JELKS PRESERVE MANAGEMENT PLAN

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Department of Parks, Recreation and Natural Resources

Division of Natural Areas and Trails

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PRESERVE AT A GLANCE

Size	614 acres
Location	southeastern Sarasota County
Management Priority	protect and restore habitat for imperiled species
Management Challenge	fire maintenance in a suburban setting
Primary habitats	mesic flatwoods mesic hammock upland hardwood forest basin swamp floodplain swamp floodplain marsh dry prairie wet prairie depression marsh
Imperiled species	coontie gopher tortoise indigo snake Florida butterfly orchid giant airplant cardinal airplant
Cultural Resources	Sweetwater Gully (Blackburn Canal/Curry Creek system) (8SO5274) Jelks Ditch (8SO5274)
Land Use	passive, nature-based public recreation

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EXECUTIVE SUMMARY

Significance, size, location

Jelks Preserve is comprised of 614 acres located in southeastern Sarasota County. It is bordered by the Myakka River to the east. The parking area and main entrance is located at 2300 North River Road.

Acquisition history

The preserve was acquired in 1999 by Sarasota County through the Infrastructure Surtax Continuation Program and the generous donation of $1,000,000 from the Jelks Family Foundation, Inc. This donation was contingent on the County's preservation and protection of this environmentally sensitive land and its native habitats.

Important habitats and species

The preserve is comprised of upland mixed forest, prairie hammock, mesic flatwoods, depression marshes, and floodplain swamps. These native communities provide habitat for diverse flora and fauna including the endangered giant airplant and gopher tortoise. The flatwoods, hammocks, and riverine habitats provide foraging and nesting habitat to an array of species including osprey, barred owl, bobcat, and swallow-tailed kites.

Natural and cultural resource management goals

Healthy habitats are necessary for the continued existence of the preserve's threatened and endangered species. Vegetation management and natural fire frequency during appropriate seasons are the primary methods used to revitalize the preserve's native communities. Invasive exotic species management is also a priority. Exotic plants include Brazilian pepper, cogon grass, climbing fern, carrotwood, and rosary pea.

Historical and current uses and facilities

Because the preserve boarders the Myakka River, it is believed that Indigenous Americans as well as European and African Americans utilized the site for its natural resources. Historically, the site was logged and used as rangeland. Today, the preserve is managed for passive, nature-based public recreation that does not impact native habitats and communities. Recreational opportunities include hiking, picnicking, birding, and wildlife viewing. The preserve is on-leash dog-friendly.

Use and facilities management goals

Jelks Preserve is managed for the conservation, protection, and enhancement of natural resources, and for public outdoor recreation that is compatible with conservation and preservation. All current and future activities and construction of public facilities will be planned in an environmentally sensitive manner to minimize impacts to native habitats and communities. As of March 2022, there are no plans to construct public facilities.

Purpose of Plan

The purpose of this Plan is to preserve the health and function of native systems, protect historical resources that are part of Sarasota County's heritage, as well as provide nature-based recreational opportunities for the public. The management strategies outlined herein are intended as guidelines to be used to address the complex management needs of the preserve. This plan will be updated in 2032 to incorporate progress towards management goals and the most current methodologies and technological advances as they apply to resource needs and management.

MANAGEMENT STRATEGY OVERVIEW

NATURAL RESOURCES	**GOAL 1**	**Restore and maintain the natural communities and habitats of the preserve.**
	OBJECTIVE 1.1	Return fire to its natural role in fire dependent natural communities
	OBJECTIVE 1.2	Eliminate FLEPPC Category I and II plants, or if not possible, reduce populations to less than 5 percent
	OBJECTIVE 1.3	Protect imperiled species
	OBJECTIVE 1.4	Maintain hydrologic function
	OBJECTIVE 1.5	Restore vegetation height and density to accepted levels based on habitat type
CULTURAL RESOURCES	**GOAL 2**	**Protect, preserve, and maintain the cultural resources of the preserve.**
	OBJECTIVE 2.1	Follow Sarasota County History Center protocol whenever ground disturbance is possible.
	OBJECTIVE 2.2	Monitor known sites biannually and during resource management activities.
LAND USES	**GOAL 3**	**Provide passive recreational opportunities without adversely impacting native communities and their habitats.**
	OBJECTIVE3.1	Provide public pedestrian access.
	OBJECTIVE 3.2	Provide and maintain a trail system.
	OBJECTIVE 3.3	Provide picnic tables and benches.
	OBJECTIVE 3.4	Provide a clean environment for the visitor.
	OBJECTIVE 3.5	Access impacts of recreational activities to ensure the health of native habitats and communities.
	GOAL 4	**Provide nature based educational and interpretive opportunities.**
	OBJECTIVE 4.1	Provide interpretive signs.
	OBJECTIVE 4.2	Provide self-guided interpretive tours.

OPERATIONS	**GOAL 5**	**Provide administrative and fiscal support for all park functions.**
	OBJECTIVE 5.1	Continue day-to-day administrative support at current levels.

1 INTRODUCTION

1.1 LOCATION AND SETTING

The Jelks Preserve is a 614-acre preserve located in southeastern Sarasota County (Exhibit 1). It is bordered by the Myakka River on the east, North River Road on the west, Sweetwater Gully (a branch of the artificially created Blackburn Canal/Curry Creek System) on the north, and privately held, vacant land to the south (Exhibit 2). The site contains a mix of flatwoods, hammocks, and riverine habitats. Section 17, Township 39 S, range 20 E.

1.2 SITE SIGNIFICANCE AND PROTECTION PRIORITY

Jelks Preserve is a distinctive mosaic of both upland and wetland native plant communities adjacent to the Myakka River. The property was purchased by the County prior to the Environmentally Sensitive Lands Protection Program.

The Myakka River is a narrow blackwater stream that borders the preserve along eastern boundary. The lower section of the Myakka is designated an Outstanding Florida Water Body by Florida Department of Environmental Protection, providing special protection for its natural attributes, and restricting any land uses or activities that might degrade the water. The Myakka River is also designated as a state Wild and Scenic River under the Myakka River Wild and Scenic Designation and Preservation Act (Section 258.501, Florida Statues), providing for the permanent preservation, management, and administration of the designated segment of the Myakka River (FDEP 2011). The Myakka River Coordinating Council was established with members of different government agencies, environmental organizations, and agricultural interests for the permanent protection and enhancement of the ecological, fish and wildlife, and recreational values in the river area.

The preserve will be managed for the conservation, protection, and enhancement of natural resources, and for public outdoor recreation that is compatible with conservation and preservation. Certain necessary appurtenances required by the construction of roadways, pipelines, facilities, and permitting agencies are acceptable uses of the site according to the land use covenants included in the purchase agreement (Exhibit 3). Any stormwater retention ponds designed and constructed shall be built in such a manner as to minimize impacts to native habitats and communities. Scientific research, environmental education, and nature-based recreation will be encouraged if they do not jeopardize the protection of natural resources.

1.3 ACQUISITION HISTORY

The preserve was acquired in 1999 by Sarasota County through the Infrastructure Surtax Continuation Program and the generous donation of $1,000,000 from the Jelks Family Foundation, Inc. (Appendix A).

The Jelks Family Foundation, Inc. consists of 12 family members who share the vision of protecting significant natural areas in Florida. In the late 1990s, Drs. Mary and Allen Jelks realized the importance of protecting land adjacent to the Myakka River in an ever-developing area of southwest Florida. The objective of this purchase was to preclude further residential development along the Wild and Scenic River and to protect more land and wildlife in the Myakka River watershed.

1.4 Management Authority and Responsibility

The preserve is zoned Public Conservation/Preservation. Management is the responsibility of Sarasota County Division of Natural Areas and Trails (NAT) in the Department of Sarasota County Parks, Recreation and Natural Resources. NAT will implement this plan and coordinate with staff and external agencies as required. To supplement staff capacity, some resource management activities will be contracted to private entities working under the direction of PRNR staff.

This plan was developed to ensure the overall protection of the site and to provide for the present and future recreation and conservation needs of Sarasota County residents and visitors (Appendix B).

Myakka River Protection Zone

Sarasota County Commission enacted the Consolidated Myakka River Protection Code (Ordinance No. 2011-077) consolidating the existing ordinances that protect the Myakka River through the creation of a 220-foot-wide Myakka River Protection Zone. The primary goals of the Myakka River Protection Code are to continue to facilitate protection of the river while maintaining livability along the river for its neighbors. The Ordinance seeks to maintain the ecological, fish, wildlife, and recreational values of the river while promoting beneficial and appropriate development of land within the zone consistent with the Sarasota County Comprehensive Plan (Exhibit 3).

Governing Documents

Management authority is given by the following County Codes and governing documents (see Appendix C):

1. The Sarasota County Comprehensive Plan (2016)
2. Ordinance No. 97-024
3. Ordinance No. 98-045
4. Ordinance No. 2011-077.
5. Myakka River Wild and Scenic Management Plan (20011)
6. Sarasota County Land Management Master Plan (2004)

1.5 Future Plans For The Site

As of March 2022, the only plan for alteration to the preserve is to relocate the existing entrance and driveway approximately 150 feet south to a new entrance at the proposed full-median opening across from Stoneybrook Boulevard. This is necessary due to the widening of River Road. This project is planned for fiscal year 2022. No other plans to alter the use of the preserve or significant alterations to the property are planned at this time. The current use of providing passive, nature-based public recreational use without adversely impacting native habitats and communities will be continued.

Natural Resources Management Philosophy

Sarasota County's habitat management approach seeks to restore and maintain a natural balance which preserves the quality of diverse native landscapes for the benefit of wildlife and visitors (Sarasota County 2001). As part of this effort, Sarasota County's environmental professionals apply a variety of specialized methods, including mechanical treatment of vegetation, prescribed fire, invasive exotic plant and animal management, hydrologic restoration, and restoration of native communities. Regular monitoring of wildlife and habitats enables us to gauge our effectiveness and develop responsive and proactive approaches.

With a focus on natural systems management, primary emphasis is placed on restoring and maintaining the natural processes that formed the structure, function, and species composition of Sarasota County's diverse native habitats and communities as they occurred in pre-development. Single species management for imperiled species is appropriate in County parks and preserves when the maintenance, recovery, or restoration of a species or population is difficult due to the requirement of long-term restoration efforts, unnaturally high mortality, or insufficient habitat. Single species management should be compatible with the maintenance and restoration of natural processes and should not imperil other native species or compromise the preserve's values.

Prescribed fire is an essential component in natural systems management in Florida. Prescribed fire is used to mimic natural lightning-set fires, which are one of the primary natural forces that shaped Florida's ecosystems. Prescribed burning increases the abundance and health of many wildlife species. Many of Florida's imperiled plant and animal species are dependent on periodic fire for their continued existence. Fire-dependent natural communities gradually accumulate flammable vegetation; therefore, prescribed fire reduces wildfire hazards by reducing these fuels. PRNR makes every effort to return fire to its natural role in fire-dependent natural communities. Sarasota County Fire Mitigation Specialists lead a burn team to restore fire back into the natural system. All prescribed burns in Florida are conducted with authorization from the Florida Department of Agriculture and Consumer Services, Florida Forest Service (FFS). The preserve contains several native habitats and communities, including mesic flatwoods, scrubby flatwoods, and scrub, that rely on fire to maintain their plant composition and structure.

Invasive exotic plants and animals are a serious concern for the management of natural systems. Due to Florida's warm climate, non-native plants and animals are able to thrive. Many invasive exotic species outcompete, displace, or inhibit growth of native species and can alter native habitats and communities. If left unchecked without natural controls from their native origin, invasive exotic plants and animals alter the character, productivity, and conservation values of the native habitats and communities they infest. The Florida Exotic Pest Plant Council (FLEPPC) supports the management of invasive exotic plants in Florida's natural areas. FLEPPC compiles invasive species lists that are revised every two years. Invasive exotic plants are termed Category I species when they alter native plant communities by displacing native species, changing community structures or ecological functions, or hybridizing with natives. Category II species have increased in abundance or frequency but have not yet altered Florida plant communities to the extent shown by Category I species (https://www.fleppc.org/). PRNR utilizes the FLEPPC classification system to determine management priorities when managing invasive exotic plants. It is the aim of PRNR to eliminate, or if not possible, to reduce FLEPPC Category I and II invasive exotic plants to low ecological impact levels.

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

2 NATURAL RESOURCE MANAGEMENT COMPONENT

2.1 NATURAL RESOURCE INVENTORY

2.1.1 Topography

Nearly all of Sarasota County is in the Gulf Coastal Lowlands. The preserve is flat, and elevations are all within 3–10 feet of sea level (Exhibit 4). The property gently slopes up away from the Myakka River with the highest point at ten feet in the northwest segment of the property.

2.1.2 Soils

There are eleven soil types in the preserve (Exhibit 5, Table 1), categorized into two general soil moisture classifications: mesic and hydric.

Table 1. Soil types.

Soil Type	Associated Habitat	Drainage Characteristics
EuGallie and Myakka fine Sands	scrubby flatwoods, mesic flatwoods, and pine flatwoods	somewhat poorly drained
Wabasso fine Sand	mesic flatwoods and pine flatwoods	somewhat poorly drained
Bradenton fine sand	depressional	poorly drained
Felda fine sand	depressional	very poorly drained
Felda and Pompano fine sands	floodplain marsh	very poorly drained
Floridana and Gator soils	floodplain swamp	very poorly drained
Hollowpaw fine sand	depressional	very poorly drained
Kesson and Wulfert mucks	floodplain swamp and floodplain marsh	very poorly drained
Malabar fine sand	low hammocks and poorly drained sloughs	poorly drained
Manatee loamy fine sand	depressional	very poorly drained
Pineda fine sand	low hammocks and poorly drained sloughs	poorly drained

2.1.3 Hydrology

The Myakka River is the preserve's distinguishing hydrologic feature. Historic oxbows are evident in the soil configurations, particularly to the north. Sweetwater Gully flows in an easterly direction into the Myakka at the northeast property line. This canal is part of the Blackburn Canal/Curry Creek System which improves the drainage of lands west of the Preserve and North River Road, increasing stormwater flow into the Myakka River.

Approximately 85 percent of the site is located within the 100-year flood plain of the Myakka River (Exhibit 6).

2.1.4 Natural Communities

Natural communities are identified using the Florida Natural Area Inventory (FNAI 2010) classification system (Table 2, Exhibits 7a–b). The condition and management recommendations for each habitat are detailed in the Plan's Natural Resource Management Section.

Table 2. Florida Natural Area Inventory (FNAI) communities present.

FNAI Communities	Acres	% of Preserve
mesic or prairie hammock	317.4	56.07
mesic flatwoods	117.59	20.71
upland mixed forest	84.29	14.68
floodplain marsh	19.43	3.40
depression marsh	17.65	2.96
dry prairie	8.95	1.58
flood plain swamp	3.43	.60

2.1.5 Imperiled Species

The preserve supports a variety of imperiled flora and fauna (Table 3, Appendices D and E).

Flora

Giant airplant (*Tilandsia uticulata*) and the cardinal airplant (*Tilandsia fasciculata*) live among tree limbs in hammocks. Both are state-listed as Endangered, due to the invasion of the Mexican bromeliad weevil (*Matamasius callizona*). Weevil adults feed on leaves and larvae tunnel into the base of the stem of the bromeliad, killing the plant. The weevil was first documented in Florida in 1989 and has no natural predators in Florida. Coontie (*Zamia pumila*) resembles a fern and is typically 1–3 feet high. It grows in hammocks and pinelands and is listed as Commercially Exploited by the Florida Department of Agriculture and Consumer Services (FDACS). See Appendix D for a list of known imperiled flora in the preserve.

Fauna

The preserve supports a healthy population of gopher tortoises (*Gopherus polyphemus*). The gopher tortoise is a keystone species in that their burrows, which can extend thirty feet underground, provide shelter for hundreds of other animal species. Habitat loss due to development and lack of historical fire regime have dramatically impacted gopher tortoise populations over the last several decades. The gopher tortoise population east of Tombigbee and Mobile Rivers (Alabama) is currently a candidate for Federal listing as a protected species under the Endangered Species Act. In Florida, gopher tortoises are currently listed by the state as Threatened due to loss of habitat. Gopher tortoises typically inhabit uplands such as scrubby flatwoods, coastal scrub, and sandhill, but can also be opportunistic and dig burrows in disturbed areas. Jelks Preserve currently has several active gopher tortoise burrows.

FLORIDA'S NATURAL COMMUNITIES

The Florida Natural Areas Inventory (FNAI) provides a detailed guide to the standard classification system of 81 natural communities (FNAI 2010). The premise of this system is that physical factors such as climate, geology, soil, hydrology, and fire frequency determine the species configuration of an area. Areas that are similar with respect to those factors will tend to have natural communities with similar species compositions. Differences in species composition can occur, however, despite similar physical conditions and the reverse can occur. Some physical influences, such as fire frequency, may vary from FNAI's descriptions for certain natural communities in this plan.

Historically, eastern indigo snakes (*Drymarchon corais couperi*) were documented in the preserve, although none have been observed in several years. The indigo snake utilizes pine flatwoods and hardwood hammocks. It is listed in the State of Florida and by USFWS as Threatened due to habitat loss and illegal harvest. On drier flatwoods sites, it may den in active gopher tortoise burrows. Management for the indigo snake focuses on maintaining hammocks along the Myakka River and enhancing flatwoods through prescribed burns to simulate more natural frequencies and seasons. Because indigo snakes are associated with gopher tortoise burrows in drier flatwoods, management for tortoises should benefit indigo snakes as well.

See Appendix E for a list of known imperiled fauna in the preserve.

Table 3. A selection of listed flora and fauna.

	Common Name	Scientific Name	Status
Plant	butterfly orchid	*Encyclia tampensis*	Commercially Exploited (FDACS)
	giant air plant	*Tillandsia utriculata*	Endangered (State)
	coontie	*Zamia pumila*	Commercially exploited (FDA)
Reptile	gopher tortoise	*Gopherus polyphemus*	Threatened (State)
	indigo snake	*Drymarchon corais couperi*	Threatened (State)
Bird	little blue heron	*Egretta caerulea*	Threatened (State)

2.2 Natural Resource Management

Once a natural community reaches the desired optimal condition, it is considered to be in "maintenance condition." Required actions for achieving and sustaining a community's maintenance condition may include

- establishing and maintaining optimal fire return intervals for fire dependent communities
- controlling non-native plant and animal species
- maintaining natural hydrologic functions (including historical water flows and water quality)
- preserving a community's biodiversity and vegetative structure
- protecting viable populations of plant and animals (including imperiled or endemic species)
- preserving intact ecotones that link native habitats and communities across the landscape

2.2.1 Mesic Hammock

The preserve has approximately 317 acres of mesic hammock. Mesic hammocks are characterized by having well-developed evergreen hardwood and/or palm forests on soils that are rarely inundated with water. Their canopies are typically closed and dominated by live oak (*Quercus virginiana*), with cabbage palm (*Sabal palmetto*) generally common in the canopy and subcanopy. A variety of plants are common in mesic hammocks (Table 4).

Table 4. Common plants in mesic hammock.

Common Name	Scientific Name
coffee plant	*Psychotria nervosa*
American beautyberry	*Callicarpa americana*
sparkleberry	*Vaccinium arboreum*
common persimmon	*Diospyros virginiana*
yaupon holly	*Ilex vomitoria*
wax myrtle	*Myrica cerifera*
swamp dogwood	*Cornus foemina*
cabbage palm	*Sabal palmetto*
American elderberry	*Sambucus canadensis*
eastern red cedar	*Juniperus virginiana*
American elm	*Ulmus americana*
red maple	*Acer rubrum*
laurel oak	*Quercus laurifolia*
cardinal air plant	*Tillandsia fasciculata*
giant air plant	*Tillandsia utriculata*

Current Conditions

The mesic hammock is in generally good condition. However, invasive exotic plants have colonized portions of this habitat, mostly as scattered individual plants or small, localized infestations. The species that are currently impacting this habitat include but are not limited to Brazilian pepper (*Schinus terebinthifolius*), carrotwood (*Cupaniopsis anacardioides*) and Peruvian primrose willow (*Ludwigia peruviana*).

Optimal Conditions

The canopy should be dominated by live oak and laurel oak (*Q. laurifolia*), with cabbage palm common in the canopy and subcanopy. Ideally, the shrubby understory should be dense or open, tall, or short. The herb layer should be sparse or patchy and consist of various grasses as well as various ferns and forbs with occasional ground orchids. Also, abundant vines and epiphytes on live oaks and cabbage palms should be a common and characteristic feature. Under optimal conditions, the hydric hammock should be free of invasive exotic plants, but a realistic goal is to maintain the hydric hammock habitat with infestation levels of less than five percent.

Management Guidelines

Continue to systematically treat invasive exotic plants. Follow-up competed initial treatments with additional treatments to maintain the mesic hammock in optimal condition.

2.2.2 Mesic Flatwoods

The preserve has approximately 117 acres of mesic flatwoods. Mesic flatwoods are characterized by an open canopy of tall pines and a dense, low ground layer of low shrubs, grasses, and forbs (Table 5). Mesic flatwoods occur on level to nearly level, poorly drained soils formed from acid marine sands. Pine flatwoods are dependent on growing-season fires and a periodically high water table, which can result in them being covered with standing water during the rainy season. Mesic flatwoods have three main components – a pine overstory, a shrub or palmetto midstory, and a grass or herbaceous understory (FNAI 2010).

Table 5. Common plants of mesic flatwoods.

Common Name	Scientific Name
saw palmetto	*Serenoa repens*
South Florida slash pine	*Pinus elliottii var. densa*
gallbery	*Ilex glabra*
fetterbush	*Lyonia lucida*
shiny (dwarf) blueberry	*Vaccinium myrsinites*
broomsedges	*Andropogon spp.*
pawpaw	*Asimina spp.*

Current Conditions

Current conditions vary from poor to very healthy. Approximately 30 percent of the flatwoods receive fire on a regular interval and have a healthy ratio of pine, palmetto, shrub, and herbaceous components. The pine basal area averages 15 square feet per acre. Shrub cover is approximately 25 percent with an average palmetto height of 2–3 feet. The remainder of the flatwoods have not received fire on a regular interval and have dense coverage of palmetto ranging in height from 3–5 feet, with woody shrubs shading out the herbaceous ground cover. Some heavy brush mowing was completed in 2021, creating a shrub layer with short palmetto and a diverse array of grasses and forbs.

Optimal Conditions

Optimally, an open canopy should consist predominantly of slash pine (*Pinus elliotii*). The basal area of pines should be between 10–50 square feet per acre. The groundcover or shrub layer should be low and dense and consist of shrubs, grasses, and forbs. Native herbaceous groundcover should cover at least 50 percent of the area and be less than three feet tall. Saw palmetto (*Serenoa repens*) should comprise no more than 50 percent of the total shrub cover and be no more than two feet tall, with few if any large trunks running along the ground.

Management Guidelines

Continue to burn at intervals of 2–4-years during the growing season in units that are in a maintenance fire regime. Maintain a basal area of 6–25 pines per acre during prescribed fire operations by minimizing pine mortality. Mechanically treat flatwoods with a high-density shrub layer and/or emerging oak canopy to reduce oak overstory or hedge effect.

2.2.3 Upland Mixed Forest

The preserve has approximately 84 acres of upland hardwood forest. Upland hardwood forests are characterized by having well-developed, closed-canopy forests dominated by deciduous hardwood trees on mesic soils in areas sheltered from fire. They typically have a diverse assemblage of deciduous and evergreen tree species in the canopy and midstory, shade-tolerant shrubs, and a sparse groundcover (Table 6, FNAI 2010).

Table 6. Common plants of upland mixed forests.

Common Name	Scientific Name
sweetgum	*Liquidambar styraciflua*
live oak	*Quercus virginiana*
laurel oak	Quercus hemisphaerica
winged elm	*Ulmus alata*
Virginia creeper	*Parthenocissus quinquefolia*

The upland mixed forest is in fair to good condition. Greatest impacts are due to invasive exotic plants. The primary invasive species are Brazilian pepper (*Schinus terebinthifolius*), cogongrass *(Imperata cylindrica*) and rosary pea (*Abrus precatorius*) and Old World climbing fern (*Lygodium microphyllum*).

Current Conditions

The upland mixed forest is in fair to good condition. Greatest impacts are due to invasive exotic plants. The primary invasive species are Brazilian pepper (*Schinus terebinthifolius*), cogongrass *(Imperata cylindrica*), rosary pea (*Abrus precatorius*), and Old World climbing fern (*Lygodium microphyllum*). Feral hog rooting has also been observed.

Optimal Conditions

Optimally, a mildly diverse number of deciduous and evergreen hardwood trees should make up the canopy with saplings of the same species in the midstory. Ground cover should include a variety of shade-tolerant herbs, graminoids, and vines (FNAI 2010).

Management Guidelines

Continue with the Integrated Pest Management plan to reduce occurrence of invasive exotic species with special attention to Brazilian pepper, cogon grass, rosary pea, and Old World climbing fern. Fire is not a significant natural process for the sustainability of this habitat. Most fire should extinguish at or near the perimeter of this habitat. Monitor and trap for feral hogs. Use mechanical management to lower vegetation and allow for a variety of shade tolerant herbs, graminoids, and vines (FNAI 2010).

2.2.4 Floodplain Marsh

The preserve has approximately 19 acres of floodplain marsh. Floodplain marshes are characterized as being a wetland community occurring in river floodplains and dominated by herbaceous vegetation and/or shrubs (Table 7). Floodplain marshes are found along rivers and streams from just below the headwaters to the freshwater portions of tidally-influenced river mouths. Floodplain marshes are directly influenced by river flooding on an annual or semi-annual basis where most of the marsh is inundated approximately 120–350 days annually (FNAI2010).

Table 7. Common plants of floodplain marsh.

Common Name	Scientific Name
Florida slash pine	*Pinus elliottii var. densa*
sawgrass	*Cladium jamaicense*
madiencane	Panicum hemitomon
buttonbush	*Cephalanthus occidentalis*
Cabbage palm	*Sabal palmetto*
Soft rush	*Juncus effusus*

Current Conditions

The floodplain marsh is mainly in good condition. Invasive exotic plants like Old World climbing fern are present, but not in high densities. Feral hogs live in the floodplain swamp areas where they disturb the soil both by rooting and creating wallows. Fire is infrequent in floodplain swamp and the open understory does not support fuel buildup. Summer flood events clear away detritus build-up and maintain the open understory.

Optimal Conditions

Optimally, regular seasonal flooding should be an important factor in maintaining proper hydroperiod and the health of floodplain swamp. Invasive exotic species should be managed to reduce impacts. The canopy should be dense and closed with few openings as large mature trees die. Flood tolerant ferns and herbs may cover portions of the forest floor. Some shrubs may be supported in isolated areas that are less flooded during higher water times.

Management Guidelines

Survey and treat invasive exotic plants during the dry season, especially to reduce densities of species like Old World climbing fern, para grass, and West Indian marsh grass. Remove feral hogs to help minimize soil disturbance.

2.2.5 Depression Marsh

The preserve has ten depression marshes totaling 17.65 acres. Depression marshes are characterized as being a shallow, usually rounded depression in sand substrate with herbaceous vegetation or subshrubs, often in concentric bands (Table 8). The concentric zones or bands of vegetation are related to length of the hydroperiod and depth of flooding (FNAI 2010). These basin-shaped marshes flood as groundwater levels rise.

Table 8. Common plants of depression marsh.

Common Name	Scientific Name
sand cordgrass	*Spartina bakeri*
sawgrass	*Cladium jamaicense*
madiencane	Panicum hemitomon
arrowhead	*Sagittaria lancifolia*
pickerel weed	*Pontederia cordata*
St. John's wort	*Hypericum spp*

Current Conditions

The depression marshes are in fair to good condition. Due to the lack of fire, woody shrubs have established around the perimeter of most depression marshes. Also, small amounts of invasive exotic species have established in the marshes, mostly primrose willow (*Ludwigia peruviana*) and Brazilian pepper.

Optimal Conditions

Optimally, depression marshes should have no pine trees or hardwoods growing in the wetland. They should have less than five percent invasive exotic plants and their shallow portion should be a sandy substrate. Ideally, at least 30 percent of the ground area would be covered in herbaceous species such as maidencane (*Panicum hemitomon*), panicgrass (*Panicum spp*.), beaksedge (*Rhynchospora spp*.), and St. John's-wort (*Hypericum spp*.), with bare ground less than 20 percent of the area. Depression marshes should serve as important breeding habitat for several species of frogs and salamanders and feeding habitat for numerous bird species. The fire return interval will depend on the frequency of fire in the surrounding communities, but the optimal interval is 2–5 years.

Management Guidelines

Mechanically remove hardwoods from the depression marshes and allow prescribed fire to burn into the marshes from surrounding natural communities. Survey and manage invasive exotic plants. Continue to trap for feral hogs.

2.2.6 Dry Prairie

The preserve has approximately nine acres of dry prairie. Dry prairie is a globally imperiled habitat that requires the natural processes of frequent spring fires and seasonal water inundation to be maintained. A variety of plants are common in dry prairie (Table 9). Dry prairies are fire dependent. Areas that are structurally similar to dry prairie are probably cut-over (logged) mesic flatwoods.

Table 9. Common plants of dry prairie.

Common Name	Scientific Name
saw palmetto	*Serenoa repens*
gallberry	*Ilex glabra*
huckleberry	*Vaccinium spp.*
runner oak	*Quercus elliotti*
dwarf live oak	*Quercus minima*
wiregrass	*Aristida stricta var. beyrichiana*
broomsedge bluestem	*Andropogon virginicus*
lopsided indiangrass	*Sorghastrum secundum*

Current Conditions

Overall, the dry prairie is in poor to fair condition due to lack of fire. More than half is overgrown with saw palmetto over three feet with 80 percent density, not allowing herbs, grasses, and shrubs ample space to grow. Areas have encroaching hardwoods and woody shrubs like wax myrtle, while cogon grass is the dominant exotic invasive species.

Optimal Conditions

Optimally, slash pine should be present in low densities. Saw palmetto height should be less than three feet with coverage of 25–50 percent. Shrub layers should be less than three feet in height, with an average coverage of 25 percent or less. Herbaceous ground cover should be 50–75 percent coverage with a high diversity and species richness that includes forbs and grasses.

Management Guidelines

Burn dry prairie every 18–24 months, mainly during growing season. Prescribed fire is the most important tool for keeping dry prairie in a healthy, biologically diverse condition. Since we aren't able to burn as required, mechanical treatments will be necessary to maintain the dry prairie. Reduce palmetto cover to 20 percent or less by roller chopping. Reduce pine basal area to less than one square foot per acre by heavy brush mowing. Reduce shrub height through a combination of chainsaw work and brush mowing. Eradicate cogon grass as a top priority to reduce the potential of it forming a monoculture.

2.2.7 Floodplain Swamp

Floodplain swamps are characterized as a closed-canopy forest of hydrophytic trees occurring on frequently or permanently flooded hydric soils adjacent to stream and river channel sand in depressions and oxbows in floodplains. Trees are often buttressed, and the understory and groundcover are sparse. The "knees" arising from the root systems of both cypress and tupelo are common features in floodplain swamp. Floodplain swamp can often occur within a complex mixture of communities. This produces a variable assemblage of canopy and subcanopy species, with less flood tolerant trees and shrubs found on small hammocks and ridges in the swamp (Table 10, FNAI 2010). Cypress becomes much less dominant in south Florida, replaced by laural oak, red maple and buttonbush. Other canopy trees capable of withstanding frequent inundation may be present but rarely dominant (FNAI 2010). These swamps lie either immediately adjacent to the Myakka River or are lined by drainage ways. They are subjected to flooding as the river rises.

Table 10. Common plants of floodplain swamps.

Common Name	Scientific Name
coastal plain willow	*Salix caroliniana*
laurel oak	*Quercus laurifolia Michx.*
buttonbush	*Cephalanthus occidentalis*
popash	*Fraxinus caroliniana*
red maple	*Acer rubrum*
climbing aster	*Aster carolinianus*
hemp vine	*Mikania scandens*
pepper vine	*Ampelopsis arborea*
Virginia creeper	*Parthenocissus quinquefolia*
swamp mallow	*Hibiscus grandiflorus*
camphorweed	*Pluchea rosea*
fireweed	*Erechtites hieracifolia*

Current Conditions

Floodplain swamp in the reserve is mainly in good condition. Fire is infrequent in this habitat and the open understory doesn't support fuel buildup. Summer flood events clear away detritus build-up and

maintain an open understory. Invasive exotic plants like Old World climbing fern are present but not in high densities. Feral hogs live disturb the soil both by rooting and creating wallows.

Optimal Conditions

Optimally, regular seasonal flooding should be an important factor in maintaining the proper hydroperiod and the health of floodplain swamp. Invasive exotic species should be managed to reduce impacts. The canopy should be dense and closed with few openings as large mature trees die. Flood tolerant ferns and herbs may cover portions of the forest floor. Some shrubs may be supported in isolated areas that are less flooded during higher water times.

Management Guidelines

Survey and treat invasive exotic plants during the dry season, especially to reduce densities of species like Old World climbing fern, para grass, and West Indian marsh grass. Remove feral hogs to help minimize soil disturbance.

2.2.8 Management Zones

To coordinate management efforts and maintain records of prescribed fire, restoration activities, and invasive exotic plant management, the preserve is divided into 22 management zones (Tables 11, 12a, and 12b, Exhibit 8).

Table 11. Management Zones used to track prescribed fire, restoration activities, and invasive exotic plant management.

Management Zones Acreage					
Zone	Acres	Zone	Acres	Zone	Acres
1A	11.0	3A	62.8	6A	7.6
1B	45.9	3B	20.8	6B	94.8
2A	3.3	3C	2.3	7	50.8
2B	20.0	4A	18.3	8A	6.7
2C	28.9	4B	15.0	8B	33.2
2D	15.8	5A	8.3	9A	30.2
2E	18.7	5B	23.2	9B	42.5
				9C	17.3

Table 12a. Annual burn plan intervals and targets.

Natural Community	Acres	Burn Interval	Annual Burn Target (acres)
mesic or prairie hammock	317.14	0	TBD
mesic flatwoods	117.6	2–4yrs	30–40
upland mixed forest	84.5	3–5yrs	20–30
floodplain marsh	19.4	0	TBD
depression marsh	17.65	2–8yrs	5–15
dry prairie	8.95	2–3 yrs	0–10
floodplain swamp	3.43	0	0

Management zones are grouped into four zones for purposes of Integrated Pest Management (Exhibit 9). The overall goal is to survey and treat approximately 600 acres annually with each zone completely surveyed and treated every four years.

Table 12b. Annual IPM intervals and targets.

Invasive Plant Management Treatment Regions	Acres Surveyed and Treated (where needed)	4-year Rotation
7, 8A, 8B, 9A, 9C	138.2	2022, 2026, 2030
6A, 6B, 9B	144.9	2023, 2027, 2031
1A, 1B, 2A,2B,2C,2D,2E,3C,4A,4B,5A, 5B	210.7	2024, 2028, 2032
3A, 3B	83.3	2025, 2029, 2033

2.2.9 Special Considerations

Sarasota County aims to maintain and enhance native species diversity and richness through prescribed fire, continued invasive exotic species treatment, and mechanical vegetation reduction projects.

Prescribed burning together with mechanical vegetation reduction is necessary to accomplish management goals. Burning may not be optimal given the site's proximity to North River Road and Interstate 75. Typically, a prescribed fire regime for mesic flatwoods occurs between 3–5 years, but due to the area's growing development, shorter burn intervals may be necessary to reduce fuel accumulation and minimize the potential negative impacts of smoke. Burning requires a westerly wind component to minimize smoke impacts to both River Road and the residential community located immediately west of the preserve.

The use of heavy equipment during roller chopping and heavy brush mowing is necessary for management and habitat restoration. Authorized County and contractor vehicles must stay on trails, except ATVs during prescribed burns.

Feral hog damage is a major concern and should continue to be contracted out for removal. Other options for hog removal could include utilizing US Department of Agriculture eradication programs and County staff.

There is approximately 10–15 percent invasive exotic plant coverage. There have been two large scale FWC-funded invasive exotic species projects completed on Zones 9A and 9C in September 2020 and October 2021. Two staff workdays focusing on Brazilian pepper treatment were conducted in 2021. Treatment of invasive exotic and nuisance plants will continue by way of contracted projects, workdays, and after prescribed burns.

2.2.10 Research and Monitoring

While no research needs are identified at this time, many opportunities exist for research that would enhance the County's ability to manage this and other natural lands. The land manager visits the preserve a minimum of twice monthly, spending an average of 5–10 hours to address the following:

- Assess the overall natural condition of the site
- Assess the trail network for storm damage, litter, and accessibility

- Monitor invasive exotic species to assess treatment success, the need for retreatments, and early detection of new invasions
- Identify locations of imperiled plant species
- Assess fuel loads and habitat structure and plan land management activities
- Coordinate with Sarasota County Fire Mitigation Specialists to create an annual prescribed fire plan
- Monitor vegetation to assess the effects of land management and mowing
- Inspection of fencing, gates, and the condition of other amenities

3 CULTURAL RESOURCE MANAGEMENT COMPONENT

3.1 CULTURAL RESOURCE INVENTORY

3.1.1 Archeological Sites

Because of the Preserve's proximity to the Myakka River, it is believed that Native Americans as well as Euro- and Afro-Americans utilized the site or exploited its natural resources. An archaeological and historical survey summarized cultural features from the 20th century as well as newly and formerly recorded archaeological occurrences and a new archaeological site (ACI 2005).

Recent cultural features include Sweetwater Gully, a portion of the Blackburn Canal/Curry Creek System (8SO2632), an internal ditch, and the Jelks Ditch (8SO5274) that drain wetlands into the Myakka River.

Five archaeological occurrences (AO) occur. Most of the AO consist of single small, medium, or large chert flakes with no significant markings. One AO consists of two sand-tempered plain ceramic sherds found on the surface near the Myakka River.

The new archaeological site consists of the excavation of several small and medium chert flakes and one lithic scraping tool. The chert artifacts of this site were imported from outside Sarasota County and the flakes are the result of Native American activities usually associated with the maintenance or manufacture of stone tools. This evidence coupled with the absence of other cultural material is interpreted as the signature of a temporary camp for exploitation of the area's natural resources. The absence of ceramics at this site suggests a pre-ceramic date (pre-2000 BC).

None of these sites are eligible for listing in the National Registry of Historic Places (NRHP) but one, the historic Blackburn Canal/Curry Creek System (8SO2632), may be eligible for listing in the Sarasota County Registry of Historic Places (SCRHP).

3.1.2 Historical Structures and Uses

Not Applicable

3.2 CULTURAL RESOURCE MANAGEMENT

3.2.1 Considerations for Protection

None of the cultural or historical sites are significant enough to warrant obvious protection, such as fencing or camouflaging. Nevertheless, the land manager and other support staff should be aware of their locations to avoid unnecessary disturbances.

The archaeological and historical sites can be protected, as necessary, by avoiding large-scale ground disturbing activities. Although building construction is not proposed in any archaeological site or occurrence, other disturbances such as natural erosion, vehicle activity, land management activities, animal disturbance, or tree falls may damage these areas.

Only the new archaeological site is an area that is subject to repeated mechanical activity. The land manager should assess the feasibility of rerouting an existing trail section that currently traverses this archaeological site as long as it doesn't degrade or significantly impact other areas of sensitivity. This

should be completed by the end of fiscal year 2023. To date, this area has been subject to mechanical activity such as disking and animal activity such as hog rooting. If any artifacts surface because of management activities, they should be documented as to provenance, collected carefully, and transported to the Sarasota County History Center for curation.

4 LAND USE COMPONENT

4.1 CURRENT LAND USES, AMENITIES, AND FACILITIES

4.1.1 Agriculture

Not Applicable

4.1.2 Public Access and Recreational Uses

It is essential that public access be provided to the natural areas in Sarasota County to encourage understanding of their function and importance. Current use provides for passive, nature-based recreational activity without adversely impacting native habitats and communities. Recreational opportunities include picnicking, hiking, bicycling, limited fishing, birding, and wildlife viewing. The preserve is on-leash dog-friendly.

Recreational and public use facilities include an access road, parking area, picnic tables, benches, hiking trails, and an educational kiosk. No motorized vehicles are allowed, except in designated parking areas and by Sarasota County staff or contractors performing official duties. There are two pedestrian access points connecting to nearly six miles of trails.

Sarasota County has designed the parking lot and visitor use areas to minimize disturbance and other impacts to wildlife. The picnic area and kiosk are located in areas previously disturbed, including existing trails and areas where invasive exotic plants were removed. Sarasota County will conduct regular site maintenance, trash removal, site cleanup, and facilities upkeep (Tables 13 and 14).

Table 13. Current condition and maintenance requirements of facilities and amenities.

Type	Improvement	Condition Assessment	Maintenance Goal
public	parking area	good	maintain parking bumpers, paint handicap parking decals as needed
	trails	good	mow trails and trim adjacent shrubs as needed
	picnic tables and benches	good	clean and repair or replace as needed
	Signs and kiosk	good	clean and repair or replace as needed
support	NA	NA	

Table 14. Potential or known unauthorized uses. Potential unauthorized uses and activities are set forth in the County Facility Rules, in addition to applicable rules in Chapter 90 of the Sarasota County Code of Ordinances.

Unauthorized Use	Potential	Known
unauthorized vehicles, ATV's, UTV's, dirt bikes	X	
poaching or hunting		X
removal of plants	X	
cultural resource damage and removal	X	
unauthorized fires	X	
camping	X	
littering	X	

4.1.3 Outreach and Education

One interpretive kiosk is located near the pedestrian walk-through just east of the parking lot. Volunteers occasionally offer interpretive programs that describe the preserve's native plants and animals, invasive exotic plants, and other topics. The goal is to host a minimum of two programs annually.

4.1.4 Land Use on Adjacent Lands

The preserve is boarded by the Myakka River on the east, a Sarasota County owned off-site mitigation area to the south, a private residential community — Stoneybrook at Venice — to the west, and a private property known as Southern Sixty Five LLC to the north. Deer Prairie Creek Preserve is also located directly to the east across the Myakka River. The Sarasota County future land use map indicates that the adjacent areas on the east are moderate to low density residential and rural to the north (Exhibit 3).

4.2 Proposed Land Uses, Amenities, and Facilities

There will be no major change to the current land use of the preserve. As the purchase funding stipulations dictate, proposed land use will continue to enhance essential natural resources, ecosystems, and protect Florida's biodiversity at the species, natural community, and landscape levels. Passive, nature-based recreational use without adverse habitat and native species impacts will continue.

4.3 Current and Proposed ADA Components

The entrance is currently accessible to small mobility devices for persons with disabilities. The trails are composed of natural soil substrate and are subject to ground disturbance through erosion, wildlife activity, and use. The County will continue to look for opportunities to provide reasonable accessibility while balancing the need for security and maintaining the integrity of the natural environment.

4.4 Visitor Use Management And Carrying Capacity

As of 2022, the carrying capacity of the preserve for visitor use has not been identified. Understanding carrying capacity is useful for avoiding negative impacts to native plants and animals and the visitor experience.

If a specific use or activity has a negative impact on the native habitat, wildlife, or the experience of other preserve visitors, that use or activity will be reviewed and may be deemed inappropriate for the preserve. If this occurs, there may be limitations placed on the use or activity or it may no longer be permitted.

5 Operations Component

Land management activities are accomplished using a combination of county staff, county resources, and outside contractors. Sarasota County will be responsible for all property maintenance activities. Key activities include administrative duties, trash removal, trail and fence maintenance, recreational amenities maintenance, and habitat management. Staff of PRNR or their designee will provide these property maintenance activities weekly.

5.1 Current Staff

Sarasota County is responsible for staffing operation and maintenance. The preserve is assigned an Environmental Specialist position as Manager. Currently, the attention of the Manager is divided among five preserves. In addition to the manager, the NAT Division employs an Operations Team with a staff of six people to service NAT areas. Operations Team responsibilities include, but are not limited to, fence installation and repair, gate installation and repair, invasive exotic plant management, assistance with prescribed fire, and fireline preparation.

5.2 Optimal Staff

More management staff time is necessary to address maintenance, natural resource management needs, and security. NAT staff requires two additional staff members for the Land Manager Section and two for the Operations Section. Additional staff will also augment the prescribed fire team and the invasive exotic plant management team.

5.3 Agency and NGO Partners

The Florida Fish and Wildlife Conservation Commission Upland Invasive Plant Management Program has provided funding and contractual services for invasive exotic plant management. Sarasota County staff works with the Myakka River Coordinating Council when conducting land management activities in the Myakka River buffer (200 feet). Staff regularly participate in trainings held by or sponsored by National Wildfire Coordinating Group, Natural Areas Training Academy, and University of Florida IFAS.

5.4 Volunteers

Currently we have no registered volunteers for Jelks Preserve. Volunteers from other preserves have expressed interest in leading interpretive walks.

5.5 Law Enforcement or Security

Sarasota County is responsible for providing security. Vandalism is hopefully deterred by providing a visible presence during onsite visits and activities. The public are informed of the hours of operation and County ordinances governing appropriate use and behavior for the preserve through use of signs. All illegal activities will be immediately reported to the County Sheriff's Department, which is the entity responsible for providing regular patrols and enforcing trespass ordinances.

5.6 FUNDING

Jelks Preserve is funded from Sarasota County's general fund. No additional funding is available.

5.7 COSTS

Future costs are roughly estimated from current actual expenditures in August 2020 (see Appendix F). In all but the salaries, costs are slightly increased to account for inflation, but escalators are not applied. Salaries are fully loaded, and escalators are built in for the 10-year estimates. Site managers estimate the amount of time each staff position would spend on the natural area and divide annual salary accordingly to determine salary costs for given natural areas. See Appendix F for the annualized cost schedule for NAT.

	ACTIVITY	ESTIMATED 10-YR COST ($)
NATURAL RESOURCES	prescribed fire preparation	18,500
	prescribed fire	255,000
	prescribed fire monitoring	15,000
	integrated pest management surveying	135,000
	integrated pest management treatment	275,000
	hydrologic restoration	15,000
	mechanical vegetation management	150,000
	TOTAL COSTS	**863,500**
CULTURAL RESOURCES	surveying	0
	monitoring	3,500
	TOTAL COSTS	**3,500**
LAND USES	*Maintenance*	
	fencing	0
	trail markers	84,000
	benches	400
	tools	640
	parking lots	0
	road repairs	10000
	restrooms	0
	portable toilets	0
	grills	0

	tables	0
	pavilions	500
	camp sites	0
	grounds mowing	0
	power washing	42,000
	building maintenance	3500
	Recreation and Visitor Services	
	kiosks	1,250
	brochures	0
	maps	2,250
	programs, guided and self-guided	5,000
	events	0
	playgrounds	0
	nature centers	0
	trails	15,000
	TOTAL COSTS	**164,540**
OPERATIONS	salary of Manager II	352,500
	salary of Supervisor	62,500
	salary of Trades Workers	87,500
	salary of Administrative Assistant	15,000
	office equipment	0
	utilities	0
	offices	0
	security	0
	alarm monitoring	0
	fleet	20,000
	TOTAL COSTS	**537,500**

Notes:

1. Current Loaded Salary is based on FY 21.
2. Salary multiplier is 2.5 percent.
3. Average hourly rate for salary is based on 2080 total hours annually.

6 GOALS, OBJECTIVES, AND ACTIONS IMPLEMENTATION MATRIX

	GOALS / OBJECTIVES / ACTIONS		MEASURE (metric)	TARGETS 2024	2026	2028	2030	2032
NATURAL RESOURCES	**GOAL 1**	**Restore and maintain native habitats and communities.**						
	OBJECTIVE 1.1	Return fire to its natural role in fire-dependent native habitats and communities.						
	Action	Maintain and prepare firelines along boundary annually; internal firelines as required by annual burn plan.	# miles of trails prepared	TBD	TBD	TBD	TBD	TBD
	Action	Burn 25–75 acres annually within natural fire intervals based on habitat.	# acres burned	25–75	25–75	25–75	25–75	25–75
	Action	Develop annual burn plan utilizing ecological needs and historic, natural burn intervals.	Annual plan developed	X	X	X	X	X
	OBJECTIVE 1.2	Eliminate FLEPPC Category I and II plants, or if not possible, reduce populations to less than 5 percent.						
	Action	Annually survey at least 25% of preserve based on treatment regions.	# zones surveyed per treatment region	6	6	5	5	6
	Action	Annually treat at a minimum 25% of known infestation sites in the survey area.	% of known infestations treated per treatment region	25%	25%	25%	25%	25%
	Action	Identify and map priority invasive exotic plant species. GIS mapping should include abundance and extent of infestation.	GIS database and mapping completed	X	X	X	X	X
	Action	Write scopes of work and manage outside contractors as needed for larger infestations and difficult access.	# acres treated by outside contractors	TBD	TBD	TBD	TBD	TBD

	OBJECTIVE 1.3	Document and monitor imperiled species occurrences as they are identified.						
	Action	Identify newly discovered imperiled flora and fauna.	Management plan updated as needed	X	X	X	X	X
	OBJECTIVE 1.4	Maintain hydrologic function.						
	Action	Develop plan to reroute firelines that enter wetlands.	# miles of trails or firebreaks rerouted	TBD	TBD	TBD	TBD	TBD
	Action	Add culverts or low water crossings in known areas.	# crossings improved		1	1		
	OBJECTIVE 1.5	Restore vegetation height and density to accepted levels based on habitat type.						
	Action	Implement mechanical vegetation reduction where necessary to reduce wildfire risk and enhance prescribed fire effects.	# acres treated	15–30	15–30	15–30	15–30	15–30
	Action	Mechanically reduce the height of vegetative growth in areas out of RX fire rotation to restore height and density to accepted levels based on habitat.	# acres treated	25–50	25–50	TBD	TBD	TBD
CULTURAL RESOURCES	**GOAL 2**	**Protect, preserve, and maintain cultural resources.**						
	OBJECTIVE 2.1	Follow Sarasota County History Center protocol whenever ground disturbance is possible.						
	Action	Inform Sarasota County History Center protocol when ground disturbance is possible.	Communication documented	TBD	TBD	TBD	TBD	TBD
	Action	Follow up any ground disturbing activities with an archeological resource monitor survey.	Survey completed as needed	TBD	TBD	TBD	TBD	TBD
	OBJECTIVE 2.2	Monitor known sites biannually and during resource management activities.						
	Action	Evaluate the condition of known sites.	Evaluation completed	TBD		TBD		TBD

LAND USES	**GOAL 3**	**Maintain public access and passive recreational opportunities without adversely impacting native habitats and communities.**						
	OBJECTIVE 3.1	Provide public pedestrian access to the preserve.						
	Action	Survey needs for additional access points and repairs of existing entrance points.	Survey completed; # access points repaired	2	TBD	TBD	TBD	TBD
	OBJECTIVE 3.2	Provide and maintain a trail system.						
	Action	Mow the trail system and viewing locations to keep grass at a height between 3–5 inches.	# miles mowed	TBD	TBD	TBD	TBD	TBD
	Action	Survey the trail system for heavy debris and overhanging vegetation; trim where needed.	# miles surveyed and maintained	TBD	TBD	TBD	TBD	TBD
	Action	Reroute trails that are negatively impacting native habitats.	% of trails impacting native habitats rerouted	TBD	TBD			
	OBJECTIVE 3.3	Provide picnic tables and benches.						
	Action	Survey for repair needs to the current picnic tables and benches and make repairs as needed.	# picnic tables and benches in good condition.	TBD	TBD	TBD	TBD	TBD
	OBJECTIVE 3.4	Provide a clean environment for the visitor.						
	Action	Survey the parking area, trail system and picnic areas for trash.	# miles of trails surveyed, parking lot and picnic areas surveyed	TBD	TBD	TBD	TBD	TBD
	Action	Supply trash and recycle receptacles at the parking area.	# weeks trash and recycle receptacles supplied at parking lot and emptied	104	104	104	104	104

	OBJECTIVE 3.5	Access impacts of recreational activities to ensure the health of native habitats and communities.						
	Action	Establish monitoring protocol and implement protocol to assess the effects of recreational activities on the health of native habitats.	Monitoring SOP's created and implemented	X	X	X	X	X
	Action	Mitigate negative impacts to native habitats and communities.	Areas of concern identified and closed	X	X	X	X	X
	GOAL 4	**Provide nature based educational and interpretive opportunities.**						
	OBJECTIVE 4.1	Provide interpretive signs.						
	Action	Install additional information and interpretive signs.	# interpretive signs installed	TBD	TBD	TBD	TBD	TBD
	Action	Update kiosk.	Kiosk updated	TBD				
	OBJECTIVE 4.2	Provide self-guided volunteer lead interpretive tours.						
	Action	Provide opportunities for volunteers to support operation of guided nature walks.	# volunteer workdays	2	2	2	2	2
	Action	Maintain data including date of event, subject, presenter, and number of people attending.	Database updated	2	2	2	2	2
OPERATIONS	**GOAL 5**	**Provide administrative and fiscal support.**						
	OBJECTIVE 5.1	Continue day-to-day administrative support at current levels.						
	Action	Process purchase orders, pay invoices.	Administrative support accomplished	TBD	TBD	TBD	TBD	TBD
	Action	Identify infrastructure maintenance and additional needs annually.	Maintenance and needs identified annually	TBD	TBD	TBD	TBD	TBD

7 REFERENCES

ACI (Archaeological Consultants, Inc). 2003. *Cultural Resource Assessment Survey, Five Parcels of the Sarasota County Environmentally Sensitive Lands Protection Program*. Sarasota County, Florida. Part 1 of 3, 46 pp.

FNAI (Florida Natural Areas Inventory). 2010. *Guide to the natural communities of Florida: 2010 edition*. Florida Natural Areas Inventory, Tallahassee, FL.

Sarasota County. 2001. *Resource Management.* Natural Resources, Sarasota County Government, Sarasota, FL.

FDEP (Florida Department of Environmental Protection). 2011. *Myakka Wild and Scenic River Management Plan*. Florida Department of Environmental Protection. http://www.myakkarivermanagement.org/MRWSMP.html

8 EXHIBITS

EXHIBIT 1 – LOCATION MAP

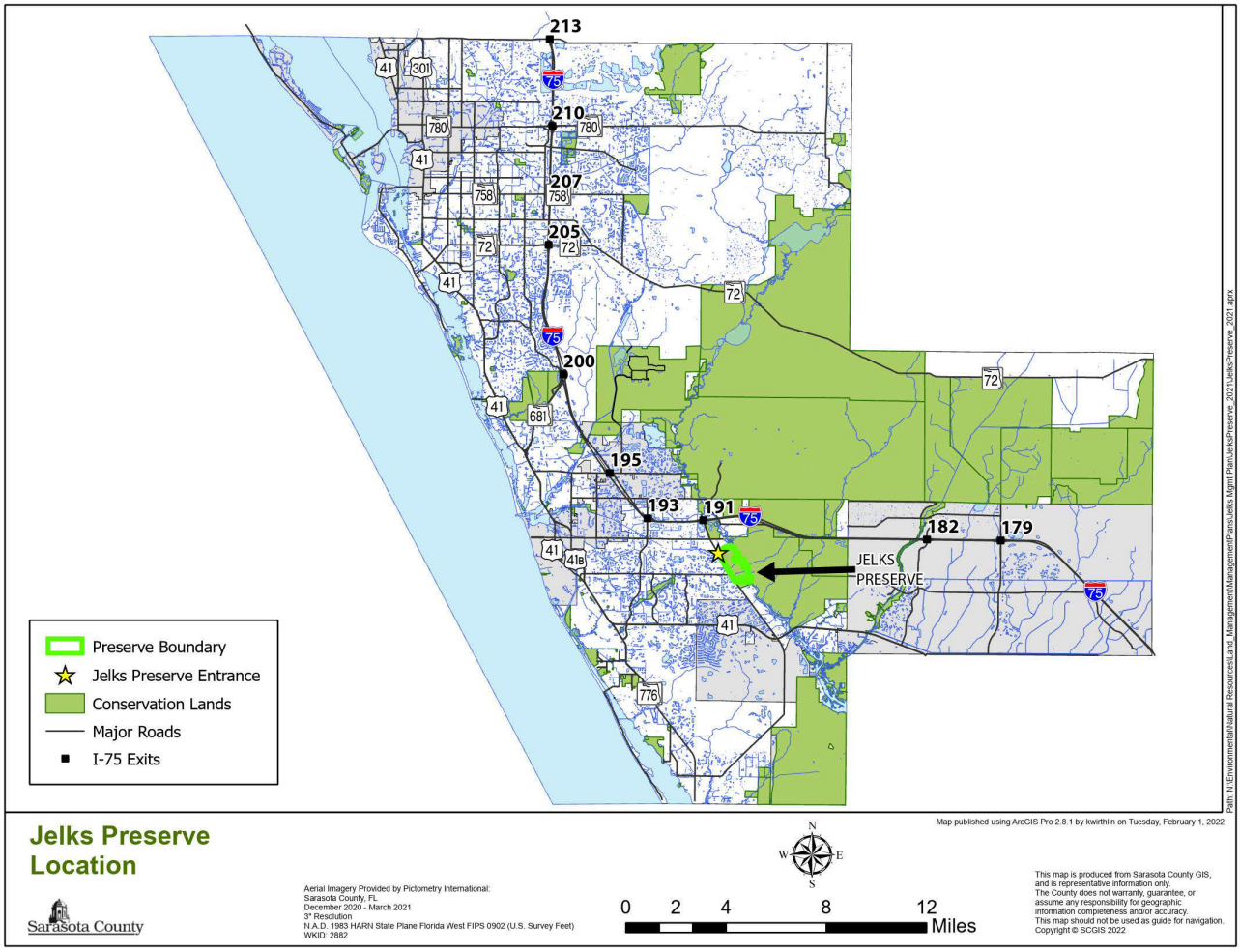


EXHIBIT 2 – PRESERVE BOUNDARY

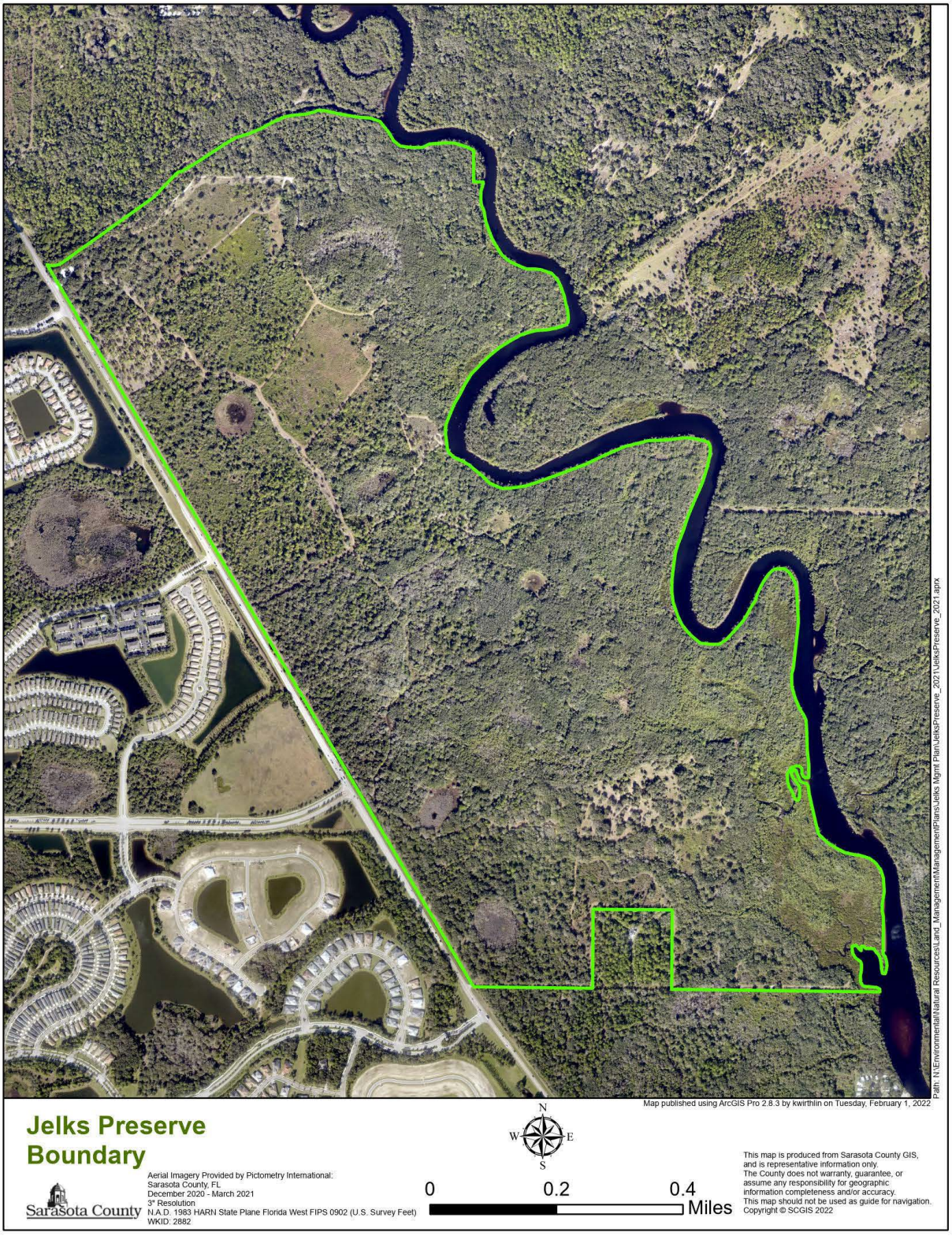


EXHIBIT 3 – FUTURE LAND USE MAP

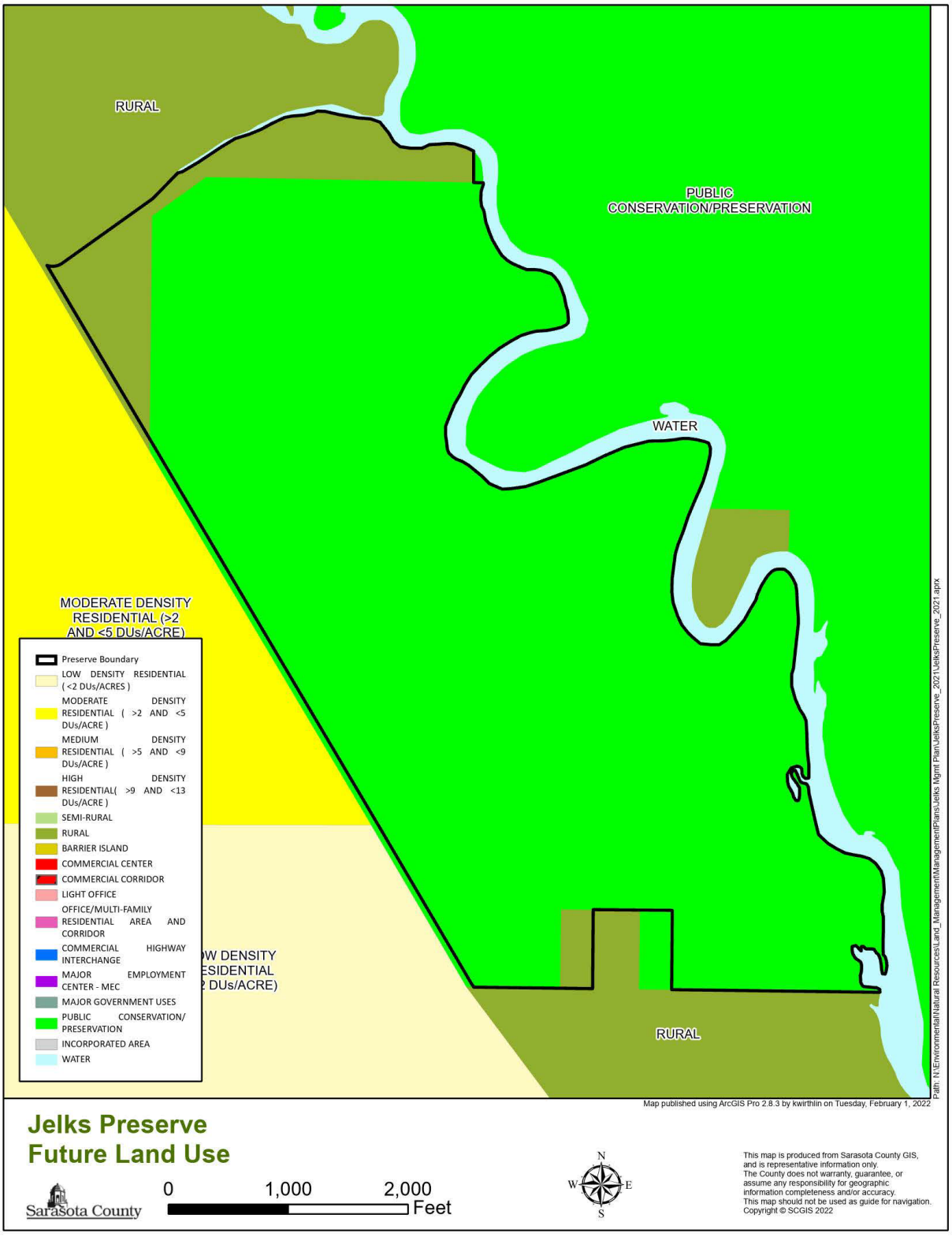


EXHIBIT 4 – ELEVATION MAP

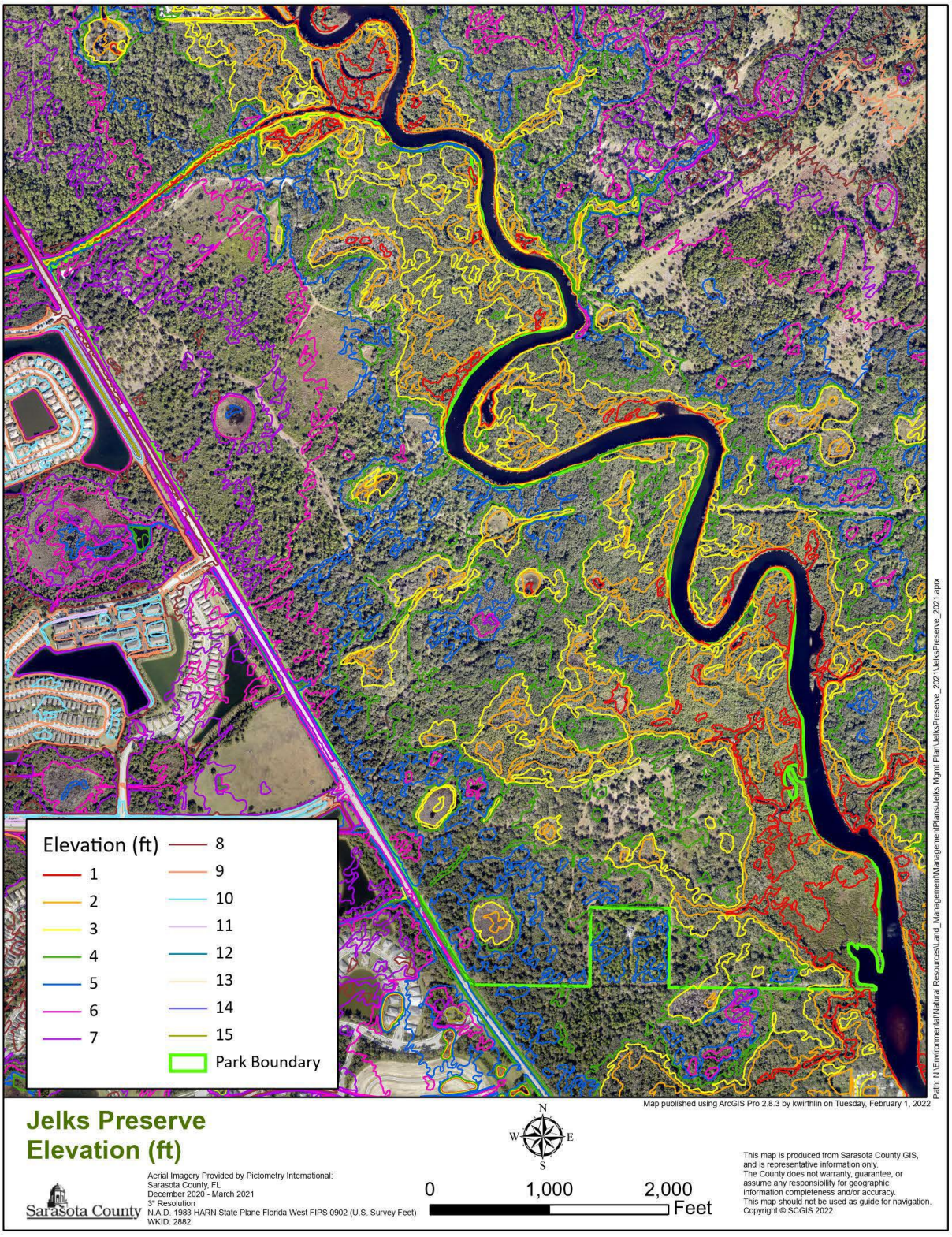


EXHIBIT 5 – SOILS MAP

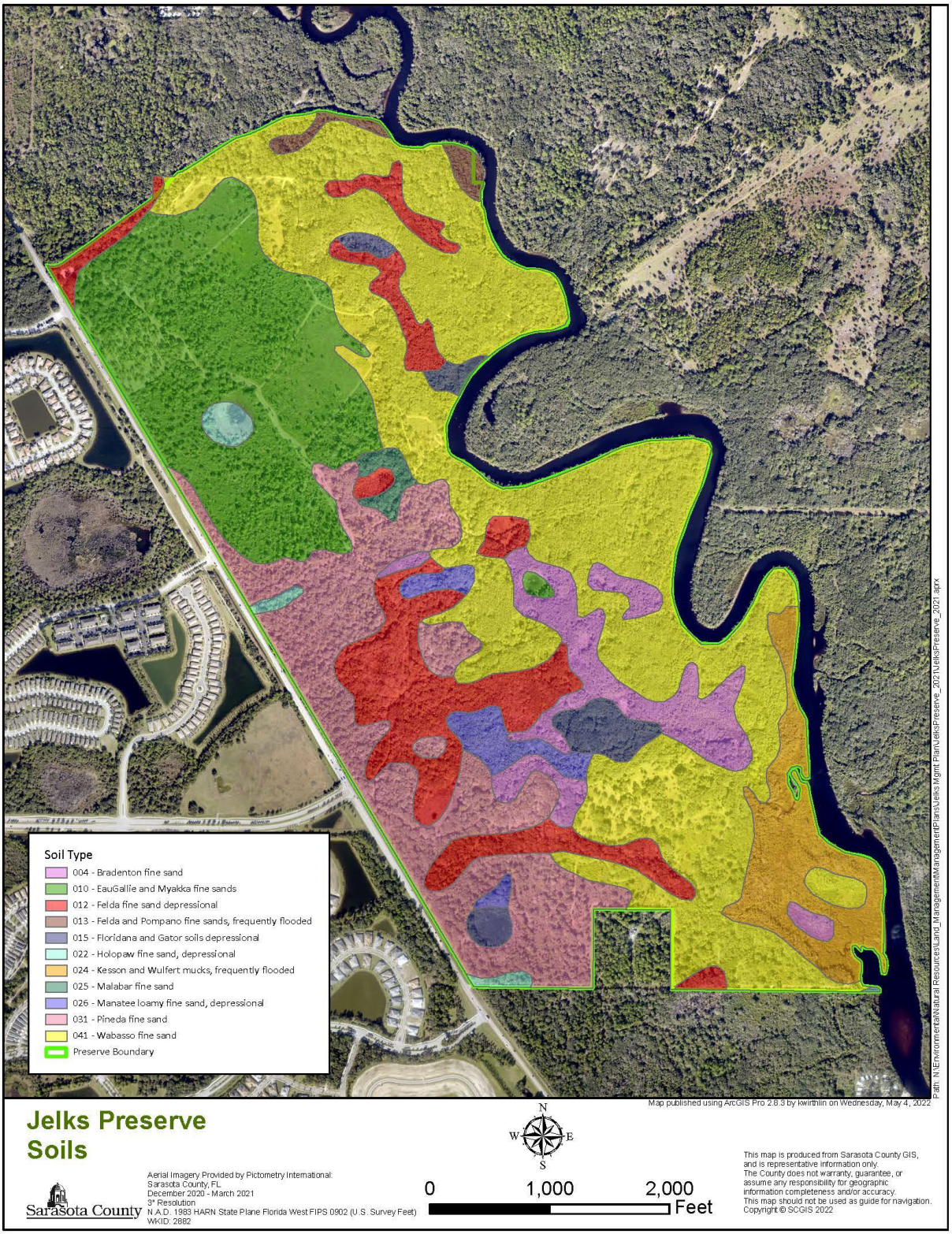


EXHIBIT 6 – FLOOD MAP

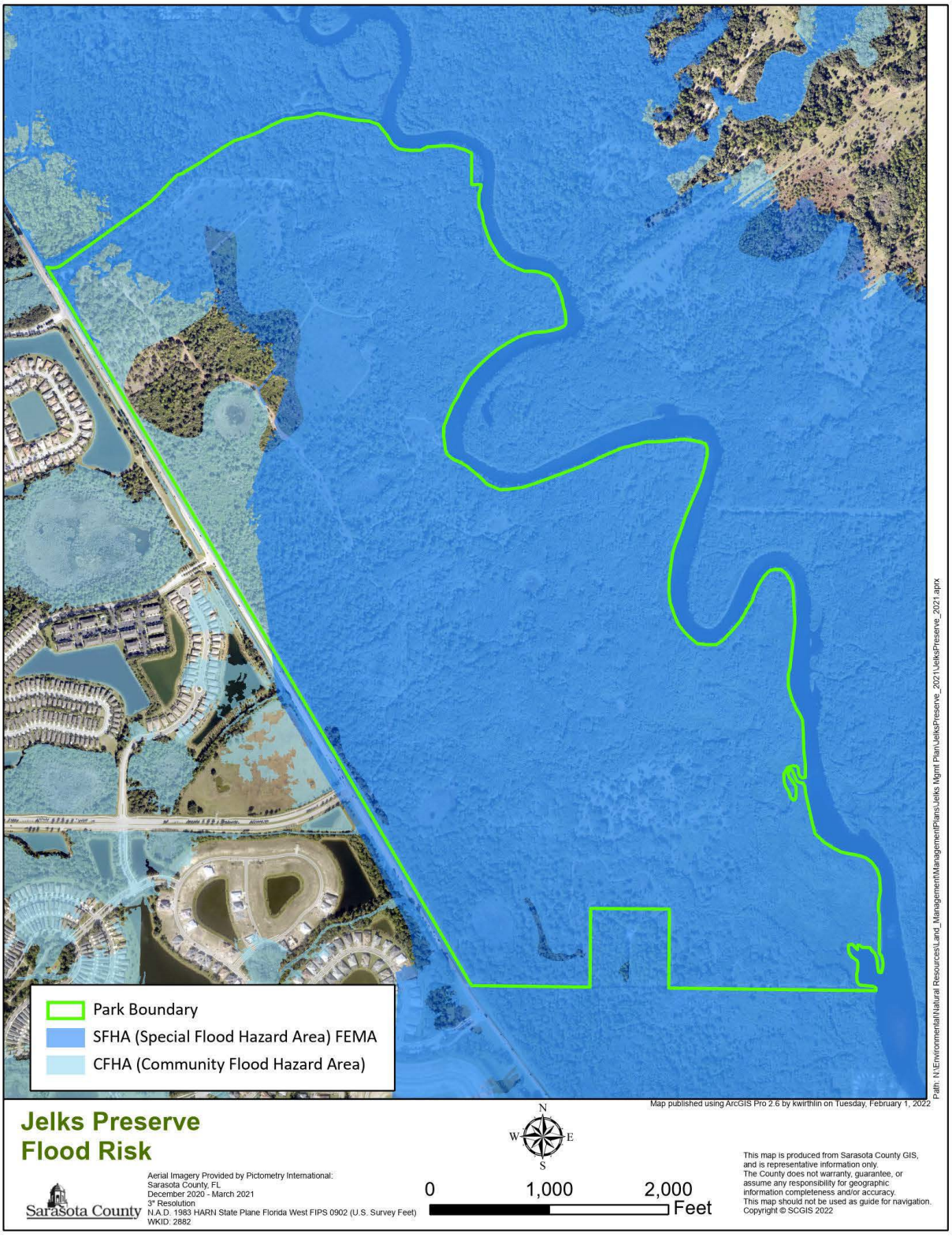


EXHIBIT 7A – HABITAT MAP

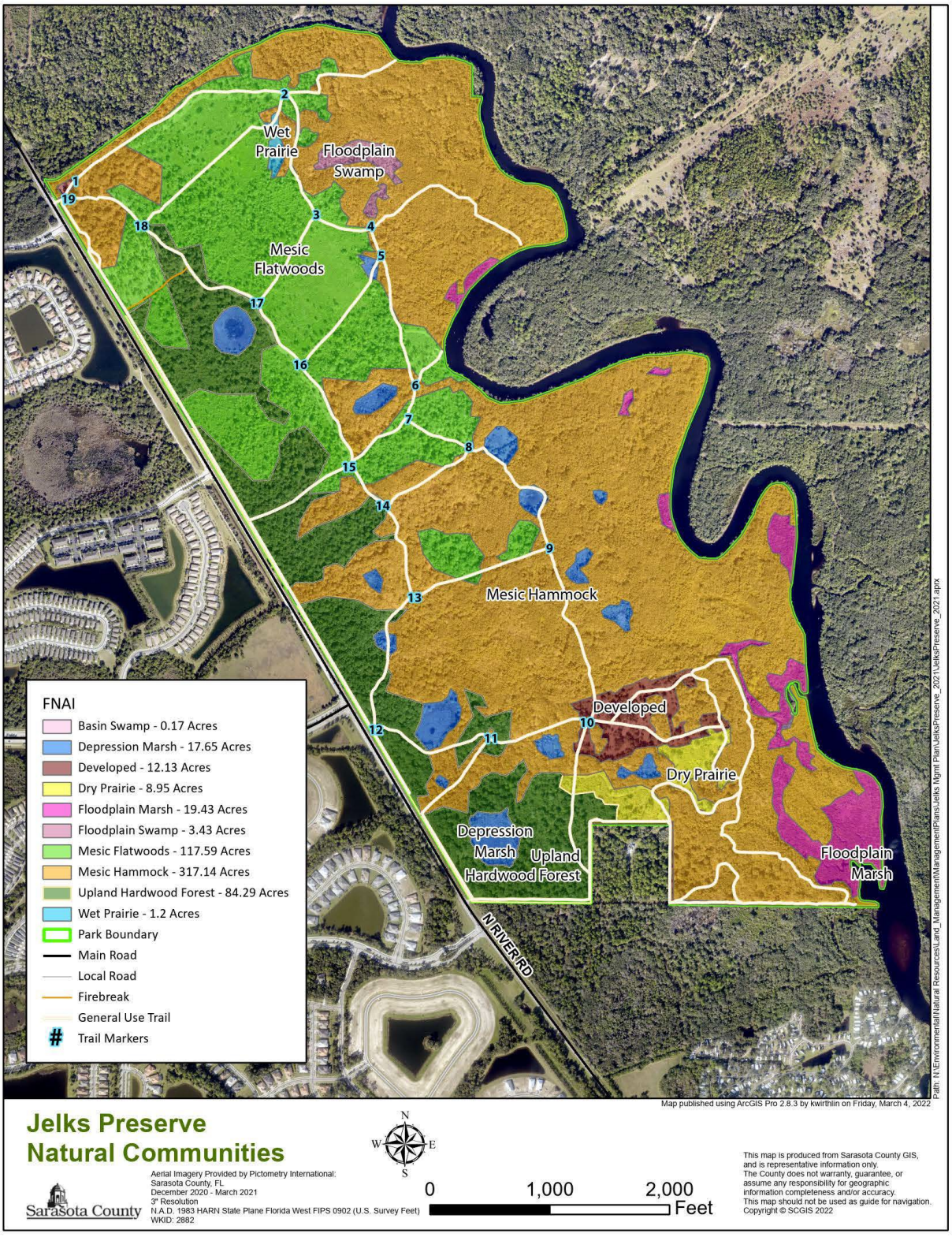


EXHIBIT 7B – HISTORICAL AERIAL

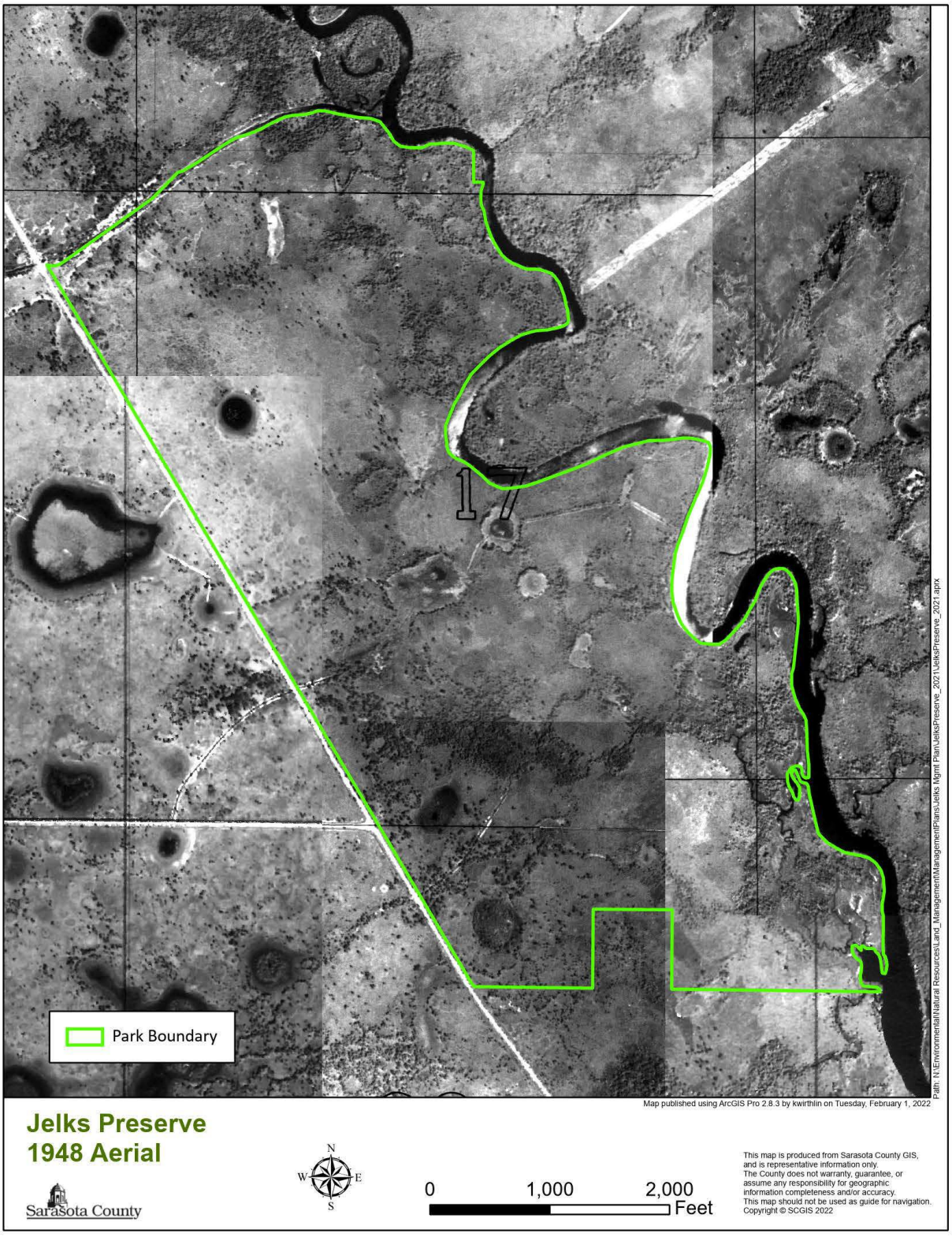


EXHIBIT 8 – MANAGEMENT ZONE MAP

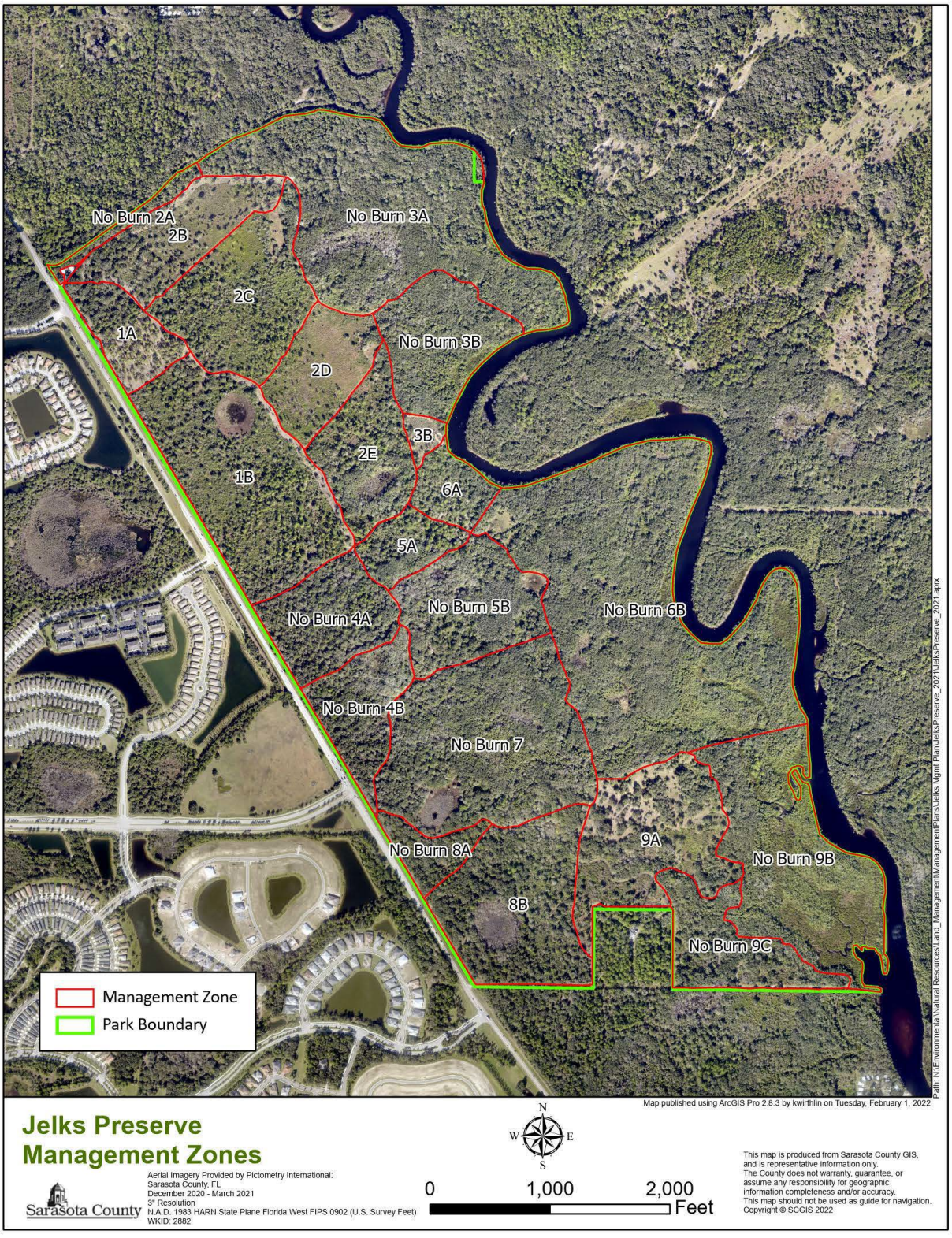


EXHIBIT 9 – IPM ROTATION MAP

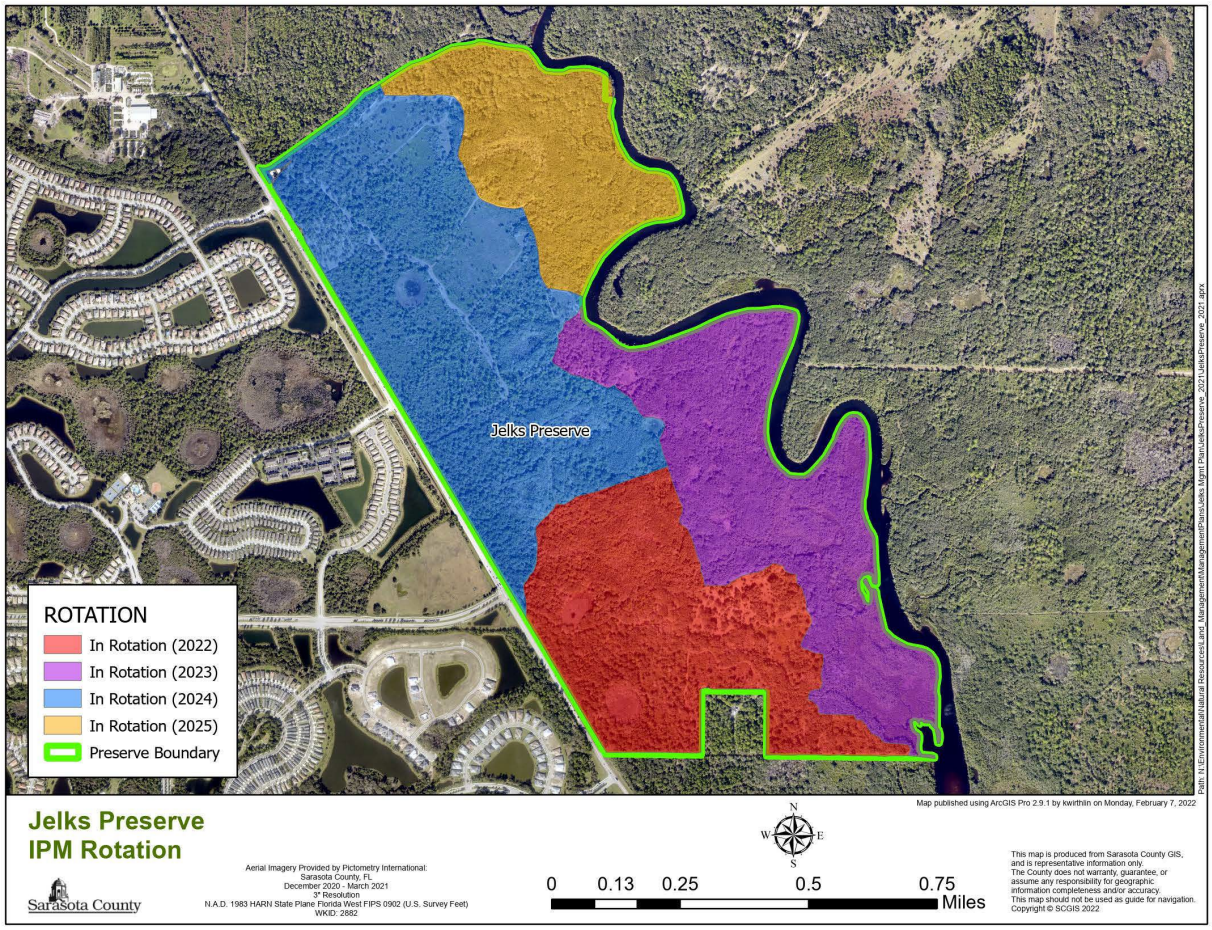
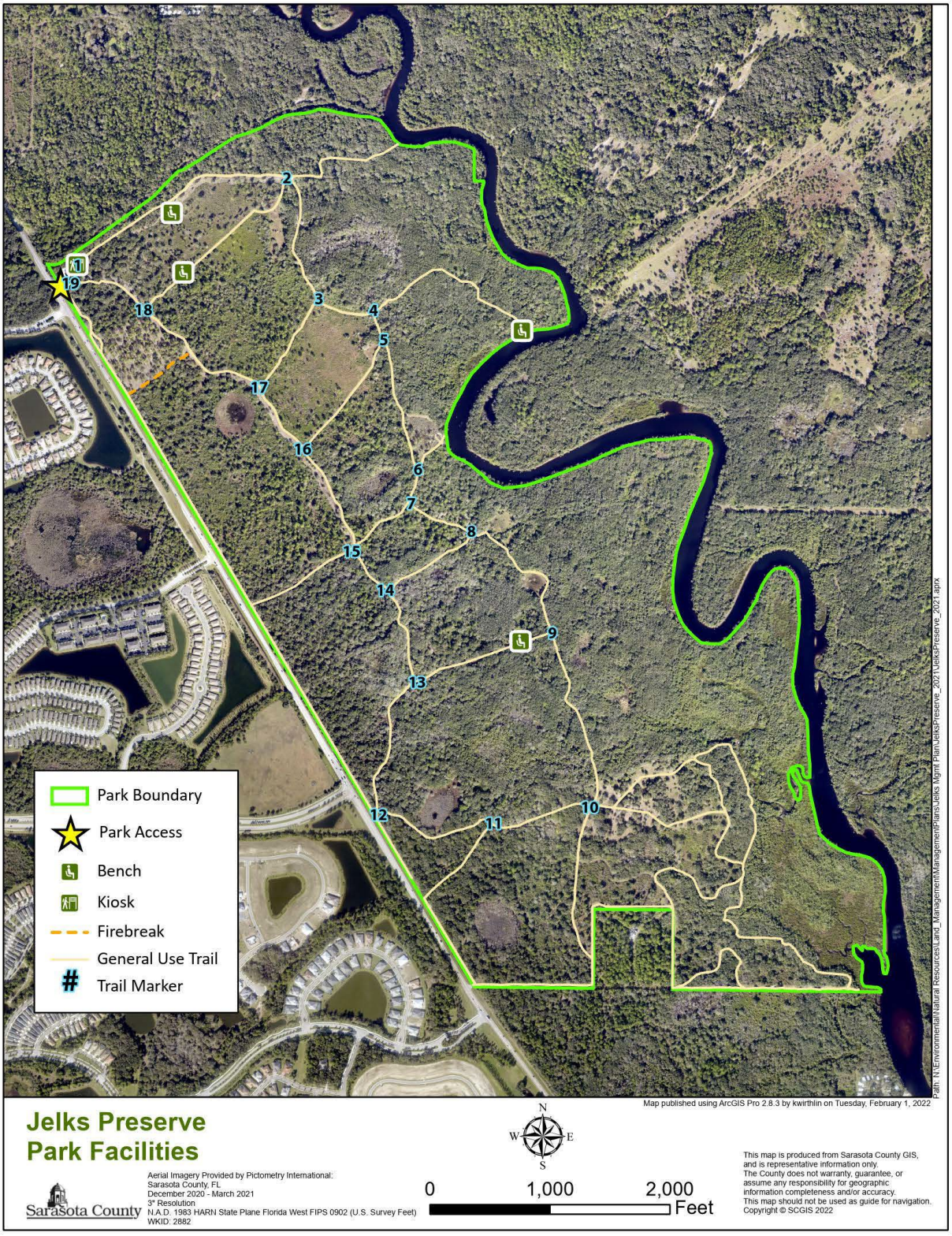


EXHIBIT 10 – FACILITIES, IMPROVEMENTS AND PUBLIC ACCESS AMENITIES MAP



9 APPENDICES

APPENDIX A – ACQUISITION DOCUMENTS

Deeds of Sale

1. Purchase date 09/19/00
   110.12 ac
   https://secure.sarasotaclerk.com/viewTiff.aspx?intrnum=2000119458

2. Purchase date 04/22/02
   15.11 ac
   Document can be accessed and viewed via Smartsheet.

APPENDIX B – LAND USE AGREEMENTS AND EASEMENTS

12/07/1998 Jelks Family Foundation, Inc Commitment Letter and Land Use Covenants Document can be accessed and viewed via Smartsheet.

APPENDIX C – GOVERNING DOCUMENTS AND ORDINANCES

1. The Sarasota County Comprehensive Plan (2016) to provide for the protection and management of the county's native habitats balanced with the need for public resource-based, ecologically benign, and non-consumptive recreation.
   https://www.scgov.net/government/planning-and-development-services/planning-and-zoning/planning/

2. Ordinance No. 97-024: Adopted 11 March 1997, amending Ordinance 90-01 to include carrotwood, Chinese tallow and beach naupaka as invasive exotic plant species to be controlled. (Sarasota County Invasive Plant Species Ordinance)
   https://library.municode.com/fl/sarasota_county/codes/code_of_ordinances?nodeId=PTIICOOR_CH54ENNARE_ARTXIXEXPL

3. Ordinance No. 98-045: Adopted 5 May 1998 with sunset provision 31 May 2005, to prohibit unauthorized removal or destruction of property on parks, beaches, recreation areas, or other public lands with a second-degree misdemeanor penalty for violations. (Use of Parks, Beaches, and Public Land)
   https://library.municode.com/fl/sarasota_county/codes/code_of_ordinances?nodeId=PTIICOOR_CH90PAREPULA_ARTIIUSPABEPULA

4. Ordinance No. 2011-077: Adopted 14 December 2011, amending Ord 2008-002 to consolidate the existing ordinances that protect the Myakka River into the Myakka River Protection Code with allowance for variances.
   https://library.municode.com/fl/sarasota_county/codes/code_of_ordinances?nodeId=PTIICOOR_CH54ENNARE_ARTXXXIIIMYRIPRCO

5. Myakka Wild and Scenic Management Plan (2011) for the management, administration, and protection of the designated segment of the Myakka River.
   http://www.myakkarivermanagement.org/MRWSMP.html

6. Sarasota County Land Management Master Plan (2004) to provide guidelines to those managing natural areas for conservation or preservation in Sarasota County.
   https://www.scgov.net/Home/ShowDocument?id=1306

APPENDIX D – LIST OF PLANT SPECIES

This list is an inventory of known species. As new species are discovered, their identification will be confirmed according to Wunderlin (1998) and added to the list. Survey information on the occurrence of listed plant species will be forwarded to the Florida Natural Areas Inventory (FNAI) in accordance with their procedures.

FAMILY	SCIENTIFIC NAME	COMMON NAME(S)	STATUS
Acanthaceae	Dyschoriste oblongifolia	oblongleaf twinflower; oblongleaf snakeherb	
Aceraceae	Acer rubrum	red maple	
Amaryllidaceae	Crinum americanum	seven-sisters; string lily	
Anacardiaceae	*Rhus copallinum*	winged sumac	
Anacardiaceae	*Schinus terebinthifolia*	Brazilian peppertree	Exotic, FLEPPC I
Anacardiaceae	*Toxicodendron radicans*	Eastern poison ivy	
Annonaceae	*Asimina reticulata*	netted pawpaw	
Apiaceae	*Cicuta maculata*	spotted water hemlock	
Apocynaceae	*Asclepias lanceolata*	fewflower milkweed	
Apocynaceae	*Asclepias pedicellata*	savannah milkweed	
Apocynaceae	*Asclepias perennis*	swamp milkweed	
Apocynaceae	*Asclepias tuberosa*	butterfly weed; butterfly milkweed	
Aquifoliaceae	*Ilex glabra*	gallberry; inkberry	
Aquifoliaceae	*Ilex cassine*	dahoon	
Araceae	*Sabal palmetto*	cabbage palm	
Araceae	*Serenoa repens*	saw palmetto	
Asteraceae	*Symphyotrichum carolinianum*	climbing aster	
Asteraceae	*Baccharis halimifolia*	groundsel tree; sea myrtle	
Asteraceae	*Bidens alba*	beggarticks; romerillo	
Asteraceae	*Bidens mitis*	smallfruit beggarticks	

Asteraceae	*Carphephorus corymbosus*	coastalplain chaffhead; Florida paintbrush	
Asteraceae	*Carphephorus odoratissimus var. subtropicanus*	pineland purple; false vanillaleaf	Endemic
Asteraceae	*Cirsium horridulum*	purple thistle; horrid thistle	
Asteraceae	*Cirsium nuttallii*	Nuttall's thistle	
Asteraceae	*Conoclinium coelestinum*	blue mistflower	
Asteraceae	*Coreopsis leavenworthii*	Leavenworth's tickseed	Endemic
Asteraceae	*Eclipta prostrata*	false daisy	
Asteraceae	*Elephantopus elatus*	tall elephant's foot	
Asteraceae	*Emilia fosbergii*	Florida's tasselflower; cupid's shavingbrush	Exotic
Asteraceae	*Erechtites hieraciifolius*	American burnweed; fireweed	
Asteraceae	*Erigeron strigosus*	prairie fleabane	
Asteraceae	*Eupatorium capillifolium*	dog fennel	
Asteraceae	*Eupatorium mohrii*	Mohr's thoroughwort	
Asteraceae	*Euthamia caroliniana*	slender flattop goldenrod	
Asteraceae	*Helenium amarum*	Spanish daisy; bitterweed	
Asteraceae	*Heiracium gronovii*	green devil; hawkweed	
Asteraceae	*Lygodesmia aphylla*	rose-rush	
Asteraceae	*Mikania scandens*	climbing hempvine	
Asteraceae	*Packera glabella*	butterweed	
Asteraceae	*Pityopsis graminifolia*	narrowleaf silkgrass; grass-leaved golden aster	
Asteraceae	*Pluchea odorata*	sweetscent; marsh fleabane	
Asteraceae	*Mikania scandens*	climbing hempvine	
Asteraceae	*Heterotheca subaxillaris*	camphorweed	
Asteraceae	*Pterocaulon pycnostachyum*	blackroot	

Asteraceae	*Solidago stricta*	wand goldenrod	
Asteraceae	*Veronia blodgettii*	Florida ironweed; Blodgett's ironweed	
Adoxaceae	*Sambucus canadensis*	American elder; elderberry	
Adoxaceae	*Viburnum obovatum*	Walter's viburnum; small-leaf viburnum	
Blechnaceae	*Blechnum serrulatum*	swamp fern	
Blechnaceae	*Woodwardia virginica*	Virginia chain fern	
Bromeliaceae	*Tillandsia fasciculata*	cardinal airplant	E (FDACS)
Bromeliaceae	*Tillandsia recurvata*	ball moss	
Bromeliaceae	*Tillandsia setacea*	Southern needleleaf	
Bromeliaceae	*Tillandsia simulata*	Florida airplant	Endemic
Bromeliaceae	*Tillandsia usneoides*	Spanish moss	
Bromeliaceae	*Tillandsia utriculata*	giant airplant; giant wild pine	E (FDACS)
Campanulaceae	*Lobelia feayana*	bay lobelia	Endemic
Cannaceae	*Canna flaccida*	yellow canna; bandana-of-the-everglades	
Caryophyllacea	*Stipulicida setacea var. setacea*	pineland scalypink; wire plant	
Chrysobalanaceae	*Geobalanus oblongifolius*	gopher apple	
Cistaceae	*Crocanthemum corymbosum*	pinebarren frostweed	
Cistaceae	*Lechea torreyi*	piedmont pinweed	
Clusiaceae	*Hypericum cistifolium*	roundpod St. John's wort	
Clusiaceae	*Hypericum fasciculatum*	sandweed; peelbark St. John's wort	
Clusiaceae	*Hypericum gentianoides*	pineweeds; orangegrass	
Clusiaceae	*Hypericum hypericoides*	St. Andrew's cross	
Clusiaceae	*Hypericum mutilum*	dwarf St. John's wort	
Clusiaceae	*Hypericum reductum*	Atlantic St. John's wort	

Clusiaceae	*Hypericum tetrapetalum*	fourpetal St. John's wort	
Commelinaceae	*Commelina erecta*	whitemouth dayflower	
Cyperaceae	*Cladium jamaicense*	Jamaica swamp sawgrass	
Cyperaceae	*Eleocharis equisetoides*	jointed spikerush	
Cyperaceae	*Rhynchospora microcarpa*	Southern beaksedge	
Cyperaceae	*Rhynchospora colorata*	starrush whitetop; white-tops; white-topped sedge	
Cyperaceae	*Scirpus californicus*	giant bulrush	
Dennstaedtiaceae	*Pteridium aquilinum* var. *pseudocaudatum*	tailed bracken	
Ebenaceae	*Diospyros virginiana*	common persimmon	
Ericaceae	*Bejaria racemosa*	tarflower	
Ericaceae	*Gaylussacia dumosa*	dwarf huckleberry	
Ericaceae	*Lyonia fruitcosa*	coastalplain staggerbush	
Ericaceae	*Lyonia lucida*	fetterbush	
Ericaceae	*Vaccinium arcoreum*	sparkleberry; farkleberry	
Ericaceae	*Vaccinium darrowii*	Darrow's blueberry	
Ericaceae	*Vaccinium myrsinites*	shiny blueberry	
Eriocaulaceae	*Syngonanthus flavidulus*	yellow hatpins	
Euphorbiaceae	*Cnidoscolus stimulosus*	tread-softly; finger-rot	
Euphorbiaceae	*Croton sp.*	croton	
Fabaceae	*Abrus precatorius*	rosary peas; blackeyed susan	E FLEPPC I
Fabaceae	*Chamaecrista fasciculata*	partridge pea	
Fabaceae	*Crotalaria lanceolata*	lanceleaf rattlebox	E
Fabaceae	*Desmodium strictum*	pinebarren ticktrefoil	
Fabaceae	*Erythrina herbacea*	Cherokee bean; Eastern coralbean	

Fabaceae	*Galactia elliottii*	Elliott's milkpea	
Fabaceae	*Galactiavolubilis*	downy milkpea	
Fabaceae	*Galactia regularis*	Eastern milkpea	
Fabaceae	*Amorpha herbacea var. herbacea*	lusterspike indigobush	
Fabaceae	*Indigofera caroliniana*	Carolina indigo	
Fabaceae	*Mimosa quadrivalvis var. angustata*	sensitive briar	
Fabaceae	*Senna occidentalis*	septicweed; coffee senna	E
Fabaceae	*Sesbania herbacea*	danglepod; bequilla	
Fabaceae	Tephrosia sp.	hoarypea	
Fabaceae	Quercus incana	bluejack oak	
Fagaceae	*Quercus geminata*	sand live oak	
Fagaceae	*Quercus laurifolia*	laurel oak	
Fagaceae	*Quercus minima*	dwarf live oak	
Fagaceae	*Quercus nigra*	water oak	
Fagaceae	*Quercus viginiana*	live oak	
Gelsemiaceae	Gelsemium sempervirens	yellow jessamine; Carolina jessamine	
Hypoxidaceae	*Hypoxis juncea*	fringed yellow stargrass	
Iridaceae	*Iris hexagona*	prairie iris; dixie iris	
Iridaceae	*Sisyrinchium angustifolium*	narrowleaf blue-eyed grass	
Lamiaceae	*Callicarpa americana*	American beautyberry	
Lamiaceae	*Hyptis alata*	clustered bushmint; musky mint	
Lamiaceae	*Salvia lyrata*	lyreleaf sage	
Lamiaceae	*Physostegia purpurea*	Eastern false dragonhead	
Lamiaceae	*Piloblephis rigida*	wild pennyroyal; false pennyroyal	

Lamiaceae	*Scutellaria intergrifolia*	helmet skullcap	
Lamiaceae	*Trichostema dichotomum*	forked bluecurls	
Lauraceae	*Persea borbonia var. borbonia*	red bay	
Lythraceae	*Lythrum alatum var. lanceolatum*	winged loosestrife	
Lythraceae	*Lythrum flagellare*	Florida lowland loosestrife	Endemic
Malvaceae	*Hibiscus grandiflorus*	swamp rosemallow	
Malvaceae	*Kosteletzkya virgininca*	Virgina saltmarsh mallow	
Malvaceae	*Urena lobata*	caesarweed	Exotic; FLEPPC I
Marantaceae	*Thalia geniculata*	alligator flag; fireflag	
Melastomataceae	*Rhexia mariana*	pale meadowbeauty; Maryland meadowbeauty	
Melastomataceae	*Rhexia nuttallii*	Nuttall's meadowbeauty	
Myricaceae	*Morella cerifera*	wax myrtle	
Myrsinaceae	*Rapanea punctata*	myrsine; colicwood	
Onagraceae	*Gaura angustifolia*	Southern beeblossom; southern gaura	
Onagraceae	*Ludwigia suffruticosa*	shrubby primerose willow	
Onagraceae	*Ludwigia arcuata*	piedmont primerose willow	
Onagraceae	*Ludwigia peruviana*	Peruvian primerose willow	Exotic; FLEPPC I
Orchidaceae	*Encyclia tampensis*	Florida butterfly orchid	
Orchidaceae	*Habenaria floribunda*	rein orchid	
Orchidaceae	*Spiranthes sp.*	ladiestresses	
Orobanchaceae	*Agalinis sp,*	false foxglove	
Orobanchaceae	*Buchnera americana*	American bluehearts	
Osmundaceae	*Osmunda regalis*	royal fern	
Oxalidaceae	*Oxalis corniculata*	common yellow woodsorrel	

Passifloraceae	*Passiflora suberosa*	corksy-stem passionflower	
Phytolaccaceae	*Phytolacca americana*	American pokeweed	
Pinaceae	*Pinus elliotti* var. *densa*	slash pine	
Poaceae	*Andropogon glomeratus* var. *hirsutior*	bushy bluestem	
Poaceae	*Andropogon virginicus* var. *decipiens*	broomsedge bluestem	
Poaceae	*Aristida stricta*	wiregrass	
Poaceae	*Aristida spiciformis*	bottlebrush threeawn	
Poaceae	*Axonopus furcatus*	big carpetgrass	
Poaceae	*Eragrostis sp.*	love grass	
Poaceae	*Eustachys glauca*	saltmarsh fingergrass	
Poaceae	*Imperata cylindrica*	cogon grass	Exotic, FLEPPC I
Poaceae	*Panicum hemitomon*	maidencane	
Poaceae	*Panicum rigidulum*	redtop panicum	
Poaceae	*Panicum repens*	torpedo grass	Exotic, FLEPPC I
Poaceae	*Panicum virgatum*	switchgrass	
Poaceae	*Paspalum notatum* var. *notatum*	bahia grass	
Poaceae	*Saccharum giganteum*	sugarcane plumegrass	
Poaceae	*Setaria parviflora*	yellow bristlegrass; knotroot foxtail	
Poaceae	*Sorghastrum secundum*	lopsided indiangrass	
Poaceae	*Spartina bakeri*	sand cordgrass	
Poaceae	*Sporobolus indicus*	smutgrass	
Poaceae	*Tripsacum dactyloides*	Eastern gamagrass; fakahatcheegrass	
Polygalaceae	*Polygala grandiflora*	showy milkwort; large-flowered polygala	
Polygalaceae	*Polygala incarnata*	procession flower	

Polygalaceae	*polygala setacea*	coastalplain milkwort	
Polygonaceae	*Polygonella polygama*	October flower; wireweed; jointweed	
Polygonaceae	*Polygonum*	smartweed	
Polygonaceae	*Rumex verticillatus*	swamp dock	
Polypodiaceae	*Phlebodium aureum*	golden polypody; serpent fern	
Polypodiaceae	*Pleopeltis michauxiana*	resurrection fern	
Pontederiaceae	*Pontederia cordata*	pickerelweed	
Primulaceae	*Samolus valerandi*	pineland pimpernel; seaside brookweed	
Pteridaceae	*Acrostichum danaeifolium*	giant leather fern	
Ranunculaceae	*Clematis baldwinii*	pine-hyacinth	
Rosaceae	*Rubus cuneifolius*	sand blackberry	
Rubiaceae	*Cephalanthus occidentalis*	common buttonbush	
Rubiaceae	*Diodia teres*	poor joe; rough buttonweed	
Rubiaceae	*Oldenlandia uniflora*	clustered mille grain	
Rubiaceae	*Psychotria nervosa*	wild coffee	
Rubiaceae	*Psychotria sulzneri*	shortleaf wild coffee	
Rubiaceae	*Richardia brasiliensis*	tropical Mexican clover	
Rutaceae	*Citrus sinensis*	sweet orange	
Salicaceae	*Salix caroliniana*	Carolina willow; coastalplain willow	
Sapotaceae	*Sideroxylon reclinatum*	Florida bully	
Schizaeaceae	*Lygodium microphyllum*	small-leaf climbing fern	Exotic, FLEPPC I
Smilacaceae	*Smilax auriculata*	earleaf greenbrier	
Styracaceae	*Styrax americanus*	American snowbell	
Tetrachondraceae	*Polypremum procumbens*	rustweed; juniperleaf	

Ulmaceae	*Ulmus americana*	American elm; Florida elm	
Urticaceae	*Boehmeria cylindrica*	false nettle; bog hemp	
Verbenaceae	*Lantana camara*	lantana; shrubverbena	
Verbenaceae	*Phyla nodiflora*	turkey tangle fogfruit; capeweed	
Veronicaceae	*Bacopa monnieri*	herb-of-grace; water hyssop	
Veronicaceae	*Gratiola*	hedgehyssop	
Veronicaceae	*Mercardonia acuminata*	axilflower	
Veronicaceae	*Penstemon multiflorus*	manyflower, beardtongue	
Veronicaceae	*Scoparia dulcis*	sweetbroom; licoriceweed	
Vitaceae	*Nekemias arborea*	pepper-vine	
Vitaceae	*Parthenocissus quinquwfolia*	Virginia creeper	
Vitaceae	*Vitis rotundifolia*	muscadine	
Vitaceae	*Vitis aestivalis*	summer grape	
Vitaceae	*Vitis schuttleworthii*	calloose grape	
Vittariaceae	*Vittaria lineata*	shoestring fern	
Xyridaceae	*Xyris caroliniana*	Carolina yelloweyed grass	
Xyridaceae	*Xyris elliottii*	Elliott's yelloweyed grass	
Zamiaceae	Zamia pumila	coontie; Florida arrowroot	

APPENDIX E – LIST OF WILDLIFE SPECIES

This list is an inventory of known species. As new species are discovered, their identification will be confirmed and added to the list.

CLASS	FAMILY	SCIENTIFIC NAME	COMMON NAME	STATUS
REPTILES				
	Alligatoridae	*Alligator mississippiensis*	American alligator	
	Anolis	*Carolinensis*	green anole	
	Colubridae	*Coluber constrictor*	southern black racer	
	Diadophis	*Punctatus*	ringneck snake	
	Elaphe	*Guttata*	corn snake	
	Eumeces	*Inexpectatus*	Southeastern five-lined skink	
	Nerodia	*Fasciata*	banded watersnake	
	Opheodrys	*Aestivus*	rough green snake	
	Testudinidae	*Gopherus polyphemus*	gopher tortoise	T (FWC); S3 (FNAI)
	Trionychidae	*Apalone ferox*	Florida softshell turtle	
AMPHIBIANS				
	Bufonidae	*Anaxyrus quercicus*	oak toad	
	Bufonidae	*Terrestris*	Southern toad	
	Chelydra	*Serpentina*	common snapping turtle	
	Hylidae	*Acris Gryllus*	southern cricket frog	
	Hylidae	*Hyla cinerea*	green tree frog	
	Hylidae	*Hyla squirella*	squirrel tree frog	
	Kinosternon	*Subrubrum*	eastern mud turtle	
	Pseudemys	*Floridana*	Florida cooter	
	Ranidae	*Lithobates sphenocephalus*	Southern leopard frog	
	Ranidae	*L. Grylios*	pig frog	
BIRDS				
	Columbidae	*Zenaida macroura*	mourning dove	
	Columbidae	*Streptopelia decaocto*	Eurasian collard-dove	
	Accipitridae	*Buteo jamaicensis*	red-tailed hawk	
	Accipitridae	*Buteo lineatus*	red-shouldered hawk	
	Accipitridae	*Elanoides forficatus*	swallow-tailed kite	
	Accipitridae	*Accipiter striatus*	sharp-shinned hawk	
	Accipitridae	*Accipiter cooperii*	Coopers hawk	
	Alcedinidae	*Megaceryle alcyon*	belted kingfisher	
	Anatidae	*Aix sponsa*	wood duck	
	Anatidae	*Anas fulvigula*	mottled duck	
	Apodidae	*Chaetura pelagica*	chimney swift	
	Ardeidae	*Ardea alba*	great egret	

	Ardeidae	*Ardea herodias*	great blue heron	
	Ardeidae	*Egretta caerulea*	little blue heron	S4 (FNAI); T (FWC)
	Ardeidae	*Egretta thula*	snowy egret	S3 (FNAI)
	Ardeidae	*Butorides virescens*	green heron	
	Ardeidae	*Egretta tricolor*	tricolored heron	T (FWC)
	Ardeidae	*Nycticorax nyticorax*	black-crowned night heron	
	Cardinalidae	*Cardinalis cardinalis*	northern cardinal	
	Cardinalidae	*Passerina cyanea*	indigo bunting	
	Cathartidae	*Cathartes aura*	turkey vulture	
	Cathartidae	*Coragyps atratus*	black vulture	
	Charadriidae	*C. vociferus*	killdeer	
	Ciconiidae	*Mycteria americana*	wood stork	T (USFWS)
	Corvidae	*Corvus ossifragus*	fish crow	
	Corvidae	*Cyanocitta cristata*	blue jay	
	Corvidae	*Corvus brachyrhynchos*	American crow	
	Falconidae	*Falco sparverius*	American kestrel	
	Fringillidae	*Carduelis tristis*	American goldfinch	
	Gruidae	*Antigone canadensis pratensis*	Florida sandhill crane	S2 (FNAI); T (FWC)
	Icteridae	*Agelaius phoeniceus*	red-winged blackbird	
	Laniidae	*Lanius ludovicianus*	loggerhead strike	
	Laridae	*Leucophaeus atricilla*	laughing gull	
	Laridae	*Larus delawarensis*	ring-billed gull	
	Mimidae	*Dumetella carolinensis*	gray catbird	
	Odontophoridae	*Colinus virginianus*	Northern bobwhite	
	Pandionidae	*Pandion haliaetus*	osprey	
	Parulidae	*Setophaga palmarum*	palm warbler	
	Parulidae	*Setophaga pinus*	pine warbler	
	Pelecanidae	*Pelecanus occidentalis*	brown pelican	
	Phalacrocoracidae	*Phalacrocorax auratus*	double crested cormorant	
	Phasianidae	*Meleagris gallopavo*	wild turkey	
	Picidae	*Colaptes auratus*	Northern flicker	
	Picidae	*Dryocopus pileatus*	pileated woodpecker	
	Picidae	*Melanerpes carolinus*	red-bellied woodpecker	
	Picidae	*Picoides pubescens*	downy woodpecker	
	Picidae	*Picoides villosus*	hairy woodpecker	
	Regulidae	*Regulus calendula*	ruby-crowned kinglet	
	Scolopacidae	*Tringa melanoleuca*	greater yellowlegs	
	Strgidae	*Strix varia*	barred owl	
	Threskiornithidae	*Eudocimus albus*	white ibis	T (FWC)

	Threskiornithidae	*Platalea ajaja*	roseate spoonbill	T (FWC)
	Troglodytidae	*Thryothorus ludovicianus*	Carolina wren	
	Turdidae	*Sialia sialis*	Eastern bluebird	
	Turdidae	*Turdus migratorius*	American robin	
	Turdidae	*Catharus guttatus*	hermit thrush	
	Tyrannidae	*Myiarchus crinitus*	great crested flycatcher	
	Vireonidae	*Vireo flavifrons*	yellow-throated vireo	
	Vireonidae	*Vireo griseus*	white-eyed vireo	
	Vireonidae	*Vireo olivaceus*	red-eyed vireo	
	Vireonidae	*Vireo solitarius*	blue-headed vireo	
MAMMALS				
	Canidae	*Canis latrans*	coyote	range expansion
	Cervidae	*Odocoileus virginianus*	white-tailed deer	
	Dasypodidae	*Dasypus novemcincuts*	nine-banded armadillo	range expansion
	Felidae	*Lynx rufus*	bobcat	
	Leporidae	*Didelphis virginiana*	Virginia opossum	
	Leporidae	*Sylvilagus palustris*	marsh rabbit	
	Leporidae	*Sylvilagus floridanaus*	Eastern cottontail	
	Muridae	*Sigmodon hispidus*	hispid cotton rat	
	Mustelidae	*Lutra canadensis*	river otter	
	Procyconidae	*Procyon lotor*	raccoon	
	Sciuridae	*Glaucomys volans*	Southern flying squirrel	
	Sciuridae	*Sciurus carolinensis*	grey squirrel	
	Suidae	*Sus scrofa*	wild hog	Exotic
	Talpidae	*Scalopus aquaticus*	eastern mole	
	Ursidae	*Ursus americanus floridanus*	Florida black bear	T (FWC)

KEY TO WILDLIFE LISTED STATUS		
Florida Fish and Wildlife Conservation Commission (FWC) Designations	E	endangered
	T	threatened
	SSC	species of special concern
United States Fish and Wildlife Service (USFWS) Designations	E	endangered
	T	threatened
	C2	candidate for listing with some evidence of vulnerability, but for which not enough information exists to justify listing
Convention on International Trade In Endangered Species of Wild Fauna And Flora (Cites) Designations	I	Appendix I species
	II	Appendix II species
Florida Natural Areas Inventory (FNAI) Designations	S2	imperiled within the state because of rarity (6–20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor
	S3	either very rare and local throughout its range (21–100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction because of other factors
	S4	apparently secure within the state (may be rare in parts of state)

APPENDIX F – ANNUALIZED COST SCHEDULE

RESOURCE MANAGEMENT	Units	Cost per unit
prescribed fire preparation	per mile	$ 250.00
prescribed fire	per acre	$ 40.00
prescribed fire monitoring	per hour	$ 50.00
integrated pest management surveying	avg per acre	$ 30.00
integrated pest management treatment	avg per acre	$ 125.00
hydrologic restoration	per mile	$ 8,000.00
mechanical vegetation management	per acre	$ 150.00
cultural resource management	per site	$ 500.00
ADMINISTRATION and OPERATIONS		
salary of Land Manager	per hour	$ 47.00
salary of Supervisor	per hour	$ 50.00
salary of Administrative Assistant	per hour	$ 30.00
annual cost of computers, printers, phone	per year	varies
utilities	per year	varies
offices	per year	varies
security	per year	$ 13,000.00
fleet	per year	$ 4,000.00
MAINTENANCE		
fencing - board	1 linear foot	$ 29.00
fencing - wire	1 linear foot	$ 12.00
trail markers	1 marker	$ 16.00
benches	1 bench	$ 160.00
tools	1 site	$ 4,000.00
parking lots - aggregate material	cost per parking spot	$ 60.00
parking lots - grass	cost per parking spot	$ 10.00
road repairs	1/2 mile	$ 20,000.00
restrooms	cost per toilet	$ 750.00
portable toilets	cost per toilet	$ 1,440.00
grills	1 grill	$ 400.00
tables	1 table	$ 250.00
pavilions	square foot	$ 1.00
camp sites	per campsite	$ 300.00
grounds mowing (x12 events annually)	per acre	$ 600.00
power washing	per hour	$ 100.00
building maintenance	per structure	$ 500.00
RECREATION and VISITOR SERVICES		
kiosks and signs - replacement costs	per unit	$ 1,000.00
brochures	per brochure	$ 5,000.00

events (firefest)	per event	$	3,500.00
visitors center (staffing and contents)	per year	$	4,000.00
camping	per campsite	$	200.00
permitted events	per event	$	320.00

Notes:

1. Current Loaded Salary is based on FY 21.
2. Assumed 2.5 percent multiplier for salary.
3. Divided salary total hours by 2080 for average hour rate