signage and improve wayfinding. (9b) Consider conducting a hydrological study and form a storm water management plan for the loop drive and park boundary to fully address erosion issues.
10. Optimum Boundary- (10a) Once Water Works is acquired, form a trail connection to access the river tract. (10b) Work with the City of Palatka to acquire this property.
11. River Tract- (11a) Work with CSX to develop a Railroad Trail Crossing. (11b) Create a bridge crossing along the berm and construct an observation platform.

Ravine Gardens State Park

0 250 500 1,000 Feet

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Conceptual Land Use Plan Map

Objective: Address visitor use management issues in two (2) use areas.

Park Boundary

Along the park's boundary, off the loop road, there is an unauthorized footpath leading to the brick wall that is channeling stormwater. This path is undermining the wall and should be 'brushed in'.

1. Consider conducting a hydrological study.
2. Include any actions and suggested infrastructure needs in a proposed stormwater management plan.

Park Road

Visitors often pull off the loop road to view areas or access facilities. This impacts vegetation and contributes to erosion.

1. Increase interpretation along the road informing visitors of vehicular erosion formation and its impacts to the ravine.
2. Continue to prohibit parking on the vegetation along the sides of the loop road and install deterrents where necessary.

Infrastructure Management

Infrastructure management begins with routine upkeep and maintenance of all staff and visitor support structures. All buildings should be included in an annual facilities inspection checklist largely intended to identify and address minor maintenance needs before they become more serious problems warranting costly repairs.

The outline below summarizes more significant redesigns, repairs, and planning concepts suggested to facilitate operational and environmental improvements that are intended to enhance the visitor experience.

Objective: Improve park infrastructure and facilities in seven (7) use areas.

Park Road and Parking Areas

1. Redesign parking lot and improve traffic circulation
    a. Create organized parking at the entrance
2. Conduct an engineering study for the park's loop drive with emphasis on sustainable measures for stormwater mitigation. This study should sequentially follow and carefully consider information identified in the recommended hydrological study referenced below under Ravine Area
3. The engineering study should consider the stabilization and repaving of the park loop drive
4. Consider widening the park loop drive where necessary and feasible for pull offs
5. Evaluate the feasibility of setbacks along the park's loop drive
6. Increase interpretation along the road informing visitors of vehicular erosion formation and its impacts to the ravine
7. Continue to prohibit parking on the vegetation along the sides of the loop road

Court of States

1. Restore and maintain the log trellises, where necessary

Civic Center

1. Use a portion of the center for passive interpretation
2. If Water Works is acquired, connect the acquisition to the Civic Center with an interpretive trail

Formal Garden Area

1. Develop a planting plan
2. Install interpretive signage about the garden's historical significance in the picnic area or approach to the parking area

Ravine Area

1. Update all the interpretive and directional signage and replace as needed
2. Conduct an annual inspection to evaluate the long-term stability of the suspension bridges
3. Consider conducting a hydrological study
    a. If completed, detail any needed stormwater control structures in the proposed stormwater management plan
4. Form a stormwater management plan for the loop drive and boundary that fully addresses erosion issues

Support Area

1. Provide a 3-bay shop building and equipment shelter in the shop area
    a. Reconfigure shop area
2. Work with the adjacent utility provider to bury the overhead powerlines

Park Boundary

1. Consider replacing the existing fence and installing a new fence with design elements that better control sheet flow

Objective: Develop park infrastructure and facilities in two (2) new use areas.

River Tract

1. Work with CSX to provide an off-grade path across the railroad tracks
2. Construct a bridge crossing along the existing berm
3. Create an observation platform at the end of the berm trail

Residence

1. Replace assistant park manager residence (aging mobile home) with a permanent structure and consider relocation of the site
2. Routinely investigate the five optimum boundary parcels for potential of acquisition

Optimum Boundary

Palatka and nearby urban populations have quickly grown, contributing to the doubling of park attendance in the last 10 years. The ten proposed optimum boundary parcels will support additional recreational and interpretive opportunities for visitors, support access to the ravine and River Tract, and provide opportunities for staff residences. Obtaining these parcels will improve the park's ability to protect surrounding imperiled species, control invasive plants from entering the ravines, expand the availability of uplands in which to retain stormwater runoff, and highlight historically significant connections. These parcels total 66.72 acres.

Objective: Identify potential parcels for the park's optimum boundary.

From 1886 to 1986 the City of Palatka Water Works facility captured water from the ravine for municipal use. They provided up to one million gallons of water a day to residents and municipal services. This property's history is connected to the park's and would benefit visitors with more interpretation and resource-based opportunities. Acquisition of this property would provide a trailhead access to the berm on the river tract (see River Tract for more details). This would provide scenic river views that are not currently offered. Currently this 7.74-acre property is designated for utilities by the City of Palatka. The historic building has been restored by the City of Palatka. A disturbed area of Water Works could be repurposed and used as a shop area.

Ravine Gardens should acquire the irreparable, 0.51-acre pool house building for demolition and removal. Although this building was heavily used in the past and is considered historic, its current condition deems it irreparable. The City of Palatka has proposed donating this building, and this transfer should be completed within the next planning cycle.

There is a proposed 7.23-acre parcel of land along the golf course that the City of Palatka is also proposing for donation. This parcel of land is connected to the adjacent 9-hole golf course and would simplify access to the existing staff residence. Acquiring this space may also provide a different access point for the river tract and connect currently divided areas of the park. If this space is acquired, it could potentially play a role in developing effective stormwater planning for the park.

The apartments and houses on the park boundary's northeastern corner should be acquired to serve as staff residences, which would contribute to park security as well as aid in staff retention. This space could also be repurposed to serve as a new support area, since the current shop area is undersized (see Support Area for more details). The apartments are situated along Twigg Street and the houses are along South 15th Street. If these historic properties are acquired, they can be preserved and interpreted appropriately.

The 0.17-acre state property next to Water Works is a small Murphy Act parcel that could be used as a residence or volunteer site. This parcel is directly above and connected to Water Works. This property, along with the addition of a volunteer site, would strengthen security in the middle of the park with a staff presence.

The 49-acre parcel of land north of the river tract will offer more recreational based opportunities near the St. Johns River. This area formerly held the Wilson Cypress Mill and is historically tied to the park. In the 1930s, the park was donated lumber from the

Wilson Cypress Company to construct the Original Administrative Building and the entrance station. This property is currently vacant and has disturbed wetlands offering the park an opportunity to restore important natural communities. If a path to the St. Johns River is constructed, this historic mill can be interpreted along the way, offering an opportunity to educate visitors about Palatka's history.

Park Boundary
Optimum Boundary

RAVINE GARDENS STATE PARK
Optimum Boundary Map

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0 500 Feet 1,000

User: Harrison_B
Folder: G:\PARKS\Ravine Gardens State Park\Projects\UMP\Optimum_Boundary\
Sources: ESRI; Florida Department of Environmental Protection
This graphical representation is provided for informational purposes and should not be considered authoritative for navigational, engineering, legal, and other uses.

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

Natural Resources

- Stormwater issues from ballfield next to park have been corrected, other areas around the drive are still in need of erosion control and protection solutions.
- Management zones have been created and there is currently an invasive plant removal program which is adjusted annually as needed.
- Continuously working on restoring the slope forest in the ravine near the amphitheater to a more natural state.
- Continuously seeking funding through grants and other sources to hire private contractors to treat and remove invasive plant species. Multiple projects have been completed which includes three acres of bamboo and over 843 gross acres treated since 2016.
- Continue to re-vegetate areas that have been impacted by erosion via stormwater runoff.
- Parks plant and animal lists have been updated by volunteers (AmeriCorps) and staff as needed.

Cultural Resources

- All historic landscape structures have been maintained but need attention in the following areas: main garden fountain needs new drainage, terraces are historic and are currently deteriorating, funding was secured but repairs were more than amount allocated and finding a contractor to complete the work has proved challenging – possible BDC project, in Court of States wooden posts and beam trellises between columns need replacing.

Recreation & Visitor Service

- Continues to provide quality resource based outdoor recreational and interpretive programs and facilities at the state park.
- Continuously seeking funding to expand recreational and interpretive opportunities through the improvement of programs and the development of new use areas and facilities. A new kiosk was installed.

- Trail enhancements for erosion prone areas of the ravines were provided by TREC and park staff with bulk heads and fencing installations.
- Gift shop was maintained by CSO, building is not park property and has been condemned due to asbestos. Limited merchandise is available in park office. Gift shop is no longer operational. Consider working with the Friends of Ravine Gardens to create new gift shop opportunity.
- Traffic circulation and parking improvements have been completed, including resurfacing, updating of directional paint/signs and automatic exit gate installation.
- Gate is available between park drive and Water Works. Connection to the Palatka Greenway is currently not feasible.
- Possibility of providing access to the St. Johns River was explored and determined not feasible in the foreseeable future mainly due to safety issues.

Park Administration and Operations

- Maintenance is completed daily, with projects contracted out on an as needed basis. Safety inspections are completed monthly, at a minimum.
- Training is provided in areas required for specific tasks and responsibilities. Additional training is offered through personnel meetings and assignments. Staff is trained in CPR and First Aid, as needed.
- Resident volunteers are currently utilized in areas needed to include the above. Volunteer recruitment is ongoing.
- An alternative area for a new shop location will be considered as additional properties are obtained.

Park Facilities

- Since 2008, the civic center has been re-painted, locks upgraded, overhead projector installed and audio system upgraded in the auditorium, carpets have been replaced. BDC is currently working on replacing the HVAC system. Ongoing maintenance and repairs are completed as needed by staff and contractors.
- Trail blazing completed, trail map updated, overall trail improvements are continuous.
- Safety inspections completed by engineer, overall maintenance completed by park staff, cable bolts replacement project completed (suggested by an engineer).
- Additional carports and a shed have been added to the shop area since 2008. There is a marked flammable storage building on site in the shop area.
- Advised by electric provider, electrical service at amphitheater cannot be upgraded to due historic build of wiring over the ravine. See alternative energy solutions.

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

Table 5. Ten-Year Implementation Schedule and Cost Estimates				
Goal I: Provide administrative support		**Measure**	**Planning Period**	**Estimated Cost**
Objective A	Continue administrative support		C	
Goal II: Protect water quality and quantity in the park, restore hydrology, and maintain		**Measure**	**Planning Period**	**Estimated Costs**
Objective A	Conduct/obtain an assessment of the park's hydrological restoration needs	Plan complete	ST	$40,000
Action 1	Develop and implement an updated stormwater management plan.	Work complete	LT	Depends on plan
Goal III: Restore and maintain natural communities/ habitats		**Measure**	**Planning Period**	**Estimated Costs**
Objective A	Conduct natural community/habitat improvement activities on four acres of upland hardwood forest natural community.			
Action 1	Continued removal of offsite palms and non-native plant species.	#trees removed	C	$10,000 annual
Goal IV: Maintain, improve, or restore imperiled species populations and habitats		**Measure**	**Planning Period**	**Estimated Cost**
Objective A	Update baseline imperiled species occurrence inventory lists for plants and animals.	ongoing	C	$8,000 annual
Objective B	Monitor and document 4 selected imperiled animal species	ongoing	C	$8,000 annual
Action 1	Develop monitoring protocols for selected imperiled animal species including the eastern indigo snake, gopher tortoise,	Protocol Developed	ST	$8,000

	Florida pines Snake, West Indian manatee.			
Objective C	Monitor and document one selected imperiled plant species in the park.	ongoing	C	$8,000 annual
Action 1	Develop monitoring protocols for one imperiled plant species.	Protocol Developed	ST	$8,000
Goal V: Remove exotic and invasive plants and animals from the park and conduct needed maintenance control		**Measure**	**Planning Period**	**Estimated Costs**
Objective A	Annually treat five~~5~~ infested acres of invasive plant species in the park			
Action 1	Annually update invasive plant management work plan	Plan updated	ST	$3,000
Action 2	Implement annual work plan by treating five infested acres in park, annually, and continuing maintenance and follow-up treatments, as needed.	# Acres treated	C	$20,000 annual
Objective B	Implement control measures on two exotic animal species in the park		C	
Action 1	Annually update invasive animal species management plan.	Plan updated	ST	$3,000 annual
Action 2	Nuisance animals are dealt with on a case-by-case basis in accordance with the DRP's Nuisance Animal Removal Standard.	#animals removed	C	$5,000-$8,000 annual
Goal VI: Protect, preserve and maintain the cultural resources		**Measure**	**Planning Period**	**Estimated Costs**
Objective A	Assess and evaluate all twelve recorded cultural resources in the park.			
Action 1	Complete two assessments/evaluations of archaeological and ruin sites at least every two years.	Assessment complete	C	$5,000 every 2 years
Action 2	Complete nine assessments/evaluations for historic buildings and cultural landscape at least every two years. Prioritize stabilization, restoration, and rehabilitation projects.	Assessment complete	C	$5,000 every 2 years

Objective B	Bring one of twelve recorded cultural resources into good condition.	Site improved	ST	Cost depends on need
Action 1	Create and implement a cyclical maintenance program for each cultural resource.	Plan developed and implemented	LT	$10,000
Goal VII: Develop and maintain the capital facilities and infrastructure		**Measure**	**Planning Period**	**Estimated Costs**
Objective A	Improve six use areas	#Facilities/ Miles of Trails/Miles of Roads	LT	$1,537,000
Objective B	Develop two new use areas	Areas developed	LT	$593,000

Addendum 1—Acquisition History

LAND ACQUISITION HISTORY REPORT

Park Name	Ravine Gardens State Park
Date Updated	7/12/2017
County	Putnam County
Trustees Lease Number	Trustees Lease No. 2531
Current Park Size	152.67 acres
Purpose of Acquisition	The Board of Trustees of the Internal Improvement Trust Fund of the State of Florida has acquired Ravine Gardens State Park to manage the property as a facility of the State of Florida.

Acquisition History

Parcel Name or Parcel DM-ID	Date Acquired	Initial Seller	Initial Purchaser	Size in acres	Instrument Type
MDID3034	1/1/1970	City of Palatka	The Board of Trustees of the Internal Improvement Trust Fund of the State of Florida	105.651	Fee Simple Deed

Management Lease

Parcel Name or Lease Number	Date Leased	Initial Lessor	Initial Lessee	Current Term	Expiration Date
Lease No. 2531	6/8/1971	The Board of Trustees of the Internal Improvement Trust Fund of the State of Florida	The State of Florida Department of Natural Resources for the use and benefit of the Division of Recreation and Parks	Ninety-nine (99) year	6/7/2070

Outstanding Issue	Type of Instrument	Brief Description of the Outstanding Issue	Term of the Outstanding Issue
The ownership of title shall revert to the grantor	Fee Simple Deed	*The deed was executed subject to and delivered upon express condition that should the lands conveyed at any time hereafter cease to be used as a facility of the state of Florida, then and in that event the title to said property shall revert to and invest to the city of Palatka, the grantor.*	Perpetual

Addendum 2—Advisory Group Members and Report

Ravine Gardens State Park Advisory Group Members

Local Government

The Honorable Terry Turner, Commissioner
Putnam County Board of County Commissioners

Dana Jones, President
Putnam County Chamber of Commerce

Kevin Stevens, Senior Division Manager
Putnam County Parks and Recreation

Partnering State Agencies

Jason O'Donoughue, Ph.D.
Division of Historical Resources

Jason Love, State Lands Management Coordinator
Florida Department of Agriculture

Jason Foshee, Forest Area Supervisor
Putnam County Florida Forest Service

Blake Josephson, County Forester
Putnam County Florida Forest Service

Erin McDevitt, District Manager Florida Forest Service – North Region

Chris Wynn, Regional Director
Florida Wildlife Commission

Matt Pollock, Regional Wildlife Administrator
Florida Wildlife Commission

Michael Register, Executive Director
St. Johns River Water Management District

Mary Winkler, Assistant Executive Director
St. Johns River Water Management District

Environmental Organizations

Timothy Keyser, President
Putnam Land Conservancy

Dr. Allison DeFoor, President
North Florida Land Trust

Amy Koch, President
St. Johns Audubon Society

Sallie Carlock, President
Santa Fe Audubon

Theo Siehler, Chairman
Putnam County Soil and Water Conservation District

Logan Cross, Chair
Northeast Florida Sierra Club

Florida Park Service

Katrina Boler, Park Manager
Ravine Gardens State Park

Justin Flinchum, Assistant Park Manager
Ravine Gardens State Park

Local Stakeholder Groups

Andy Heartz, General Manager
Palatka Golf Club

Shann Purinton, Chair
Water Works Committee

Jonathan Griffith, President
Rotary Club

Citizen Support Organization

Vicki Duke, President
Friends of Ravine Gardens State Park

Walter Egan, Vice President
Friends of Ravine Gardens State Park

Chris Wynn, Regional Director
Florida Wildlife Commission

Addendum 3—References Cited

Addendum 4—Soils Description

Ravine State Gardens Soil Descriptions

Udorthents, excavated (11) - This soil type consists of excavated areas from which soil and geologic material have been removed mainly for use in road construction and as fill material. Spoil material is usually scattered around the area of excavation. These soils have little or no agricultural or woodland value.

Terra Ceia muck (26) - This soil is formed in organic material and very poorly drained. It is found on broad to narrow floodplains along the St. Johns River and its tributaries. Slopes are concave or smooth with the gradient less than 1 percent.

Typically, the soil is black muck to a depth of about 64 inches or more. The water table is as much as 2 feet above the surface at times during the rainy season. It is at or above the surface for 6 to 9 months in most years and is seldom below a depth of 10 inches except during extended dry periods. Permeability is rapid throughout, but the internal drainage is impeded by the high water table. The available water capacity is high, natural fertility is moderate, and the organic matter content is high. Many areas of this soil border streams or lakes. Altering the natural vegetation and artificially draining this soil could have a detrimental effect on the quality of adjacent bodies of water. This soil is a natural habitat for wetland wildlife.

Placid-Pompano association, frequently flooded (43) - The soils in this association are nearly level and very poorly drained. These soils are in regular and repeating patterns in narrow to broad drainageways on the flatwoods and uplands. The slopes range from 0 to 2 percent. Both Placid and Pompano fine sand are poorly drained soils. The soils have a seasonal high water table within a depth of 12 inches for 4 to 6 months during most years. The soils in this association in their native state have severe limitations for cultivated crops because of excessive wetness and periodic flooding. The natural vegetation consists of sweetgum, red maple loblolly bay, cabbage palm, wax myrtle and greenbriar. The understory is sparse.

Candler sand (2,44,54) - This soil is strongly sloping to steep and excessively drained. This soil has a high water table at a depth of more than 80 inches. The available water capacity is very low or low in the surface layer and upper part of the subsurface layer. The permeability is rapid. Rainfall is rapidly absorbed, but runoff is rapid in areas without vegetation during intense rains. If a vegetation cover crop is not left on the surface, the hazard of erosion is severe. Most of the acreage of this soil is in natural vegetation that includes turkey oak and scrub live oak and few longleaf pine. The under story vegitation includes pineland threeawn and bluestem.

Addendum 5—Plant and Animal List

Ravine State Gardens Plants

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

PTERIDOPHYTES

Garden maidenhair fern.....*Adiantum capillus-veneris*
Japanese climbing fern*.....*Lygodium japonicum*
Tuberous sword fern .....*Nephrolepis cordifolia*
Boston fern .....*Nephrolepis exaltata*
Cinnamon fern.....*Osmunda cinnamomea*
Royal fern .....*Osmunda regalis*
Resurrection fern.....*Pleopeltis polypodioides*
Bracken fern .....*Pteridium aquilinum*
Netted chain fern.....*Woodwardia areolata*

GYMNOSPERMS

Australian-pine* .....*Casuarina equisetifolia*
Italian cypress* .....*Cupressus sempervirens*
Sago palm* .....*Cycas circinalis*
Southern red cedar.....*Juniperus silicicola*
Red cedar.....*Juniperus virginiana*
Longleaf pine .....*Pinus palustris*
Loblolly pine .....*Pinus taeda*
Yew podocarpus*……*Podocarpus macrophyllus*
Bald cypress .....*Taxodium distichum*
Coontie.....*Zamia pumila*
Yew Podocarpus*.....*Podocarpus macrophyllus*

ANGIOSPERMS

MONOCOTS

Century plant* .....*Agave sp.*
Bamboo* .....*Bambusa sp.*
Pindo palm* .....*Butia capitata*
Sandywoods sedge……..*Carex dasycarpa*
Flatsedge*.....*Cyperus sp.*
Giant white-top sedge .....*Dichromena latifolia*
Water hyacinth* .....*Eichhornia crassipes*
Tall elephant's-foot.....*Elephantopus elatus*

* Non-native Species

Hydrilla*.....*Hydrilla verticillata*
Duckweed .....*Lemna aequinoctialis*
Prickly-pear cactus.....*Opuntia humifusa*
Maidencane .....*Panicum hemitomon*
Date palm* .....*Phoenix dactylifera*
Pickerelweed.....*Pontederia cordata*
Needle palm.....*Rhapidophyllum hystrix*
Giant whitetop.....*Rhynchospora latifolia*
Cabbage palm .....*Sabal palmetto*
Saw palmetto .....*Serenoa repens*
Queen palm* .....*Syagrus romanzoffiana*
Creeping signalgrass*.....*Urochloa plantaginea*
Spanish dagger* .....*Yucca aloifolia*
Adam's needle .....*Yucca filamentosa*

DICOTS

Southern red maple .....*Acer rubrum*
Silk tree, mimosa* .....*Albizia julibrissin*
Bastard indigo, false indigo .....*Amorpha fruticosa*
Pepper vine .....*Ampelopsis arborea*
Coral vine* .....*Antigonon leptopus*
Groundnut .....*Apios americana*
Devil's-walkingstick .....*Aralia spinosa*
Coral ardisia* .....*Ardisia crenata*
Pawpaw .....*Asimina xnashii.*
Commom asparagus-fern* .....*Asparagus setaceus*
Salt myrtle/Sea myrtle .....*Baccharis halimifolia*
Orchid tree*.....*Bauhinia sp.*
Soft greeneyes.....*Berlandiera pumila*
Beggarticks .....*Bidens alba*
Water shield .....*Brasenia schreberi*
Paper mulberry*.....*Broussonetia papyrifera*
Gum bumelia .....*Bumelia lanuginosa*
Western buckthorn .....*Bumelia reclinata*
American beautyberry .....*Callicarpa americana*
Erect bottlebrush* .....*Callistemon rigidus*
Common camellia* .....*Camellia japonica*
Trumpet-vine .....*Campsis radicans*
American Hornbeam .....*Carpinus caroliniana*
Mockernut hickory .....*Carya alba*
Pignut hickory .....*Carya glabra*

*** Non-native Species**

Sicklepod* .....*Cassia obtusifolia*
Chinquapin .....*Castanea pumila*
Hackberry.....*Celtis laevigata*
Spurred butterfly-pea .....*Centrosema virginianum*
Buttonbush .....*Cephalanthus occidentalis*
Redbud .....*Cercis canadensis*
Partridge pea.....*Chamaecrista fasciculata*
White fringe-tree .....*Chionanthus virginica*
Goldenaster .....*Chrysopsis gossypina*
Camphor-tree*.....*Cinnamomum camphora*
Mandarin lime.....*Citrus x jambhiri*

*** Non-native Species**

Common Name	*Scientific Name*	Primary Habitat (for imperiled species)
Pine-hyacinth	*Clematis baldwinii*	
Argentine trumpet vine*	*Clytostoma callistegioides*	
Tread softly	*Cnidoscolus stimulosus*	
Wild taro*	*Colocasia esculentum*	
Whitemouth day-flower	*Commelina erecta*	
Flowering dogwood	*Cornus florida*	
Rabbit-bells	*Crotalaria rotundifolia*	
Showy rattlebox*	*Crotalaria spectabilis*	
Leatherwood; Titi	*Cyrilla racemiflora*	
Dwarf-poinciana, red locust*	*Daubentonia punicea*	
Virginia buttonweed	*Diodia virginiana*	
Air-potato, Devil's potato*	*Dioscorea bulbifera*	
Persimmon	*Diospyros virginiana*	
Noyau vine	*Distimake dissecta*	
Cat-claw vine*	*Dolichandra unguis-cati*	
Silverthorn*	*Elaeagnus pungens*	
Fleabane	*Erigeron sp*	
Loquat, Japanese plum*	*Eriobotrya japonica*	
Creeping eryngo	*Eryngium prostratum*	
Coralbean	*Erythrina herbacea*	
Swamp doghobble	*Eubotrys racemosa*	
Eucalyptus*	*Eucalyptus sp.*	
Swampmahogany*	*Eucalyptus robusta*	
Strawberry bush	*Euonymus americanus*	
Pineapple guava*	*Feijoa sellowiana*	
Benjamin fig*	*Ficus benjamina*	
Creeping fig*	*Ficus pumila*	
Fig*	*Ficus sp.*	
Cottonweed	*Froelichia floridana*	
Blanket flower	*Gaillardia pulchella*	
Elliott's milk pea	*Galactia elliottii*	
Yellow jessamine	*Gelsemium sempervirens*	
Loblolly bay	*Gordonia lasianthus*	
Silkoak*	*Grevillea robusta*	
Witch-hazel	*Hamamelis virginiana*	
Innocence	*Hedyotis sp*	
Spanish daisy; Bitterweed	*Helenium amarum*	
Carolina frostweed	*Helianthemum carolinianum*	

* Non-native Species

Common Name	*Scientific Name*	Primary Habitat (for imperiled species)
Camphorweed	*Heterotheca subaxillaris*	
Rose of Sharon*	*Hibiscus syriacus*	
Water pennywort	*Hydrocotyle bonariensis*	
Carolina holly; Sand holly	*Ilex ambigua*	
Chinese holly*	*Ilex cornuta*	
American Holly	*Ilex opaca*	
Yaupon holly	*Ilex vomitoria*	
Tievine	*Ipomoea cordatotriloba*	
Scarletcreeper	*Ipomoea hederifolia*	
Blue-flag	*Iris virginica*	
Virginia willow	*Itea virginica*	
Primrose jasmine*	*Jasminum mesnyi*	
Waterwillow	*Justicia ovata*	
Goldenrain-tree*	*Koelreuteria elegans subsp. formosana*	
Crape myrtle*	*Lagerstroemia indica*	
Common lantana*	*Lantana camara*	
Trailing lantana*	*Lantana montevidensis*	
Blazing star	*Liatris sp.*	
Japanese privet*	*Ligustrum japonicum*	
Glossy privet*	*Ligustrum lucidum*	
Chinese privet*	*Ligustrum sinense*	
Blue toadflax	*Linaria canadensis*	
Sweetgum	*Liquidambar styraciflua*	
Japanese honeysuckle*	*Lonicera japonica*	
Coral honeysuckle	*Lonicera sempervirens*	
Primrose willow*	*Ludwigia peruviana*	
Rusty lyonia	*Lyonia ferruginea*	
Fetterbush	*Lyonia lucida*	
Southern magnolia	*Magnolia grandiflora*	
Saucer magnolia*	*Magnolia x soulangiana*	
Sweet bay	*Magnolia virginiana*	
Wax mallow; Turk's cap mallow*	*Malvaviscus arboreus*	
Barbara's buttons	*Marshallia tenuifolia*	
Florida Milkvine	*Matelea floridana*	
Chinaberry*	*Melia azedarach*	

*** Non-native Species**

Common Name	*Scientific Name*	Primary Habitat (for imperiled species)
Banana shrub*	*Michelia figo*	
Florida sensitive brier	*Mimosa quadrivalvis var. floridana*	
Partridge berry; Twinberry	*Mitchella repens*	
Horsemint; Spotted beebalm	*Monarda punctata*	
Indian pipe	*Monotropa uniflora*	
Red mulberry	*Morus rubra*	
Banana*	*Musa x paradisiaca*	
Wax myrtle	*Myrica cerifera*	
Heavenly bamboo*	*Nandina domestica*	
Spatter-dock	*Nuphar advena ssp. advena*	
Spatter-dock	*Nuphar advena spp. orbiculata*	
Swamp tupelo	*Nyssa sylvatica var. biflora*	
Fire spike*	*Odontonema cuspidatum*	
Evening Primrose	*Oenothera sp.*	
Mille Graine	*Oldenlandia sp.*	
Golden club	*Orontium aquaticum*	
Wild olive	*Osmanthus americanus*	
Violet wood sorrel	*Oxalis violacea*	
Jerusalem thorn*	*Parkinsonia aculeata*	
Virginia creeper	*Parthenocissus quinquefolia*	
Maypop;Passion flower	*Passiflora incarnate*	
Redbay	*Persea borbonia*	
Annual garden phlox*	*Phlox drummondii*	
Mistletoe	*Phoradendron leucarpum*	
Chinese photinia*	*Photinia serrulata*	
Fog-fruit; Carpetweed	*Phyla nodiflora*	
Pokeberry; Pokeweed	*Phytolacca americana*	
Japanese pittosporum*	*Pittosporum tobira*	
Planer tree	*Planera aquatica*	

*** Non-native Species**

Common Name	*Scientific Name*	Primary Habitat (for imperiled species)
Chicksaw plum	*Prunus angustifolia*	
Carolina laurel cherry	*Prunus caroliniana*	
Peach*	*Prunus persica*	
Wild cherry	*Prunus serotina*	
Wafer ash	*Ptelea trifoliata*	
Blackroot	*Pterocaulon pycnostachyum*	
Pomegranate*	*Punica granatum*	
Red firethorn*	*Pyracantha coccinea*	
Flame vine*	*Pyrostegia venusta*	
False dandelion	*Pyrrhopappus carolinianus*	
Chapman's oak	*Quercus chapmanii*	
Laurel oak; Diamond oak	*Quercus laurifolia*	
Small post oak	*Quercus margaretta*	
Myrtle oak	*Quercus myrtifolia*	
Water oak	*Quercus nigra*	
Live oak	*Quercus virginiana*	
Pale meadow beauty	*Rhexia mariana*	
Azalea*	*Rhododendron sp.*	
Swamp honeysuckle	*Rhododendron viscosum*	
Winged sumac	*Rhus copallina*	
Rose	*Rosa sp.*	
Blackberry	*Rubus sp.*	
Wild-petunia	*Ruellia caroliniensis*	
Carolina willow	*Salix caroliniana*	
Lyre-leaved sage	*Salvia lyrata*	
Elderberry	*Sambucus nigra ssp. canadensis*	
Lizard's-tail	*Saururus cernuus*	
Sensitive briar	*Schrankia microphylla*	
Sicklepod	*Senna obtusifolia*	
Rattlebox*	*Sesbania punicea*	
Boxthorn*	*Severinia buxifolia*	
Gum bully	*Sideroxylon lanuginosum*	
Florida bully	*Sideroxylon reclinatum ssp. reclinatum*	
Earleaf greenbrier; Catbrier	*Smilax auriculata*	
Saw greenbrier; Catbrier	*Smilax bona-nox*	

*** Non-native Species**

Common Name	*Scientific Name*	Primary Habitat (for imperiled species)
Wild sarsaparilla	*Smilax glauca*	
Laurel greenbrier, Catbrier	*Smilax laurifolia*	
Sarsaparilla vine	*Smilax pumila*	
Horse-nettle	*Solanum carolinense var. carolinense*	
Goldenrod	*Solidago sp.*	
Spiraea*	*Spiraea sp.*	
Bird of paradise*	*Strelitzia sp.*	
Cape honeysuckle*	*Tecoma capensis*	
Carolina basswood	*Tilia americana var. caroliniana*	
Spanish moss	*Tillandsia usneoides*	
Poison ivy	*Toxicodendron radicans*	
Poison sumac	*Toxicodendron vernix*	
Confederate jasmine*	*Trachelospermum jasminoides*	
Chinese Tallow*	*Triadica sebifera*	
Forked blue curls	*Trichostema dichotomum*	
Venus looking-glass	*Triodanis perfoliata*	
American elm	*Ulmus americana*	
Caesar weed	*Urena lobata*	
Sparkleberry	*Vaccinium arboreum*	
Highbush blueberry	*Vaccinium corymbosum*	
Deerberry	*Vaccinium stamineum*	
Possum haw	*Viburnum nudum*	
Muscadine grape	*Vitis rotundifolia*	
Washington palm*	*Washingtonia robusta*	
Chinese wisteria*	*Wisteria sinensis*	
Elephant-ear*	*Xanthosoma sagittifolium*	
Youngia*	*Youngia japonica*	
Hercules-club	*Zanthoxylum clava-herculis*	

*** Non-native Species**

Common Name	*Scientific Name*	Primary Habitat (for all species)

INVERTEBRATES

Gulf fritillary.....*Agraulis vanillae nigrior*
Tawny emperor butterfly..... *Asterocampa clyton*
Great purple hairstreak ..... *Atlides halesus*
Pipevine swallowtail ..... *Battus philenor*
Polydamas swallowtail ..... *Battus polydamas*
Red-banded hairstreak ..... *Calycopis cecrops*
Southern dogface butterfly ..... *Colias cesonia*
Southern skipperling ..... *Copaeodes minimus*
Queen butterfly ..... *Danaus gillippus berenice*
Monarch or milkweed butterfly.... *Danaus plexippus*
Pearly eye ..... *Enodia portlandia*
Silver-spotted skipper ..... *Epargyreus clarus*
Horaces dusky wing ..... *Erynnis horatius*
Juvenals dusky wing ..... *Erynnis juvenalis*
Zarucco dusky wing ..... *Erynnis zarucco*
Little wood satyr ..... *Euptychia cymela viola*
Barred sulphur butterfly ..... *Eurema daira*
Little sulphur butterfly..... *Eurema lisa*
Sleepy orange butterfly ..... *Eurema nicippe*
Zebra swallowtail..... *Eurytides marcellus*
Zebra butterfly..... *Heliconius charitonius tuckeri*
Ceraunus blue..... *Hemiargus ceraunus antibubastus*
Carolina Satyr ..... *Hermeuptychia sosybius*
Fiery skipper ..... *Hylephila phyleus*
Buckeye butterfly ..... *Junonia coenia*
Clouded skipper..... *Lerema accius*
Snout butterfly..... *Libytheana bachmannii*
Viceroy..... *Limenitus archippus*
Red-spotted purple butterfly..... *Limenitus arthemis astyanax*
Ocola skipper..... *Panoquina ocola*
Giant swallowtail ..... *Papilio cresphontes*
Tiger swallowtail..... *Papilio glaucus australis*
Palamedes swallowtail ..... *Papilio palamedes*
Black swallowtail ..... *Papilio polyxenes asterius*
Spice-bush swallowtail..... *Papilio troilus*
White-M hairstreak..... *Parrhasius m-album*
Cloudless sulphur butterfly..... *Phoebis sennae eubule*
Phaon cresent butterfly ..... *Phyciodes phaon*
Seminole cresent butterfly ..... *Phyciodes texana seminole*

***** **Non-native Species**

Common Name	*Scientific Name*	Primary Habitat (for all species)

Pearl cresent butterfly ..... *Phyciodes tharos*
European cabbage butterfly ..... *Pieris rapae*
Whirlabout ..... *Polites vibex*
Question mark butterfly..... *Polygonia interrogationis*
Checkered white butterfly..... *Pontia protodice*
Buckeye butterfly…… *Precis oenia*
Tropical checkered skipper..... *Pyrgus oileus*
Gray hairstreak..... *Strymon melinus*
Southern cloudy wing ..... *Thorybes bathyllus*
Long-tailed skipper..... *Urbanus proteus*
Red admiral butterfly ..... *Vanessa anabella atalanta*
American painted lady butterfly .. *Vanessa virginiensis*

FISH

Grass carp..... *Ctenopharyngodon idella*
Eastern mosquitofish .....*Gambusia holbrooki*
Redbreast sunfish..... *Lepomis auritus*
Bluegill .....*Lepomis macrochirus*
Largemouth bass .....*Micropterus salmoides*

AMPHIBIANS

Southern toad ..... *Bufo terrestris*
Green treefrog..... *Hyla cinerea*
Southern spring peeper..... *Pseudacris crucifer bartramiana*
Bronze frog..... *Rana clamitans clamitans*
Florida leopard frog..... *Rana utricularia sphenocephala*

REPTILES

Florida cottonmouth..... *Agkistrodon piscivorus conanti*
American alligator .....*Alligator mississippiensis*
Green anole ..... *Anolis carolinensis carolinensis*
Six-lined racerunner ..... *Aspidoscelis sexlineatus sexlineatus*
Florida scarlet snake ..... *Cemophora coccinea coccinea*
Florida snapping turtle ..... *Chelydra serpentina osceola*
Southern black racer ..... *Coluber constrictor priapus*
Eastern diamondback rattlesnake *Crotalus adamanteus*
Florida chicken turtle..... *Deirochelys reticularia chrysea*
Eastern indigo snake..... *Drymarchon corais couperi*

***** **Non-native Species**

Common Name	*Scientific Name*	Primary Habitat (for all species)

Corn snake ..... *Elaphe guttata guttata*
Yellow rat snake ..... *Elaphe obsoleta quadrivittata*
Five-lined skink ..... *Eumeces fasciatus*
Broad-headed skink..... *Eumeces laticeps*
Gopher tortoise..... *Gopherus polyphemus*
Eastern hognose snake ..... *Heterodon platyrhinos*
Striped mud turtle..... *Kinosternon bauri*
Florida water snake ..... *Nerodia fasciata pictiventris*
Rough green snake..... *Opheodrys aestivus*
Eastern glass lizard ..... *Ophisaurus ventralis*
Florida pine snake..... *Pituophis melanoleucus mugitus*
Peninsula cooter ..... *Pseudemys floridana peninsularis*
Florida redbelly turtle ..... *Pseudemys nelsoni*
Southern fence lizard..... *Sceloporus undulatus undulatus*
Ground skink ..... *Scincella lateralis*
Common musk turtle ..... *Sternotherus odoratus*
Florida box turtle..... *Terrapene carolina bauri*
Eastern garter snake ..... *Thamnophis sirtalis sirtalis*

BIRDS

Sharp-shinned Hawk..... *Accipiter striatus*
Red-winged Blackbird..... *Agelaius phoeniceus*
Cinnamon Teal ..... *Anas cyanoptera*
Ruby-throated Hummingbird..... *Archilochus colubris*
Great Egret ..... *Ardea alba*
Great Blue Heron ..... *Ardea herodias*
Tufted Titmouse..... *Baeolophus bicolor*
Cedar Waxwing..... *Bombycilla cedrorum*
Great Horned Owl ..... *Bubo virginianus*
Cattle Egret ..... *Bubulcus ibis*
Red-tailed Hawk ..... *Buteo jamaicensis*
Red-shouldered Hawk ..... *Buteo lineatus*
Green Heron ..... *Butorides virescens*
Chuck-will's-widow..... *Caprimulgus carolinensis*
Whip-poor-will..... *Caprimulgus vociferus*
Northern Cardinal ..... *Cardinalis cardinalis*
American Goldfinch ..... *Carduelis tristis*
House Finch…….. *Carpodacus mexicanus*
Turkey Vulture ..... *Cathartes aura*
Chimney Swift ..... *Chaetura pelagica*
Killdeer..... *Charadrius vociferus*
Common Nighthawk..... *Chordeiles minor*

* Non-native Species

Yellow-billed Cuckoo ..... *Coccyzus americanus*

Common Name	*Scientific Name*	Primary Habitat (for all species)
Northern Flicker	*Colaptes auratus*	
Northern Bobwhite	*Colinus virginianus*	
Rock Dove*	*Columba livia*	
Common Ground-Dove	*Columbina passerina*	
Black Vulture	*Coragyps atratus*	
American Crow	*Corvus brachyrhynchos*	
Fish Crow	*Corvus ossifragus*	
Blue Jay	*Cyanocitta cristata*	
Black-throated Blue Warbler	*Dendroica caerulescens*	
Cerulean Warbler	*Dendroica cerulea*	
Yellow-rumped Warbler	*Dendroica coronata*	
Prairie Warbler	*Dendroica discolor*	
Yellow-throated Warbler	*Dendroica dominica*	
Blackpoll Warbler	*Dendroica striata*	
Pileated Woodpecker	*Dryocopus pileatus*	
Gray Catbird	*Dumetella carolinensis*	
Little Blue Heron	*Egretta caerulea*	
Snowy Egret	*Egretta thula*	
Tricolored Heron	*Egretta tricolor*	
Swallow-tailed Kite	*Elanoides forficatus*	
American Kestrel	*Falco sparverius*	
Common Moorhen	*Gallinula chloropus*	
Common Yellowthroat	*Geothlypis trichas*	
Bald Eagle	*Haliaeetus leucocephalus*	
Baltimore Oriole	*Icterus galbula*	
Eastern Screech Owl	*Megascops asio*	
Red-bellied Woodpecker	*Melanerpes carolinus*	
Red-headed Woodpecker	*Melanerpes erythrocephalus*	
Wild Turkey	*Meleagris gallopavo*	
Northern Mockingbird	*Mimus polyglottos*	
Black-and-white Warbler	*Mniotilta varia*	
Brown-headed Cowbird	*Molothrus ater*	
Great Crested Flycatcher	*Myiarchus crinitus*	
Osprey	*Pandion haliaetus*	
Northern Parula	*Parula americana*	
House Sparrow	*Passer domesticus*	
Indigo bunting	*Passerina cyanea*	
Downy Woodpecker	*Picoides pubescens*	
Eastern Towhee	*Pipilo erythrophthalmus*	
Scarlet Tanager	*Piranga olivacea*	
Summer Tanager	*Piranga rubra*	

*** Non-native Species**

Common Name	*Scientific Name*	Primary Habitat (for all species)

Blue-gray Gnatcatcher ..... *Polioptila caerulea*
Common Grackle ..... *Quiscalus quiscula*
Ruby-crowned Kinglet ..... *Regulus calendula*
Eastern Phoebe ..... *Sayornis phoebe*
Ovenbird ..... *Seiurus aurocapillus*
American Redstart ..... *Setophaga ruticilla*
Yellow-bellied Sapsucker..... *Sphyrapicus varius*
Barred Owl..... *Strix varia*
European Starling*..... *Sturnus vulgaris*
Tree Swallow ..... *Tachycineta bicolor*
Carolina Wren ..... *Thryothorus ludovicianus*
Brown Thrasher..... *Toxostoma rufum*
House Wren ..... *Troglodytes aedon*
American Robin..... *Turdus migratorius*
White-eyed Vireo ..... *Vireo griseus*
Red-eyed Vireo ..... *Vireo olivaceus*
Mourning Dove ..... *Zenaida macroura*
White-throated Sparrow ..... *Zonotrichia albicollis*

MAMMALS

Southeastern Short-tail shrew ..... *Blarina carolinensis shermani*
Coyote* ..... *Canis latrans*
Nine-banded armadillo* ..... *Dasypus novemcinctus*
Virginia opossum..... *Didelphis virginiana*
Bobcat..... *Felis rufus*
River otter..... *Lontra canadensis*
Raccoon..... *Procyon lotor*
Gray squirrel ..... *Sciurus carolinensis*
Wild pig* ..... *Sus scrofa*
West Indian manatee ..... *Trichechus manatus latirostris*
Gray fox ..... *Urocyon cinereoargenteus*

* Non-native Species

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

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

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

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

SUBTERRANEAN
Aquatic Cave ..... ACV
Terrestrial Cave..... TCV

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

MARINE
Algal Bed ..... MAB
Composite Substrate..... MCPS
Consolidated Substrate..... MCNS
Coral Reef ..... MCR

*** Non-native Species**

Mollusk Reef..... MMR
Octocoral Bed ..... MOB
Seagrass Bed ..... MSGB
Sponge Bed..... MSPB
Unconsolidated Substrate ..... MUS
Worm Reef..... MWR

ALTERED LANDCOVER TYPES

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

MISCELLANEOUS
Many Types of Communities..... MTC
Overflying ..... OF

*** Non-native Species**

Addendum 6—Imperiled Species Ranking Definitions

The Nature Conservancy and the Natural Heritage Program Network (of which FNAI is a part) define an element 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 element occurrence (EO) is a single extant habitat that sustains or otherwise contributes to the survival of a population or a distinct, self-sustaining example of a particular element.

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

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

FNAI GLOBAL RANK DEFINITIONS

G1 ..... Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or fabricated factor.

G2 ..... Imperiled globally because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.

G3 ..... Either very rare or local throughout its range (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction of other factors.

G4 ..... apparently secure globally (may be rare in parts of range)

G5 ..... demonstrably secure globally

GH ..... of historical occurrence throughout its range may be rediscovered (e.g., ivory-billed woodpecker)

GX ..... believed to be extinct throughout range

GXC ..... extirpated from the wild but still known from captivity or cultivation

G#? ..... Tentative rank (e.g.,G2?)

G#G# ..... range of rank; insufficient data to assign specific global rank (e.g., G2G3)

G#T# ..... rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1)

G#Q ..... rank of questionable species - ranked as species but questionable whether it is species or subspecies; numbers have same definition as above (e.g., G2Q)

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

LEGAL STATUS

FEDERAL

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

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

PE.....Proposed for addition to the List of Endangered and Threatened Wildlife and Plants as Endangered Species.

LT.....Listed as Threatened Species. Defined as any species that is likely to become an endangered species within the near future throughout all or a significant portion of its range.

PT.....Proposed for listing as Threatened Species.

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

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

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

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

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

STATE

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

FE.....Federally-designated Endangered

FT.....Federally-designated Threatened

FXN .....Federally-designated Threatened Nonessential Experimental Population

FT(S/A) .....Federally-designated Threatened species due to similarity of appearance

ST .....Listed as Threatened Species by the FWC. Defined as a species, subspecies, or isolated population, which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat, is decreasing in area at a rapid rate and therefore is destined or very likely to become an endangered species within the near future.

SSC .....Listed as Species of Special Concern by the FWC. Defined as a population which warrants special protection, recognition or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance or substantial human exploitation that, in the near future, may result in its becoming a threatened species.

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

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

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

Addendum 7—Cultural Information

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

A. General Discussion

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

B. Agency Responsibilities

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

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

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

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

C. Statutory Authority

Statutory Authority and more in-depth information can be found at: https://www.dos.myflorida.com/historical/preservation/compliance-and-review/regulations-guidelines/

D. Management Implementation

Even though the Division sits on the Acquisition and Restoration Council and approves land management plans, these plans are conceptual. Specific information

regarding individual projects must be submitted to the Division for review and recommendations.

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

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

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

E. Minimum Review Documentation Requirements

In order to have a proposed project reviewed by the Division, certain information must be submitted for comments and recommendations. The minimum review documentation requirements can be found at: https://www.dos.myflorida.com/media/31392/minimum_review_documentation_requirements.pdf.

* * *

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

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) 245-6333
Email: CompliancePermits@DOS.MyFlorida.com

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
- **b)** a building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- **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; ora reconstructed building, when it is accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and no other building or structure with the same association has survived; or a property primarily commemorative in intent, if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
- **e)** a property achieving significance within the past 50 years, if it is of exceptional importance.

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—Local Government Comprehensive Plan Compliance

From:	Lisa-Ann Walsh
To:	Degagne, Demi
Cc:	Armaghani, Yasmine; Trace, Gabrielle
Subject:	RE: Request for County Review of FL Park Unit Management Plan - Compliance w/County Comprehensive Plan
Date:	Tuesday, May 2, 2023 1:49:20 PM
Attachments:	image002.png image003.png

The City of Palatka has no comment.

Lisa Walsh, AICP
Planning Director
201 N. 2nd St.
Palatka, FL 32177
Tel.: 386-329-0100
lwalsh@palatka-fl.gov

From: Degagne, Demi <Demi.Degagne@dep.state.fl.us>
Sent: Tuesday, May 2, 2023 10:38 AM
To: Lisa-Ann Walsh <lwalsh@palatka-fl.gov>
Cc: Armaghani, Yasmine <Yasmine.Armaghani@dep.state.fl.us>; Trace, Gabrielle <Gabrielle.Trace@FloridaDEP.gov>
Subject: RE: Request for County Review of FL Park Unit Management Plan - Compliance w/County Comprehensive Plan
Importance: High

RE: RAVINE GARDENS STATE PARK

Good Morning,

The Florida Department of Environmental Protection, Division of Recreation and Parks, Office of Park Planning is responsible for the unit management planning of all Florida State Parks. As part of this planning process, prior to the unit management plan being presented to its Acquisition and Restoration Council for consideration, the Office of Park Planning is required to connect and communicate with the area's agency that is responsible for the local comprehensive plan to

determine if the park unit management plan is in compliance with the comprehensive plan. Specifically, we want to make sure we are accurately citing the future land use and zoning designations for the park and would like to confirm that our proposed developments in the conceptual land use section comply with those designations. The existing facilities section will also need to be reviewed.

We would like to have the Ravine Gardens State Park draft unit management plan reviewed. The draft updated plan is attached.

Please acknowledge receipt and provide an approximate turn-around time for the review. If this request should be redirected to another person or section, please let us know. In the meantime, if you need any clarification regarding this request, the draft document or its contents, please contact Gabrielle Trace at Gabrielle.Trace@floridadep.gov or by phone at 850-815-1329. Ms. Trace, who has been copied with this communication, is the Planner assigned to handle this park's management planning and will be able to answer any questions regarding the plan.

Thank you for your time, help and direction.

Have a good rest of the day!

Demi P. Degagne
Florida Department of Environmental Protection
Division of Recreation and Parks/Office of Park Planning
Government Operations Consultant and
Park Planning Administrative Assistant
Demi.Degagne@floridadep.gov
Office: 850.245.3051
Direct: 850.245.3052