Agenda Item: 5B - 1

PALM BEACH COUNTY BOARD OF COUNTY COMMISSIONERS

AGENDA ITEM SUMMARY

Meeting Date:	February 4, 2020	(X) Consent () Workshop	()Regular ()Public Hearing
			()

Department: Environmental Resources Management

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to approve: an updated Management Plan (Plan) for Pondhawk Natural Area.

Summary: The initial Plan was approved by the Board of County Commissioners on April 1, 2008. The Plan identifies natural resources present on the natural area and provides for the preservation, restoration, management and passive recreational use of those resources. After review of the Plan, the Natural Areas Management Advisory Committee unanimously recommended the Plan for approval at the December 20, 2019 meeting. Initial invasive/nonnative vegetation removal, fence and regulatory sign installation, and public use facilities have been completed. Annual management and operating costs, including prescribed burns/mechanical vegetation reduction, ongoing invasive/nonnative animal and plant control, repair and replacement of facilities, and biological monitoring and reporting are estimated to be \$199,334. Funds for capital improvements, and annual management and operation of the site are expected to come from the Natural Areas Fund, Natural Areas Stewardship Endowment Fund, Pollution Recovery Trust Fund, Ag Reserve Land Management Fund, and/or ad valorem funding sources. District 4 (SS)

Background and Justification: The 78.7-acre Pondhawk Natural Area is located in the southeastern portion of Palm Beach County (County) within the City of Boca Raton. The entire site was acquired by the County in 2002. To date, 292 plant and 212 animal species have been recorded on site, including 11 plant and 20 animal species that have been designated as having some degree of endangerment by at least one governmental agency or have been ranked by the Florida Natural Areas Inventory. The primary purpose for the acquisition was to preserve, restore/enhance and manage the site's ecological resources, including the existing natural communities, their component plant and animal species, and local groundwater resources. Environmental Resources Management is dedicated to maximizing the beneficial effects of its land management activities, public use facilities and public outreach efforts, while improving efficiencies and reducing costs. Staff also continue to pursue any grants available to offset a portion of land management costs.

Attachment:

1. Pondhawk Natural Area Management Plan

	A	
Recommended by:		y 1-6-2020
	Department Director	Date
Approved by:	Man J. Bold Assistant County Administrator	Date ////2020

II. FISCAL IMPACT ANALYSIS

Α. **Five Year Summary of Fiscal Impact:**

Fiscal Years	2020	2021	2022	2023	2024
Capital Expenditures Operating Costs External Revenues Program Income (Cour In-Kind Match (County NET FISCAL # ADDITIONAL FTE POSITIONS (Cumulati) <u>\$199,334</u>	\$ \$205,314 \$205,314	\$ <u>211,473</u> \$ <u>211,473</u>	\$ <u>217,817</u> \$ <u>217,817</u> \$ <u>217,817</u>	<u>\$224,352</u>
Is Item Included in Current Budget? Yes X No					
Does this item include	the use of fe	deral funds?	Yes	NoX	
Budget Account No.:					

Fund <u>1226</u> Department <u>380</u> Unit <u>3162</u> Object Various Program ____

Β. **Recommended Sources of Funds/Summary of Fiscal Impact:**

Fiscal Year 2020 management and operating costs are estimated to be \$199,334. Over the past five years, annual management and operating costs for County owned/managed natural areas have increased an average of 3% per year. Annual management and operating costs for FY 2021 and beyond may be higher or lower than projected. Funds for management and operation of the natural area are expected to come from the Natural Areas Fund (1226), Natural Areas Stewardship Endowment Fund (1220), Pollution Recovery Trust Fund (1227), Ag Reserve Land Management Fund (1222) and/or ad valorem funding sources.

Ć

Contract Development & Control

1070

912020

C. Department Fiscal Review: um

III. REVIEW COMMENTS

OFMB Fiscal and /or Contract Dev. and Control Comments: Α.

1)9/2020 ÓFMBJ2/18 KM)1/8

Β. Legal Sufficiency:

Assistant County Attorney

C. **Other Department Review:**

Department Director

ATTACHMENT 1



MANAGEMENT PLAN FOR

PONDHAWK NATURAL AREA

FCT PROJECT #02-051-FF2 Formerly known as BLUE LAKE SCRUB

2020

Prepared by:

Palm Beach County Department of Environmental Resources Management 2300 N. Jog Road, 4th Floor West Palm Beach, Florida 33411-2743

THE PALM BEACH COUNTY NATURAL AREAS SYSTEM MANAGEMENT STATEMENT

The Palm Beach County Natural Areas System is comprised of those environmentally sensitive lands that are owned or leased by the County and managed as natural areas by the County's Department of Environmental Resources Management. These natural areas were selected and acquired to preserve the rare and diverse native ecosystems present on these sites and the endangered, threatened, and rare species of plants and animals that live there.

Purpose and Goals of the Natural Areas System

- The purpose of the Natural Areas System is to protect, restore and manage remnant native ecosystems, and the plants and animals characteristic of those ecosystems, in perpetuity, throughout Palm Beach County. The management of each natural area shall be coordinated with that of the other natural areas in the system.
- Attempts shall be made to maintain physical and/or biological connections with other publicly- or privately-owned natural areas through additional land acquisitions, conservation easements, interlocal agreements, greenway/trail connections and other appropriate actions.

Management Considerations

- County natural areas shall be open to the public for non-consumptive/non-destructive, resource-based recreation, environmental education and scientific research. Public use shall not take precedence over ecosystem protection. Public uses shall be limited to those that are compatible with the perpetual preservation and management of the native ecosystems, plants and animals found on the natural area.
- All public use facilities shall be chosen, designed and located to have minimal impact on the rare and imperiled plants, animals and natural communities found on the natural area. Facilities, structures or roads (other than management accessways/firebreaks or access roads) that would cause fragmentation of a natural area shall not be permitted.
- To the extent practicable, fire-maintained native ecosystems shall be burned at the fire interval necessary to maintain those ecosystems. Burns shall be conducted by trained personnel, using a prescribed burn plan that addresses safety and smoke concerns.
- Native ecosystems that have been impacted by invasive/nonnative plant infestations, landclearing activities, drainage and/or other man-made disturbances shall be restored to their previous condition, if practicable, or to a native ecosystem that is better suited to current environmental conditions.

• The special requirements of listed species shall be considered in developing management strategies for each natural area, but an individual species' needs shall not take precedence over management of an entire ecosystem or be allowed to have a detrimental impact on that ecosystem's complement of species.

Management Plan Development and Revision

- A management plan shall be written for each natural area that: 1) describes the natural and cultural resources; 2) identifies any constraints associated with managing the natural area in an urbanized environment; and 3) identifies the strategies and techniques that will be used to preserve, restore and manage the native ecosystems, preserve the cultural resources, protect listed species, control invasive/non-native plants and animals, provide for appropriate public access, manage and maintain public use facilities, and prevent unauthorized access and activities.
- Each plan shall be reviewed by the Palm Beach County Natural Areas Management Advisory Committee (NAMAC), a citizens' advisory board, and the public shall be invited to comment on the plan at a public hearing held by NAMAC in the community in which the site is located. Following NAMAC's review of any comments received, the plan shall be sent to the Board of County Commissioners for approval.
- Each approved plan shall be subsequently reviewed at least every ten years by the County.

EXECUTIVE SUMMARY

The 78.7-acre Pondhawk Natural Area (natural area) is located in the southeastern portion of Palm Beach County (County) entirely within the municipal boundary of the City of Boca Raton. The County owns the entire natural area. The County purchased the site in July 2002.

Basin marsh, hydric hammock, mesic flatwoods, scrub and scrubby flatwoods are the predominant natural communities present on the site. Thus far, 292 species of plants and 212 species of animals have been recorded on the site, including 11 plant and 20 animal species that have been designated as having some degree of endangerment by at least one governmental agency or have been ranked by the Florida Natural Areas Inventory.

The primary purpose for the acquisition of this natural area was to preserve, restore/enhance and manage the site's ecological resources, including the existing natural communities, their component plant and animal species, and local groundwater resources. Acquisition, development and management of the site as a natural area have provided members of the public with opportunities for recreational activities, environmental education and scientific research that are consistent with the primary purpose of the site's acquisition. It also has helped the County and the City of Boca Raton comply with portions of their respective comprehensive plans.

Public use facilities have been constructed; the site opened to the public in September 2012. An accessible nature trail, hiking trails, boardwalks, wildlife observation platform with benches, and kiosk with interpretive displays provide valuable opportunities for the public to observe and learn about the site's biologically unique plant communities and associated animals. The main public access is located at the City of Boca Raton's Public Library. A bicycle rack is provided across a pedestrian bridge connected to the library parking lot. Access is available via a Spanish River Road.

This updated management plan: 1) identifies the existing natural resources, including rare and imperiled species and vegetation communities; 2) identifies factors that affect the preservation, restoration and long-term management of the existing resources; 3) addresses the site-specific goals, strategies and techniques that will be used to preserve, restore/enhance, manage and monitor the existing resources; 4) ensures that the natural area is managed in accordance with all applicable grant restrictions; and 5) identifies public recreational uses that may be accommodated without adversely affecting the site's natural resources. This management plan also includes information related to estimated capital costs, estimated annual management and maintenance costs, and any other issues identified by staff.

The County will review and update this management plan at least once every ten years as necessary based on new information, improvements in management techniques or other relevant factors.

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1. INTRODUCTION

1.1 LOCATION AND DESCRIPTION

Pondhawk Natural Area (natural area) is located in the southeast portion of Palm Beach County (County) and is (Figure 1). All of the 78.7-acre natural area is located within the City of Boca Raton (City) and is in the urban "Eastward Ho! Corridor". The site was part of approximately 300 acres of undeveloped industrial land purchased by the City of Boca Raton in September 2000 to prevent impacts associated with industrial development and to provide for additional municipal amenities. The natural area is bordered to the east by Blue Lake and Spanish River Library; to the south by Spanish River Blvd. and Spanish River Athletic Park; to the west by Military Trail; and to the north by Yamato Road. The site is fully acquired.

The nearest significant waterbody is the Atlantic Ocean which is located approximately 4 miles to the east of the natural area. Blue Lake, a surface water management lake owned by the City, lies on the eastern border of the site along with a city library. County-owned natural areas within a 3-mile radius include Yamato Scrub Natural Area, 1.5 miles and Delray Oaks Natural Area 2.5 miles to the northeast.

Larger, developed County parks within a 3-mile radius of the natural area, are the Morikami Museum and Japanese Gardens, and the Governor Lawton Chiles Memorial Park (Figure 1). There also are 2 municipal parks adjacent to or in the immediate vicinity of the natural area: Spanish River Athletic Park and Patch Reef Park.

The natural area is composed of a variety of wetlands and landforms. In general, uplands within the site – hydric hammock, mesic flatwoods, scrub and scrubby flatwoods - exhibit a fair amount of relief. The only wetlands within the natural area are basin marsh. Ground elevations within the natural area generally range from 2 feet to 18 feet (North American Vertical Datum [NAVD]) (PBC 2017).

Florida Natural Areas Inventory (FNAI) has ranked three of the intact natural communities present on the natural area as very rare (basin marsh) or imperiled (scrub and scrubby flatwoods) in Florida (FNAI 2019).

The natural area contains important habitat for many rare plant and animal species. Thus far, 292 species of plants and 212 species of animals have been recorded on the site, including 11 plant and 20 animal species that have been designated as having some degree of endangerment (listed) by at least one governmental agency or have been ranked by FNAI. A list of plant species recorded at the site is provided in Appendix A and a list of animal species recorded at the site is provided in Appendix B. The listed and ranked plant and animal species recorded at the site are identified in Tables 1 and 2, respectively. Definitions for the designations used by the agencies are provided in Appendix C.

1.2 PAST USES

Based on historic aerials, Pondhawk Natural Area appears to have had little past use. Over the years, unauthorized uses of the natural area included off-highway vehicle (OHV) usage and illegal dumping activities. Most of the impacts related to illegal dumping occurred around the perimeter edges of the natural area. Fencing of the natural area by the County, increased efforts by the City's police department and Palm Beach County Sheriff's Office (Sheriff's Office), and surveillance of the site by the County's Wildlands Task Force have virtually eliminated these unauthorized uses.

1.3 ADJACENT LAND USES

The natural area, and all of the surrounding lands, are located within the City's municipal boundaries. Pondhawk Natural Area is designated as "Conservation" on the City's Future Land Use Map (City of Boca Raton 2017) and as "Public Lands" on the City's Zoning Map (City of Boca Raton 2018). The intent of the "Conservation" and "Public Lands" designations is to protect important natural environmental features, including endangered and threatened species.

Both localized and large-scale impacts from adjacent roads, and adjacent and nearby institutional, industrial, and residential properties are expected at the natural area. Things that have impacted and continue to impact all or most of the natural area include invasion of the site by nonnative plant species via seeds produced by nonnative plants growing within adjacent road rights of ways, and within adjacent and nearby properties; lowered groundwater levels and reduced hydroperiods within the natural area due to the construction of the surrounding properties; access to the site by OHVs; dumping; and animal mortality from vehicular traffic.

Domestic cats (Felis catus) and/or dogs (Canis lupus familiaris) that originate from adjacent and nearby properties also may cause localized impacts at the natural area. Feral/free-roaming cats and stray dogs can cause wildlife mortality. Efforts to mitigate for these impacts include an aggressive nonnative/nuisance animal control program; public outreach, volunteer and interpretive programs; and enforcement of the provisions of the Palm Beach County Natural Areas Ordinance, as amended. (Chapter 11, Article XI of the Palm Beach County Code: http://discover.pbcgov.org/erm/Publications/PBCNaturalAreasOrdinance.pdf; Natural Areas Ordinance) regarding the prohibition of domestic animals and pets on the natural area. Domestic animals and pets have been a problem at the natural area due to the large number of residential developments that surround the site

1.4 USES THAT ARE NOT APPROPRIATE

The County's Board of County Commissioners (BCC) has adopted a Natural Areas Ordinance that regulates public uses on county natural areas such as Pondhawk Natural Area. The Natural Areas Ordinance restricts public uses within a county-managed natural area to those that are compatible with the perpetual preservation and protection of the natural area. This ordinance permits passive recreational activities such as hiking, nature study and photography. Other uses (for example,

fishing, canoeing/kayaking, horseback riding and/or bicycling in areas designated for such uses; environmental education; and scientific research) are permitted as long as they do not jeopardize the protection of the existing natural resources. The Natural Areas Ordinance prohibits destructive uses such as OHV use and dumping, and requires special permits for camping, horseback riding, scientific research involving collection of plant and animal specimens or the use of watercraft in wetlands, and nighttime use of the natural area. Except for service animals, no dogs, cats, or other domestic animals are permitted on the natural area. The ordinance also prohibits damaging, taking, molesting, trapping, hunting and/or poaching of plants and animals.

There are no plans for any concessions to be located on the site, nor are there plans to provide a camping area or allow horseback riding, fishing or boating on the natural area. There are sufficient retail businesses in the vicinity of the natural area to supply services normally provided by concessionaires. Camping and horseback riding are not appropriate for the site given the rare status of one of its natural communities, and the sensitivity of the rare and endangered plant and animal species - both of which could be negatively impacted if camping or equestrian use were permitted - and due to the naturally wet conditions within the site. There are no wetlands on site that are suitable to accommodate fishing or boating uses.

No vehicles (for example, OHVs, bicycles, skateboards, etc.) are permitted beyond the pedestrian entrances, except to perform the monitoring, maintenance and land management activities described in this management plan, and except as authorized by the County's Access Policy for Use of Natural Area Trails and Other Public Use Facilities by Persons with Mobility Disabilities. Drones are not permitted within the natural area, except to assist with the management and monitoring activities described in this management plan or as may be permitted for scientific research.

1.5 OUTPARCELS

There are no outparcels adjacent to the natural area that would be suitable for acquisition. All of the lands immediately adjacent to the natural area have already been developed or set aside for public, residential or recreational purposes.

1.6 MANAGEMENT AND USE RESTRICTIONS

Management activities and public uses on the natural area are restricted to those that are consistent with the preservation and protection of the rare and endangered plants, animals and ecosystems found on the site. To ensure that the natural area is preserved and protected, in perpetuity, management activities and public uses on the site are regulated by the restrictions imposed by the Natural Areas Ordinance (see Section 1.4), and by a conservation easement granted by the County to the South Florida Water Management District (SFWMD) (see Section 1.7 and Appendix D).

Other significant management and public use restrictions are related to an FCT grant associated with the site. Management and use of the natural area is limited by the conditions imposed in the FCT Grant Award Agreement dated February 20, 2004 (Appendix E).

The size, shape and location of the natural area do not restrict certain management activities such as invasive/nonnative vegetation removal or upland restoration activities. However, these factors do limit what can be done on the site relative to the reintroduction of fire and the hydrologic restoration of wetland areas. The site's proximity to Interstate 95, Boca Raton Executive Airport, schools, commercial and residential areas severely limit the options for prescribed burning.

There are no other known legislative or executive constraints that affect the development, use or management of the site. The natural area is not within an aquatic preserve or a designated area of critical state concern, and is not under study for such a designation.

1.7 EASEMENTS, CONCESSIONS, LEASES AND OTHER ENCUMBRANCES

There are eight recorded easements, one "Right of First Refusal," one Interlocal Agreement, one set of grant award restrictions, two declarations (of restrictive covenants) and seven encroachments that currently restrict use of, or benefit, the natural area. There are no concessions or leases that currently affect the natural area. No additional easements, concessions, leases or other encumbrances are anticipated.

Unless otherwise noted, copies of recorded easements and other encumbrances that restrict use of, or benefit, the natural area are provided in Appendix D. A summary of the pertinent documents is provided below.

1.7.1 Arvida Corporation (Arvida) to Centar Development Corporation – Reservation of the Right to Place Water, Gas and Sanitary Sewage System Easements within the Conveyed Lands to Benefit Arvida

When Arvida sold the natural area and surrounding lands to the Centar Development Corporation in 1959, it reserved the right to place water, gas and sanitary sewer system easements within the conveyed lands. In 1966, Arvida reduced its reservation to a ± 9.5 -acre "revised easement area" in the southwest corner of the site. As of August 2019, the only easement placed within the revised easement area was a 25-foot-wide city-owned utility easement just east of Military Trail (see Section 1.7.2). Since all of the adjacent lands have either been developed or are part of the natural area, it is unlikely that any additional easements will be placed within the revised easement area.

1.7.2 International Business Machines Corporation (IBM) to City - Utility (Sewer and Water) Easement

In June 1983, IBM granted the City a permanent utility easement and right of way along the southwestern edge of the present-day natural area. The easement covered a 600-foot-long by 25-

foot-wide, north-south oriented strip of land just east of Military Trail and just north of the presentday Spanish River Townhomes property. The purpose of the easement was to allow the City to construct, operate, maintain, repair, alter, inspect and replace underground sanitary sewer and water lines, pipes, conduits and mains, etc. This easement was approved as an allowable exception when the County acquired the natural area. Other underground public utilities, including electric lines associated with traffic control facilities, may have be co-located within this easement prior to the natural area's acquisition by the County.

1.7.3 SRA/Building 051, Ltd to Blue Lake, Ltd - Utility and Service System Easement Agreement to Benefit the Natural Area

The County is a successor to an amended/corrected March 16, 1998 easement agreement between SRA/Building 051, Ltd and Blue Lake, Ltd. This easement agreement gives owners of the benefited properties (including the natural area) the right to request one or more utility and/or service system easements within the present-day Don Estridge High Tech Middle School property, south of Spanish River Boulevard. Since the primary purpose for the natural area's acquisition was to preserve, restore/enhance and manage the site's ecological resources, it is highly unlikely that the County would ever exercise its rights under the easement agreement.

1.7.4 City to Boca Technology Center, LLC (BTC) - Utility Easement to Benefit the Former BTC Property

In September 2000, the City granted a perpetual utility (water and sewer) easement to BTC that affected a portion of the present-day natural area. The easement included a sewer lift station along the western edge of the natural area, just east of Military Trail. It also included a 20-foot-wide, cleared, east-west path in the northern portion of the natural area. The easement area was believed to include water and sewer lines that connected the former BTC property east of the northeast portion of the natural area to the sewer lift station, and water and sewer lines under Military Trail. The City and BTC agreed that the utility easement would be abandoned if the sewer and water lines within the present-day natural area became obsolete when the former BTC property (present-day Centra development and Shoppes of Blue Lake II) was developed. Pursuant to the agreement, if the utility easement had not been legally abandoned by September 2003, the City could require BTC to physically locate the underground water/sewer lines, provide an as-built drawing for the lines and revise the existing easement, as needed.

This easement is no longer in use. When the former BTC properties northeast of the natural area were developed, they connected to water and sewer lines south of Yamato Road (K. Goatley, Construction Project Coordinator at the City of Boca Raton's Utility Services Department, personal communication August 26, 2019). The sewer lift station was decommissioned and removed from the natural area in June 2010; the pipes that connected the lift station to sewer and water lines under Military Trail were capped. The County is investigating whether this utility easement can be abandoned/released.

1.7.5 City to BTC - Drainage Easement to Benefit the Former BTC Property

In September 2000, the City granted BTC a perpetual, non-exclusive drainage easement over Blue Lake and a former drainage ditch north of Spanish River Boulevard. While this easement does not directly affect the natural area, a portion of the easement overlaps the created littoral area immediately east of the site. The drainage easement allows the former BTC property (now the Centra development) to discharge its stormwater into Blue Lake. This easement is binding on the successors and assigns of the City and BTC.

1.7.6 City to BTC - Ingress and Egress Easement to Benefit the Former BTC Property

In September 2000, the City granted BTC a limited, perpetual ingress/egress easement across present-day natural area lands immediately adjacent to the utility (water/sewer) and drainage easements (see Sections 1.7.4 and 1.7.5, respectively). The purpose of this easement was to allow necessary pedestrian and vehicular access for the installation, operation, maintenance and repair of facilities within the utility and drainage easement areas. BTC was required to provide the City a minimum of three business days' written notice prior to entering/accessing city-owned lands within or adjacent to a dedicated utility or drainage easement area. This easement is binding on the successors and assigns of the City and BTC; the County is investing whether the portion of the easement that coincides with the utility easement may be abandoned.

1.7.7 BTC to City - Lake Easement to Benefit the Natural Area

In September 2000, BTC granted the City a perpetual, non-exclusive "Lake Easement" over, under and across the southern 100 feet of the present-day Centra property. This easement allowed the City to install, maintain, operate and utilize public improvements, including a connected pedestrian path, vita course, benches, tables and/or similar items, within the designated easement area. The northern portion of the Lake Easement was vacated by the City in September 2006; the vacated lands were included and constructed as part of the Centra development. Benches and a segment of the public pathway that circles Blue Lake were constructed within the remaining portion of the Lake Easement in 2007/2008. This pathway provides pedestrian access to the natural area, a city library southeast of the natural area and other city-owned lands surrounding Blue Lake.

1.7.8 County to SFWMD - Conservation Easement to Benefit the Natural Area

In April 2012, the County granted a standard form conservation easement over the entire natural area to the SFWMD (Appendix D). The BCC approved the use of standard form conservation easements as a means to help protect County-owned natural areas in 2005 (R2005-1770). The conservation easement provides a level of protection that is not affected by the retirement of county and/or state conservation bonds. It limits improvements to those that support land management activities and recreational opportunities that have little or no impact on natural resources. It also allows for the removal/eradication of nonnative and nuisance plants and animals, and the implementation of environmental restoration/enhancement projects.

1.7.9 County and City - 2008 Interlocal Agreement

The March 11, 2008, Interlocal Agreement between the County and City perpetually restricts use of the natural area to those uses that are compatible with the environmental preservation, protection, mitigation, environmental restoration and maintenance of the site's environmental values (Appendix F). Public use facilities are permitted within and immediately adjacent to the natural area, provided they do not adversely affect the environmental value of the site. The Interlocal Agreement authorizes the County to place excavated fill from the natural area onto city property immediately adjacent to the natural area for pathway development, shoreline restoration and littoral shelf creation along the Blue Lake shoreline.

The Interlocal Agreement also establishes management, maintenance and public safety/law enforcement responsibilities for the natural area; establishes a cost-share agreement related to public use facilities within and adjacent to the natural area; and allows the City to repurchase the natural area from the County under certain circumstances ("Right of First Refusal"). Lastly, the Interlocal Agreement acknowledges that, in the event of any conflict between the Interlocal Agreement and the FCT Grant Award Agreement, the FCT Grant Award Agreement shall control with respect to the natural area.

1.7.10 Florida Communities Trust Grant Award Agreement

The natural area was acquired with matching funds from FCT and therefore is constrained by the conditions imposed in the associated Grant Award Agreement (Appendix E). Pursuant to this agreement, the grant property must be managed for conservation, protection and enhancement of natural and historical (if any) resources, and for compatible, passive, natural resource-based public outdoor recreation. As the grant recipient, the County must provide FCT with at least 60 days prior written notice regarding any proposed lease of any interest in, the operation of any concession on, any sale or option related to the grant property, the granting of any management contracts, and any use of the FCT project site by any person other than in that person's capacity as a member of the general public. The County may not execute related documents without the prior written approval of FCT. All fees collected from a lease, concession contract, management contract, etc. on a FCT project site shall be reported to FCT and placed in a segregated account solely for the upkeep and maintenance of that site.

Any proposed modification to the approved management plan and/or any site alterations or physical improvements that are not addressed in the approved management plan requires prior FCT review and approval.

1.7.11 Blue Lake Ltd. and County - Adequate Public Facilities Agreement to Benefit the Proposed Blue Lake Light Industrial Research Park

The natural area was one of the properties encumbered by a 1999 Adequate Public Facilities Agreement between Blue Lake, Ltd. and the County. This agreement addressed the timing,

construction and funding of road improvements that would be needed if any, or all, of Blue Lake, Ltd.'s proposed light industrial research park was constructed. Although once part of the proposed industrial park, all of the natural area's development rights were abandoned when it was purchased by the County for environmental preservation and passive recreational purposes. Because use of the natural area is not expected to generate any significant traffic, it is highly unlikely that the County would have to contribute funds for road improvements.

1.7.12 BRHP, LLC and Centra Homeowners Association, Inc. - Declaration (of Restrictive Covenants) to Benefit the Natural Area

The July 2, 2010, Declaration for the Centra Homeowners Association notifies all future homeowners that management of the adjacent Pondhawk Natural Area may include the use of prescribed burns, and mechanical and chemical treatment of vegetation. It states that these management activities may produce smoke and/or airborne ashes, and will change the appearance of the vegetation. The declaration requires the homeowner's association to maintain its preserve and fire preserve management areas. It also indicates that the County will have a perpetual easement over and across the Centra preserve areas and adjacent fire preserve management area. As of August 2019, the referenced easement had not been granted to the County.

1.7.13 APK Homes, LLC and Spanish River Townhomes Homeowner's Association, Inc. -Declaration (of Restrictive Covenants) to Benefit the Natural Area

The September 9, 2015, Declaration for the Spanish River Townhomes Homeowners Association notifies all future homeowners that management of the adjacent Pondhawk Natural Area may include the use of prescribed burns, and mechanical and chemical treatment of vegetation. It states that these management activities may produce smoke and/or airborne ashes, and will change the appearance of the vegetation. The declaration also prohibits direct access from the developed area to the natural area.

1.7.14 Florida Power and Light (FPL) Power Pole/Line Encroachments

Several FPL wooden power poles, one concrete power pole and the associated power lines encroach 1 to 2 feet into the western portion of the natural area. These power poles/lines were present when the County acquired the natural area; they are considered an allowable encroachment.

1.7.15 Southern Bell Underground Cable Marker (and Cable) Encroachment

When the natural area was purchased by the County, there was a 4-foot-tall, Southern Bell (telephone) marker along the western edge of the natural area. The marker, which is located about 175 feet north of the sewer lift station easement, is considered an allowable pre-existing encroachment. Likewise, any underground communication cable associated with this marker also would be considered an allowable pre-existing encroachment.

1.7.16 City Streetscape Irrigation Equipment Encroachment

The City installed a water well, irrigation pump, electronic irrigation control box and electric meter just west of the former septic lift station. The irrigation equipment, which appears to be located within the BTC utility easement (see Section 1.7.4), is believed to have been installed prior to the site's acquisition by the County.

1.7.17 Blue Lake Pathway Encroachment

Two portions of the multi-use (pedestrian/bicycle) Blue Lake Pathway were constructed within the natural area with the County's prior approval. A small portion of the pathway encroaches into the natural area just north of the multiuse bridge that connects the natural area to the city library property. The pathway also encroaches into the northeastern portion of the natural area; this portion of the pathway connects the portion of the pathway that lies east of the natural area to the portion that lies within the Lake Easement property (see Section 1.7.7).

1.7.18 Underground Concrete Vault Encroachment

An old concrete vault exists approximately 400 feet west of the southeast corner of the natural area, just north of the Spanish River Boulevard right of way. The vault is partly above ground and partly below ground. It is unknown whether or not the vault still being used or what it was/is used for. The vault is considered a pre-existing encroachment.

1.7.19 Spanish River Boulevard Drainage Pipe Encroachment

At the time of the site's acquisition by the County, an 18-inch-diameter corrugated metal pipe extended from the Spanish River Boulevard right of way into the southern 15 feet of the southeast corner of the natural area. This pipe was probably used to drain excess stormwater from the northern roadside swale into the natural area. There was no known easement for this pipe; it was considered a pre-existing encroachment at the time of the natural area's acquisition. The pipe appears to have been removed when the Spanish River Boulevard improvements were constructed (between 2005 and 2007).

1.7.20 Temporary Construction Encroachment by City

In 2007, the City cleared vegetation and regraded the southeast corner of the natural area in order to create a temporary berm at the south end of Blue Lake. The temporary berm has since been removed and the disturbed area has been allowed to naturally revegetate. Since the encroachment occurred in a highly disturbed portion of the site and was temporary in nature, it did not adversely affect the natural area.

1.8 PLAN DEVELOPMENT AND REVIEW

The BCC approved the initial management plan for this site on April 1, 2008. Although it is the County's goal to review each approved management plan at least once every ten years, budget constraints and the resulting loss of staff have delayed the preparation of this update. This updated management plan identifies changes that occurred at the natural area since the preceding management plan was approved by the BCC.

The main goal of this management plan is to help ensure that the site's natural resources are protected in perpetuity. Scientific research, environmental education and resource-based recreational uses are permitted as long as they do not jeopardize the protection of these resources. In keeping with these goals, this management plan: 1) identifies the existing natural resources, including rare and imperiled species and vegetation communities; 2) identifies any changes that occurred to those resources subsequent to approval of the initial management plan; 3) identifies factors that affect the preservation, restoration and long-term management of the existing resources; 4) addresses the site-specific goals, strategies and techniques that will be used to preserve, restore/enhance, manage and monitor the existing resources going forward; 5) ensures that the natural area continues to be managed in accordance with applicable grant and conservation easement restrictions; 6) evaluates the effect, if any, of existing recreational uses on the site's natural resources; and 7) identifies any recreational uses that could be added or that should be discontinued at the site. This management plan also includes information related to the site's estimation of annual management and maintenance costs, and any other issues identified by staff.

All draft natural areas management plans prepared by ERM are reviewed by a seven-member, BCC-appointed, advisory committee known as the Natural Areas Management Advisory Committee (NAMAC). The purpose of NAMAC is to review and comment on draft management plans developed for natural areas acquired and/or managed by the County, and to hold public hearings on initial management plans prior to their review and adoption by the BCC. As development of each draft management plan nears completion, NAMAC members are invited to tour the natural area with staff. All comments received from NAMAC members during the site visit are taken into consideration during completion of the draft management plan. The draft management plan is then sent to NAMAC for review and comment. The draft management plan also is available upon request through ERM for public review and comment.

Comments were accepted in the weeks leading up to the plan's final review and approval by NAMAC on December 20, 2019. A summary of the received comments is included as Appendix _____. NAMAC members took those comments into consideration prior to forwarding the draft management plan to the BCC with a recommendation that it be approved. OR No comments were received during the public review process. Members of the public also had the opportunity to comment on the plan on (______) when it was considered and approved by the BCC.

1.9 ACQUISITION HISTORY

In 1986, the BCC funded an inventory of the native ecosystems in Palm Beach County by two Florida Atlantic University professors, Dr. Grace Iverson and Dr. Daniel Austin (Iverson and Austin 1988). The study was completed in 1988, with additional work in 1989. The study identified 38 "A" quality sites, including 14 identified as "high-priority acquisition sites" by the County's Environmentally Sensitive Lands Acquisition Advisory Committee (ESLAAC). On March 12, 1991, the voters of Palm Beach County approved a \$100 million bond referendum to purchase environmentally sensitive lands with emphasis on the 14 high-priority sites. The IBM/Blue Lake Tract ecosite was one of those 14 high-priority sites.

In 1998, ERM and ESLAAC identified 39 environmentally sensitive sites that were to be targeted for acquisition with funds from an additional \$150 million Land Acquisition for Conservation Purposes Bond Referendum. On March 9, 1999, the voters of Palm Beach County approved the \$150 million bond referendum to purchase these environmentally sensitive lands. IBM/Blue Lake Tract was one of these sites.

In July 2002, the County purchased the 78.7-acre natural area from the City of Boca Raton.

In July 2002 the County and City submitted a joint application to FCT's Florida Forever Program for matching funds to help pay for acquisition of Pondhawk (fka Blue Lake Scrub). The County received \$5,782,632 in matching funds from FCT in February 2004.

Information regarding notable events taking place at the natural area during and subsequent to 2000 is in the following chapters: "Management and Restoration Activities" (Chapter 4) and "Site Development and Improvement" (Chapter 5).

2. PURPOSE AND OBJECTIVES

2.1 PURPOSE OF ACQUISITION

The primary purpose of the County's Natural Areas System is to protect native ecosystems and biological diversity throughout Palm Beach County. The primary purpose for the acquisition of this natural area was to preserve, restore/enhance and manage the site's ecological resources, including the existing natural communities, their component plant and animal species, and local groundwater resources. The complete acquisition and development of the site as a natural area have provided members of the public with opportunities for recreational activities, environmental education and scientific research that are consistent with the primary purpose of the site's acquisition.

It also has helped the County and City comply with portions of their respective comprehensive plans by preserving and restoring/enhancing the natural and historical resources of the natural area, while providing compatible public uses. Policies and objectives outlined in the County's comprehensive plan that are furthered by the acquisition and management of the site include, but are not limited to: the preservation and protection of native communities and ecosystems to ensure that representative communities remain intact (Conservation Element, Goal 2, Objective 2.1); the protection and preservation of endangered and threatened species, species of special concern and their associated habitats (Conservation Element, Goal 2, Objective 2.4); and the continued efforts to eradicate prohibited invasive non-native vegetation (Conservation Element, Goal 2, Objective 2.5).

All portions of the natural area are important to preserving the ecological and resource values found on the site. Because every portion of the site provides habitat for at least one rare or endangered plant species, animal species or natural community, no portions of the property can be declared as surplus.

2.2 MANAGEMENT GOALS AND OBJECTIVES

The natural area contains basin marsh, hydric hammock, mesic flatwoods, scrub and scrubby flatwoods native vegetation communities (Figure 2). These communities, most of which can be considered as moderate- to high-quality within the context of urbanized southeastern Florida, were in a somewhat degraded condition at the time of site acquisition. Maintaining and improving the ecological quality of these native vegetation communities is one of the primary management goals for this site. Another primary goal is to restore, enhance and/or manage disturbed areas in a manner that will enhance the overall biological diversity of the site and/or meet specific needs of listed species. Habitats for listed species are managed for the needs of individual species when such management is compatible with the overall management of the ecosystems within the natural area.

The following goals and objectives reflect desired management outcomes that are specific to Pondhawk Natural Area. The objectives are actions or measureable outcomes of management targeted to achieve short-term (achievable within 2 years) or long-term goals (achievable within 10 years). All of the following goals and objectives are subject to and contingent upon annual budgetary funding and appropriations by the BCC.

Habitat Restoration and Improvement

- Goal 1. Maintain and enhance a healthy scrub community (short-term and long-term).
 - Objective A. Conduct prescribed burns within sand pine scrub communities as recommended by FNAI (2010). [Note: Prescribed burning is contingent upon appropriate weather conditions, smoke and safety considerations, funding and resource availability, and other factors required for burning within an urban environment.
 - Objective B. Conduct prescribed burns within oak scrub communities as recommended by FNAI (2010). [Note: Prescribed burning is contingent upon appropriate weather conditions, smoke and safety considerations, funding and resource availability, and other factors required for burning within an urban environment.]
 - Objective C. If the prescribed burning in Objectives A and B cannot be conducted, the use of mechanical vegetative reduction methods will be utilized, as needed, within the site to create a mosaic of natural communities and successional stages, and reduce the risk of catastrophic wildfire.
- Goal 2. Maintain and enhance a healthy scrubby flatwoods community (short-term and long-term).
 - Objective A. Conduct prescribed burns within scrubby flatwoods communities as recommended by FNAI (2010). [Note: Prescribed burning is contingent upon appropriate weather conditions, smoke and safety considerations, funding and resource availability, and other factors required for burning within an urban environment.]
 - Objective B. If prescribed burning cannot be conducted, the use of mechanical vegetative reduction methods within the site will be utilized, as needed, to create a mosaic of natural communities and successional stages, and reduce the risk of catastrophic wildfire.
- Goal 3. Maintain and enhance a healthy mesic flatwoods natural community (short-term and long-term).

- Objective A. Conduct prescribed burns within mesic flatwoods communities as recommended by FNAI (2010). [Note: Prescribed burning is contingent upon appropriate weather conditions, smoke and safety considerations, funding and resource availability, and other factors required for burning within an urban environment.]
- Objective B. If prescribed burning cannot be conducted, the use of mechanical vegetative reduction methods within the site will be utilized, as needed, to create a mosaic of natural communities and successional stages, and reduce the risk of catastrophic wildfire.
- Goal 4. Maintain herbaceous wetland communities as part of the adjacent fire-dependent upland communities by allowing prescribed fire to burn into the basin marsh community.
- Goal 5. Restore five acres of the degraded wetland community in terms of biological composition and ecological function as required by the FCT Grant Award Agreement.

Imperiled Species Habitat Maintenance, Enhancement, Restoration or Population Restoration

- Goal 1. Protect, restore/enhance and maintain imperiled species habitat (short-term and long-term).
 - Objective A. Conduct prescribed burns to maintain the diversity and health of the plant communities on the site.
 - Objective B. Monitor the status of imperiled plant species populations in accordance with species-specific monitoring schedules established by ERM.
 - Objective C. Conduct periodic animal species surveys including gopher tortoise (*Gopherus polyphemus*) surveys, and ongoing opportunistic surveys for all animal species observed on the natural area, including imperiled species.
 - Objective D. Enforce relevant provisions of the Natural Areas Ordinance, such as those dealing with damage to or removal of plants, molestation or harassment of animals, introduction or release of nonnative plants and animals, and prohibition of domestic animals and pets.

Nonnative, Invasive and Nuisance Species Maintenance and Control

- Goal 1. Control nonnative and invasive plant species, and nonnative and nuisance animal species so that they do not significantly impact native plant communities (short-term and long-term).
 - Objective A. Maintain coverage of invasive/nonnative plant species at less than 1 percent of the natural area by conducting annual invasive/nonnative plant treatments.
 - Objective B. Monitor the site for feral hogs (*Sus scrofa*), domestic and feral cats, stray dogs, raccoons (*Procyon lotor*) and other nonnative/nuisance animals, as needed, during opportunistic observations and scheduled wildlife monitoring surveys, and remove/control populations of nonnative/nuisance animals as necessary and feasible.

Hydrological Preservation/Restoration

Goal 1. Evaluate the success (short-term and long-term) of the hydrological preservation/restoration project.

Objective A. Monitor water levels within the restored portion of the site and compare the results with pre-project levels.

- Objective B. Monitor vegetation within the restored freshwater wetlands to see if the vegetation within these wetlands resembles similar, intact wetlands elsewhere on the site.
- Goal 2. Restore historic hydroperiods and surface water flow patterns as much as possible to help restore the basin marsh (short-term and long-term).

Cultural and Historical Resources

This management objective is not applicable to the Pondhawk Natural Area. No significant cultural or historical resources have been identified on the site. If any cultural or historical resources are identified in the future, the procedures used to protect the newly discovered cultural/historical resource(s) will depend on which agency has the ultimate review authority - Florida Department of State, Division of Historical Resources (FDHR) or the County pursuant to Article 9 of the County's Unified Land Development Code.

Sustainable Forest Management

This management objective is not applicable to Pondhawk Natural Area. The natural area does not provide commercial forest resources.

Capital Facilities and Infrastructure

- Goal 1. Maintain the existing facilities and infrastructure, and any public use facilities that may be constructed on the site in the future, in safe condition (short-term and long-term).
 - Objective A. Monitor the integrity and condition of facilities and infrastructure on a regular basis.
 - Objective B. Close unsafe areas to the public immediately upon the detection of a problem.
 - Objective C. Replace/repair damaged fencing and signage as soon as possible.
 - Objective D. Replace/repair minor cracked/damaged infrastructure issues within six months of detection, contingent upon receipt of any necessary permits, construction contract requirements and/or site conditions.
 - Objective E. Replace/repair major cracked/damaged major infrastructure issues within one year of detection, contingent upon receipt of any necessary permits, construction contract requirements and/or site conditions.
- Goal 2. Maintain the overall appearance and aesthetics of the natural area (short-term and long-term).
 - Objective A. Maintain public use facilities (cleaning of concrete nature trail, boardwalk, parking lot, etc.) on a biweekly or as-needed basis.
 - Objective B. Mow management accessways and firebreaks on an as-needed basis.
 - Objective C. Paint over or remove graffiti from public use facilities on an asneeded basis.

Public Access and Recreational Opportunities

Goal 1. Continue to provide non-consumptive/non-destructive, resource-based public access and recreational opportunities within the natural area (short-term and long-term).

Security 5 1

- Goal 1. Implement appropriate security and access control measures to prevent unauthorized activities, such as use by OHVs, dumping and off-trail use (short-term and long-term).
 - Objective A. Install and maintain a fence and gate system designed to restrict public vehicular access to the designated parking lot and eliminate dumping on the site.
 - Objective B. Install and maintain signage to identify the site as a natural area and inform the public as to the uses and activities permitted and not permitted on the site.
 - Objective C. Continue to fund the Wildlands Task Force to enforce the Natural Areas Ordinance, as amended.
 - Objective D. Provide annual training sessions designed to educate local law enforcement officers about County ordinances related to the protection of natural areas and site-specific security issues.

3. NATURAL AND CULTURAL RESOURCES

Pondhawk Natural Area contains a remnant of the native upland and wetland communities formerly present in southeastern Florida. Agriculture, urbanization, hydrologic modifications, fire suppression and other human-related disturbances have eliminated or severely modified most of the native upland and wetland communities near the natural area. The site's natural communities currently represent a mosaic of historical, successional and altered vegetation communities. The natural area is not a designated area of state concern or under study for such designation, and is not within an aquatic preserve.

A thorough inventory and assessment of the existing natural resources had to be conducted before meaningful management goals and objectives could be developed for the natural area. The following sections summarize the site's existing natural resources. Disturbances that have affected, and/or continue to affect, these natural resources also are identified. Restoration, enhancement and management activities designed to mitigate for adverse impacts to the site's natural resources are described in Chapters 4 and 5. A discussion of the archaeological and historical resources is provided in Section 3.5.

Both the scientific and common names of plant and animal species are provided the first time the species is mentioned in this management plan. After the initial reference, only the common name is used. Lists of plants and animals recorded at the natural area are provided in Appendixes A and B, respectively.

3.1 HYDROLOGY

Historically, there were significant natural wetlands on the Pondhawk Natural Area, and the coverage of wetlands on the site was estimated at approximately 40%. A basin marsh extended northwest to southeast across the center of the site. There were also several isolated depressional wetlands in the northern portions of the site. These wetlands began disappearing in the 1960s and 1970's when groundwater levels were lowered as a result of improvements in the regional drainage system. The water table dropped significantly due to development surrounding the site and local hydrologic manipulations. Successional vegetation changes and invasion by Brazilian pepper became more pronounced in later aerial photographs. The former wetlands are now classified as hydric hammock, disturbed hydric hammock, basin marsh, or mesic flatwoods natural communities, which are generally considered to be of moderate quality. Historic wetland and groundwater levels top out at 10 feet during major storm events, but normally are in the 5 to 7 foot range.

Currently, if there are any surface water flows on the natural area, they are mostly to the east into the adjacent 23-acre Blue Lake. After the removal of a berm separating Blue Lake and the adjacent canal system, Blue Lake now has a control elevation of 5.5 feet (lower than the historic average of 6 feet). The lake discharges to Lake Worth Drainage District (LWDD) canals that are controlled by a weir structure. Groundwater seepage flows also occur to LWDD L-42 Canal on the north

side of Yamato Road and to LWDD L-43 Canal on the south side of Spanish River Boulevard. Both of these adjacent canals are controlled by a weir structure set.

One hydrological restoration project was completed on the natural area between 2009 and 2010. This restoration project was designed to recreate the historic wetlands onsite that were previously impacted by hydrologic alterations and development. The restoration project is described in Section 4.4.4.

ERM entered into an agreement with Florida Atlantic University (FAU) in September 2015 to record detailed hydrological monitoring data. This monitoring is being conducted weekly to read the water levels and water table elevation in Blue Lake, the lake littoral shelf and the wetland restoration area. This monitoring will help assess impacts associated with the Blue Lake berm removal and local wellfield pumping.

3.2 NATURAL COMMUNITIES

The following discussion provides a general description of each of the "intact" and altered ("disturbed") plant communities present on the natural area – basin marsh, hydric hammock, disturbed hydric hammock, mesic flatwoods, scrub and scrubby flatwoods (Figure 2). Unless otherwise indicated, the descriptions provided for intact communities are based upon FNAI's classification system (FNAI 2010). If a community is so altered that it no longer resembles or functions as an intact plant community, an alternative description has been developed. The phrase "natural community" is used in this plan, even when a plant community has been altered. A list of the typical plant species found in the County is provided for each of the intact plant communities found on the site; these lists are based on plant community descriptions contained in FNAI 2010 and species ranges provided by Wunderlin and Hansen 2011.

The goal of natural communities management is to restore and maintain as many of the natural communities that historically occupied the site as possible. Nearly all of the natural communities on the natural area have been enhanced or restored (see Section 4.4). They will be maintained through the implementation of invasive/nonnative plant and nonnative/nuisance animal control programs (see Sections 4.4.2 and 4.4.3), through the closure of all old OHV trails that are not part of the management accessway/firebreak system and through security measures designed to eliminate OHV use and dumping (see Section 4.5). Fire-maintained communities – basin marsh, mesic flatwoods, scrub and scrubby flatwoods - also will be maintained through the implementation of a prescribed burn program and/or through mechanical vegetation reduction (see Section 4.4.1).

3.2.1 Basin Marsh

Basin marshes are regularly inundated, isolated or mostly isolated freshwater herbaceous wetlands situated in a relatively large basin, usually with shallow to deep zones of aquatic vegetation and patches of shrubs. They occur as large, deep inclusions in fire-maintained upland communities

and as inclusions in non-pyrogenic communities. They also may be found along fluctuating lake shorelines, at the bottom of disappearing lakes or at the head of broad, low basins which were former embayments when sea levels were higher. The hydroperiod is generally around 200 days per year (FNAI and FDNR 1990). Typical basin marsh plant species found in the County include American white waterlily (*Nymphaea odorata*), American lotus (*Nelumbo lutea*), spatterdock (*Nuphar advena*), pickerelweed (*Pontederia cordata*), bulltongue arrowhead (*Sagittaria lancifolia*), southern cattail (*Typha domingensis*), Jamaica swamp sawgrass (*Cladium jamaicense*), softstem bulrush (*Schoenoplectus tabernaemontani*), maidencane (*Panicum hemitomon*), smooth beggarticks (*Bidens laevis*), dotted smartweed (*Persicaria punctata*), sud cordgrass (*Spartina bakeri*), sweetscent (*Pluchea odorata*), spadeleaf (*Centella asiatica*), blue waterhyssop (*Bacopa caroliniana*), coastalplain willow (*Salix caroliniana*), elderberry (*Sambucus nigra* subsp. *canadensis*), common buttonbush (*Cephalanthus occidentalis*) and wax myrtle (*Morella cerifera*). Listed animal species found in Palm Beach County that are typically associated with basin marshes include snowy egret (*Egretta thula*), little blue heron (*Egretta caerulea*) and tricolored heron (*Egretta tricolor*) (FNAI and FDNR 1990, Pranty et al. 2006).

Fire maintains open herbaceous basin marshes by restricting shrub invasion. The frequency of natural fire in basin marshes is dependent upon the hydrology of the marsh and its exposure to fire from the surrounding communities. The basin marsh community at the natural area will be allowed to burn at the same time and frequency as the adjacent scrubby flatwoods community.

A restoration project was completed post-acquisition that recreated a portion of the basin marsh community (see Section 4.4.4). The natural area currently contains approximately 8.8 acres of basin marsh.

FNAI (2019) ranked basin marsh as G4/S3 - apparently secure globally but very rare and local in Florida, found locally in a restricted range, or vulnerable to extinction due to other factors.

3.2.2 Hydric Hammock

Hydric hammock is characterized as an evergreen hardwood and/or cabbage palm (*Sabal palmetto*) forest with a variable understory often dominated by palms and ferns, occurring on moist soils. Hydric hammock soils are generally saturated, but are inundated only for short periods following heavy rains. The normal hydroperiod is seldom over 60 days per year. This community generally has a closed canopy of oaks and palms, an open understory, and a sparse-to-moderate groundcover of grasses and ferns. Typical hydric hammock plant species whose ranges include the County are cabbage palm, laurel oak, live oak (*Quercus virginiana*), red cedar (*Juniperus virginiana*), red maple (*Acer rubrum*), sweetbay (*Magnolia virginiana*), slash pine (*Pinus elliottii*), water oak (*Quercus nigra*), swamp dogwood (*Cornus foemina*), American elm (*Ulmus americana*), Walter's viburnum (*Viburnum obovatum*), wax myrtle, common persimmon (*Diospyros virginiana*), swamp bay (*Persea palustris*), eastern poison ivy, myrsine (*Myrsine cubana*), wild coffee (*Psychotria nervosa*), American beautyberry (*Callicarpa americana*), sugarberry (*Celtis laevigata*), sweetgum (*Liquidambar styraciflua*), flatsedges (*Cyperus* spp.), woodoats (*Chasmanthium* spp.), Carolina

scalystem (*Elytraria caroliniensis*), basketgrass (*Oplismenus hirtellus*), maiden ferns (*Thelypteris* spp.), cinnamon fern, royal fern, swamp fern, netted chain fern (*Woodwardia areolata*), Virginia chain fern, golden polypody (*Phlebodium aureum*), shoestring fern (*Vittaria lineata*), wild pines (*Tillandsia spp.*), peppervine (*Nekemias arborea*), rattan vine (*Berchemia scandens*), yellow jessamine (*Gelsemium sempervirens*), greenbriers (*Smilax spp.*), summer grape (*Vitis aestivalis*) and muscadine (*Vitis rotundifolia*).

Hydric hammock is a not a fire-maintained community, but it does burn on occasion. When hydric hammock communities burn, the intensity of the fire determines which plant species survive the fire. Cabbage palms are fire tolerant and are favored in hydric hammocks that have experienced high intensity fires. Live oaks can survive low intensity fires, but other hydric hammock species may be killed by fire. Prescribed fire will be allowed to burn into the hydric hammock community as far as available fuels and moisture levels allow it to go. The hydric hammock community covers 25.9 acres.

FNAI (2019) ranked hydric hammock as G4/S4 - apparently secure globally and in Florida, but possibly rare in parts of its range.

3.2.3 Disturbed Hydric Hammock

Disturbed hydric hammocks are those hydric hammocks that have been disturbed by invasive/nonnative plant invasion, hurricane tree fall, road construction, the digging of canals, and/or previous agricultural and/or borrow pit uses. This community typically has significant amounts of ruderal and transitional plants, and may have had significant amounts of invasive nonnative plants prior to implementation of the invasive/nonnative plant control program. Prescribed fire will be allowed to burn into the disturbed hydric hammock currently covers 1 acre, but should transition to hydric hammock or mesic hammock over time.

3.2.4 Mesic Flatwoods

Mesic flatwoods is the most widespread natural community in Florida. It is characterized as having an open overstory of pines, which in South Florida consists of slash pine. The understory generally includes a low, dense groundcover layer of grasses, forbs and shrubs. Other typical mesic flatwoods plant species that occur in the County include saw palmetto (*Serenoa repens*), gallberry (*Ilex glabra*), coastalplain staggerbush (*Lyonia fruticosa*), fetterbush, dwarf huckleberry (*Gaylussacia dumosa*), shiny blueberry (*Vaccinium myrsinites*), dwarf live oak (*Quercus minima*), running oak (*Quercus pumila*), wiregrass (*Aristida stricta* var. *beyrichiana*), witchgrasses and bluestem grasses, plus a large number of showy forbs.

Mesic flatwoods communities require frequent fire; all of the common plant species recover quickly after a fire and several plant species require fire to reproduce. Nearly all natural fires in mesic flatwoods occur at 1- to 6-year intervals, with 2- to 3-year intervals being the most common.

Reintroduction of fire into long unburned flatwoods can result in high pine mortality due to excessive smoldering at the base of the trees, a side effect of fuel and litter build-up. Growing season fires (April to mid-August) are favored over winter burns because many of the grasses and forbs require fire to flower and set seed.

The mesic flatwoods community at the natural area occupies 7.4 acres. It will be prescribed burned, contingent upon appropriate weather conditions, smoke and safety considerations, funding and/or resource availability, and other factors that may limit burning within an urban environment prescribed burn. If an "ideal" burn frequency cannot be met, prescribed burns and/or mechanical vegetative reduction methods will be used, as needed, to create a mosaic of natural communities and successional stages within Management Unit 1, and reduce the risk of catastrophic wildfire.

FNAI (2019) ranked mesic flatwoods as G4/S4 - apparently secure globally and in Florida, but possibly rare in part of its range.

3.2.5 Scrub

Scrub communities occur on sand ridges along former shorelines and are characterized by verywell-drained soils, a relatively open canopy, a dense-to-open understory layer and a sparse groundcover layer. Scrub communities are composed of evergreen shrubs, with or without a canopy of pines. The signature species – three species of scrub oaks (myrtle oak [*Quercus myrtifolia*], sand live oak [*Quercus geminata*] and Chapman's oak [*Quercus chapmanii*]), sand pine (*Pinus clausa*) and Florida rosemary (*Ceratiola ericoides*) – are found in scrub statewide. Other typical scrub plant species that occur in the County include saw palmetto, threeawns (*Aristida* spp.), hairsedges (*Bulbostylis* spp.), pinweeds (*Lechea* spp.), jointweeds (*Polygonella* spp.), sandyfield beaksedge (*Rhynchospora megalocarpa*) and ground lichens (*Cladina* spp. and *Cladonia* spp.). Listed animal species found in Palm Beach County that typically are associated with scrub include gopher tortoise (*Gopherus polyphemus*) and Florida scrub-jay (*Aphelocoma coerulescens*) (Bartlett and Bartlett 2011, FNAI and FDNR 1990, NatureServe 2019).

Scrub is a fire-maintained community. Recommended fire return intervals for scrub habitats range from 3 to 40 years and are dependent on the dominant plant species – oak scrub has a recommended fire return interval of 3 to 20 years, sand pine scrub has a recommended fire return interval of 5 to 40 years and rosemary scrub has a recommended fire return interval of 15 to 30 years. Periodic fire is one of the physical disturbances that help maintain the areas of open sand that characterize typical scrub. Fire is necessary for the growth and proliferation of many of the rare and/or endemic species that are found in scrub communities in Florida.

The density of key species within a scrub canopy often is a reflection of fire frequency. Individual sand pines usually are killed by fire, but replaced through reseeding. It takes nearly 10 years for the replacement stand of sand pines to mature and begin producing new seeds, and sand pines start to die off once they reach 50 years of age (FNAI 2010). Therefore, fires that occur at relatively short intervals (before replacement trees become mature enough to produce seeds) or at relatively

long intervals (approaching, or beyond, the normal reproductive life of sand pine) may eliminate sand pines from a scrub community. Similarly, Florida rosemary succumbs to fire and is reestablished from seed. This species requires 10 to 15 years to reach reproductive maturity and becomes senescent around 40 years of age. As a result, Florida rosemary also may be eliminated from scrub due to too frequent or too infrequent fire. Most of the other scrub species resprout readily from root-shoots following fire.

The scrub community occupies approximately 28.9 acres and is a mix of oak and sand pine scrub. It will be prescribed burned, contingent upon appropriate weather conditions, smoke and safety considerations, funding and/or resource availability, and other factors that may limit burning within an urban environment prescribed burn. If an "ideal" burn frequency cannot be met, prescribed burns and/or mechanical vegetative reduction methods will be used, as needed, to create a mosaic of natural communities and successional stages within Management Units 1-7, and reduce the risk of catastrophic wildfire.

FNAI (2019) ranked scrub as G2/S2 - imperiled both globally and in Florida because of rarity or vulnerability to extinction.

3.2.6 Scrubby Flatwoods

Scrubby flatwoods are characterized as having an open canopy of widely-spaced pine trees and a low, shrubby understory dominated by scrub oaks and saw palmetto, often interspersed with areas of barren white sand. Scrubby flatwoods will not flood, even under extremely wet conditions (Abrahamson and Hartnett 1990). The principal canopy species in South Florida is slash pine. In the County the understory consists of one or more of three scrub oaks - myrtle oak, Chapman's oak and sand live oak - and shrubs typical of mesic flatwoods such as saw palmetto, gallberry, coastalplain staggerbush, fetterbush and deerberry (*Vaccinium stamineum*). Grasses and subshrubs include wiregrass, broomsedge bluestem (*Andropogon virginicus*), little bluestem (*Schizachyrium scoparium*), dwarf live oak, shiny blueberry, dwarf huckleberry, gopher apple (*Licania michauxii*), Chapman's goldenrod (*Solidago odora* var. *chapmanii*), running oak, coastalplain honeycombhead (*Balduina angustifolia*), narrowleaf silkgrass and October flower (*Polygonella polygama*). Listed animal species that are typically associated with scrubby flatwoods in Palm Beach County include gopher tortoise and Florida scrub-jay (Abrahamson and Hartnett 1990, Bartlett and Bartlett 2011, NatureServe 2019).

Due to the relatively sparse ground cover and the presence of open, sandy areas, natural fire frequency in scrubby flatwoods is lower than in other flatwoods communities (Abrahamson and Hartnett 1990). Under natural conditions, this community burns once every 5 to 15 years. Scrubby flatwoods tend to burn in a spotty fashion leaving a mosaic of lightly-burned, intensely-burned and unburned areas.

The scrubby flatwoods community at the natural area will be prescribed burned, contingent upon appropriate weather conditions, smoke and safety considerations, funding and/or resource

availability, and other factors that may limit burning within an urban environment prescribed burn. If an "ideal" burn frequency cannot be met, prescribed burns and/or mechanical vegetative reduction methods will be used, as needed, to create a mosaic of natural communities and successional stages within Management Units 5, 6 and 7, and reduce the risk of catastrophic wildfire. There are 6.7 acres of scrubby flatwoods at the natural area.

FNAI (2019) ranked scrubby flatwoods as G2/S2? - imperiled both globally and in Florida because of rarity or vulnerability to extinction. The question mark indicates that the state status is questionable at present.

3.3 PLANTS AND ANIMALS - OVERVIEW

As of June 2019, 292 species of plants have been recorded at the natural area (Appendix A). Of these, eleven have been listed for protection or special management by a government agency or have been ranked by FNAI (Table 1). Seventy-two species of plants recorded at the site are not native to the South Florida mainland (see Section 4.4.2 and Appendix A).

As of June 2019, 212 species of animals have been recorded at the natural area - 5 arachnid, 1 millipede, 65 insects, 5 amphibians, 19 reptiles, 100 birds, 16 mammals and 1 fish (Appendix B). Twenty of these species have been listed for protection or special management by a government agency or have been ranked by FNAI (Table 2). Two species of invertebrates and two species of vertebrates recorded at the site are not native to the South Florida mainland (see Section 4.4.3 and Appendix B).

Some native plant and animal species recorded at the natural area are habitat-specific, using only one natural community, while others use a variety of natural communities. Therefore, the preservation, restoration, enhancement and management of all of the natural communities at the natural area are critical to the long-term preservation of plant and animal species indigenous to the site.

3.4 LISTED SPECIES

3.4.1 Plants

Eleven plant species recorded at the natural area have been listed for protection or special management by at least one governmental agency or have been ranked by FNAI (Table 1). These species will be protected as components of the natural communities of which they are a part. All listed/ranked plant species recorded at the natural area will be protected by implementing management activities designed to restore, enhance and maintain the natural communities in which they occur; controlling/removing invasive/nonnative vegetation; implementing a prescribed burn program; routing management accessways, trails and other public use facilities away from known populations whenever possible; relocating plants that cannot be avoided during construction and restoration activities; and protecting the site from plant collectors. Species known to be susceptible

to fire may be protected during prescribed burn activities by one or more of the following actions: having multiple management units, burning only one unit at a time to maintain a seed source on the unburned parts of the site, maintaining a mosaic of seral stages on the site, creating temporary firebreaks, or relocating individual plants to other locations on the site prior to a prescribed burn. Information regarding the monitoring of listed/ranked plant species is provided in Section 7.2.

This section includes a brief description of each listed/ranked plant species and any speciesspecific management/protection strategies that may be used to protect that species. The ranks and designations assigned to the species are provided in Table 1. Listed/ranked plant species recorded at the natural area are discussed below in alphabetical order by common name. The typical habitats provided for each species are as described by Wunderlin and Hansen (2011) unless otherwise noted.

Cinnamon fern (Osmunda cinnamomea)

This terrestrial fern was recorded at the natural area by ERM staff in 2002; it is rarely observed at the natural area. Cinnamon fern is typically found in freshwater marshes, swamps and bogs.

Common wild pine (Tillandsia fasciculata)

This epiphytic bromeliad was first recorded at the natural area by ERM staff in 2002; it is frequently observed at the natural area. It is typically found in cypress swamps, hammocks and flatwoods. All species of Tillandsia may be killed directly by fire, or indirectly as a result of the loss of the protective tree canopy or death of the host tree (Robertson and Platt 1992 and 2001).

Coontie (Zamia integrifolia)

This long-lived dioecious cycad was recorded at the natural area by ERM staff in 1991; it is frequently observed at the natural area. It is typically found in oak hammocks, pinelands and shell middens. Coontie is fire tolerant. Because it produces both neurotoxins and carcinogens (University of North Florida 2012), care should be taken when handling this plant.

Cutthroatgrass (Coleataenia abscissa)

This endemic perennial grass was first recorded at the natural area by ERM staff in 2008; it is frequently observed at the natural area. Cutthroatgrass is typically found in wet flatwoods and seepage areas. This species flowers only after a fire, when mowed, or otherwise disturbed. Cutthroatgrass is more vigorous when it experiences seasonal flooding and frequent fires (Yahr et al. 2000), but is capable of persisting even when drained and fire-excluded.

Giant wild pine (*Tillandsia utriculata*)

This epiphytic bromeliad was first recorded at the natural area by ERM staff in 2002; it is frequently observed at the natural area. Giant wild pine is typically found in hammocks and cypress swamps. All species of Tillandsia may be killed directly by fire, or indirectly as a result of the loss of the protective tree canopy or death of the host tree (Robertson and Platt 1992 and 2001).

Inflated & reflexed wild pine (*Tillandsia balbisiana*)

This epiphytic bromeliad was first recorded at the natural area by ERM staff in 1991; it is frequently observed at the natural area. Inflated & reflexed wild pine is typically found in hammocks and scrub. All species of Tillandsia may be killed directly by fire, or indirectly as a result of the loss of the protective tree canopy or death of the host tree (Robertson and Platt 1992 and 2001).

Royal fern (Osmunda regalis var. spectabilis)

This terrestrial fern was first recorded at the natural area by ERM staff in 2002; it is frequently observed at the natural area. This species is typically found in swamps, marshes and bogs. Royal fern has a low tolerance to fire (LaRue 2008).

<u>Satinleaf (Chrysophyllum oliviforme)</u>

This small evergreen tree with attractive leaves was first recorded at the natural area by ERM staff in 2010; it is frequently observed at the natural area. Satinleaf is typically found in pinelands and hammocks.

Saw palmetto (Serenoa repens)

This perennial shrub was first recorded at the natural area in by ERM staff in 1991; it is frequently observed at the natural area. This species is typically found in pinelands, scrub and coastal upland communities (Gann, et al. 2016). Saw palmetto is adapted to fire.

Scrub pinweed (Lechea cernua)

This endemic forb was recorded at the natural area in by ERM staff in1991; it is frequently observed at the natural area. Scrub pinweed is typically found in scrub. It is adapted to fire.

Shell-mound pricklypear (Opuntia stricta)

This perennial forb was first recorded at the natural area by ERM staff in 1991; it is frequently observed at the natural area. It is typically found on dunes and shell middens, and in coastal hammocks.

3.4.2 Animals

Nineteen animal species recorded at the natural area have been listed for protection or special management by at least one governmental agency or by FNAI (Table 2). They include one reptile and eleven bird species. The listed/ranked animal species at the natural area will be managed and protected as components of the natural communities of which they are a part. All listed/ranked animal species will be managed and protected through the implementation of management activities designed to restore, enhance and maintain the natural communities used by these species; by establishing a protective buffer zone around any known nest or rookery, or any nest or rookery that may be discovered in the future; and by the enforcement of anti-poaching regulations.

This section includes a brief description of each listed/ranked animal species, including the habitats in which it is typically found and the species' primary diet. The ranks and designations assigned to the species are provided in Table 2. Listed/ranked animal species recorded at the natural area are discussed in alphabetical order by common name.

American alligator (Alligator mississippiensis)

This large aquatic reptile was first recorded at the natural area by ERM staff in 2005; it is occasionally observed at the natural area. It is a carnivore; its diet is primarily snails, aquatic insects and crustaceans when young, and fish, turtles, snakes, small mammals and birds when older (Ashton and Ashton 1991). The American alligator is primarily a freshwater species. It may be present in any water-retaining habitat, including ponds, canals, lakes, rivers, large streams, borrow pits, swamps and marshes (Bartlett and Bartlett 2011b).

American redstart (Setophaga ruticilla)

This migratory warbler was first recorded at the natural area by ERM staff in 2006; it is occasionally observed at the natural area. American redstarts typically feed on insects and spiders (Pranty et al. 2006). Fall migrants arrive in Florida between late July and early November, and spring birds pass through between late March and early June (Maehr and Kale 2005). This species does not nest in South Florida (Sherry and Holmes 1997).

Bald eagle (Haliaeetus leucocephalus)

This very large bird of prey was first recorded at the natural area by ERM staff in 2013; it is rarely observed at the natural area. Bald eagles feed primarily on fish and waterbirds (Pranty et al. 2006).

This species inhabits coastal beaches, salt marshes, dry prairies, mixed pine and hardwood forests, wet prairies and marshes, pine flatwoods, sandhills and agricultural areas (Maehr and Kale 2005). In Florida, most bald eagles are year-round residents, but winter migrants do occur. Bald eagles typically nest in pine trees, but also may nest in mangrove trees or cypress; most nests are built more than 50 feet off the ground (Stevenson and Anderson 1994). The bald eagle is not known to have nested on the natural area.

Florida scrub lizard (Sceloporus woodi)

This small, endemic lizard was first recorded by ERM staff in 2002; it is rarely observed at the natural area. The Florida scrub lizard feeds primarily on insects, spiders and small arthropods (Branch and Hokit 2008). Its habitats are sand pine scrub and other xeric habitats where dry, well-drained, deep sandy soils with open patches of unvegetated sand are present (Jackson 1973).

Glossy ibis (Plegadis falcinellus)

This medium-large wading bird was recorded at the natural area by ERM staff in 2013; it has not been recorded at the natural area since that time. Glossy ibis typically feed on crayfish, fish, reptiles, amphibians and insects (Maehr and Kale 2005, Pranty et al. 2006). They inhabit freshwater marshes, swamps, lakes, flooded agricultural areas and occasionally estuaries (Pranty et al. 2006). Nesting occurs in mixed colonies with other wading birds in shrubs and trees that are either over standing water or on islands. Glossy ibises build platform nests made of sticks. This species is not known to nest at the natural area.

Gopher tortoise (Gopherus polyphemus)

This medium-sized terrestrial turtle was first recorded at the natural area by ERM staff in 2002; it is frequently observed at the natural area. Gopher tortoises are plant eaters; they feed on 400 species of grass and herbaceous plants (Ashton and Ashton 2008). They can travel up to two miles from their burrows to feed. They also may eat carrion, small animals, insects and other invertebrates. The gopher tortoise typically inhabits sandhill, scrub, scrubby flatwoods, xeric hammock, pine flatwoods, dry prairie, coastal strand, mixed pine-hardwood communities and a variety of disturbed well-drained habitats (Florida Fish and Wildlife Conservation Commission [FWC] 2012). The gopher tortoise is a keystone species in upland communities because of the important role that this species plays in relation to other plants and animals. At least 411 species of vertebrate and invertebrate animals are known to use gopher tortoise burrows (Mushinsky et al. 2006).

Great white heron (Ardea herodias occidentalis)

This large, nonmigratory wading bird was recorded at the natural area in 2011; it has not been recorded at the natural area since that time. The great white heron is currently considered a color morph of the great blue heron (*Ardea herodias*). This species feeds primarily on fish, shrimp and

crabs (Nellis 2001). It typically inhabits saltwater and estuarine environments, including mangroves, tidal flats/shores, seagrass beds, scrub-shrub wetlands, river mouths/tidal rivers, herbaceous wetlands, bays/sounds and coastal ponds, but may visit freshwater marshes and swamps as part of a post-breeding dispersal (Armistead and Sullivan 2015, NatureServe 2019, Nellis 2001, Stevenson and Anderson 1994). Great white herons typically nest in the Florida Keys and Florida Bay in coastal and estuarine areas, usually in mangroves (NatureServe 2019, Stevenson and Anderson 1994). This species is not known to nest in the natural area.

Hairy woodpecker (Picoides villosus)

This nonmigratory bird species was recorded at the natural area by ERM staff in 2010; it has not been recorded at the natural area since that time. Hairy woodpeckers seem to be dependent on fire-maintained pine forests, where they feed on the larvae of wood-boring beetles that become abundant soon after a pine tree is killed (Pranty et al. 2006). This species also may eat other insects, nuts and fruits. It is typically found in pine flatwoods or plantations, mixed pine and cypress forests, and riparian forests. Hairy woodpeckers nest in cavities excavated in live or dead tree trunks or limbs. This species is not known to nest on the natural area. Potential nesting habitat for this species will be protected by allowing dead pine trees to remain standing on the site unless they pose a hazard to the public or land management personnel.

Limpkin (Aramus guarauna)

This unusual wading bird was first recorded at the natural area by ERM staff in 2019. Limpkin feed primarily on applesnails (*Pomacea* spp.) and freshwater clams, although lizards, frogs, worms, insects, crustaceans and other snails also may be taken (Maehr and Kale 2005, Pranty et al. 2006). This species typically inhabits freshwater marshes, cypress swamps and the edges of rivers and creeks (Pranty et al. 2006).

Little blue heron (Egretta caerulea)

This medium-sized heron was first recorded at the natural area by ERM staff in 2009; it is frequently observed at the natural area. Little blue herons feed on small fish and amphibians, aquatic crustaceans, insects, worms and snakes (FWC 2013). This species inhabits coastal beaches, salt marshes, mangroves, hardwood swamps, cypress swamps, wet prairies, freshwater marshes, lakes and ponds, and flooded agricultural areas (Maehr and Kale 2005, Pranty et al. 2006). Nesting occurs from late February through August in single species or multiple species wading bird colonies, mainly at saltwater sites (Maehr and Kale 2005). The little blue heron is not known to nest at this site.

Merlin (Falco columbarius)

This small- to medium-sized falcon was recorded at the natural area by ERM staff in 2010; it has not been recorded at the natural area since that time. This species preys chiefly on small birds, but

may feed on small mammals and insects (Maehr and Kale 2005, Pranty et al. 2006). Merlins can be seen in virtually any open habitat, usually near water (Pranty et al. 2006). These migratory falcons can be locally common along the Atlantic coast of Florida from September to April. This species does not nest in Florida.

Osprey (Pandion haliaetus)

This large bird of prey was first recorded at the natural area by ERM staff in 2002; it is frequently observed at the natural area. It feeds almost exclusively on fish (FWC 2018a, Pranty et al. 2006). Ospreys are widely distributed in Florida and may be found near coastal beaches, salt marshes, open saltwater, open freshwater, mangroves, and wet prairies and marshes (Maehr and Kale 2005). In South Florida, nesting occurs from late November to early summer (FWC 2018a). Ospreys use live or dead trees, telephone poles and human-made structures for nesting; they create large stick nests high above the ground that they use for many years (Pranty et al. 2006). They are not known to nest at the natural area.

Painted bunting (Passerina ciris)

This colorful, migratory songbird species was first recorded at the natural area by ERM staff in 2013; it is occasionally observed at the natural area. Painted buntings feed primarily on seeds, but also eat small fruits, insects and spiders (Maehr and Kale 2005, Pranty et al. 2006). They are found in dense vegetation along hammock and woodland edges and in abandoned citrus groves and urban areas. This species frequently overwinters in southern and central Florida, but does not nest south of Brevard County (Pranty et al. 2006).

Peregrine falcon (Falco peregrinus)

This large migratory raptor was recorded at the natural area by ERM staff in 2015; it has not been recorded at the natural area since that time. It feeds on a variety of birds, including ducks, shorebirds and gulls (Pranty et al. 2006). The peregrine falcon inhabits a variety of open, mostly coastal habitats, as well as inland lakes and marshes (Maehr and Kale 2005, Pranty et al. 2006). Florida represents an important wintering area for this species, especially for the Arctic subspecies (Maehr and Kale 2005). This species does not nest in Florida (Pranty et al. 2006).

Snowy egret (Egretta thula)

This wading bird was first recorded at the natural area by ERM staff in 2011; it is occasionally observed at the natural area. The snowy egret feeds on a variety of fish, aquatic crustaceans, insects, and small amphibians, worms or snakes (FWC 2013). It is a common and widespread Florida resident that is found in almost any wetland habitat, including coastal beaches, freshwater and salt marshes, mangroves, hardwood swamps, cypress swamps, wet prairies, flooded agricultural areas and urban environments (Maehr and Kale 2005, Pranty et al. 2006). Platform nests are created in shrub-covered wetlands or islands in coastal lakes and lagoons (Maehr and

Kale 2005). Snowy egrets nest in colonies with other wading birds; eggs are laid from March through August. This species is not known to nest at the natural area.

Swallow-tailed kite (Elanoides forficatus)

This long-tailed bird of prey was first recorded at the natural area by ERM staff in 2005; it is rarely observed at the natural area. This species feeds on large insects, tree frogs, small snakes and nestling birds (Pranty et al. 2006). Swallow-tailed kites require a mosaic of communities, with tall, accessible trees for nesting and open areas for foraging. Habitats include xeric scrub, hardwood and cypress swamps, mesic hammocks, mixed pine and hardwood forests, pine flatwoods, sandhills, riparian forests and agricultural environments (Maehr and Kale 2005, Pranty et al. 2006). This species typically builds platform nests in tall pine or cypress trees (Pranty et al. 2006). This species is not known to nest on the natural area.

Tricolored heron (Egretta tricolor)

This long-necked wading bird was first recorded at the natural area by ERM staff in 2011; it is frequently observed at the natural area. It feeds primarily on small fish (Pranty et al. 2006). Tricolored herons are fairly-common permanent residents in Florida, except in the western Panhandle. They primarily live in coastal habitats such as estuaries and mangroves, but also are present in many types of wetlands, including the edges of inland marshes, lakes and ponds, and flooded agricultural fields. Tricolored herons are colonial nesters; they create platform nests in mangroves or other dense aquatic shrubs. Eggs are laid from late February through July (Maehr and Kale 2005). The tricolored heron is not known to nest at the natural area.

Wood stork (Mycteria americana)

This large wading bird was first recorded at the natural area by ERM staff in 2005; it is frequently observed at the natural area. Wood storks feed primarily on fish, but crustaceans, gastropods, amphibians, reptiles, mammals, other birds and arthropods also may be consumed (United States Fish and Wildlife Service [USFWS] 1997 and 2007). They typically inhabit freshwater ponds, wet prairies and marshes, cypress swamps, salt marshes mangroves and flooded agricultural fields (Maehr and Kale 2005, Pranty et al. 2006). In Florida, nesting occurs in large colonies in forested wetlands from November to May, either high in cypress trees or lower in mangroves. Freshwater colony sites must remain flooded throughout the nesting period to protect the young against predation and abandonment (USFWS 1997). The USFWS has documented four wood stork nesting colonies within the County (USFWS 2019). The wood stork is not known to nest at this natural area. However, USFWS has designated the entire eastern half of Palm Beach County as a core foraging area for this species.

3.5 ARCHAEOLOGICAL AND HISTORICAL RESOURCES

No archaeological or historic resources are known to exist within the natural area (Hysi 2017). Any future ground disturbance will be coordinated with Florida Department of State, Division of Historical Resources (FDHR) and the Palm Beach County Archaeologist. If any archaeological or historical sites are discovered in the future, FDHR's and the County's best management procedures will be followed to protect those sites. If human remains are found, the provisions of Section 872.05, Florida Statutes, will be followed. The County will comply with Chapter 267, Florida Statutes, in its management of any archaeological or historical sites discovered on the natural area. If historical resources are found on the natural area, a historical resources protection plan will be developed in consultation with the Palm Beach County Historic Preservation Officer.

4. MANAGEMENT AND RESTORATION ACTIVITIES

Baseline environmental assessments of the existing plant communities, and plants and animals were conducted by ERM staff between 1991 and 2008. This information was used to identify the initial management activities necessary to protect, restore/enhance and maintain the natural resources of the site, and to determine the locations and types of public use facilities that were installed. Additional environmental investigations conducted between 2009 and 2019 were analyzed to identify any changes that should be made to the existing public use facilities, land management practices or monitoring requirements. This information serves as the basis for this updated management plan.

4.1 MANAGEMENT RESPONSIBILITIES

Management activities are primarily the responsibility of the County, with assistance from the City and volunteers from the local community. These activities are coordinated by ERM. An interlocal agreement, which includes a breakdown of management responsibilities, was approved by the County and the City in 2008 (see Appendix F).

4.2 MANAGEMENT UNITS

The natural area is divided into eight management units using management accessways, and natural and manmade features as boundaries and firebreaks (Figure 3). The management units have been designed to maximize the long-term diversity of natural communities, and native plant and animal species on the site. These units range in size from 4.4 to 29.9 acres, and are small enough to allow for safe and practical fire management. The management units have been modified since the initial management plan due to vegetation community changes. Former management units 8 and 9 were combined to encompass the majority of the hydric hammock and basin marsh communities. A management unit may be subdivided into smaller units in order to facilitate management and/or monitoring activities, or to minimize the effect of smoke on adjacent properties during a prescribed burn. The boundaries of the management units were slightly modified from those proposed in the original management plan in order to minimize/avoid impacts to existing wetland habitats and upland communities.

4.3 MAINTENANCE

4.3.1 Removal of Debris and Litter

All of the debris and litter found on the natural area at the time of its acquisition has been removed. If additional debris is found, it will be removed in a timely manner unless such removal would cause undesirable damage to a rare or imperiled natural community, or listed species. The installation of perimeter fencing and management access gates has and will continue to help prevent dumping on the site. Periodic site cleanups to remove litter are conducted by county staff with the assistance of volunteers.

4.3.2 Trail Maintenance

Periodic trail maintenance will be performed by county staff and community volunteers. All existing trails not used for site management or as part of a designated public use trail will be allowed to revegetate with native vegetation.

4.3.3 Facilities Maintenance

County staff is responsible for the maintenance of all fencing/gates, signage and management accessways/firebreaks.

4.4 RESTORATION AND ENHANCEMENT ACTIVITIES

All of the planned restoration and enhancement projects have been completed at the natural area.

Activities conducted included the implementation of a prescribed burn program, and mechanical vegetation reduction activities designed to reduce fuel levels and create a mosaic of natural communities and successional stages within the site (see Section 4.5.1); implementation of invasive/nonnative plant and nonnative/nuisance animal control programs (see Sections 4.5.2 and 4.5.3, respectively); installation of native plantings (see Subsection 4.4.4.2); completion of 1 wetland restoration project (see Subsection 4.4.4.1); and removal of trash dumped on the site prior to its acquisition by the County. Habitat and hydrological restoration projects, and large-scale restoration/enhancement plantings completed for this site are described in the following sections and depicted in Figure 4.

Restoration/enhancement activities conducted on the site have already begun to improve the natural communities in terms of biological composition and ecological function. However, it will take several years for planted native vegetation to mature and for additional native plants to recruit into the restored/enhanced areas. Once this has happened, restoration of the site will be considered complete.

4.4.1 Fire Management

Because of development, natural, lightning-induced fire can no longer fulfill the needs of natural communities in the County which are dependent upon fire for their long-term survival (for example, basin marsh, depression marsh, dome swamp, mesic flatwoods, scrub, scrubby flatwoods, slough marsh, wet flatwoods and wet prairie). Natural fire can no longer spread from adjacent lands onto the natural area because all of the surrounding fire-dependent communities have been significantly altered by development. When natural fire does occur within or adjacent to the natural area, it is quickly extinguished due to the threat it poses to adjacent developed areas. Prescribed fire and mechanical fuel reduction activities will be used at this site to help maintain the existing fire-dependent communities and reduce the risk of damage from wildfire on the adjacent developed areas.

ERM has assumed the primary responsibility for prescribed burning at the natural area. Assistance in the form of firefighting staff and equipment will be requested from Palm Beach County Fire Rescue and the City's Fire-Rescue Department. Additional assistance may be provided by Florida Department of Agriculture and Consumer Services' (FDACS) Florida Forest Service (FFS), the County's Parks and Recreation Department, FWC and trained volunteers. Fire-related safety training is required of anyone participating in a prescribed burn. All prescribed burns will comply with Section 590.125(3), Florida Statutes (Certified Prescribed Burning; Legislative Findings and Purpose).

ERM has written a flexible fire management plan for the natural area (Appendix G). Development of the fire management plan was coordinated with FFS and FWC. The fire management plan takes into consideration surrounding land uses, smoke management concerns, safety issues, and the ecological benefits and consequences of the specific fire management strategies. It contains specific tools and management practices designed to minimize adverse impacts to native vegetation and wildlife, while maximizing the beneficial effects of prescribed burns. A specific burn plan will be prepared for the proposed burn area prior to conducting a prescribed burn.

Development-related smoke management concerns dictate extremely narrow weather conditions in which prescribed burning may take place at the natural area. Mechanical reduction of vegetation may be used as a surrogate for fire if a given area/habitat cannot be burned.

Surveys for fire-intolerant listed plant species will be conducted before each prescribed burn. If deemed appropriate, fire-intolerant plants may be relocated outside the burn area. If relocation is not practical due to the presence of hard-to-relocate species or larger populations of listed plants, a temporary firebreak may be created to protect the area that contains the listed species from the planned burn. These relatively small unburned areas will increase the diversity of the site. A permit will be obtained for the relocation of a listed plant species when required.

All of the management units identified for this site will be treated with prescribed fire. Therefore, each management unit also can be considered a "burn unit." Depending on the specific conditions and objectives of a burn, a management unit may be subdivided into smaller subunits to reduce smoke concerns or provide specific habitat benefits. Staff also may investigate the use of microburns to help restore habitat and increase species diversity.

Each burn unit was designed so that fire can burn through ecotones and move in a natural, spotty fashion across the landscape. The resulting patchwork of burned and unburned areas will produce a mosaic of vegetation at various stages of maturity, thereby maximizing diversity within and among the various plant communities. This will provide habitat for species that typically use, or may even be restricted to, communities in a particular state of maturity.

The prescribed burn program for this site began with a prescribed burn in Management Unit 6 in June 2015, which was specifically conducted to benefit the fire adapted cutthroat grass species. Future burns will also help to target this listed species. Portions of Management Units 1,

2, 3, 4, 6 and 8 (15 acres) were mechanically reduced in lieu of burning in October 2013 and portions of Management Units 1, 2, 3, 4, 6, 7 and 8 (15 acres) were mechanically reduced in lieu of burning in March 2017.

Prescribed burning is conditional upon weather conditions, staffing and how many, if any, smoke related issues are experienced during each of the scheduled burns. Management Units adjacent to highways, major roads, railroads and/or other smoke sensitive areas may be very difficult to burn.

When the use of prescribed fire is not feasible/permitted, ERM will strive to create a mosaic of natural communities and successional stages, and reduce the risk of catastrophic wildfire through the use of mechanical vegetation reduction methods, subject to and contingent upon annual budgetary funding and appropriations by the BCC. This methodology uses a machine to reduce (grind or shred) vegetation into mulch-sized chips. The mulch chips are then left in place to allow for recycling of nutrients.

There have been three wildfires at the natural area since it was acquired the County. The first two wildfires occurred in April 2010. The first fire burned approximately 2 acres and occurred in Management Units 7 and 8 as a result human activity. Boca Raton Fire Rescue responded to the fire. The second fire burned approximately 15 acres and occurred in Management Units 6, 7 and 8 due to the first fire reigniting. Boca Raton Fire Rescue, Wildlands Task Force, ERM and the Florida Forest Service all responded to the fire. The third wildfire was approximately 5 feet by 25 feet in July 2015 and occurred near the pedestrian bridge from unknown causes. The fire was extinguished by the time it was discovered by ERM.

If a wildfire occurs on the site in the future, the appropriate actions will be taken by the authorized fire emergency response agency. Active fire suppression measures will be used only if deemed necessary by that agency since they are extremely destructive to vegetation and other natural features. If such measures are undertaken to control a wildfire, all plow lines will be backfilled after the fire has been extinguished and disturbed areas will be rehabilitated to the greatest extent possible.

A public education campaign has been developed for this natural area. This campaign includes informing the adjacent residents of the necessity and benefits of fire, the safety features of prescribed burning versus wildfires, and the strategies that will be developed to minimize the impacts of smoke on the nearby developed areas. The County will coordinate with the appropriate fire emergency response agencies prior to conducting a prescribed burn. If requested, county staff will meet with local community groups (for example, homeowners' associations) to coordinate with residents, provide information on the necessity of conducting prescribed burns and describe the safety precautions that will be taken to protect adjacent lands.

4.4.2 Invasive/Nonnative Plant Control

Like many fragmented conservation lands in southeastern Florida, the natural area has been invaded by a number of nonnative plant species. To date, 71 nonnative plant species have been recorded at the natural area – 26.4 percent of the plant species recorded on the site (Appendix A). Many of these species were brought to the site by animals (especially birds), planted on the site by previous property owners, and/or spread from adjacent properties or from vegetation piles that were dumped on the site prior to its acquisition. Many species were recorded prior to the implementation of the invasive/nonnative plant control program and may no longer be present. Nonnative plant species are expected to continue to colonize the site from surrounding properties; periodic invasive/nonnative plant control treatments will be required to prevent these species from adversely affecting the natural area.

A number of the nonnative, and some native, plant species recorded at the natural area exhibit invasive tendencies. In this management plan, the phrase "invasive plant species" includes the plants designated as Category I (invasive) and Category II (potentially invasive) by Florida Exotic Pest Plant Council (FLEPPC 2019), those designated as noxious weeds, or Class I or Class II prohibited aquatic plants by Florida Department of Agriculture and Consumer Services (FDACS 2016a and 2008, respectively), as well as native plant species that are harmful to other native vegetation (such as love vine [*Cassytha filiformis*]) or that are too dense or inappropriate for the targeted vegetation community. Invasive nonnative plant species pose a serious threat to the natural communities and listed species found at the site, and are a major management concern.

Twenty-nine (41 percent) of the nonnative plant species recorded at the natural area are designated as either Category I or Category II species by FLEPPC (2019). A current copy of FLEPPC's list of invasive exotic plant species can be found at <u>http://www.fleppc.org/list/list.htm</u>. Eight (11 percent) of the nonnative plant species have been designated as noxious weeds by FDACS (2016a) and Five (7 percent) have been designated as a Class I prohibited aquatic plant species (FDACS 2008). All of these species are identified in Appendix A.

The control of nonnative and invasive native plant species is a high priority at this site. A multiphase invasive/nonnative plant control program began in 2002 and was completed in 2005. Follow-up invasive/nonnative plant treatments have been conducted since 2006. The site is now in maintenance condition. A site is considered to be in "maintenance condition" when the coverage of invasive plant species does not exceed 1 percent of the canopy or understory layers within any given management year. Ongoing invasive/nonnative vegetation treatments will be needed in order to keep the site in maintenance condition. In addition to invasive nonnative plant species, invasive native species also can have an adverse impact on fragmented natural communities. Native plant species that have an adverse effect on other native species at the natural area, or are too dense or inappropriate for the targeted vegetation community, may be targeted for eradication/control until such time that the invasive native species is no longer having an adverse impact on the site.

Methodologies used to control/eradicate invasive nonnative and invasive native plant species at the natural area have included and/or may include mechanical removal, herbicidal treatment, hand removal and the use of periodic prescribed fire. Biological control methods may be used on a case-by-case basis. Ruderal species, which are typical of open disturbed sites and do not invade functioning natural communities, are controlled through prescribed burning and avoiding unnecessary disturbances.

Mechanical removal methods are typically used to remove accessible, dense stands of highly invasive nonnative trees such as Australian-pine (*Casuarina equisetifolia*), Brazilian pepper (*Schinus terebinthifolia*) and melaleuca (*Melaleuca quinquenervia*). The tree and its root system are mechanically removed, then chipped for on-site use or off-site disposal. Any outlying sprouts or resprouts from root remnants are treated with herbicides. Mechanical removal methods were used in 2006-2007 to remove a Brazilian pepper monoculture from the natural area.

Herbicidal treatments are typically used to control/eradicate individual and scattered invasive/nonnative trees, shrubs and palms; inaccessible (by heavy equipment) dense stands of invasive/nonnative trees; and invasive/nonnative vines and groundcover species. Aquatic plant species that become problematic at the site may be controlled using an appropriate aquatic herbicide. Herbicidal application methodologies include hack-and-squirt, cut-stump, basal bark, foliar treatments and broadcast spraying. Hack-and-squirt, cut-stump and basal bark methods are typically used to control/eradicate individual and scattered nonnative trees, shrubs and palms. Foliar treatments are used for invasive/nonnative vines, and for small patches of invasive/nonnative grasses, sedges and forbs. Broadcast spraying is primarily used for larger areas of invasive/nonnative grasses, sedges and forbs. Invasive/nonnative plant species that are resistant to herbicides or that easily resprout from basal mats, roots or vegetative fragments may require repeated herbicide application before the species is eradicated from an area. All herbicide treatments comply with the instructions on the herbicide label, are applied under the supervision of a licensed applicator and employ Best Management Practices for their application.

Hand removal is used for seedlings of invasive/nonnative tree and shrub species. Since tree and shrub seedlings are not reproductive, they are typically pulled out of the ground and left to decompose on site after the soil has been shaken from the roots of the plant.

Hand removal also may be used in combination with herbicide treatments to treat invasive/nonnative vines, as well as invasive/nonnative plants that are resistant to herbicides. In the case of invasive/nonnative vines, the targeted vine is cut at an appropriate height. The base is then hand-pulled or treated with a systemic herbicide; vine stems are either removed from the supporting plant or left to decompose in the trees. In the case of plants that are resistant to herbicides, hand removal may be used as the sole plant control method or it may be used as a follow up method to remove plants that are still alive following an herbicidal treatment.

Finally, hand removal may be used to help control plant species that readily reestablish from seed (for example, rose natalgrass [*Melinis repens*] and thalia lovegrass [*Eragrostis atrovirens*]) or that

resprout from vegetative fragments (for example, air potato [*Dioscorea bulbifera*], American evergreen [*Syngonium podophyllum*], arrowleaf elephant's ear [*Xanthosoma sagittifolium*], golden pothos [*Epipremnum pinnatum*] and nightblooming cactus [*Hylocereus nudatus*]). In these cases, the seedheads and vegetative parts of the invasive/nonnative plants are bagged and removed from the site.

4.4.3 Nonnative/Nuisance Animal Control

Nonnative and nuisance (feral and certain native species) animals can be a problem on sites like the natural area. The presence and impacts of nonnative/nuisance animals are monitored as part of the systematic and opportunistic wildlife surveys. Targeted surveys for nonnative/nuisance animals also may be performed if additional information is required. Nonnative/nuisance animal control programs will be developed and implemented, as necessary, to control species that adversely affect the natural area.

Thus far, six species of invertebrates and fourteen species of vertebrates recorded at the natural area are not indigenous to the South Florida mainland, and have become naturalized in the wild (See Appendix B). None of the nonnative invertebrate species recorded at the natural area appears to be having a negative effect on the natural communities. Native vertebrate species recorded at the natural area that may become a nuisance include the coyote (*Canis latrans*) and raccoon (*Procyon lotor*).

Although the honeybee (*Apis mellifera*) is an introduced species, it is beneficial for pollination of crops, native plants and honey production (Mortensen et al. 2013). Any naturally occurring non-Africanized honeybee hives will be left in place; any Africanized honeybee (*Apis mellifera scutellata*) hives detected within the natural area will be removed.

A short description of the nonnative/nuisance vertebrate species found on the natural area is provided below. No control methods will be used for species identified below as having no significant impact on the natural area.

The brown anole (*Anolis sagrei*) is an abundant anole in South Florida. This prolific species is well adapted to habitats modified by humans and can live in most inland and coastal habitats, including disturbed areas (Meshaka et al. 2004). Although its primary diet is insects, the brown anole also eats smaller green anoles (*Anolis carolinensis*); this predation appears to have caused a rapid decline in the population of the native green anole in Florida. This species is occasionally observed at the natural area. Potential control efforts for this species will be explored if it is determined that it is having a negative effect on the natural area.

The brown basilisk (*Basiliscus vittatus*) is a long-limbed, fast-moving lizard that can run on its hind legs (Bartlett and Bartlett 2011b). This species is commonly present along canals and pond edges, in agricultural habitats, and in low-density suburban areas (Bartlett and Bartlett 2011b, Meshaka et al. 2004). This lizard primarily feeds on invertebrates, but may eat some fruits; it is

prey for various species of snakes (Meshaka et al. 2004). It is occasionally observed at the natural area. Potential control efforts will be explored if it is determined that the brown basilisk is having a negative effect on the natural area.

The clown knifefish is a common freshwater aquarium fish currently only found in Lakes Osborne, Ida, and their associated canals in southeast Florida. This fish is native to tropical Asia--Indochina and Thailand. (FWC undated [a]). This species is very rarely observed at the natural area. There currently are no feasible methods to eradicate this species from lakes and/or canals adjacent to the natural area or to prevent it from being reintroduced via connections with adjacent water bodies.

The coyote disappeared from eastern North America about 12,000 years ago (McCown and Scheick 2007). Coyotes began expanding their range back into the northwestern portion of Florida in the 1970s, presumably taking advantage of an ecological niche left open by the extirpation of the red wolf in the eastern United States (FWC undated[b], McCown and Scheick 2007). The coyote now occurs statewide in Florida and is considered to be a native or naturalized species by In Florida, the coyote uses all available habitats, including swamps, dense forest, FWC. agricultural lands, parks and other green spaces within cities (McCown and Scheick 2007). Dens are located in thickets, hollow logs, brush piles or burrows. The impact of the coyote on native animals is not well quantified, other than sea turtle nests and gopher tortoises, and the harm or benefit to them is under debate. Coyotes are opportunistic omnivores; they eat whatever animal or plant material is most abundant, including sea turtle eggs in late spring and early summer, and saw palmetto berries in late summer and early fall. This species is frequently observed at the natural area. Although coyotes may provide a benefit to the natural area by preying on feral cats and raccoons, there is a concern that they could have a significant negative impact on native wildlife, including ground-nesting birds and gopher tortoises. Wildlife cameras and opportunistic surveys may be used to monitor the coyote population at the natural area, if necessary to determine if any actions need to be taken to control this species.

The Cuban treefrog (*Osteopilus septentrionalis*) is the largest species of treefrog in Florida (Johnson 2017). Cuban treefrogs are present in a variety of natural and human-modified habitats (Bartlett and Bartlett 2011a, Johnson 2017). This species eats a wide variety of food items including roaches, snails, millipedes, spiders and a vast array of insects; it is a known predator of natural area. Potential control efforts will be explored if this species appears to be negatively impacting native species at the natural area.

Dianne Sauve, Director of Palm Beach County's Animal Care and Control Division, has estimated that there are approximately 200,000 free-roaming cats (*Felis catus*) in Palm Beach County (personal communication, September 17, 2019). Cats are an increasing problem in natural areas in South Florida because of their predation on birds and small animals. There also is the potential for rabies to spread to feral and domestic cats from infected wildlife. This species is (very rarely/rarely/occasionally/frequently) observed at the natural area and may enter the natural area from adjacent residences. Control of feral and domestic cats will focus on educating the surrounding community, combined with selective live-trapping, if necessary.

The Egyptian goose (*Alopochen aegyptiacus*) is a common exotic goose species in the wild in Florida that likely originated from escapees from captive waterfowl collections (Cornell Lab of Ornithology undated). There is evidence of breeding populations in Florida (Pranty and Ponzo 2014). This species is frequently observed at the natural area. It does not appear to be negatively impacting native species at the natural area.

The Eurasian collared-dove (*Streptopelia decaocto*) is a medium to large-sized, stocky dove. It is most common in coastal, suburban and agricultural areas where food, roosts and nesting sites are abundant (Johnson and Donaldson-Fortier 2012). Eurasian collared-doves are grain eaters and are frequent visitors to bird feeders (Pranty et al. 2006). This species is frequently observed at the natural area. Eurasian collared-doves are not expected to affect the natural area in any significant way.

The European starling (Sturnus vulgaris) is associated with disturbed sites and urban environments, as well as open grassy or agricultural areas (Johnson and Givens 2012). This medium-sized songbird is omnivorous; it feeds on a wide variety of invertebrates (such as beetles, insects, earthworms and spiders), as well as seeds, plants and fruits. It is a cavity nester, and can aggressively displace native bird species from nest holes in trees, human-made structures and artificial nesting boxes. This species is frequently observed at the natural area. Due to the limited amount of habitat available for cavity-nesters on the site, this species is not expected to have a significant negative impact on native bird species at the natural area.

The green iguana (*Iguana iguana*) is a popular pet and individuals frequently are released or escape (Bartlett and Bartlett 2011b). It is adversely affected by cold temperatures. Green iguanas live in most urban and suburban habitats in South Florida (Bartlett and Bartlett 2011b, FWC undated[c]). They prefer dense tree canopies near water, but may be found on canal banks, urban sidewalks and backyards. They also dig burrows that can undermine sidewalks, seawalls and foundations (Kern 2004). Green iguanas are primarily herbivores; they feed primarily on foliage, flowers and fruit, but also are known to consume insects, lizards, nestling birds and eggs. Domestic dogs are known to kill green iguanas, but no natural predators are known in Florida for this species (Meshaka et al. 2004). This species is frequently observed at the natural area. Potential control measures will be explored it is determined that this species is having a negative effect on the natural area.

A common pet, the monk parakeet (*Myiopsitta monachus*) has become the most widespread and abundant parrot in North America (Pranty et al. 2006). Monk parakeets typically build large, communal stick nests in trees, palms or on artificial structures such as radio towers, light poles and electric utility structures (Johnson and Logue 2012, Pranty et al. 2006). This species feeds on a wide variety of flowers, fruits, seeds, berries and other plant material. It is rarely observed at the natural area. This species does not appear to adversely affect native plants or animals (Johnson and Logue 2012).

The Muscovy duck (*Cairina moschata*) is typically found around urban lakes, ponds, streams, zoos, parks, neighborhoods and farms (Johnson and Hawk 2012). This species is very prolific; local populations can increase quickly if not controlled (FWC undated[d]). Muscovy ducks dig out shallow nests on the ground (Johnson and Hawk 2012). The diet of feral Muscovy ducks includes food provided by humans, aquatic vegetation, seeds, acorns and invertebrates. This species has the potential to spread disease to native waterfowl and may interbreed with native ducks (FWC undated [d], Johnson and Hawk 2012). This species is rarely observed at the natural area. It is rarely seen in natural wetlands (Pranty et al. 2006) and is not expected to adversely affect the natural area.

The northern curly-tailed lizard (*Leiocephalus carinatus*) is a large, robust lizard first introduced to Florida in an attempt to rid sugarcane fields of pests (Bartlett and Bartlett 2011b). This lizard typically occupies open, sandy or rocky habitats, including disturbed areas; it excavates short burrows under rocks, sidewalks and similar materials to provide shelter from inclement weather and to serve as nighttime retreats (Meshaka et al. 2004). Northern curly-tailed lizards eat invertebrates including beetles, roaches and ants (Meshaka et al 2004). This species is frequently observed at the natural area. This species is not expected to adversely affect the natural area.

The raccoon is common throughout Florida (FWC undated[e]). It feeds on fruits, plant material, eggs, crustaceans, small animals and garbage. Raccoons are found wherever suitable combinations of woods and wetlands provide acceptable food and den sites, from swamps and marshes to mesic woods, cultivated areas and urban situations (Whitaker and Hamilton 1998). This species is considered to be one of the primary carriers of the rabies virus in the United States (The Humane Society of the United States 1997). This species is occasionally observed at the natural area. Wildlife cameras and opportunistic surveys will be used to monitor the raccoon population at the natural area and determine if any actions are needed to control this species.

Rock pigeons (*Columba livia*) nest in stick and grass nests built on building roofs and ledges, and under bridges or highway overpasses (Pranty et al. 2006). They eat grain and other seeds, and will occasionally eat insects. It is occasionally observed at the natural area. Rock pigeons are not expected to adversely affect the natural area.

Although nonmigratory breeding white-winged dove (*Zenaida asiatica*) are present year-round in South Florida, this species is classified as a nonnative species (Maehr and Kale 2005). Because it is considered a migratory game bird by USFWS and FWC, a Florida hunting license and a Florida migratory bird permit are required to legally hunt this species on lands where hunting is permitted (Giuliano et al. 2013); hunting of white-winged doves and all other wildlife is prohibited on county natural areas. This dove feeds on seeds, grain, insects and some fruit (Pranty et al. 2006). This species is rarely observed at the natural area. It is not expected to adversely affect the natural area.

4.4.4 Restoration and Enhancement Projects

All of the planned restoration and enhancement projects have been completed at the natural area. Activities conducted included the development of a prescribed burn program, and commencement of ongoing mechanical vegetation reduction activities designed to reduce fuel levels and create a mosaic of natural communities and successional stages within the site (see Section 4.4.1); implementation of ongoing invasive/nonnative plant and nonnative/nuisance animal control programs (see Sections 4.4.2 and 4.4.3, respectively); mechanical removal of Brazilian pepper; basin marsh restoration and installation of supplemental native plantings (see Subsection 4.4.4.1 and Figure 5); and removal of trash dumped on the site prior to its acquisition by the County. Although no large scale planting is anticipated at the site, scattered planting of native species may occur in the future.

Restoration/enhancement activities conducted on the site have already begun to improve the natural communities in terms of biological composition and ecological function. However, it will take several years for planted native vegetation to mature and for additional native plants to recruit into the restored/enhanced areas. Once this has happened, restoration of the site will be considered complete.

4.4.4.1 Basin Marsh Restoration

This restoration project was designed to recreate the historic wetlands onsite that were previously impacted by hydrologic alterations and development. A total of 54,058 cubic yards of fill was removed from the wetland restoration area from December 2009 to June 2010. Approximately 23,660 cubic yards of the fill was relocated to the Blue Lake area to create a sub-base for the multiuse trail and the littoral shelf area. In addition, 5,512 cubic yards of excavated topsoil was spread out over the wetland restoration area to provide an appropriate substrate for wetland planting.

4.4.4.2 Native Plantings

General restoration plantings conducted between 2009 and 2019 included the installation of 83,082 native trees, shrubs and grasses in disturbed portions of the site. The majority of plantings occurred in and around the wetland restoration area and adjacent to the public use facilities. Species planted in this area include red maple, pond apple (*Annona glabra*), American beautyberry, bandanna-of-the-everglades (*Canna flaccida*), common buttonbush, satinleaf, Jamaica swamp sawgrass, Leavenworth's tickseed (*Coreopsis leavenworthii*), gulf coast spikerush (*Eleocharis cellulosa*), knotted spikerush (*Eleocharis interstincta*), strangler fig (*Ficus aurea*), firewheel (*Gaillardia pulchella*), firebush (*Hamelia patens*), east coast dune sunflower (*Helianthus debilis*), dahoon (*Ilex cassine*), prairie iris (*Iris hexagona*), pineland lantana (*Lantana depressa*), hairawn muhly (*Muhlenbergia capillaris*), American white waterlily, maidencane, slash pine, pickerelweed, wild

coffee, live oak, cabbage palm, broadleaf arrowhead (*Sagittaria latifolia*), tropical sage (*Salvia coccinea*), saw palmetto, softstem bulrush, seaside goldenrod (*Solidago sempervirens*), sand cordgrass, pond-cypress (*Taxodium ascendens*), and fireflag (*Thalia geniculata*).

4.5 SECURITY

The City has the primary responsibility for public safety and law enforcement for the natural area including routine patrols of the boundaries. The Sheriff's Office has the primary responsibility for public safety and law enforcement for the remainder of the natural area. The County also has contracted with the Sheriff's Office to have Wildlands Task Force deputies conduct extra patrols of the natural area when needed. The Wildlands Task Force is a specially trained and specially equipped unit that was formed to prevent illegal activities on natural areas managed by the County and to enforce the provisions of the Natural Areas Ordinance. There is no on-site manager or security guard and no on-site staff residence. Instead, ERM staff, trained volunteer site stewards and/or neighborhood watch groups (where available), visit the site on a regular basis and report any signs of illegal and prohibited activities to the Wildlands Task Force.

The County's Natural Areas Ordinance regulates public use of the natural area. The ordinance provides for passive recreational activities (for example, hiking, nature study and photography), environmental education and scientific research. It prohibits destructive uses such as OHV use, dumping, and poaching of plants and animals. The ordinance gives law enforcement personnel the authority to fine and/or arrest persons damaging a natural area.

The Palm Beach County Parks and Natural Areas Trespass Ordinance (Trespass Ordinance; Ordinance 2016-021) allows law enforcement personnel to issue a Trespass Notice to an individual who violates any applicable local or state law while on a natural area or park that is owned and/or operated by the County. For the purpose of the Trespass Ordinance, the term "applicable local law" includes county ordinances, rules and regulations, as well as notices contained on posted signs. The Trespass Ordinance also provides due process for individuals receiving a Trespass Notice by way of an appeals process before a special magistrate. The Trespass Notice prohibits such individuals from returning to the county natural area(s) or park(s) specified in the notice for one, five or ten years, after receiving their first, second or third Trespass Notice, respectively.

Dumping on public lands is prohibited by state law (Florida State Statute 403.413).

The natural area is open to the public daily from sunrise to sunset. Access hours are posted at each public entrance. In addition, regulatory signs have been posted at each corner of the natural area and every 500 feet along the perimeter of the natural area. The regulatory signs state that the site is a protected natural area and cite the appropriate county ordinance.

With the exception of the portion adjacent to the lake, the entire perimeter of the site is fenced to help prevent unauthorized access to the natural area (see Section 5.2).

4.6 STAFFING

Because of the following factors, on-site staffing is not proposed for this natural area:

- the low-impact, non-consumptive activities allowed on the site require limited oversight by staff;
- the site is closed from sunset to sunrise;
- sufficient security measures (fencing, regulatory signage, Wildlands Task Force) are in place to protect the site when it is closed to the public;
- ERM staffing levels are insufficient to provide on-site staffing at any of the County's natural areas; and
- construction and use of a permanent office or residence for on-site staff would adversely affect the site's natural resources.

Instead, ERM has created a roving management team trained to conduct all levels of management activities, including invasive/nonnative vegetation control, prescribed burning, mechanical vegetation reduction activities and environmental monitoring. ERM also has created a volunteer site steward program. These trained volunteers periodically visit their assigned site and provide feedback to staff regarding the site's condition and any problems noted. Volunteers from local citizens' organizations, businesses and schools may provide additional support where feasible and necessary.

4.7 COORDINATION WITH ADJACENT LAND MANAGERS

There are no conservation or park lands adjacent to the natural area. The County will review any land use changes or development plans proposed for properties adjacent to the natural area to ensure the protection of biological communities and to avoid or minimize adverse impacts to listed species.

4.8 PUBLIC OUTREACH, ENVIRONMENTAL EDUCATION AND SCIENTIFIC RESEARCH

ERM has a very active public outreach and environmental education program. To help members of the public become invested in the natural area, numerous volunteer opportunities, environmental education events and resource-based recreational activities are provided each year. These events may be led by ERM staff or by volunteer community groups, clubs, businesses and/or knowledgeable individuals.

Interpretative exhibits have been prepared and installed in a kiosk located adjacent to the trailhead. These exhibits help educate the public about the natural resources present on the site, the negative impacts of invasive/nonnative plants and nonnative/nuisance animals, any restoration/enhancement projects that have been undertaken at the site, ongoing management

activities such as prescribed fire and/or mechanical vegetation reduction activities, and/or any other relevant topics.

Information related to the site's natural resources, location, size and any existing public use facilities/recreational amenities may be found on ERM's Pondhawk Natural Area webpage. The site's trail guide, current management plan, any restoration project summaries and a free natural areas map application for mobile devices are available upon request to ERM. Printed copies of the site's trail guide are available in a brochure box attached to the kiosk that is adjacent to the public entrance. All printed materials indicate that the natural area was acquired using FCT funds.

ERM staff will request that the Florida Fish and Wildlife Conservation Commission include Pondhawk Natural Area in the South Florida section of the Great Florida Birding and Wildlife Trail when that section of the trail is updated.

4.9 **RESPONSE TO SIGNIFICANT EVENTS**

The natural area was affected by two hurricanes in August and October 2005 (Hurricanes Katrina and Wilma). These hurricanes caused minimal damage to the post-and-rail fencing.

If a natural or human-caused event severely damages structures or native vegetation, or alters the natural values of the site in the future, ERM staff will assess the nature of the damage/alteration and take actions necessary to protect the public and minimize/mitigate impacts to the site. The first priority following a significant event will be to secure the site to ensure public safety and prevent dumping, vandalism and unauthorized vehicular use. If hazardous conditions exist, the natural area will be closed to the public until such conditions have been eliminated. The site also may be closed until public use facilities have been repaired. Damaged/altered native plant communities will be managed to encourage natural regeneration following such an event. Management practices will be adjusted, if necessary, to accommodate the new conditions at the site. The County will inform FCT and the City about any impacts caused by the event, and any actions designed to help restore damaged/altered natural resources and/or public use facilities. If the natural values of the site are severely limited or eliminated, the County and City will discuss future plans for the site. All significant events affecting the natural area will be discussed in the next scheduled report to FCT and the next Annual Site Evaluation (ASE). The event also will be summarized in the next update to the management plan.

4.10 CLIMATE CHANGE

The natural area will help address climate change in the following ways:

- The preservation and restoration/enhancement of the existing plant communities will help reduce greenhouse gases by converting carbon dioxide to oxygen.

- The restored/enhanced plant communities will serve as a refuge for wildlife affected by climate change-induced habitat losses.
- The hydrological restoration of historic wetlands will reduce carbon dioxide releases caused by over drainage of the associated wetland soils; rehydration of these wetland areas will help rebuild carbon stores within the soils.
- The created wetland area will act as a new carbon "sink" where one did not previously exist, thereby increasing carbon stores and reducing local carbon dioxide levels.
- The completed hydrologic restoration activities allow the site's wetlands to hold more water for longer periods of time, thereby reducing the effect of changes in rainfall patterns on wetland-dependent plant and animal species.

5. SITE DEVELOPMENT AND IMPROVEMENT

All structural improvements and major land alterations (with the exception of the library parking lot that was constructed by the City) were done in compliance with applicable local, state, regional and federal laws and regulations. All required licenses and permits were obtained prior to the commencement of any construction, native vegetation removal or major land alterations on the natural area. All of the existing improvements were constructed in disturbed portions of the site to the greatest extent practicable. A minimum 100-foot buffer was provided between the parking lot and the nearest wetland. The location of each improvement was surveyed for listed species prior to the construction of that facility. If any listed species were found within the construction area, the location of the improvement was adjusted to avoid impacts to the listed species, or the listed species was relocated to a safe location on the natural area.

5.1 PUBLIC USE FACILITIES AND ACCESS

The natural area is a publicly owned preserve and resource-based, outdoor recreational site. It is open to the public during daylight hours, unless a special, after-hours use permit has been issued. The hours of operation are posted at the designated public access point.

All public use facilities (Figure 5) were carefully chosen, designed and located so that they do not jeopardize the site's natural resources, including the rare and endangered plants, animals and natural communities. The public use facilities also were designed and located to ensure that more than 70 percent of the predominately natural habitat was left intact and protected from human disturbance. All public use facilities are on a preventative maintenance schedule subject to funding availability.

Public use facilities were placed in upland portions of the site as much as possible to reduce the potential for flooding. Water is not expected to stage over the boardwalks except in a 100-year flood. All of the wetland areas have flooding constraints.

Public uses permitted on this site include nature appreciation and study, hiking, nature photography, and bird/wildlife watching. In addition, the City developed a multiuse trail adjacent to the lake so that bicyclists and skaters could enjoy the natural area in a manner that does not jeopardize the site's natural. Parking for the natural area is offered at the adjacent library parking lot. With the exception of the use of vehicles for management purposes, all human traffic within the natural area is by foot.

Several of the existing public use facilities are compliant with Americans with Disabilities Act (ADA) requirements. The library parking lot includes designated ADA-compliant parking spaces. These parking spaces connect to a 12-foot wide, 0.2 mile multi-use (pedestrian/bicycle) ADA-compliant pathway around and over the lake that leads to an interpretive kiosk and an ADA-compliant concrete nature trail. Other ADA-compliant public use facilities constructed on or adjacent to the site include hardened multiuse trail, boardwalks, and wildlife observation platform.

Visitors to the natural area may park in the City library parking lot. Access to this parking lot is from Spanish River Boulevard to the south. The main entrance to the natural area is west of this parking lot (Figure 5) via the 0.2 mile multi-use ADA-compliant paved path. A bicycle rack has been installed adjacent to the main entrance to the natural area to encourage visitors to ride bicycles to the natural area.

Approximately 2.3 miles of trail have been created within or adjacent to the natural area (Figure 5). This includes a 0.7-mile-long nature trail, approximately 1.3 miles of natural-surfaced hiking trails, 0.3 miles of adjacent pedestrian/bicycle trails. All of the trails can be accessed from the parking lot and/or from one of the non-vehicular access points.

The concrete nature trail begins at the trailhead. The nature trail is a minimum of 5-feet-wide to accommodate wheelchairs and other non-motorized mobility devices. Trail markers have been placed along the nature trail with station numbers that correspond to information in the printed trail guide.

All hiking trails within the natural area a natural soil base. Improvements to the hiking trails include the addition of color-coded blazes on trees and/or posts to help keep hikers on the trail, and the occasional removal of roots, rhizomes, rocks and/or other potential trip hazards. Most of the natural-surfaced portion of the hiking trail is maintained at a width of three to six feet. However, portions of the hiking trail that are co-located with one of the site's management accessways/firebreaks are wider than six feet (see Section 5.4). Management accessways/firebreaks that are not part of the designated hiking trail also may be used for foot traffic, but will not be improved beyond what is necessary for their primary use. Public use of secondary trails is discouraged using signage and vegetative barriers, by not maintaining the trails and encouraging the regeneration of native vegetation on these trails."

Non-trail amenities provided at the natural area include a wildlife observation platform with benches. The wildlife observation platforms is accessible from the parking lot via the nature trail. Drinking water and restrooms are not available at the natural area but are located in the adjacent City library.

5.2 FENCING AND GATES

The north, south and west perimeters of the site has been fenced to restrict access to and prevent unauthorized use of the site.

The type of fencing that currently exists on the natural area is three-rail, split-rail with wire mesh backing. This fencing also was installed along the edge of the site where it borders Yamato Road, North Military Trail and Spanish River Boulevard.

Fencing has not been installed along the eastern perimeter where the natural area runs along the lake. Fencing also has not been installed in the northeast and southwest corners where is has been

fenced by others. The County will consider installing a fence to restrict access to these areas if security becomes a problem.

One new management access gate has been installed at the natural area. This gate is located on the west perimeter and is accessed via North Military Trail. This gate provides vehicular access for management and monitoring activities, public safety and law enforcement.

Public access the natural area are described in Section 5.1.

5.3 SIGNS

Signs identifying the site as a natural area were installed on along Yamato Road, North Military Trail and Spanish River Boulevard to inform drivers of the existence of the natural area. An entrance sign and permanent dedication sign was installed at the concrete bridge that leads to the trailhead. The dedication sign states that the natural area was acquired for environmental preservation and public recreation purposes with funds provided by the County, City and FCT, and is managed by the County with assistance from the City.

Regulatory signs have been posted at each corner of the natural area and every 500 feet along the perimeter of the natural area with the exception of the perimeter adjacent to the lake and the developed areas. These signs identify Pondhawk Natural Area as a protected site and cite the County's Natural Areas Ordinance. Access hours and natural area rules signs have been installed adjacent to the public access point. Signs that notify visitors of trail use restrictions, security patrols, the presence of hidden cameras and other site-specific information also have been or may be installed on the site. Signposts/trail markers with station numbers corresponding to descriptive information in the trail guide have been installed along the nature trail. Trail markers also have been installed at various points along the hiking trail to keep hikers on the designated trail.

Trash receptacles are not provided at the natural area for the following reasons: 1) the lack of trash receptacles promotes the concepts of "carry in – carry out" and "leave only footprints"; 2) the use of trash receptacles within natural areas draws wildlife to areas where they may come in contact with, or be fed by, members of the public; 3) people empty all their vehicle trash into the receptacles which leaves little room for other trash; 4) people attempt to place trash in receptacles even after they are full resulting in unsanitary/unsafe conditions for other visitors and wildlife; 5) trash which is left in receptacles may blow into the adjacent natural communities or be scattered by wildlife; and 6) the removal of trash receptacles from county natural areas has not increased the amount of trash found on the site.

5.4 MANAGEMENT ACCESSWAYS/FIREBREAKS

A network of management accessways/firebreaks has been established around the majority of the perimeter of the natural area and through the center of the site (Figure 3). Management accessways/firebreaks are cleared, drivable trails. They typically have an unimproved sand/dirt

surface; however, portions of the trail may be stabilized where very fine soils or other conditions make it difficult for management and/or emergency vehicles to access the site. Management accessways/firebreaks are primarily used for vehicular access related to land management activities and for the containment of wildfires and prescribed burns when they occur. Management accessways/firebreaks also have been used as part of a designated hiking trail.

Temporary firebreaks - firebreaks that are not part of the management accessway system - may be established within management units to separate fire-intolerant natural communities from adjacent burn areas and/or to create smaller burn units. These firebreaks, which are cleared on an as-needed basis, may include areas that have been cleared of vegetation (bare soil), as well as areas where the vegetation has been mowed or cut/chopped. Temporary firebreaks are allowed to revegetate following a prescribed burn.

Management accessways/firebreaks were located on existing trails and within disturbed areas whenever possible; natural firebreaks were incorporated into the management accessway/firebreak design when feasible. The management accessways/firebreaks on this site were designed and located to ensure that more than 70 percent of the predominately natural habitat was left intact and protected from human disturbance. Prior to construction, all management accessway/firebreak locations were surveyed for listed species. If a listed species was likely to be impacted by the proposed construction, the management accessway/firebreak was rerouted or the listed species was relocated elsewhere on the site.

5.5 OTHER STRUCTURES AND IMPROVEMENTS

No structures or improvements are planned for this site other than those described in Sections 5.1 through 5.4.

5.6 PRIORITY SCHEDULE FOR RESTORATION, SITE DEVELOPMENT AND MANAGEMENT ACTIVITIES

Completed and proposed restoration/enhancement activities - fire management, mechanical vegetation removal/thinning, invasive/nonnative plant removal/control, nonnative/nuisance animal control and restoration/enhancement projects - are described in Section 4.4. Completed site improvements are described in Sections 5.1 through 5.5. Public use facilities have been constructed; the natural area was officially opened to the public in September 2014. Management of the natural area is now in maintenance mode; invasive/nonnative vegetation and nonnative/nuisance animal control activities are ongoing, and structures will be replaced when needed due to age or damage.

A priority schedule for ongoing and proposed management activities over the next ten years is provided in Table 3. All of the activities shown in Table 3 are contingent upon annual budgetary funding and appropriations by the BCC.

6. COSTS AND FUNDING SOURCES

The County has primary responsibility for development, restoration/enhancement, management and maintenance of the natural area. Existing county personnel accomplish these activities with assistance from county contractors and community volunteers. The City has primary responsibility for public safety and law enforcement within the natural area. Pursuant to an existing Interlocal Agreement, the City has agreed to assist the County with certain volunteer activities and management activities, subject to the availability of city funds, staff and equipment (Appendix F).

6.1 CAPITAL AND MAINTENANCE COSTS

As of April 2019, capital and maintenance costs related to completed wildfire mitigation, environmental restoration/enhancement, site development and security projects/activities (see Sections 4.4 and 5.1 through 5.5) totaled \$1,540,616 (Table 4).

6.2 ESTIMATED ANNUAL MANAGEMENT, MAINTENANCE AND REPLACEMENT COSTS

Annual management, maintenance and replacement costs are expected to average \$199,334 over the next ten years (Table 4). These costs will be minimized by coordinating the management and maintenance of natural areas on a countywide basis. Costs also will be minimized whenever possible through the use of volunteers for non-hazardous/non-technical activities. However, existing county personnel will do most of the ongoing management and maintenance work, including all hazardous and technical work, with assistance from county contractors. All future capital projects, management and maintenance activities (repair/replacement of site improvements, invasive/nonnative vegetation and nonnative/nuisance animal control activities, wildfire mitigation, etc.) are subject to, and contingent upon, annual budgetary funding and appropriations by the BCC.

6.3 FUNDING SOURCES

Most of the funds used to acquire, secure, develop, restore/enhance, manage and maintain the natural area have and will continue to come from county funding sources. Grants and other outside funding sources have been and will continue to be used to offset some of these costs as opportunities arise. To date, approximately \$5,782,632 of the acquisition costs were paid by FCT.

Most of the capital costs, including acquisition costs, were paid using funds from the Palm Beach County Lands for Conservation Purposes Bond Issue Referendum of March 9, 1999. The balance of capital costs, as well as all long-term land management/maintenance costs, have and will continue to come from the Palm Beach County Natural Areas Fund, Ag Reserve Land Management Fund, Pollution Recovery Trust Fund and/or Palm Beach County General Fund, as may be amended. The County has established a Natural Areas Stewardship Endowment Fund that includes funds from restricted gifts and other sources. These funds are invested and the interest earned provides operating funds for county natural areas. The County also has established a Natural Areas Fund to help pay for the development, restoration/enhancement and management of county natural areas. Funding sources for the Natural Areas Fund includes cash payments made in lieu of preservation requirements contained in Article 14, Chapter C (Vegetation Preservation and Protection Ordinance) of the Palm Beach County Unified Land Development Code (ULDC), as well as monies received from the sale of development rights removed from natural area lands, leases of county-owned land in the Agricultural Reserve, and the use of county natural areas as offsite mitigation areas. And lastly, the Pollution Control Recovery Trust Fund, which receives fees related to civil violations under Article 14 of the ULDC, may be used to help pay for restoration/enhancement projects on county natural areas. Even with these possible funding sources, the County recognizes the need for additional management funds. ERM will investigate all possible local, state, or federal sources of land management funds, however, the County will not apply for funds from any grant program whose requirements conflict with the terms and conditions of FCT grant award agreement.

7. MONITORING AND REPORTING

The natural area is managed specifically to preserve, restore/enhance and maintain its natural resource values, and to allow public uses that do not adversely affect the existing resources. Restoration/enhancement and other land management activities are continually monitored and assessed to determine whether the stated objectives for natural vegetation communities and listed species are being achieved, and/or to identify any new species not previously identified on the site. Management practices are adjusted (a process known as "adaptive management") if an analysis of the monitoring data indicates that management objectives are not being met. Likewise, anthropogenic impacts are monitored to ensure that public uses do not negatively impact the natural area. Monitoring data also is used to prepare Annual Site Evaluation reports (ASEs) and FCT reports (see Section 7.7).

Monitoring protocols have been developed to ensure consistency on all natural areas managed by ERM. Copies of the current monitoring protocols are available upon request. An overview of the types of monitoring activities conducted on the natural area is provided in the following sections. If any of the monitoring protocols described in this chapter are revised, or if new monitoring protocols are developed for this site prior to the next update of this management plan, the monitoring requirements contained in this chapter will automatically be revised so that they comply with the revised/new monitoring protocols.

7.1 PHOTOMONITORING

Photomonitoring is used to obtain a qualitative, long-term visual record of changes in the natural area's vegetative structure and/or condition over time. This includes the effects of planned management and restoration/enhancement activities (for example, mechanical removal of invasive/nonnative vegetation, ditch filling/plugging, recontouring of areas which have been mined or filled, restoration planting activities, mechanical vegetation reduction and prescribed fire) or to document changes related to a destructive natural event (for example, a hurricane, wildfire, pest or disease).

7.2 NATURAL COMMUNITY MONITORING

ERM has developed a "Pine Flatwoods Rapid Assessment" to help site managers evaluate the effects of land management activities on three vegetation layers – canopy, midstory/shrub and groundcover – within mesic flatwoods and wet flatwoods natural communities. The Pine Flatwoods Rapid Assessment allows site managers to determine the current condition of onsite mesic flatwoods and wet flatwoods natural communities; compare the current condition of these natural communities to pre-determined, desired conditions; and use the resulting data to evaluate the effects of certain land management activities on the condition of these natural communities.

If rapid assessment monitoring protocols are developed for other natural communities found on this site, those protocols will automatically be included in the monitoring program for this site.

7.3 VEGETATION MONITORING

Vegetation transects may be established within the natural area in the future to monitor the effect(s) of a destructive natural event (for example, a hurricane, wildfire, pest, disease or invasive species). Data collected from the vegetation transects may include information on vegetation community structure and/or composition of natural communities.

Any plant species that has been listed for protection or special management by at least one governmental agency and/or ranked as a S1, S2 or S3 species by FNAI, and that has been observed on the site during a given calendar year, is recorded in ERM's Environmental Enterprise Database (EEDB). Staff also may collect population and/or demographic information for one or more of the listed plant species found on the site to document the effect(s) of land management activities, changing site conditions and/or a significant natural event on that plant species; and/or when permits require more intense monitoring.

Plant species that are encountered opportunistically (during a normal site visit) on a natural area and that have not previously been documented on the site are recorded in the EEDB.

7.4 WILDLIFE MONITORING

Migratory wildlife surveys are conducted at the natural area to record the resident and migratory wildlife found on the site. Optional nonmigratory wildlife surveys also may be conducted, if deemed appropriate by staff. Migratory wildlife surveys are conducted when migratory bird species are expected to be present - September through October and February through May. Nonmigratory wildlife surveys are conducted from June through August, or from November through January.

Any animal species observed at the site that has been listed for protection or special management by at least one governmental agency or that has been ranked as a S1, S2 or S3 species by FNAI, and that has been observed on the site during a given calendar year, is recorded in ERM's EEDB. A species-specific monitoring plan may be developed for any listed animal species that is recorded as breeding on the site or if more intense monitoring is needed to help identify or evaluate management activities designed to help protect a particular species.

Animal species that are encountered opportunistically on a natural area and that have not previously been documented on the site are recorded in the EEDB.

7.5 HYDROLOGICAL MONITORING

Hydrological monitoring is used to help determine the effectiveness of hydrological restoration projects conducted within the natural area by measuring onsite surface and ground water levels over time. Readings from the hydrological monitoring station(s) are plotted against rainfall data obtained from a nearby rain gauge. Success of the hydrological restoration projects is determined

based on vegetative changes within the site and a comparison of water levels versus rainfall over time.

7.6 CLIMATE CHANGE MONITORING

All of the monitoring information gathered on the site will be evaluated for changes that may be the result of climate change. If significant changes in rainfall patterns and/or natural communities are noted over time, staff will attempt to mitigate for these changes. If the changes cannot be mitigated for, management practices will be modified to provide the highest quality natural communities practicable under the new climate conditions.

7.7 REPORTS

Staff will prepare and submit a stewardship report to FCT each year until such time that FCT approves a 5-year reporting schedule for the site. Following approval of the 5-year reporting schedule, ERM will prepare and submit a stewardship report to FCT once every 5 years. The submittal date for the first 5-year report will be determined when FCT approves the 5-year reporting schedule. The County commits to follow up visits performed by FCT. Any revenue collected will be tracked by the County and reported annually to FCT. The stewardship report will be designed to meet the reporting requirements for the FCT-funded portion of the natural area.

Staff also will prepare an ASE report each year. Each ASE will include information related to structural improvements, natural events, land management activities, monitoring events and restoration/enhancement activities that occurred on the site during the prior year. A general review of land management and restoration/enhancement efforts, and the status of natural communities and listed species will be completed at the end of each management year and included in the ASE. ASEs will be used in conjunction with data stored in the EEDB to allow staff to analyze and evaluate the success of land management and restoration/enhancement activities over a period of years.

Information on all new listed plant and animal species recorded at the natural area will be provided to FNAI on an annual basis, using one of the forms that are available at http://www.fnai.org/fieldreportingforms.cfm, or as otherwise requested by FNAI.

Year	Month	Event
2002	July	Acquisition date
		Initiated ground treatment of exotic vegetation
2003	May	Staff gauges established
	January	Interim management plan approved by FCT
2004	June	Perimeter fence installed on north, west and south sides of property
	December	Land Use and Zoning changed to "Public Land" by City of Boca
2005		Initial exotic vegetation removal completed (with exception of a Brazilian pepper monoculture)
	August	Hurricane Katrina caused minimal fencing damage
	October	Hurricane Wilma caused minimal fencing damage
		New well installed within northwest portion of restoration area
2006	December	Initiated removal of Brazilian pepper monoculture with Magnum Mulcher
		FAU graduate student started research analyzing the pre-wetland restoration water chemistry and local hydrological conditions
2007		Foot bridge from Boca Raton Library to the natural area and sidewalk near the southeast corner of the natural area completed
	March	Brazilian pepper removal with Magnum Mulcher completed
	May	Stiles Development Corp built a cement privacy wall around their property in northeast corner of natural area
	March	Interlocal Agreement executed between the County and the City of Boca Raton
	April	Initial management plan was approved by the BCC
2008	November	Environmental Resource Permit application submitted to SFWMD and USACOE for wetland restoration project
	December	Request for additional information received from SFWMD for Environmental Resource Permit application
	February	Annual photomonitoring points established
	March	Relocation of 28 cabbage palms onto the natural area
2009		City of Boca installed a permanent reclaimed water meter used to irrigate plantings
	May	Volunteer planting of 10 pond apple and 10 strangler fig trees

8. CHRONOLOGY OF MAJOR EVENTS 2002 – 2019

Year	Month	Event
	July	ERM received the Environmental Resource Permit from SFWMD for the wetland restoration project
	August	ERM received the Environmental Resource Permit from USACOE for the wetland restoration project
	December	ERM received permit from City of Boca Raton for the wetland restoration project
		Wetland restoration began; 1 staff gauge and 1 monitoring well removed from the area
		Over 43,500 cubic yards of fill was removed from the wetland restoration area and transported offsite for storage and use by the Parks Department. 12,060 cubic yards of fill was brought back and put along Blue Lake to create a sub-base for the multi-use trail and littoral shelf area. Over 11,600 cubic yards of fill and topsoil was transported from the natural area to complete the sub-base and littoral shelf area
	February	Security break in perimeter fence - 4 wheel drive vehicle entered the site and drove around the wetland restoration project (no major damage)
	5	City of Boca completed the removal of the City-owned lift station
	March	ERM staff presented plans to City of Boca Raton for public use facilities and plans were approved
	April	Wildfire in southwest corner of natural area burned 2 acres (scrubby and mesic flatwoods)
2010		Wildfire in southwest corner of natural area burned 15 acres (scrubby and mesic flatwoods)
	June	ERM conducted the demolition of the PBC water utilities lift station and associated infrastructure
	July	Wetland restoration earthwork completed by ERM using hourly contractors
	August	Land Design South planted 645 trees (live oak, pond-cypress, red maple, sweetbay, pond apple, dahoon and slash pine) and irrigation was installed adjacent to the wetland restoration area
	September	ERM planted 92 plants (satinleaf and saw palmetto) adjacent to the wetland restoration area
	October	3 new staff gauges installed in wetland restoration area
	December	ERM staff field located and flagged the locations of the future public use facilities (kiosk, wildlife observation platform, nature trail, and hiking trails)

Year	Month	Event
2011		Monitoring of all hydrological stations discontinued (except for 3 within the restoration area)
		Natural-surfaced hiking trails completed
	March	Water samples tested because of diesel smell- very low concentrations detected- no action required
	May	Herbaceous wetland planting of over 35,000 plants in restoration area
		Volunteer planting of 1000 sand cordgrass in wetland restoration area
	July	Contractor planting in wetland restoration area (planted as part of development mitigation) – 1800 plants including live oak, dahoon, American beauty berry and slash pine
	August	Volunteer plantings of 9,190 sand cordgrass and east coast dune sunflower in wetland restoration area
	September	Volunteer planting of 2,170 sand cordgrass in wetland restoration area
	<u> </u>	Volunteer planting of 2,310 sand cordgrass in wetland restoration area
	October	Construction of public use facilities began
	November	Volunteer planting of 2,100 sand cordgrass in wetland restoration area
	February	Volunteer planting of 12 saw palmettos
	March	Volunteer planting of 1000 east coast dune sunflower and firewheel, and 75 firebush
	April	Perimeter firebreaks/management accessways established
	May	Volunteer planting of 576 firewheel, 144 east coast dune sunflower, and 75 firebush
2012		Contractor planting of 250 trees/shrubs
	June	Public use facilities completed
	July	Vehicular trespass noted in SW corner of site- no damage recorded
	September	Volunteer planting of 105 shrubs and wildflowers
	December	Eagle Scout projects – planted 9,500 sand cordgrass adjacent to public use facilities
2013		City of Boca Raton removed berm separating Blue Lake from adjacent canal system keeping water at 5.5' (lower than historical average of 6')
	February	Volunteer planting of 500 hairawn muhly grass seedlings
	March	Volunteer planting of 250 hairawn muhly and 500 maidencane seedlings
	April	Volunteer planting of 250 hairawn muhly grass seedlings
	June	Volunteer planting of 430 sand cordgrass grass seedlings

Year	Month	Event
2014	October	Volunteer planting of 500 sand cordgrass seedlings and 15 pond apple trees
		Contractor planting of 6000 sand cordgrass and hairawn mulhy seedlings near multi-use trail and restoration area
	November	Volunteer planting of 500 sand cordgrass seedlings
	April	Volunteer planting of 500 sand cordgrass and hairawn muhly in transitional area around southern cell of wetland restoration area
	May	Volunteer planting of 1000 sand cordgrass through wetland restoration area and surrounding transitional areas
	June	Prescribed burn of 0.4 acres in Management Unit 6
		40 large plugs of native scrub vegetation and cutthroat grass were relocated to the natural area as required by the City of Boca for adjacent development
	T1	2 small kiosks were installed near bus stops adjacent to the natural area
2015	July	Small 5' x 25' wildfire of unknown origin near pedestrian bridge
	August	Contractor planting of 3000 sand cordgrass and hairawn muhly in transitional areas near multi-use trail and wetland restoration area
	September	ERM entered into an agreement with FAU to record detailed hydrological data in and around the wetland restoration project and littoral shelf to assess impacts associated with removal of the Blue lake berm and local wellfield pumping
	October	Kolter began construction of a gravity wall to run parallel to the property line
2016	April	Lynn University student organized planting event of 1500 hairawn muhly and 1500 sand cordgrass in transitional areas around the wetland restoration project
	March	Mechanical vegetation reduction of 1 acres in Management Units 1, 2, 3, 4, 6, 7 and 8
2017	August	Large tree house was removed from the natural area
	November	New hydrological monitoring well installed adjacent to north cell of wetland restoration project
	January	5 hazardous trees removed along the north perimeter adjacent
	February	City of Boca Raton made repairs to multi-use trail near bridge to library
2018	April	Volunteers added fill and installed sod on the edges of the nature trail east of the wildlife observation platform in an effort to repair/reduce erosion
	May	Decking repair to boardwalk and wildlife observation platform
	June	Green futures program planting east of wildlife observation platform -35 firewheel, 35 east coast dune sunflower and 35 firebush

Year	Month	Event
	July	Lynn University adopted the natural area and agreed to conduct vegetation monitoring and educational events
2019	January	Volunteers helped to repair erosion and placed sod along the edges of the nature trail
	March	Volunteer planting of 35 firewheel, 35 east coast dune sunflower and 35 firebush
	November	Update to management plan approved by NAMAC.
	December	Update to management plan approved by BCC.

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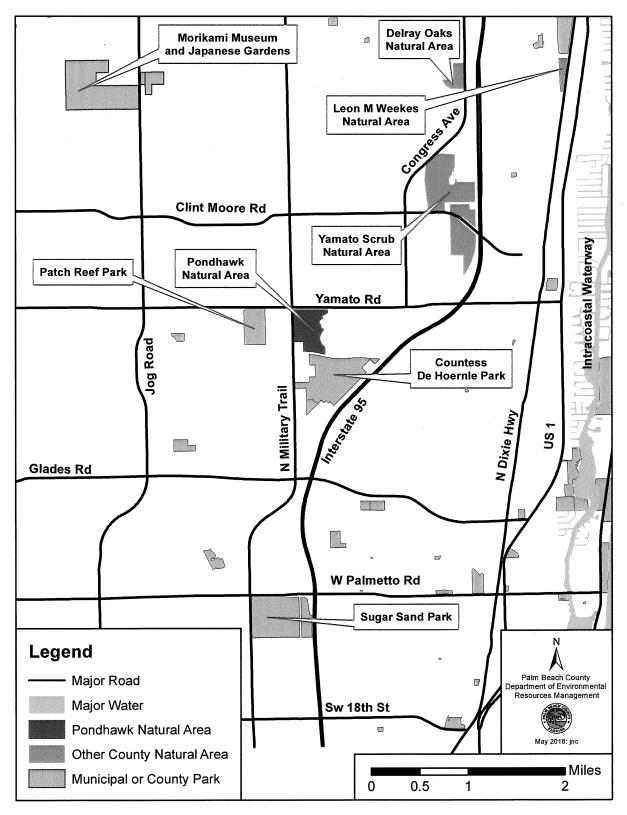


Figure 1. Pondhawk Natural Area Location Map

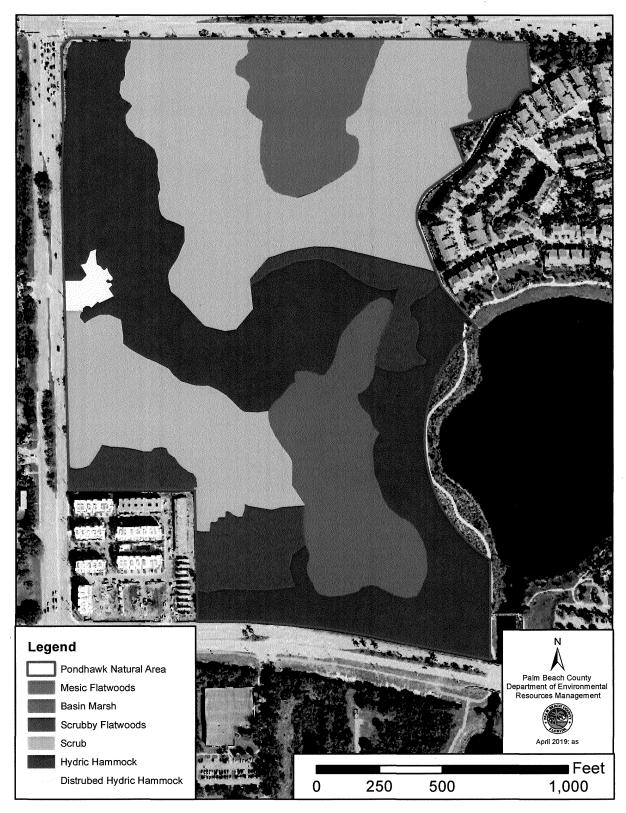


Figure 2. Pondhawk Natural Area Vegetation Map

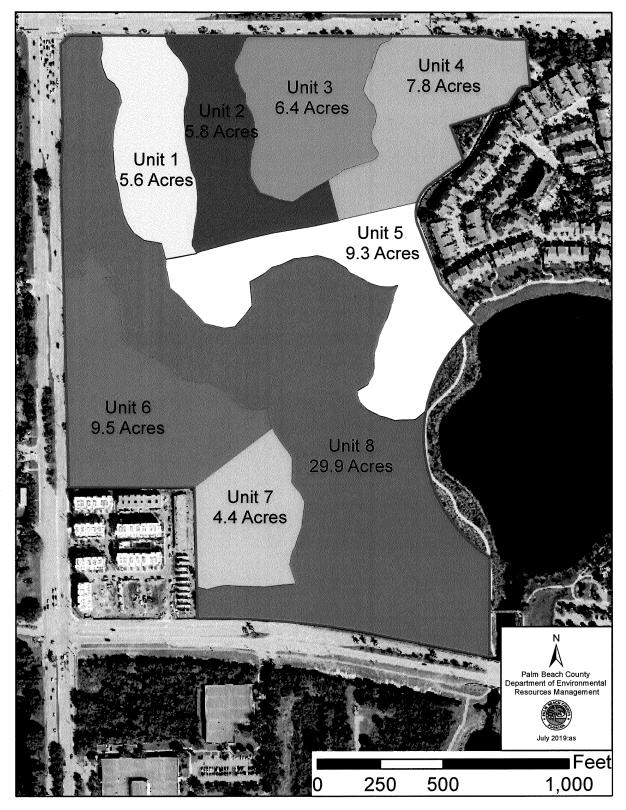


Figure 3. Pondhawk Natural Area Management Units Map

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Figure 4. Pondhawk Natural Area Restoration Map

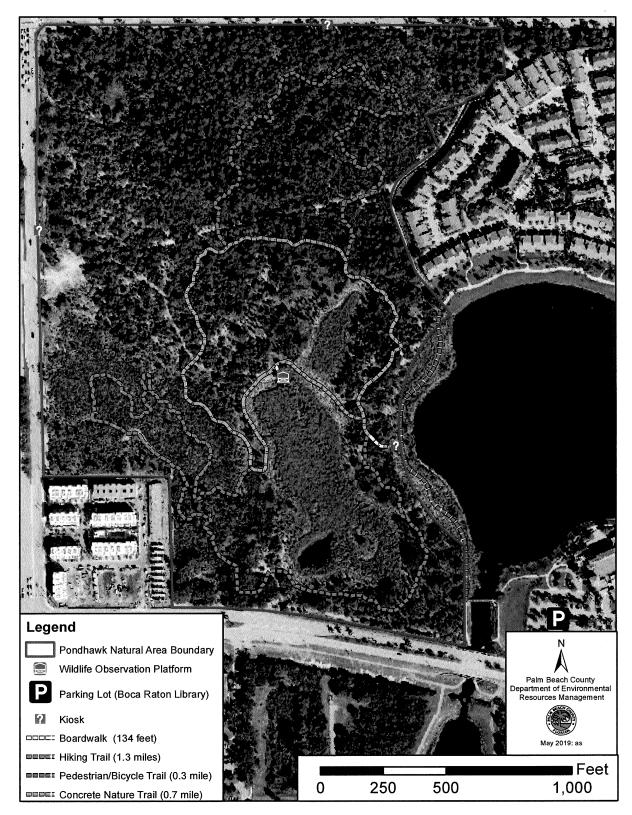


Figure 5. Pondhawk Natural Area Public Use Facilities Map

		STATUS/R	ANK DES	IGNATION
SCIENTIFIC NAME	COMMON NAME	USFWS	FDACS	FNAI
Chrysophyllum oliviforme	Satinleaf	N	Т	N
Coleataenia abscissa	Cutthroatgrass	N	E	G3/S3
Lechea cernua	Scrub pinweed	N	Т	G3/S3
Opuntia stricta	Shell-mound pricklypear	N	Т	N
Osmunda regalis var spectabilis	Royal fern	N	CE	N
Osmundastrum cinnamomeum	Cinnamon fern	N	CE	N
Serenoa repens	Saw palmetto	N	CE	N
Tillandsia balbisiana	Inflated & reflexed wild pine	N	Т	N
Tillandsia fasciculata	Common wild pine	N	E	N
Tillandsia utriculata	Giant wild pine	N	E	N
Zamia integrifolia	Coontie	N	CE	N

Table 1. Listed Plant Species Recorded at Pondhawk Natural Area

CE = Commercially-exploited

E = Endangered

FDACS	= Florida Dep	artment of A	Agriculture and	Consumer Services

FNAI = Florida Natural Areas Inventory

G# = Global Ranking

G#T# = Global Ranking of Species (G) and Subspecies or Variety (T)

N = Not listed

S = State Ranking

T = Threatened

UR = Under Review

USFWS = United States Fish and Wildlife Service

Species presence determined from field surveys conducted by ERM (1991-2019). Status designations assigned by USFWS are from USFWS (undated); status designations assigned by FDACS are from FDACS (2018); and rank designations assigned by FNAI are from FNAI (2019). Status and rank designations are defined in Appendix C.

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		LISTIN	IG STATU	S
SCIENTIFIC NAME	COMMON NAME	FNAI	USFWS	FWC
Alligator mississippiensis	American alligator	G5/S4	T (S/A)	FT(S/A)
Aramus guarauna	Limpkin	G5/S3	N	N
Ardea herodias occidentalis	Great white heron	G5T2/S2	N	N
Egretta caerulea	Little blue heron	G5/S4	N	ST
Egretta thula	Snowy egret	G5/S3	N	N
Egretta tricolor	Tricolored heron	G5/S4	N	ST
Elanoides forficatus	Swallow-tailed kite	G5/S2	N	N
Falco columbarius	Merlin	G5/S2	N	N
Falco peregrinus	Peregrine falcon	G4/S2	N	N
Gopherus polyphemus	Gopher tortoise	G3/S3	C	ST
Haliaeetus leucocephalus	Bald eagle	G5/S3	N	N
Mycteria americana	Wood stork	G4/S2	Т	FT
Pandion haliaetus	Osprey	G5/S3S4	N	SSC*
Passerina ciris	Painted bunting	G5/S3	N	N
Piccoides villosus	Hairy woodpecker	G5/S3	N	N
Plegadis falcinellus	Glossy ibis	G5/S3	N	N
Sceloporus woodi	Florida scrub lizard	G2G3/S2/S3	N	N
Setophaga ruticilla	American redstart	G5/S2	N	N
Sternula antillarum	Least tern	G4/S3	N	ST
Thalasseus maximus	Royal tern	G5/S3	N	N

Table 2. Listed Animal Species Recorded at Pondhawk Natural Area

C = Candidate

E = Endangered

FE = Federally-designated Endangered

FT = Federally-designated Threatened

- FT(S/A) = Federally-designated Threatened due to Similarity of Appearance
- FWC = Florida Fish and Wildlife Conservation Commission
- FNAI = Florida Natural Areas Inventory
- N = Not listed
- SSC = State Species of Special Concern
- ST = State-designated Threatened
- T = Threatened
- T(S/A) = Threatened due to Similarity of Appearance
- USFWS = United States Fish and Wildlife Service

Table 2. Listed Animal Species Recorded at Pondhawk Natural Area (concluded)

* Currently only the Monroe County population of this species is listed as a state species of special concern.

Species presence determined by field surveys conducted by ERM (1991-2019). Listings by FNAI are from FNAI (2019); listings by FWC are from FWC (2018b); and listings by USFWS are from USFWS (undated). Listing categories are defined in Appendix C.

ACTIVITY	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Annually until next report
Update management plan	x										
NAMAC review of updated management plan	x										
BCC approval of updated management plan		X									
Conduct monitoring activities	X	X	X	X	X	X	X	X	X	X	Х
Conduct maintenance invasive/nonnative plant control activities	X	X	X	x	X	X	X	Х	X	x	Х
Conduct regular facilities maintenance/mowing	X	X	X	X	X	X	X	Х	X	X	Х
Coordinate volunteer work days	X	Х	Х	X	X	X	X	X	Х	x	X

Table 3. Priority Schedule for Site Management Activities

Table 4. Estimated Annual Management and Maintenance Costs (in 2019 dollars)

Site Management and Maintenance

Repair/replacement due to damage/vandalism (0.005% of structural facilities cost of \$398,357)	\$1,992**
Nonnative/invasive plant control (79 acres)	\$81,291**
Site management – monitoring program, annual reports, management plan updates, listed species protection, volunteer coordination and supervision, public outreach, educational materials and intergovernmental coordination	\$80,907*
Maintenance of public use facilities, including boardwalk, nature trail and trail markers/signs (bi-weekly or as needed) and trimming of hiking trail vegetation (2 times/year)	\$10,573*
Fence line maintenance (3 times/year)	\$1,525*
Mowing and maintenance of management accessways/hiking trails (4 times/year)	\$2,033*
Prescribed habitat burns or mechanical fuel reduction (personnel and equipment - \$27,500 per burn or reduction, 8 burns/reductions in a 10-year period/10 years to next management plan update)	\$22,000*

Capital Facilities Maintenance and Replacement

Removal and replacement of facilities with 10-year expected life (rules signs, miscellaneous signs, natural area signs, credits sign, entrance sign, regulatory signs, trail markers, post and rail fencing) and facilities with 20-year expected life (bicycle rack, kiosks, boardwalk, wildlife observation platform, observation platform benches, and steel maintenance gates)	\$85,993
Estimated annual cost over 10 years @ 4% interest rate	\$10,603
Removal and replacement of facilities with 10-year expected life and facilities 30 years after the initial installation	\$354,526
Estimated annual cost over 20 years @ 4% interest rate	\$26,093
Subtotal – estimated annual capital replacement costs	\$36,696

TOTAL ANNUAL COST (in 2019 dollars)

\$237,017

* To be performed by existing Palm Beach County personnel.

** Funding for these activities will come from the Palin Beach County Natural Areas Fund, Palm Beach County Natural Areas Stewardship Endowment Fund, Ag Reserve Land Management Fund and/or Palm Beach County General Fund, as may be amended.

NOTE: All facilities and activities listed are subject to annual budgetary funding and appropriations by the Palm Beach County Board of County Commissioners

APPENDIX A

PLANT SPECIES RECORDED AT PONDHAWK NATURAL AREA

APPENDIX A

PLANT SPECIES RECORDED AT THE PONDHAWK NATURAL AREA Updated 9/13/19

Scientific Name

Abrus precatorius* (NX) (CAT I) Acacia auriculiformis* (CAT I) Acer rubrum Acrostichum danaeifolium Aloe sp.* Amaranthus hybridus* Ambrosia artemisiifolia Andropogon brachystachyus Andropogon glomeratus Andropogon virginicus Annona glabra Apios americana Ardisia elliptica* (NX) (CAT I) Ardisia escallonioides Aristida gyrans Aristida purpurascens Aristida rhizomophora Aristida spiciformis Aristida stricta Asimina reticulata Asparagus aethiopicus* Asparagus setaceus* Asystasia gangetica* Baccharis glomeruliflora Baccharis halimifolia Balduina angustifolia Bejaria racemosa Bidens alba Bischofia javanica* (CAT I) Boerhavia diffusa Bulbostylis ciliatifolia Callicarpa americana Callisia ornata Canna flaccida Carphephorus corymbosus Caryota sp.

Common Name

Rosary pea Earleaf acacia Red maple Giant leather fern Aloe Pigweed Common ragweed Shortspike bluestem Bushy bluestem Broomsedge bluestem Pond apple Groundnut Shoebutton Marlberry Corkscrew threeawn Arrowfeather threeawn Florida threeawn Bottlebrush threeawn Wiregrass Netted pawpaw Sprenger's asparagus-fern Common asparagus-fern Chinese violet Silverling Groundsel tree Coastalplain honeycombhead Tarflower Beggarticks Javanese bishopwood Red spiderling Capillary hairsedge American beautyberry Florida scrub roseling Bandanna-of-the-everglades Florida paintbrush Fishtail palm

Cassia fistula Cassytha filiformis Casuarina equisetifolia* (NX) (PAP I) (CAT I) Catharanthus roseus* Cenchrus spinifex Cephalanthus occidentalis Ceratiola ericoides Chamaecrista fasciculata Chamaecrista nictitans Chamaesyce hypericifolia Chamaesyce hyssopifolia Chamaesyce lasiocarpa* Chamaesyce maculate Chenopodium ambrosioides* Chiococca alba Chromolaena odorata Chrysobalanus icaco Chrysophyllum cainito* *Chrysophyllum oliviforme* Chrysopsis scabrella Citharexylum spinosum Cladina evansii Cladina subtenuis Cladium jamaicense Cladonia leporina Cladonia prostrata Cnidoscolus stimulosus Coccoloba diversifolia Coccoloba uvifera Coleataenia abscissa Commelina diffusa* Conoclinium coelestinum Conyza canadensis Coreopsis leavenworthii Crinum americanum Crotalaria pallida var. obovata* Crotalaria rotundifolia Crotalaria spectabilis* Croton glandulosus Cupaniopsis anacardioides* (NX) (CAT I) Cyanthillium cinereum* Cynodon dactylon* Cyperus ligularis

Golden shower Love vine Austrailian-pine Madagascar periwinkle Coastal sandbur Common buttonbush Florida rosemary Partridge pea Sensitive pea Graceful sandmat Hyssopleaf sandmat Roadside sandmat Spotted sandmat Mexican tea Snowberry Jack-in-the-bush Coco plum Star apple Satinleaf Coastalplain goldenaster Florida fiddlewood Powder-puff lichen Dixie reindeer lichen Jamaica swamp sawgrass Jester lichen Ressurrection cladonia Tread-softly Pigeon plum Seagrape Cutthroatgrass Common dayflower Blue mistflower Canadian horseweed Leavenworth's tickseed String-lily Smooth rattlebox Rabbitbells Showy rattlebox Vente conmigo Carrotwood Little ironweed Bermudagrass Swamp flatsedge

Cyperus ovatus Dactyloctenium aegyptium* (CAT II) Dalea carnea Dalea faeyi Desmodium incanum* Desmodium tortuosum* Dichanthelium commutatum Dichanthelium portoricense Dicliptera sexangularis Digitaria sp. Diodia teres Diospyros virginiana Distichlis spicata Dracaena hyacinthoides* (CAT II) Drymaria cordata Dypsis lutescens* Eleocharis cellulosa Eleocharis interstincta Eleusine indica* Emilia fosbergii* Emilia sonchifolia* Eragrostis atrovirens* Eragrostis ciliaris* Erechtites hieraciifolius Eugenia uniflora* (CAT I) Eupatorium capillifolium Euphorbia hirta Euphorbia polyphylla Eustachys petraea Euthamia caroliniana Ficus aurea Ficus benjamina* Ficus microcarpa* (CAT I) Froelichia floridana* *Gaillardia* pulchella Galactia elliottii Galactia regularis Gaura angustifolia Gaylussacia dumosa Grevillea robusta* Habenaria floribunda Hamelia patens Helianthemum corymbosum

Pinebarren flatsedge Durban crowfootgrass Whitetassles Feay's prairieclover Zarzabacoa comun Dixie ticktrefoil Variable witchgrass Hemlock witchgrass Sixangle foldwing Crabgrass Poor Joe Common persimmon Saltgrass Bowstring hemp West Indian chickweed Areca palm Gulf coast spikerush Knotted spikerush Indian goosegrass Florida tassleflower Lilac tassleflower Thalia lovegrass Gophertail lovegrass Fireweed Surinam cherry Dogfennel Pillpod sandmat Lesser Florida spurge Pinewoods fingergrass Slender flattop goldenrod Strangler fig Weeping fig Indian laurel Cottonweed Firewheel Elliott's milkpea Downy milkpea Southern beeblossom Dwarf huckleberry Silkoak Toothpetal false reinorchid Firebsh Pinebarren frostweed

Helianthemum nashi Helianthus debilis Heterotheca subaxillaris *Hibiscus furcellatus Houstonia procumbens Hydrocotyle umbellata* Hypericum cistifolium Hypericum hypericoides Hypoxis juncea Ilex cassine Ilex glabra Indigofera hirsuta* Ipomoea aquatica* (NX) (PAP I) (CAT I) Ipomoea indica Iresine diffusa Iris hexagona Itea virginica Kyllinga brevifolia* Lachnanthes caroliana Lantana depressa Lantana strigocamara* (CAT I) Lechea cernua Lepidium virginicum Leucaena leucocephala* (CAT II) Liatris tenuifolia Licania michauxii Linaria floridana Ludwigia peruviana* (CAT I) Lyonia fruticosa Lyonia lucida Lythrum alatum Magnolia virginiana Mangifera indica* Melaleuca quinquenervia* (NX) (PAP I) (CAT I) Melinis repens* (NX) (PAP I) (CAT I) Melothria pendula Mikania scandens Mollugo verticillata* Momordica charantia* (CAT II) Monotropa uniflora Morella cerifera Muhlenbergia capillaris Myrsine cubana

Florida scrub frostweed East coast dune sunflower Camphorweed Lindenleaf rosemallow Innocence Manyflower marshpennywort Roundpod st. John's-wort St. Andrew's-cross Fringed yellow stargrass Dahoon Gallberry Hairy indigo Water-spinich Oceanblue morning-glory Juba's bush Prairie iris Virginia willow Shortleaf spikesedge Carolina redroot Shrubvervena Scrub pinweed Virginia pepperweed White leadtree Shortleaf gayfeather Gopher apple Apalachicola toadflax Peruvian primrosewillow Coastalplain staggerbush Fetterbush Winged loosestrife Sweetbay Mango Melaleuca Rose natalgrass

Creeping cucumber

Climbing hempvine

Indian chickweed

Balsampear

Wax myrtle

Hairawn muhly

Indianpipe

Myrsine

Nekemias arborea Nephrolepis brownii* (CAT I) Nephrolepis exaltata Nymphaea odorata Oeceoclades maculata* Opuntia humifusa *Opuntia stricta* Osmunda regalis var. spectabilis Osmundastrum cinnamomea Oxalis corniculata Palafoxia feayi Palafoxia integrifolia Panicum hemitomon Panicum repens* (CAT I) Panicum virgatum Parthenocissus quinquefolia Paspalum notatum* Paspalum setaceum Peltophorum dubium Persea palustris Phlebodium aureum Phyla nodiflora Phyllanthus amarus* Phyllanthus tenellus* Phyllanthus urinaria* Physalis walteri Phytolacca americana Pilea microphylla Piloblephis rigida Pinus clausa Pinus elliottii Pisonia aculeate Pityopsis graminifolia Pleopeltis polypodioides var. michauxiana Pluchea baccharis Pluchea odorata Poinsettia cyathophora Polanisia tenuifolia Polygonella ciliate Polygonella polygama Polygonella robusta Polypremum procumbens Pontederia cordata

Peppervine Asian sword fern Wild Boston fern American white water lily Monk orchid Pricklypear Shell-mound pricklypear Royal fern Cinnamon fern Common yellow woodsorrel Feay's palafox Coastalplain palafox Maidencane Torpedograss Switchgrass Virginia creeper Bahia grass Thin paspalum Horsebush Swamp bay Golden polypody Turkey tangle fogfruit Gale-of-wind Mascarene island leafflower Chamber bitter Walter's groundcherry American pokeweed Artillery plant Wild pennyroyal Sand pine Slash pine Devil's claws Narrowleaf silkgrass Resurrection fern Rosy camphorweed Sweetscent Paintedleaf Slenderleaf clammyweed Hairy jointweed October flower Largeflower jointweed Rustweed Pickerelweed

Portulaca oleracea* Pseudognaphalium obtusifolium Psidium cattleianum* (CAT I) Psilotum nudum Psychotria nervosa Psychotria sulzneri Pteridium aquilinum Pterocaulon pycnostachyum *Quercus chapmanii* Quercus geminate Quercus laurifolia Quercus minima *Quercus myrtifolia* Quercus pumila Quercus virginiana Rhexia mariana Rhus copallinum Rhynchospora megalocarpa *Richardia grandiflora** (CAT II) Ricinus communis* (CAT II) Rivina humilis Sabal palmetto Sagittaria latifolia Salix caroliniana Salvia coccinea Sambucus nigra subsp. canadensis Schefflera actinophylla* (CAT I) Schinus terebinthifolius* (NX) (PAP I) (CAT I) Schoenoplectus tabernaemontani Scoparia dulcis Selaginella arenicola Serenoa repens Setaria parviflora Severinia buxifolia* Seymeria pectinata Sida cordifolia* Sida rhombifolia Sida ulmifolia Sisyrinchium xerophyllum Smilax auriculata Solanum americanum Solidago fistulosa Solidago gigantea

Little hogweed Rabbit tobacco Strawberry guava Whisk-fern Wild coffee Shortleaf wild coffee Bracken Blackroot Chapman's oak Sand live oak Laurel oak Dwarf live oak Myrtle oak Running oak Live oak Pale meadowbeauty Winged sumac Sandyfield beaksedge Largeflower mexican clover Castorbean Rougeplant Cabbage palm Broadleaf arrowhead Coastalplain willow Tropical sage Elderberry Australian umbrella tree Brazilian pepper Softstem bulrush Sweetbroom Sand spike-moss Saw palmetto Knotroot foxtail Chinese boxorange Piedmont blacksenna Llima Indian hemp Common fanpetals Jeweled blue-eyed grass Earleaf greenbrier America black nightshade Pinebarren goldenrod Giant goldenrod

Solidago odora var. chapmanii Solidago sempervirens Solidago stricta Sorghastrum secundum Spartina bakeri Spermacoce verticillata* (CAT II) Sphagneticola trilobata* (CAT II) Sphagnum sp. Sporobolus indicus* Stenotaphrum secundatum Stipulicida setacea Stylisma villosa Syzygium cumini* (CAT I) Taxodium ascendens Telmatoblechnum serrulatum Thalia geniculata Thelypteris interrupta Tillandsia balbisiana Tillandsia fasciculata Tillandsia recurvata *Tillandsia setacea* Tillandsia usneoides Tillandsia utriculata Toxicodendron radicans Trema micrantha Tribulus cistoides* Trichostema dichotomum Tridax procumbens* Urena lobata* (CAT I) Urochloa maxima* (CAT II) Vaccinium myrsinites Verbesina virginica Vigna luteola Vitis aestivalis Vitis rotundifolia Vitis shuttleworthii Vittaria lineata Woodwardia virginica Ximenia americana Zamia integrifolia Zanthoxylum fagara

Chapman's goldenrod Seaside goldenrod Wand goldenrod Lopsided indiangrass Sand cordgrass Shrubby false buttonweed Creeping oxeye Sphagnum Smutgrass St. augustinegrass Pineland scalypink Hairy dawnflower Java plum Pond-cypress Swamp fern Fireflag Hottentot fern Inflated & reflexed wild pine Common wild pine Ballmoss Southern needleleaf Spanish moss Giant wild pine Eastern poison ivy Nettletree Burrnut Forked bluecurls Coatbuttons Caesarweed Guineagrass Shiny blueberry White crownbeard Hairypod cowpea Summer grape Muscadine Calloose grape Shoestring fern Virginia chain fern Hog plum Coontie Wild lime

NOTES:

* = Nonnative species

NX = Species is on the state noxious weed list (Rule 5B-57.007, Florida Administrative Code) PAP I = Species designated as Class I Prohibited Aquatic Plant by FDACS (2008) (CAT I) = Exotic species designated as Category I by FLEPPC (FLEPPC 2019)

(CAT II) = Exotic species designated as Category II by FLEPPC (FLEPPC 2019)

Scientific and common names of vascular plant species generally follow ITIS (2019); Nature Serve (2019); USDA, NRCS (2018), and Wunderlin et al. (2019). Lichens are from Brodo et al. (2001).

APPENDIX B

ANIMAL SPECIES RECORDED AT PONDHAWK NATURAL AREA

APPENDIX B

ANIMAL SPECIES RECORDED AT THE PONDHAWK NATURAL AREA Updated 9/13/19

Scientific Name

Common Name

ARTHROPODA

Chelicerata (Spiders)

<u>Arachnida</u> Argiope argentata Gasteracantha cancriformis Leucauge venusta Nephila clavipes Peucetia viridans

Diplopoda (Millipedes)

Narceus sp.

Insecta (Insects)

<u>Coleoptera</u> Coccinellidae (family) Diaprepes abbreviates*

<u>Diptera</u> Aedes sp. Chrysops sp. Culicidae (family) Liohippelates pusio Musca domestica* Tabanus sp.

Hemiptera Tibicen sp.

<u>Hymenoptera</u> Apis mellifera* Bombus pensylvanicus Crematogaster sp. Dasymutilla occidentalis Pogonomyrmex sp. Polistes sp, Silver garden spider Spinybacked orbweaver Orchard orbweaver Golden silk orbweaver Green lynx spider

Millipede

Ladybird beetle Diaprepes root weevil

Mosquito Deer fly Mosquito Eye gnat House fly Horse fly

Cicada

Honeybee American bumble bee Acrobat ant Velvet ant Harvester ant Paper wasp

Solenopsis geminate Solenopsis invicta* Sphecius speciosus Vespula sp. Xylocopa sp.

Lepidoptera Agraulis vanilla Anartia jatrophae Antheraea polyphemus Danaus gilippus Danaus plexippus Dryas iulia Heliconius charithonia tuckeri Homaledra sabalella Hylephila phyleus Marpesia petreus Papilio polyxenes Phoebis sennae Pieris rapae* Pyrgus oileus Urbanus proteus

<u>Neuroptera</u> *Myrmeleon* sp.

<u>Odonata</u>

Anax junius Anax longipes Brachymesia gravida Celithemis eponina *Coryphaeschna ingens* Crocothemis servilia* Dromogomphus spinosus Enallagma doubledayi Erythemis plebeja Erythemis simplicicollis Erythrodiplax minuscula Erythrodiplax umbrata Gynacantha nervosa Ischnura ramburii Libellula auripennis Orthemis ferruginea Pachydiplax longipennis Pantala flavescens Perithemis tenera

Fire ant Red imported fire ant Cicada killer Yellowjacket Carpenter bee

Gulf fruitillary White peacock Polyphemus moth Queen Monarch Julia Zebra longwing Palm leafskeletonizer Fiery skipper Ruddy daggerwing butterfly Black swallowtail Cloudless sulfur Cabbage white Tropical checkered-skipper Long-tailed skipper

Ant lion

Common green darner Comet darner Four-spotted pennant Halloween pennant Regal darner Scarlet skimmer Black-shouldered spinyleg Atlantic bluet Pin-tailed pondhawk Eastern pondhawk Little blue dragonlet Band-winged dragonlet Twillight darner Rambur's forktail Golden-winged skimmer Roseate skimmer Blue dasher Wandering glider Eastern amberwing

Tramea carolina Tramea lacerate Tramea onusta

Orthoptera Arphia granulata Gryllus sp. Microcentrum retinerve Romalea microptera Schistocerca americana Schistocerca obscura

<u>Phasmatodea</u> Anissomorpha buprestoides

CHORDATA

Actinopterygii (Ray-finned fishes) Chitala ornate*

Amphibia (Amphibians) Anaxyrus quercicus Anaxyrus terrestris Dryophytes cinereus Lithobates sphenocephalus Osteopilus septentrionalis *

Reptilia (Reptiles)

<u>Crocodilia</u> Alligator mississippiensis

Squamata Anolis caroliniensis Anolis sagrei* Aspidoscelis sexlineatua Basiliscus vittatus* Coluber constrictor Heterodon platirhinos Iguana iguana Leiocephalus carinatus Opheodrys aestivus Plestiodon egregius Plestiodon inexpectatus Scincella lateralis Sceloporus woodi Carolina saddlebags Black saddlebags Red saddlbags

Southern yellow-winged grasshopper Cricket Lesser angle-winged katydid Eastern lubber grasshopper American grasshopper Obscure bird grasshopper

Two-striped walking stick

Clown knifefish

Oak toad Southern toad Green treefrog Southern leopard frog Cuban treefrog

American alligator

Green anole Brown anole Six-lined racerunner Brown basilisk North American racer Eastern hog-nosed snake Green iguana Northern curly-tailed lizard Rough greensnake Mole skink Southeastern five-lined skink Ground skink Florida scrub lizard

Thamnophis sirtalis

<u>Testudines</u> Apalone ferox Gopherus polyphemus Pseudemys floridana peninsularis Terrepene carolina

Aves (Birds)

Accipitriformes Accipiter cooperii Accipiter striatus Buteo jamaicensis Buteo lineatus Cathartes aura Coragyps atratus Elanoides forficatus Haliaeetus leucocephalus Pandion haliaetus

Anseriformes Aix sponsa Alopochen aegyptiacus* Anas discors Anas fulvigula Cairina moschata* Dendrocygna autumnalis

<u>Apodiformes</u> Archilochus colubris Chaetura pelagica

Caprimulgiformes Chordeiles minor

<u>Charadriiformes</u> *Actitis macularius Charadrius vociferous Gallinago delicate Himantopus mexicanus Larus delawarensis Leucophaeus atricilla Sterna forsteri Sterna antillarum Thalasseus maximus*

Common gartersnake

Florida softshell Gopher tortoise Peninsular cooter Box turtle

Cooper's hawk Sharp-shinned hawk Red-tailed hawk Red-shouldered hawk Turkey vulture Black vulture Swallow-tailed kite Bald eagle Osprey

Wood duck Egyptian goose Blue-winged teal Mottled duck Muscovy duck Black-bellied whistling-duck

Ruby-throated hummingbird Chimney swift

Common nighthawk

Spotted sandpiper Killdeer Wilson's snipe Black-necked stilt Ring-billed gull Laughing gull Forster's tern Least tern Royal tern

Tringa semipalmata

<u>Ciconiiformes</u> Mycteria americana

Columbiformes

Columba livia* Columbina passerina Streptopelia decaocto* Zenaida asiatica Zenaida macroura

<u>Coraciiformes</u> Megaceryle alcyon

<u>Falconiformes</u> Falco columbarius Falco peregrinus Falco sparverius

<u>Gruiformes</u> Aramus guarauna Fulica americana Gallinula galeata

Passeriformes Agelaius phoeniceus Bombycilla cedrorum Cardinalis cardinalis Corvis brachyrhynchos Corvus ossifragus *Cyanocitta cristata* Dumetella carolinensis Geothlypis trichas Hirundo rustica Lanius ludovicianus Mimus polyglottos Mniotilta varia Passerina ciris Pipilo erythrophthalmus Polioptila caerulea Progne subis Quiscalus major Quiscalus quiscula

Willet

Wood stork

Rock pigeon Common ground-dove Eurasian collared-dove White-winged dove Mourning dove

Belted kingfisher

Merlin Peregrine falcon American kestrel

Limpkin American coot Common gallinule

Red-winged blackbird Cedar waxwing Northern cardinal American crow Fish crow Blue jay Gray catbird Common yellowthroat Barn swallow Loggerhead shrike Northern mockingbird Black-and-white warbler Painted bunting Eastern towhee Blue-gray gnatcatcher Purple martin Boat-tailed grackle Common grackle

Sayornis phoebe Seiurus aurocapilla Setophaga americana Setophaga caerulescens Setophaga castanea Setophaga coronata Setophaga discolor Setophaga dominica Setophaga palmarum Setophaga pinus Setophaga ruticilla Setophaga tigrina Stelgidopteryx serripennis Sturnus vulgaris * Tachvcineta bicolor Thryothorus ludovicianus Toxostoma rufum Turdus migratorius Vireo griseus Vireo solitarius

Pelecaniformes Ardea alba Ardea herodias Ardea herodias occidentalis Bubulcus ibis Butorides virescens Egretta caerulea Egretta thula Egretta tricolor Eudocimus albus Ixobrychus exilis Pelecanus occidentalis Plegadis falcinellus

<u>Piciformes</u> Dryocopus pileatus Melanerpes carolinus Picoides pubescens Picoides villosus

Podicipediformes Podilymbus podiceps

<u>Psittaciformes</u> Myiopsitta monachus*

Eastern phoebe Ovenbird Northern parula Black-throated blue warbler Bay-breasted warbler Yellow-rumped warbler Prairie warbler Yellow-throated warbler Palm warbler Pine warbler American redstart Cape may warbler Northern rough-winged swallow European starling Tree swallow Carolina wren Brown thrasher American robin White-eyed vireo Blue-headed vireo

Great egret Great blue heron Great white heron Cattle egret Green heron Little blue heron Snowy egret Tricolored heron White ibis Least bittern Brown pelican Glossy ibis

Pileated woodpecker Red-bellied woodpecker Downy woodpecker Hairy woodpecker

Pied-billed grebe

Monk parakeet

Strigiformes Strix varia

<u>Suliformes</u> Anhinga anhinga Phalacrocorax auritus

Mammalia (Mammals)

Canis latrans Dasypus novemcinctus Didelphis virginiana Felis cattus Lontra canadensis Lynx rufus Mephitis mephitis Peromyscus gossypinus Podomys floridanus Procyon lotor Sciurus carolinensis Sigmondon hispidus Spilogale putorius Sylvilagus floridanus Sylvilagus palustris Urocyon cinereoargenteus Barred owl

Anhinga Double-crested cormorant

Coyote Nine-banded armadillo Virginia opossum Domestic cat North American river otter Bobcat Striped skunk Cotton deermouse Florida deermouse Raccoon Eastern gray squirrel Hispid cotton rat Eastern spotted skunk Eastern cottontail Marsh rabbit Gray fox

* = Nonnative species

NOTE: Scientific and common names of species generally follow FWC (2018b), FNAI (2019), NatureServe (2019), ITIS (2019) or Arnett (2000).

APPENDIX C

DEFINITIONS OF STATUS AND RANK DESIGNATIONS FOR LISTED SPECIES AND NATURAL COMMUNITIES

APPENDIX C

DEFINITIONS OF STATUS AND RANK DESIGNATIONS FOR LISTED SPECIES AND NATURAL COMMUNITIES

United States Fish and Wildlife Service (USFWS) - Wildlife and Plants

Species listed in the Code of Federal Regulations (CFR) and protected under the provisions of the Endangered Species Act of 1973 (16 USC 1531-1543, as amended); animals are listed in 50 CFR 17-11 and plants are listed in 50 CFR 17-12.

Endangered (E)	Any species that is in danger of extinction through all or a portion of its range.
Threatened (T)	Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.
Candidate (C)	Any species that is under consideration for official listing for which there is sufficient information to support listing.
Similarity of Appearance (S/A)	If a species closely resembles an endangered or threatened species, such species may be treated as endangered or threatened if the Director of USFWS makes a determination that the species shall appear in the list in 50 CFR 17.11 (wildlife) or the list in 50 CFR 17.12 (plants).
Under Review (UR)	Species that have been petitioned for listing and for which a 90-day finding has not been published or for which a 90-day substantial has been published, but a 12-month finding have not yet been published in the Federal Register. Also includes species that are being reviewed through the candidate process, but the Candidate Notice of Review (CNOR) has not yet been signed.

Florida Fish and Wildlife Conservation Commission (FWC) - Animals

Species listed in Chapter 68A-27 of the Florida Administrative Code (F.A.C.) as Florida Endangered and Threatened Species, and protected under that chapter and the Endangered and Threatened Species Act, Section 372.072, Florida Statutes (F.S.).

Federally-designatedSpecies of fish or wild animal life, subspecies or isolated populations ofEndangered andspecies or subspecies, whether vertebrate or invertebrate, that are nativeThreatened Speciesto Florida and are classified as Endangered or Threatened under

C-1

(FE) and (FT)	Commission rule by virtue of designation by the United States Departments of Interior or Commerce as endangered or threatened under the Federal Endangered Species Act, 16 U.S.C. § 1531 et seq. and rules.
State-designated Threatened Species (ST)	As designated by the Commission, species of fish or wild animal life, subspecies, or isolated population of a species or subspecies, whether vertebrate or invertebrate, that are native to Florida and are classified as Threatened as determined by paragraph (a), (b), (c), (d), or (e) [in subsequent part of definition] in accordance with Rule 68A-27.0012., F.A.C.
Species of Special Concern (SSC)	Per Rule 68A-27.005, management plans will be developed for the species listed in this rule and the species will be evaluated under the listing criteria in subsection 68A-27.001(3), F.A.C. for listing as a State-designated Threatened species.
Candidate Species	A species of fish or wild animal life, subspecies, or isolated populations of species or subspecies, whether invertebrate or vertebrate, that the Commission has determined warrants listing as a State-designated Threatened Species in accordance with Rule 68A-27.0012, F.A.C., and is awaiting final Commission action to be added to the list of Florida

Florida Department of Agriculture and Consumer Affairs (FDACS) - Plants

Species listed in Chapter 5B-40 of the Rules of FDACS, Division of Plant Industry and protected under the Preservation of Native Flora of Florida Act (Section 581.185, F.S.).

Endangered and Threatened Species in Rule 68A-27.003, F.A.C.

Endangered (E) 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 species or threatened species pursuant to the federal Endangered Species Act of 1973, as amended.

Threatened (T) 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.

Commercially Species native to the state which are being removed in significant numbers from native habitats in the state and sold or transported for sale.

C-2

Florida Natural Areas Inventory (FNAI) - Plants, Animals and Natural Communities

FNAI ranks indicate the global (G) or state (S) status of a species or a natural community. Rank definitions are from FNAI (2018).

FNAI Global Rank Definitions

- G1 Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1,000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
- G2 Imperiled globally because of rarity (6 to 20 occurrences or less than 3,000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
- G3 Either very rare and local throughout its range (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
- G4 Apparently secure globally (may be rare in parts of range).
- G5 Demonstrably secure globally.
- G#? Tentative rank (e.g., G2?).
- 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 the same definition as above (e.g., G3T1)
- GNR = Element not yet ranked (temporary).

FNAI State Rank Definitions

- S1 Critically imperiled in Florida because of extreme rarity (5 or fewer occurrences or less than 1,000 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 3,000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
- S3 Either very rare and local in Florida (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.

- S4 Apparently secure in Florida (may be rare in parts of range).
- S5 Demonstrably secure in Florida.
- SH Of historical occurrence in Florida, possibly extirpated, but may be rediscovered

APPENDIX D

EASEMENTS AND OTHER ENCUMBRANCES

Documents available electronically at: <u>https://pbc.sharefile.com/d-s4fedbcf7dea4e449</u>

APPENDIX E

GRANT AWARD AGREEMENT

This document prepared by: Kristen L. Coons Florida Communities Trust Department of Community Affairs 2555 Shumard Oak-Blvd. Tallahassee, FL 32399

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FEB 0.6 2004 DEPT. OF COMMUNITY AFFAIRS FLORIDA COMMUNITIES TRUST

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FLORIDA COMMUNITIES TRUST FF2 AWARD #02-051-FF2 FCT Contract#<u>09-67-7</u>B-03-F2-51-051

GRANT AWARD AGREEMENT

THIS AGREEMENT is entered into this ______day of ______, 2004, by and between the **FLORIDA COMMUNITIES TRUST** ("FCT"), a nonregulatory agency within the State of Florida Department of Community Affairs, and **PALM BEACH COUNTY**, a political subdivision of the State of Florida, and the **CITY OF BOCA RATON**, a local government of the State of Florida ("Recipient"), in order to impose terms, conditions, and restrictions on the use of the proceeds of certain bonds, hereinafter described, and the lands acquired with such proceeds and as described in Exhibit "A" attached hereto and made a part hereof ("Project Site"), as shall be necessary to ensure compliance with applicable Florida Law and federal income tax law and to otherwise implement provisions of Chapters 259.105, 259.1051, and 380, Florida Statutes.

WHEREAS, Part III Chapter 380, Florida Statutes, the Florida Communities Trust Act, creates a nonregulatory agency within the Department of Community Affairs, which will assist local governments in bringing into compliance and implementing the conservation, recreation and open space, and coastal elements of their comprehensive plans or in conserving natural resources and resolving land use conflicts by providing financial assistance to local governments and nonprofit environmental organizations to carry out projects and activities authorized by the Florida Communities Trust Act;

WHEREAS, Section 259.105(3)(c), F.S., of the Florida Forever Act provides for the distribution of twenty- two percent (22%) less certain reductions of the net Florida Forever Revenue Bond proceeds to the Department to provide land acquisition grants to local governments and nonprofit environmental organizations through the FCT for acquisition of community-based projects, urban open spaces, natural resource conservation areas, parks, greenways and outdoor recreation areas to implement local comprehensive plans;

WHEREAS, the Bonds were issued as tax-exempt bonds, meaning that the interest on the Bonds is excluded from the gross income of Bondholders for federal income tax purposes;

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WHEREAS, Rule Chapter 9K-7, Florida Administrative Code (F.A.C.), authorizes FCT to impose conditions for funding on those FCT applicants whose projects have been selected for funding in accordance with Rule Chapter 9K-7, F.A.C.;

WHEREAS, the FCT has approved the terms under which the Project Site was acquired and this Agreement shall contain such covenants and restrictions as are sufficient to ensure that the use of the Project Site shall at all times comply with Section 375.051, Florida Statutes and Section 9, Article XII of the State Constitution and shall contain clauses providing for the conveyance of title to the Project Site to the Board of Trustees of the Internal Improvement Trust Fund upon the failure of the FCT Recipient to use the Project Site acquired thereby for such purposes; and

WHEREAS, such covenants and restrictions shall be imposed by an agreement which shall describe with particularity the real property which is subject to the agreement and shall be recorded in the county in which the real property is located; and

WHEREAS, the purpose of this Agreement is to set forth the covenants and restrictions that are imposed on the Project Site subsequent to its acquisition using funds from the Florida Forever Trust Fund award.

NOW THEREFORE, in consideration of the mutual covenants and undertakings set forth herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, FCT and Recipient do hereby contract and agree as follows:

I. GENERAL CONDITIONS.

1. Upon execution and delivery by the parties hereto, the Recipient shall cause this Agreement to be recorded and filed in the official public records of Palm Beach County, Florida, and in such manner and in such other places as FCT may reasonably request, and shall pay all fees and charges incurred in connection therewith.

2. The Recipient and FCT agree that the State of Florida Department of Environmental Protection will forward this Agreement to Department of Environmental Protection Bond Counsel for review. In the event Bond Counsel opines that an amendment is required to this Agreement so that the tax-exempt status of the Florida Forever Bonds is not jeopardized, FCT and Recipient shall amend the Agreement accordingly.

3. This Agreement may be amended at any time. Any amendment must be set forth in a written instrument and agreed to by both the Recipient and FCT.

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4. This Agreement and the covenants and restrictions contained herein shall run with the Property herein described and shall bind, and the benefits shall inure to, respectively, the FCT and the Recipient and their respective successors and assigns.

5. This Agreement shall be governed by and construed in accordance with the laws of the State of Florida, with respect to both substantive rights and with respect to procedures and remedies.

6. Any notice required to be given hereunder shall be given by personal delivery, by registered mail or by registered expedited service at the addresses specified below or at such other addresses as may be specified in writing by the parties hereto, and any such notice shall be deemed received on the date of delivery if by personal delivery or expedited delivery service, or upon actual receipt if sent by registered mail.

FCT:

Florida Communities Trust Department of Community Affairs 2555 Shumard Oak Blvd. Tallahassee, FL 32399-2100 ATTN: Program Manager

Recipient:

Palm Beach County Department of Environmental Resources Management 3323 Belvedere Road, Building 502 West Palm Beach, Florida 33406-1548 ATTN: Director

Recipient:

City of Boca Raton 201 West Palmetto Park Road Boca Raton, Florida 33432-3795 ATTN: City Manager

7. If any provision of the Agreement shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired.

II. PROJECT SITE REQUIREMENTS IMPOSED BY CHAPTER 259, CHAPTER 375, AND CHAPTER 380, PART III, FLORIDA STATUTES.

1. If any essential term or condition of this grant agreement is violated by the Recipient or by some third party with the knowledge of the Recipient and the Recipient does not correct the violation within 30 days of notice of the violation, fee simple title to all interest in the Project Site shall be conveyed to the Board of Trustees of the Internal Improvement Trust Fund. The FCT shall treat such property in accordance with Section 380.508(4)(e), Florida Statutes.

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2. Any transfer of the Project Site shall be subject to the approval of FCT and FCT shall enter into a new agreement with the transferee, containing such covenants, clauses, or other restrictions as are sufficient to protect the interest of the people of Florida.

3. The interest, if any, acquired by the Recipient in the Project Site will not serve as security for any debt of the Recipient unless FCT approves the transaction.

4. If the existence of the Recipient terminates for any reason, title to all interest in real property it has acquired with the FCT award shall be conveyed to the Board of Trustees of the Internal Improvement Trust Fund, unless FCT negotiates an agreement with another local government or nonprofit organization which agrees to accept title to all interest in and to manage the Project Site.

5. In the event that the Project Site is damaged or destroyed or title to the Project Site, or any part thereof, is taken by any governmental body through the exercise or the threat of the exercise of the power of eminent domain, the Recipient shall deposit with the FCT any insurance proceeds or any condemnation award, and shall promptly commence to rebuild, replace, repair or restore the Project Site in such manner as is consistent with the Agreement. The FCT shall make any such insurance proceeds or condemnation award moneys available to provide funds for such restoration work. In the event that the Recipient fails to commence or to complete the rebuilding, repair, replacement or restoration of the Project Site after notice from the FCT, the FCT shall have the right, in addition to any other remedies at law or in equity, to repair, restore, rebuild or replace the Project Site so as to prevent the occurrence of a default hereunder.

Notwithstanding any of the foregoing, FCT will have the right to seek specific performance of any of the covenants and restrictions of this Agreement concerning the construction and operation of the Project Site.

III. PROJECT SITE OBLIGATIONS IMPOSED BY FCT ON THE RECIPIENT.

1. The Project Site shall be managed only for the conservation, protection and enhancement of natural and historical resources and for passive, natural resource-based public outdoor recreation which is compatible with the conservation, protection and enhancement of the Project Site, along with other related uses necessary for the accomplishment of this purpose. The proposed uses for the Project Site are specifically designated in the Project Plan as approved by FCT.

2. The Recipient shall prepare and submit to FCT an annual stewardship report as required by Rule 9K-7.013, F.A.C.

3. The Recipient shall ensure that the future land use designation assigned to the Project Site is for a category dedicated to open space, conservation, or outdoor recreation uses as

GAA\02-051-FF2 DATE: January 12, 2004

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appropriate. If an amendment to the Recipient's comprehensive plan is required to comply with this paragraph, the amendment shall be proposed at the next comprehensive plan amendment cycle available to the Recipient.

4. Recipient shall ensure, and provide evidence thereof to FCT, that all activities under this Agreement comply with all applicable local, state, regional and federal laws and regulations, including zoning ordinances and the adopted and approved comprehensive plan for the jurisdiction as applicable. Evidence shall be provided to FCT that all required licenses and permits have been obtained prior to the commencement of any construction.

5. The Recipient shall, through its agents and employees, prevent the unauthorized use of the Project Site or any use thereof not in conformity with the FCT approved project plan.

6. FCT staff or its duly authorized representatives shall have the right at any time to inspect the Project Site and the operations of the Recipient at the Project Site.

7. All buildings, structures, improvements, and signs shall require the prior written approval of FCT as to purpose. Further, tree removal, other than non-native species, and/or major land alterations shall require the written approval of FCT. The approvals required from FCT shall not be unreasonably with-held by FCT upon sufficient demonstration that the proposed structures, buildings, improvements, signs, vegetation removal or land alterations will not adversely impact the natural resources of the Project Site. The approval by FCT of the Recipient's management plan addressing the items mentioned herein shall be considered written approval from FCT.

8. If archaeological and historic sites are located on the Project Site, the Recipient shall comply with Chapter 267, Florida Statutes. The collection of artifacts from the Project Site or the disturbance of archaeological and historic sites on the Project Site will be prohibited unless prior written authorization has been obtained from the Department of State, Division of Historical Resources.

9. The Recipient shall ensure that the Project Site is identified as being publicly owned and operated as a passive, natural resource-based public outdoor recreational site in all signs, literature and advertising regarding the Project Site. The Recipient shall erect a sign(s) identifying the Project Site as being open to the public and as having been purchased with funds from FCT and Recipient.

IV. OBLIGATIONS INCURRED BY RECIPIENT AS A RESULT OF BOND PROCEEDS BEING UTILIZED TO PURCHASE THE PROJECT SITE.

1. If the Project Site is to remain subject, after its acquisition by the State and the Recipient, to any of the below listed activities or interests, the Recipient shall provide at least 60

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days written notice of any such activity or interest to FCT prior to the activity taking place, and shall provide to FCT such information with respect thereto as FCT reasonably requests in order to evaluate the legal and tax con-sequences of such activity or interest:

a. any lease of any interest in the Project Site to a non-governmental person or organization;

b. the operation of any concession on the Project Site to a non-governmental person or organization;

c. any sales contract or option to buy things attached to the Project Site to be severed from the Project Site, with a non-governmental person or organization;

d. any use of the Project Site by non-governmental persons other than in such person's capacity as a member of the general public;

e. a management contract of the Project Site with a non-governmental person or organization; and

f. such other activity or interest as may be specified from time to time in writing by FCT to the Recipient.

2. Recipient agrees and acknowledges that the following transaction, events, and circumstances may not be permitted on the Project Site as they may have negative legal and tax consequences under Florida law and federal income tax law:

a. a sale of the Project Site or a lease of the Project Site to a non-governmental person or organization;

b. the operation of a concession on the Project Site by a non-governmental person or organization;

c. a sale of things attached to the Project Site to be severed from the Project Site to a non-governmental person or organization;

d. any change in the character or use of the Project Site from that use expected at the date of the issuance of any series of bonds from which the disbursement is to be made;

e. any use of the Project Site by non-governmental persons other than in such person's capacity as a member of the general public;

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f. a management contract of the Project Site with a non-governmental person or organization; and

g. such other activity or interest as may be specified from time to time in writing by FCT to the Recipient.

DELEGATIONS AND CONTRACTUAL ARRANGEMENTS BETWEEN THE RECIPIENT AND OTHER GOVERNMENTAL BODIES, NOT FOR PROFIT ENTITIES, OR NON GOVERNMENTAL PERSONS FOR USE OR MANAGEMENT OF THE PROJECT SITE WILL IN NO WAY RELIEVE THE Recipient OF THE RESPONSIBILITY TO ENSURE THAT THE CONDITIONS IMPOSED HEREIN ON THE PROJECT SITE AS A RESULT OF UTILIZING BOND PROCEEDS TO ACQUIRE THE PROJECT SITE ARE FULLY COMPLIED WITH BY THE CONTRACTING PARTY.

V. CONDITIONS THAT ARE PARTICULAR TO THE PROJECT SITE AS A RESULT OF THE FCT APPROVED MANAGEMENT PLAN.

1. Two or more resource-based outdoor recreational facilities including a nature trail and wetlands observation deck, shall be provided. The facilities shall be designed and located with minimal impact to natural resources on the Project Site.

2. A permanent recognition sign shall be maintained in the entrance area of the Project Site. The sign shall acknowledge that the Project Site is open to the public and was purchased with funds from the Florida Communities Trust Program, Palm Beach County, and the City of Boca Raton.

3. Interpretive signage shall be provided to educate visitors about the natural environment of the Project Site.

4. A biological inventory of the natural communities found on the Project Site, including the dominant and listed plant and animal species, shall be conducted prior to any site development. The inventory shall be used to ensure the protection of biological resources and be updated periodically.

5. The natural communities that occur on the Project Site shall be preserved and appropriately managed to ensure the long-term viability of these communities.

6. The Project Site shall be managed in a manner that protects and enhances habitat for native wildlife species that utilize or could potentially utilize the site, including gopher tortoise and Florida mouse. The development of the management plan shall be coordinated with the Fish and Wildlife Conservation Commission's Office of Environmental Services to ensure the preservation

GAA\02-051-FF2 DATE: January 12, 2004

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and viability of native wildlife species and their habitat. Periodic surveys shall be conducted to ensure that site management is compatible with the listed species using the Project Site.

7. A prescribed burn plan shall be implemented for the scrub and flatwoods communities. A vegetation analysis of the remainder of the Project Site shall be performed to determine which areas of the Project Site need a prescribed burn regime to maintain fire-dependent natural communities. If a prescribed burning regime is found to be necessary and feasible, the development of a prescribed burn plan shall be coordinated with the Division of Forestry and the Florida Fish and Wildlife Conservation Commission.

8. Any proposed stormwater facility for the Project Site shall be designed to provide recreational open space or wildlife habitat.

9. The area adjacent to the parking area and a buffer around the parking area shall be landscaped with native plant species to provide wildlife habitat and enhance the function and appearance of the Project Site.

10. At least five acres of the degraded wetland community shall be restored in terms of biological composition and ecological function.

11. An ongoing monitoring and control program for invasive vegetation including exotic (non-native) and nuisance native plant species shall be implemented at the Project Site. The objective of the control program shall be the elimination of invasive exotic plant species and the maintenance of a diverse association of native vegetation. The Management Plan shall reference the Exotic Pest Plant Council's List of Florida's Most Invasive Species to assist in identifying invasive exotics on the Project Site.

12. A feral animal removal program shall be developed and implemented, as necessary, for dogs, cats, ducks, and other non-native wildlife that may be found on the Project Site.

13. Prior to the commencement of any proposed development activities, measures shall be taken to determine the presence of any archaeological sites. All planned activities involving known archaeological sites or potential site areas shall be closely coordinated with the Department of State, Division of Historic Resources in order to prevent the disturbance of significant sites.

14. The location and design of the parking and other site improvements shall have minimal impact on natural resources. The parking area shall incorporate pervious material wherever feasible.

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Pedestrian and bicycle access to the Project Site shall be promoted through the 15. provision of pedestrian oriented walkways and bicycle facilities that link the Project Site with adjacent residential neighborhoods. Bike parking stands shall be installed at the Project Site to provide an alternative to automobile transportation to the Project Site.

The project site shall provide an additional destination point along the City of Boca 16. Raton Bicycle, Pedestrian, Greenways and Trail Plan system. The proposed project site improvements shall include trailhead facilities and a pedestrian trail accessible from the City's multipurpose trail network.

17. Proposed site improvements shall be designed and located to minimize or eliminate the long-term risk of storm damage or flooding in conjunction with appropriate hazard mitigation agencies or experts.

The requirements imposed by other grant program funds that may be sought for 18 activities associated with the Project Site shall not conflict with the terms and conditions of this Agreement.

This Agreement including Exhibit "A" embodies the entire agreement between the parties. IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement.

By

Date:

By:

PALM BEACH COUNTY

Management te: 2/5

Approved as to

Print Name

Richard E. Walesky, Director

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15: Wal

Department of Environmental Resources

Witness: Aden Print) nnon

Print Na Channon R2004 0'906 MAY 18 2004

STATE OF FLORIDA COUNTY OF PALM BEACH

The foregoing instrument was acknowledged before me this $\underline{5^{H}}$ day of <u>February</u> 2004, by <u>Richard E. Walesky</u> as <u>Director</u> of <u>Elem</u> behalf of the Local Government, and who is personally known to me. on

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maden Coppo Notary Public Coppo) Print Name: Marilyn Commission No. DD26344

MAY 18 200 Witness haime ali Print Name: Sparma Caronnante دلن

R2004 0906

Print Name: Sharon Mchoice

STATE OF FLORIDA COUNTY OF PALM BEACH

CITY OF BOC **1** Q A By: Steven Abrams Print Name: Mayor Title: 11,2 Date: Yebruary 2, 2004

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John 0. Eleirchy Print Name A

The foregoing instrument was acknowledged before me this 2nd day of February 2004, by <u>Steven L. Abrams</u> as <u>Mayor</u> of Culy of Bocu He behalf of the Local Government, and who is personally known to me. of City of Bica Horton on



Janisa Notary Public Print Name: 1 J. Hines anessa Commission No. DD142695 My Commission Expires: 10/14 66

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GAA\02-051-FF2 DATE: January 12, 2004

Witness:

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Print Name: Basac ase

Print Name: Rebecca Tenx-

STATE OF FLORIDA COUNTY OF LEON

R2004 0906

MAY 1.8 2004

FLORIDA COMMUNITIES TRUST By: Korky Jug M Seed

By: Kathy Baughman McLeod, Community Program Manager

20/114 2 Date:_

Approved as to Form and Legality: By: Kristen L. Coons, Trust Counsel

The foregoing instrument was acknowledged before me this 20 day of <u>Selman</u>, 2004, by Janice Browning as Division Director of Housing and Community Development. She is personally known to me. Mary Bougume McLedd, Community Regram MANAger

11

Notary Public

Print Name: Commission No. My Commission Expires:



EXHIBIT "A"

LEGAL DESCRIPTION

A PARCEL OF LAND LYING IN SECTION 12, TOWNSHIP 47 SOUTH, RANGE 42 EAST, PALM BEACH COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 12; THENCE SOUTH 01°18'34" EAST, ALONG THE WEST LINE OF SAID SECTION 12, A DISTANCE OF 277.25 FEET; THENCE NORTH 88°41' 26" EAST, 70.00 FEET TO THE EAST RIGHT-OF-WAY LINE OF MILITARY TRAIL (S.R. 809) AS SHOWN ON FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) RIGHT-OF-WAY MAP SECTION 93590-2608 SAME BEING A POINT ON THE SOUTH LINE OF LANDS DESCRIBED IN OFFICIAL RECORD BOOK 6061, PAGE 1814 OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA; THENCE NORTH 46°10'07" EAST, 14.93 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING NORTH 46°10'07" EAST 49.12 FEET; THENCE SOUTH 89°53'57" EAST, 1657.79 FEET; THENCE SOUTH 77°24'12" EAST, 55.46 FEET; THENCE SOUTH 89°53'57" EAST, 101.40 FEET; THENCE SOUTH 04°47'58" EAST, 189.79 FEET; THENCE SOUTH 89°51'28" WEST, 18.63 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHEAST HAVING A RADIUS OF 40.00 FEET AND A CENTRAL ANGLE OF 55°11'17"; THENCE WESTERLY AND SOUTHWESTERLY ALONG COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 12; THENCE SOUTH 01°18'34" FEET AND A CENTRAL ANGLE OF 55°11'17"; THENCE WESTERLY AND SOUTHWESTERLY ALONG SAID CURVE FOR AN ARC DISTANCE OF 35 1177, THENCE WESTERLT AND SOUTHWEST FRET ALD SAID CURVE FOR AN ARC DISTANCE OF 38.53 FEET; THENCE SOUTH 33°59'11" WEST, 64.42 FEET; THENCE SOUTH 71°49' 54" WEST, 61.55 FEET; THENCE SOUTH 40°46'28" WEST, 22.35 FEET; THENCE SOUTH 72°32'38" WEST, 163.92 FEET; THENCE SOUTH 40°46'28" WEST, 24.35 FEET; THENCE SOUTH 73°31'39" WEST, 163.52 FEET; THENCE SOUTH 21°00'53" EAST, 145.31 FEET; THENCE SOUTH 53°31'39" WEST, 163.52 FEET, TO THE POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 145.00 FEET AND A CENTRAL ANGLE OF 74°35'16"; THENCE SOUTHWESTERLY, SOUTHERLY AND SOUTHEASTERLY ALONG SAID CURVE FOR AN ARC DISTANCE OF 188.76 FEET; THENCE SOUTH 21°03'37" EAST, 244.50 FEET; THENCE SOUTH 40°27'34" EAST, 216.91 FEET, TO A POINT ON A CURVE CONCAVE TO THE EAST (A RADIAL BEARING THROUGH SAID POINT BEARS SOUTH 40°03'33" EAST), HAVING A RADIUS OF 581.00 FEET AND A CENTRAL ANGLE OF 106°26'14"; THENCE SOUTHWESTERLY, SOUTHERLY, AND EASTERLY ALONG SAID CURVE FOR AN ARC DISTANCE OF 1079.31 FEET; THENCE SOUTH 00°00'14" WEST 400.91 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF N.W. 40TH STREET AS SHOWN IN ROAD PLAT BOOK 4, PAGES 77 THROUGH 79, OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA; FAGLS // THINGUGITYS, OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA; THENCE NORTH 78'38'34" WEST, 495.7 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTH, HAVING A RADIUS OF 2934.79 FEET, AND A CENTRAL ANGLE 11°14' 45"; THENCE WESTERLY ALONG SAID CURVE 495.76 FOR AN ARC DISTANCE OF 576.03 FEET; THENCE NORTH 89°53'19" WEST, 101.35 FEET (THE LAST THREE COURSES BEING COINCIDENT WITH THE NORTH RIGHT-OF-WAY LINE OF SAID N.W. 40TH STREET); THENCE NORTH 01°18'34" WEST, 524.20 FEET; THENCE SOUTH 88°41'26" WEST, 500.00 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF MILITARY TRAIL; THENCE NORTH 01°18'34" WEST, ALONG SAID EAST RIGHT-OF-WAY LINE FOR A DISTANCE OF 1264.04 FEET; THENCE NORTH 02°11'17" EAST, 180.45 FEET; THENCE NORTH 01°18'34" WEE FEET TO THE POINT OF BEGINNING.

GAA\02-051-FF2 DATE: January 12, 2004

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STATE OF FLORIDA, COUNTY OF PALM BEACH I, DOROTHY H. WILKEN, ex-officio Clerk of the Board of County Commissioners certify this to be a true and correct copy of the original filed in my office on <u>The sec</u> (2, 3694) DATED at West Palm Beach, FL on <u>Sec.94</u>.

DOROTHY H. WILKEN, Clerk . D.C By



APPENDIX F

INTERLOCAL AGREEMENT

R2008 0457

INTERLOCAL AGREEMENT BETWEEN

1.1

THE CITY OF BOCA RATON

AND

PALM BEACH COUNTY

FOR MANAGEMENT OF THE PONDHAWK NATURAL AREA

THIS INTERLOCAL AGREEMENT (this "Agreement") is made and entered into on this day of <u>AR 1 1 2008</u>, 2008, by and between the CITY OF BOCA RATON, a Florida municipal corporation (the "City") and PALM BEACH COUNTY, a political subdivision of the State of Florida (the "County"), each one constituting a public agency as defined in Part I of Chapter 163, Florida Statutes (hereinafter referred to collectively as "the Parties").

WITNESSETH

WHEREAS, the County is the owner of certain real property designated as the Pondhawk Natural Area (the "Natural Area"), which is more particularly described in **Exhibit "A"**; and

WHEREAS, the City is the owner of certain real property which is more particularly described in Exhibit "B" (the "City Property"); and

WHEREAS, the County purchased the Natural Area from the City with the intent to perpetually preserve and maintain the Natural Area in its natural condition for environmental purposes; and

WHEREAS, On September 12, 2002, and October 22, 2002, the City and the County respectively, executed an Interlocal Agreement (R 2002-1928) for the Parties' cooperative management and preservation of the Natural Area; and

WHEREAS, the Parties intend to make the most efficient use of their powers by continuing to cooperatively manage and preserve the Natural Area in its natural condition for environmental purposes; and

WHEREAS, the Parties wish to enter into a binding Agreement that supersedes and terminates the prior Interlocal Agreement made and entered into by the Parties on October 22, 2002 (R 2002-1928); and

WHEREAS, the Parties desire to herein set forth their mutual understanding and agreement with respect to the use and management of the Natural Area.

1.

NOW, THEREFORE, for and in consideration of the mutual covenants and promises contained herein and of other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

SECTION 1. RECITALS; AUTHORITY TO ENTER INTO AGREEMENT.

1.1 <u>Recitals</u>. The Parties hereto acknowledge and agree that the Recitals set forth above are true and correct, and are incorporated in this Agreement as if fully set forth herein.

1.2 <u>Authority</u>. The Parties are authorized to enter into this Agreement pursuant to Section 163.01, Florida Statutes (2006), known as the "Florida Interlocal Cooperation Act of 1969".

SECTION 2. INTENT. The County purchased the Natural Area from the City with the intent to perpetually preserve and maintain the Natural Area in its natural condition for environmental purposes. In this Agreement, the Parties desire to set forth their mutual understanding and agreement with respect to the Parties' joint responsibilities to manage the Natural Area, to create public use facilities within and immediately adjacent to the Natural Area, and to pay for the costs associated with the construction of such facilities. The Parties wish to set forth their intent that the Natural Area shall be perpetually maintained in its natural condition for environmental purposes and for the publics' enjoyment of its environmental beauty. The County also wishes to set forth its intent to provide the City with the opportunity to repurchase the Natural Area from the County, under certain circumstances, in accordance with the terms and conditions of this Agreement.

SECTION 3. USE OF PROPERTY.

3.1 <u>Use of Property</u>. County and City acknowledge that the Natural Area possesses environmental value of great importance to the City, County and to the people of the City of Boca Raton and Palm Beach County. In order to protect the environmental value of the Natural Area, the Parties agree that the use of the Natural Area shall be perpetually restricted to environmental preservation, protection, mitigation, environmental restoration and maintenance, and for passive use facilities for the people of the City of Boca Raton and Palm Beach County.

3.1.1 <u>Florida Communities Trust</u>. The Parties acknowledge that the County submitted a grant application to the Florida Communities Trust ("FCT") and received a grant to reimburse the County for approximately fifty percent (50%) of the purchase price of the Natural Area. The County has executed and recorded the Grant Award Agreement (the "Grant Award Agreement") with FCT for a grant for the Natural Area, attached hereto as **Exhibit "C"**. The City and County agree that, in the event of any conflict between this Agreement and the Grant Award Agreement, the Grant Award Agreement shall control with respect to the use of the Natural Area.

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SECTION 4. PUBLIC ACCESS; COUNTY IMPROVEMENTS.

4.1 <u>Public Access.</u> The Parties agree that the Natural Area shall be open so that members of the general public may have access to the Natural Area in order to observe, appreciate, and behold its environmental value. In order to provide such public access, the County shall, at the County's cost and expense, design, construct, maintain, repair, and replace a system of walking trails throughout the Natural Area. Such walking trails shall be subject to the approval of the City as required by the City Code existing at the time of construction.

4.2 Blue Lake Pathway. The City agrees to allow the County, at the County's own expense, to place excavated fill from the Natural Area onto the City Property immediately adjacent to the Natural Area for pathway development, shoreline restoration, and littoral shelf creation along the Blue Lake shoreline. The City agrees to allow the County to construct an adjoined, twelve (12) foot wide concrete pathway and elevated boardwalk/bridge system (the "Blue Lake pathway") on the deposited fill beginning at the City's fifty (50) foot easement on the northwest side of Blue Lake and ending at the City pathway bridge connection on the southwest side of Blue Lake. The Parties agree to split the cost fifty/fifty (50/50) for the Blue Lake pathway and agree that it will be compatible and consistent with the proposed private developer pathway to be constructed on the north edge of Blue Lake, where the Blue Lake pathway will connect. The County agrees to work closely with the City and its consultants to prepare separate design/development plans for the Pondhawk portion of the Blue Lake pathway that are consistent and compatible with the City's plans to develop the same types of pathway facilities and amenities on City Property. This design/development collaboration effort is intended to produce pathway and amenity components that are consistent and compatible in design, materials, structure, size, function, purpose, and location for their respective areas. The County also agrees to work closely with the City to prepare design/development plans for a littoral shelf/shoreline restoration project along the Pondhawk portion of the lake shoreline. All design/development plans prepared by the County shall be reviewed and approved by the City prior to construction of the facilities. The County further agrees to work closely with the City and its consultant to help with the preparation of a design/development plan for a littoral shelves/shoreline restoration project along the City's portion of the lake shoreline. All obligations of the County and City hereunder are subject to and contingent upon annual budgetary funding and appropriations by the respective governing bodies. If either of the Parties cannot meet their funding obligation, construction of the Blue Lake pathway shall be delayed until such time that both Parties have reserved funds sufficient to cover the expected cost of the project.

4.3 <u>Timing of Pathway Construction</u>. Subject to regulatory approvals and budget availability, the City and the County agree to simultaneously construct the Blue Lake pathway immediately adjacent to the Natural Area on the west side of Blue Lake and the City pathway on the City Property along the remainder of the Blue Lake shoreline. In the event that the City is not ready to move forward with the City pathway on the City Property at the time that the County is preparing to construct the Blue Lake pathway and the public use facilities in the Natural Area, the County reserves the right to construct the Blue Lake shoreline and to be reimbursed by the City for 50% of the cost to create the Blue Lake pathway. This reimbursement shall be payable within 90 days after receipt of invoice.

requirements in this section are in addition to any requirements and restrictions in the Grant Award Agreement.

SECTION 5. <u>MANAGEMENT PLAN</u>. In addition to the terms and provisions of the Grant Award Agreement, as applicable, the County shall generally preserve and maintain the Natural Area in its natural condition in perpetuity, subject to the terms and conditions of a management plan (the "Management Plan") to be adopted by the County, subject to the review and comment of the City. The Management Plan shall provide that the County shall, at its cost and expense, remove exotic and nuisance vegetation from the Natural Area and perform periodic maintenance and monitoring.

SECTION 6. PROPERTY MANAGEMENT RESPONSIBILITIES.

6.1 Joint Responsibilities.

6.1.1 The County, in cooperation with the City, shall manage the Natural Area for habitat preservation and passive recreation, keeping the Natural Area in its natural state, except for the development and maintenance of fences, firebreaks, hiking trails and other management activities appropriate for a nature preserve. Management activities will initially consist of removal of trash and invasive vegetation from the Natural Area. Long-term management of the Natural Area will require controlling invasive vegetation, monitoring listed plant and animal species, and prescribed burning.

6.1.2 Subject to annual appropriations by the County's Board of County Commissioners and the City of Boca Raton, personnel time and expertise, professional services contracts, equipment, materials and supplies, ongoing site-specific management of the Natural Area will be provided by both Parties. The Parties, separately or jointly, may apply for any funds available from the State of Florida for management purposes and may minimize management cost through the involvement of volunteers.

6.1.3 The Parties shall prepare, separately or jointly, brochures and other educational material describing the natural resources, uses, and joint management of the Natural Area. Any material prepared by one Party shall be submitted to the other Party for its review and comment prior to public presentation/distribution. The cost of any jointly-prepared materials shall be shared equally by the Parties. The costs of any material prepared individually shall be solely that Party's responsibility. Both Parties shall encourage students, residents and visitors to use the Natural Area for educational and passive recreational purposes.

6.1.4 The Parties shall identify the Natural Area as being publicly-owned and operated as a passive, natural resource-based public outdoor recreational site in all signs, literature and advertising.

6.2 <u>Responsibilities of the County.</u>

6.2.1 The County agrees to erect signs and/or monuments identifying the Natural Area as being open to the public, as having been purchased with funds from the State, County, and City, if appropriate, and as being managed by the County, with the cooperation of the City.

6.2.2 The County agrees to plan and pay for physical improvements to the Natural Area that will encourage public use of the Natural Area as a nature preserve. These improvements shall be subject to a budget approved by the Palm Beach County Board of County Commissioners. These improvements may include, but are not limited to, hiking and interpretive trails and an educational display (kiosk). The County shall use its best efforts to plan and construct these facilities, taking into consideration primarily the sensitivity and needs of the biological communities, and secondarily the intended research, educational and recreational uses of the Natural Area. The County shall be responsible for the upkeep of all trails and kiosks constructed on the Natural Area.

6.2.3 The County agrees to secure the Natural Area with fencing, gates and signage to discourage unauthorized activities, such as the dumping of trash and off-road vehicle usage, while permitting public access to the Natural Area for passive recreational activities, environmental education and scientific research. The County shall be responsible for the maintenance of these fences, gates and signs.

6.2.4 The County shall develop a Management Plan and prescribed burn plan for the Natural Area, in consultation with the City. The Management Plan is subject to approval by the FCT and the Palm Beach County Board of County Commissioners.

6.2.5 The Management Plan will provide an opportunity for the County and the City to jointly determine the future of the Natural Area should any unforeseen events or activities, either natural or man-made, severely limit or eliminate the natural values presently on the Natural Area.

6.2.6 Management of all natural areas acquired by the County will be coordinated on a County-wide basis to protect ecosystems and populations of listed species throughout the County.

6.2.7 The County agrees to identify a County employee as a contact person to interact with the City in planning for and managing the Natural Area.

6.2.8 The County agrees to identify a County employee as the public contact person to coordinate group usage and research on the Natural Area and to answer public inquiries about the Natural Area.

6.3 <u>Responsibilities of the City</u>.

6.3.1 The City agrees to assume primary responsibility, with assistance from the Palm Beach County Sheriff's Department, for public safety and law enforcement at the Natural

Area in order to help prevent vandalism, vehicular trespass, dumping, and damage to the Natural Area and its natural resources.

6.3.2 The City agrees to provide weekly garbage pick-up (if trash receptacles are placed adjacent to the Natural Area entrance along the Blue Lake pathway) and will assume responsibility for the daily opening and closing of any gates providing public access to the Natural Area. This responsibility may be delegated to a local resident or stewardship group if approved in writing by both the County and the City.

6.3.3 The City agrees to assist the County, subject to the availability of City funds, staff and equipment, in the long-term management of the Natural Area, including removal of invasive vegetation, trash and debris.

6.3.4 The City agrees to assist the County with periodic prescribed burns at the Natural Area and agrees to assist with maintaining perimeter firebreaks by quarterly mowing of these firebreaks.

6.3.5 The City agrees to review any revisions of the Management Plan and to provide comments to the County thereon.

6.3.6 The City agrees to expeditiously review, through appropriate City departments and boards, any engineering design plans that include the Natural Area, as well as those for the proposed Blue Lake pathway and littoral shelf creation/shoreline restoration project to be built on the City Property by the County and that require approval by the City. The City further agrees to waive any municipal fees, assessments, or permit fees applicable to the Natural Area due to the construction, use or maintenance of public facilities. Impact fees for permanent water and sewer connections, however, shall not be waived.

6.3.7 The City agrees that in reviewing any proposed changes to, uses of, or activities on, real property immediately adjacent to the Natural Area, it shall consider the protection of the biological communities on the Natural Area and the potential for adverse impacts to the species present.

6.3.8 The City agrees to consult with the County on the establishment of new wellfields on City-owned property south of Spanish River Boulevard that could adversely affect the existing or proposed natural resources on the Natural Area and agrees to use its best efforts to minimize wellfield impacts to the Natural Area.

6.3.9 The City agrees to identify a City employee as the contact person to interact with the County in planning for and managing the Natural Area.

SECTION 7. <u>DEVELOPMENT OF CITY PROPERTY</u>. In connection with the City's development of its real property adjacent to the Natural Area, the City intends to adopt a master plan for development that includes and identifies the Natural Area as an environmental preserve pursuant to the City's code requirements. The County agrees not to object, either

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formally, informally or otherwise, to (a) the inclusion of the Natural Area in City's master plan as stated in the previous sentence and/or (b) any comprehensive land use plan amendment and/or rezoning initiated and processed by the City that amends the future land use map designation and/or zoning district designation of the Natural Area to provide for conservation uses.

SECTION 8. DEFAULT: REMEDIES. Notwithstanding any other provisions of this Agreement to the contrary, the County and City covenant and agree for themselves, their successors and assigns, that neither the County nor the City will, whether by action or inaction, permit or allow the breach or violation of the provisions of this Agreement. In the event the County or City breaches or violates the provisions of this Agreement, the non-breaching Party shall provide the breaching Party with written notice specifying the nature of the breach or violation ("Default Notice"). Following receipt of the Default Notice, the breaching Party shall diligently commence and proceed to cure such breach or violation as expeditiously as reasonably possible and, in any case, within thirty (30) days following receipt of the Default Notice; provided, however, if the breach or violation is of a nature that it cannot be cured within thirty (30) days, the breaching Party shall be entitled to additional reasonable time, as agreed to in writing by the non-breaching Party, to cure the breach or violation. It is expressly provided that upon either Party's breach or violation of any of the provisions of this Agreement that extends beyond the cure period as set forth herein, the non-breaching Party is entitled to enforce the terms and conditions set forth herein by any action available at law or in equity including, but not limited to, an action for an injunction as well as availing itself of all other legal and equitable remedies including, but not limited to, an action for money damages, or both.

SECTION 9. **<u>RIGHT OF FIRST REFUSAL</u>**. Subject to the rights of FCT under the Grant Award Agreement, if any, the City shall have the irrevocable, exclusive privilege and right of first refusal, as hereinafter described, to purchase the Natural Area from the County as provided in this Section 9. If the County is, at any time subsequent to the date hereof, negotiating the basic business terms of an arms length sale, transfer, conveyance, lease, license or assignment of the Natural Area or any portion thereof, with a bona fide prospective purchaser, transferee, grantee, lessee, licensee, or assignee (which shall include for all intents and purposes any governmental entity or agency other than the FCT), the County shall promptly notify the City of such negotiations in writing, and such written notice shall state the name of the prospective purchaser, transferee, grantee, lessee, licensee, or assignee, and the essential (but not necessarily final) business terms upon which the County is prepared to sell, transfer, convey, lease, license or assign the Natural Area or any portion thereof. The City shall then have a period of thirty (30) business days from the date of receipt of the County's written notice to notify the County in writing of the City's election to purchase the Natural Area or a portion thereof. Upon the City's exercise of the right of first refusal, the "Purchase Price" for the Natural Area or any portion thereof shall be determined based upon a per acre price of One Hundred Forty Six Thousand Eight Hundred Sixty Two and 00/100 Dollars (\$146,862.00), as adjusted for increases in the index numbers of retail commodity prices designated "Consumer Price Index for all Urban Consumers - United States City Average - All Items" (the "Consumer Price Index") issued by the Bureau Of Labor Statistics, United States Department Of Labor, for the period of time from October 22, 2002 until the City exercises its right of first refusal. Should the Bureau of Labor Statistics cease publishing the above-described Index, then such other Index

as may be published by the United States Department of Labor that most nearly approximates the discontinued Index shall be used in making the adjustments described above. Should the United States Department of Labor discontinue publication of an Index approximating the Index contemplated, then such Index as may be published by another United States governmental agency which most nearly approximates the Index first above referenced shall govern and be substituted as the Index to be used. The City's failure to provide written notice of its intent to purchase the Natural Area or a portion thereof as required in this Section 9 shall be deemed to be a waiver of any rights under this Section 9 as to the presently proposed sale, transfer, conveyance, lease, license or assignment; provided, however, the City's right of first refusal shall continue and apply to any and all subsequent sales, transfers, conveyances, leases, licenses or assignments by the County of the nature herein contemplated. Notwithstanding the foregoing, the City's right of first refusal with respect to leases and licenses shall only apply where the proposed lease or license is for a use of the Natural Area that is not permitted by the Grant Agreement and/or this Agreement, as applicable.

SECTION 10. <u>NOTICES</u>. All notices, consent, approvals and other communications which may be or are required to be given by either the City or the County under this Agreement shall be properly given only if made in writing and sent by (i) hand delivery, or (ii) certified or registered mail, postage prepaid, return receipt requested, with all delivery charges paid by the sender and addressed to the County or City and their attorneys, as applicable, as follows:

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County:

Palm Beach County Department of Environmental Resources Management Attention: Richard E. Walesky, Director 2300 N. Jog Road, 4th Floor West Palm Beach, Florida 33411. Telephone: (561) 233-2400 Facsimile: (561) 233-2414

With copy to:

Shannon Fox, Esq. Assistant County Attorney Palm Beach County Attorney's Office 301 North Olive Avenue, Suite 601 West Palm Beach, Florida 33401 Telephone: (561) 355-2249 Facsimile: (561) 355-6461

City:

City of Boca Raton Attention: City Manager and City Attorney 201 West Palmetto Park Road Boca Raton, Florida 33432 Telephone: (561) 393-7700 Facsimile: (561) 393-7704

Such notices shall be deemed received: (1) if delivered by hand, on the date of delivery or (2) if sent by certified or registered mail, on the date it is received as evidenced by signature on the return receipt. The refusal to accept delivery shall constitute acceptance and, in such event, the date of delivery shall be the date on which delivery was refused. Any change of address must be made by written notice to the other Party and such change shall be effective five (5) days following receipt of such written notice by the other Party. In the event that written notice, demand or request is made as provided herein, then in the event that such notice is returned to the sender by the U.S. Postal System because of insufficient address, or the Party moved or otherwise (but not refusal of acceptance), such notice shall be deemed to have been received by the Party to whom it was addressed on the date that such was initially placed in the U.S. Postal System by the sender.

SECTION 11. GENERAL PROVISIONS.

11.1 <u>Entire Agreement; Amendment</u>. This Agreement, all the Exhibits referenced herein and annexed hereto, and the documents contemplated by this Agreement including, but not limited to, the Grant Award Agreement, contain the final, complete and entire Agreement of the Parties hereto with respect to the matters contained herein, and no prior agreement or understanding pertaining to any of the matters connected with this transaction shall be effective for any purpose. This Agreement may only be amended by an agreement in writing signed by the Parties hereto.

11.2 <u>Governing Law: Venue</u>. This Agreement shall be governed by and construed under the laws of the State of Florida. Venue for any lawsuit filed in connection with this Agreement shall be in Palm Beach County, Florida.

11.3 <u>Interpretation</u>. The titles, captions and paragraph headings are inserted for convenience only and are in no way intended to interpret, define, limit or expand the scope or content of this Agreement or any provision hereto. This Agreement shall be construed without regard to any presumption or other rule requiring construction against the Party causing this Agreement to be drafted.

11.4 <u>Non-waiver</u>. No waiver by the City or County of any provision hereof shall be deemed to have been made unless expressed in writing and signed by such Party. No delay or omission in the exercise of any right or remedy accruing to the City or County upon any breach under this Agreement shall impair such right to remedy or be construed as a waiver of any such breach theretofore or thereafter occurring. The waiver by the City or County of any breach of any term, covenant or condition herein stated shall not be deemed to be a waiver of any other

breach, or of a subsequent breach of the same or any other term, covenant or condition herein contained.

11.5 <u>Severability</u>. This Agreement is intended to be performed in accordance with and only to the extent permitted by applicable law. If any provisions of this Agreement or the application thereof to any party or circumstance shall, for any reason and to any extent, be invalid or unenforceable, but the extent of the invalidity or unenforceability does not destroy the basis of the agreement between the Parties as contained herein, the remainder of this Agreement shall be enforced to the greatest extent permitted by law.

11.6 <u>Exhibits</u>. The Exhibits referred in and attached to this Agreement are incorporated herein in full by this reference.

11.7 <u>No Personal Liability of City or County</u>. The County acknowledges that this Agreement is entered into by a municipal corporation as the City, and the City acknowledges that this Agreement is entered into by a political subdivision of the State of Florida as the County. The City and County agree that no individual county commissioner, council member, board member, administrative official, employee, or representative of the City or County shall have any personal liability under this Agreement or under any document executed in connection with the transactions contemplated by this Agreement.

11.8 WAIVER OF TRIAL BY JURY. THE CITY AND COUNTY HEREBY IRREVOCABLY AND UNCONDITIONALLY WAIVE ANY AND ALL RIGHTS TO TRIAL BY JURY IN ANY ACTION, SUIT OR COUNTERCLAIM ARISING IN CONNECTION WITH, OUT OF OR OTHERWISE RELATING TO THIS AGREEMENT AND ANY OTHER. DOCUMENT OR INSTRUMENT NOW OR HEREAFTER EXECUTED AND DELIVERED IN CONNECTION THEREWITH.

11.9 <u>Police/Regulatory Powers</u>. The Parties cannot, and hereby specifically does not, waive or relinquish any of each party's regulatory approval or enforcement rights and obligations as it may relate to regulations of general applicability which may govern the Natural Area, any improvements thereon, or any operations at the Natural Area. Nothing in this Agreement shall be deemed to create an affirmative duty of each Party to abrogate its sovereign right to exercise its police powers and governmental powers by approving or disapproving or taking any other action in accordance with its zoning and land use codes, administrative codes, ordinances, rules and regulations, federal laws and regulations, state laws and regulations, and grant Agreements. In addition, nothing herein shall be considered zoning by contract.

11.10 <u>Recording</u>. The Parties agree that this Agreement shall be recorded in the Public Records of Palm Beach County at the City's cost and expense.

11.11 <u>Liability.</u> Each Party shall be liable for its owns actions and negligence and, to the extent permitted by law, the County shall indemnify, defend and hold harmless the City against all actions, claims or damages arising out of the County's negligence in connection with this Agreement and any amendment hereto, and the City shall indemnify, defend and hold

harmless the County against all actions, claims or damages arising out of the City's negligence in connection with this Agreement and any amendment thereto. The foregoing indemnification shall not constitute a waiver of sovereign immunity beyond the limits set forth in Section 768.28, Florida Statutes, nor shall the same be construed to constitute agreement by either Party for such other Party's negligent, willful or intentional acts or omissions.

11.12 Insurance. Without waiving the right to sovereign immunity as provided by Section 768.28, Florida Statutes, the County and the City acknowledge to be insured or self-insured for General Liability and Automobile Liability under Florida sovereign immunity statutes with coverage limits of \$100,000 Per Person and \$200,000 Per Occurrence; or such monetary waiver limits that may change and be set forth by the legislature. In the event the County or City maintains third-party Commercial General Liability and Business Auto Liability in lieu of exclusive reliance on self-insurance under Section 768.28, Florida Statutes, the County and City shall agree to maintain said insurance policies at limits not less than \$500,000 combined single limit for bodily injury or property damage. The County and the City agree to maintain or to be insured for Worker's Compensation & Employer's Liability insurance in accordance with Chapter 440, Florida Statutes. When requested, either Party shall provide an affidavit or Certificate of Insurance evidencing insurance, insurance and/or sovereign immunity status, which the other Party agrees to recognize as acceptable for the above mentioned coverages. Compliance with the foregoing requirements shall not relieve the County or the City of its liability and obligations under this Agreement or any amendments hereto.

11.13 <u>Enforcement Costs.</u> Any costs or expenses (including reasonable attorney=s fees) associated with the enforcement of the terms and/or conditions of this Agreement shall be borne by the respective Parties provided, however, that this clause pertains only to the Parties to this Agreement.

11.14 <u>Remedies.</u> No remedy herein conferred upon any Party is intended to be exclusive of any other remedy, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. No single or partial exercise by any Party of any right, power, or remedy hereunder shall preclude any other or further exercise thereof.

11.15 <u>Records</u>. The Parties shall maintain, in accordance with generally accepted governmental auditing standards, all financial and non-financial records and reports directly or indirectly related to the negotiation or performance of this Agreement including supporting documentation for any service rates, expenses, research or reports. The Parties shall have the right to examine, in accordance with generally accepted governmental auditing standards, all records directly or indirectly related to this Agreement. Such examination may be made only within five (5) years from the date of final payment under this Agreement and upon reasonable notice, time and place. In the event that the Parties should become involved in a legal dispute with a third party arising from performance under this Agreement, the Parties shall extend the period of maintenance for all records relating to the Agreement until the final disposition of the legal dispute, and all such records shall be made readily available to the Parties.

(Remainder of this page intentionally left blank)

IN WITNESS WHEREOF, the City and County have caused this Agreement to be executed as of the day and year first above written.

13

CITY:

Attest:

By City Clerk

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Approved as to legal form and sufficiency:

Þ By City Attorney

COUNTY:

ATTEST: NTY SHARON R. BOCK .C CLERK AND COMPTROLLER IN BEACLY 2 sir COUNTY RIDA By

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

M þ By: 2

Assistant County Attorney

CITY OF BOCA RATON, a Florida municipal corporation

Steven L. Abrams, Mayor

(Municipal Seal)

r2008.0457

Date of Execution by County:

MAR 1 1 2008 , 2008

PALM BEACH COUNTY, a Political Subdivision of the State of Florida

Eddie L. Kreene By:____ Addie L. Greene, Chairperson

APPROVED AS TO TERMS AND CONDITIONS:

() By Department Director

SS: COUNTY OF PALM BEACH) The foregoing instrument was acknowledged before me this 5^{-1} day of 4^{-1} day of 4^{-1} and 5^{-1} day of 4^{-1} day of 4^{-1} and 5^{-1} day of 4^{-1} day of 4of the CITY Anessa TRI NOTARY PUBLIC, State of Florida anossa My Commission Expires rint Name: INPS 0607462 ELC STATE OF STATE OF FLORIDA) SS:

COUNTY OF PALM BEACH)

The foregoing instrument was acknowledged before me this ____ day of _____, 2008, by Addie L. Greene, Chairperson of the PALM BEACH COUNTY, FLORIDA, a Political Subdivision of the State of Florida, who (check one) [] is personally known to me or [] has produced a Florida drivers license as identification.

NOTARY PUBLIC, State of Florida

STATE OF FLORIDA)

My Commission Expires:

Print Name:

EXHIBIT "A"

LEGAL DESCRIPTION OF PROPERTY

I

<u>EXHIBIT "A"</u>

LEGAL DESCRIPTION

A PARCEL OF LAND LYING IN SECTION 12, TOWNSHIP 47 SOUTH, RANGE 42 EAST, PALM BEACH COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 12; THENCE SOUTH 01°18'34" EAST, ALONG THE WEST LINE OF SAID SECTION 12, A DISTANCE OF 277.25 FEET; THENCE NORTH 88'41' 26" EAST, 70.00 FEET TO THE EAST RIGHT-OF-WAY LINE OF MILITARY TRAIL (S.R. 809) AS SHOWN ON FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) RIGHT-OF-WAY MAP SECTION 33590-2508 SAME BEING A POINT ON THE SOUTH LINE OF ANDS DESCRIBED IN OFFICIAL RECORD BOOK 6061, PAGE 1614 OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA; THENCE NORTH 45°10'07" EAST, 14.93 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING NORTH 46°10'07" EAST 49.12 FEET; THENCE SOUTH 89°53'57" EAST, 1657.79 FEET; THENCE SOUTH 77°24'12" EAST, 55.46 FEET; THENCE SOUTH 89°53'57" EAST, 1657.79 FEET; THENCE SOUTH 77°24'12" EAST, 55.46 FEET; THENCE SOUTH 89°53'57" EAST, 18.63 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHEAST HAVING A RADIUS OF 40.00 FEET AND A CENTRAL ANGLE OF 55°11'17"; THENCE WESTERLY AND SOUTHWESTERLY ALONG SAID CURVE FOR AN ARC DISTANCE OF 38.53 FEET; THENCE SOUTH 40°46'26" WEST, 22.36 FEET; THENCE SOUTH 72°32'38" WEST, 163.52 FEET; THENCE SOUTH 21°00'53" EAST, 145.31 FEET; THENCE SOUTH 72°32'38" WEST, 163.52 FEET; THENCE SOUTH 21°00'53" EAST, 145.31 FEET; THENCE SOUTH 72°32'38" WEST, 163.52 FEET; THENCE SOUTH 21°00'53" EAST, 244.50 FEET; THENCE SOUTH 72°32'38" WEST, 163.52 FEET; THENCE SOUTH 21°00'33" EAST, 244.50 FEET; THENCE SOUTH 72°32'38" WEST, 163.52 FEET; THENCE SOUTH 21°00'33" EAST, 244.50 FEET; THENCE SOUTH 72°32'38" WEST, 163.52 FEET; THENCE SOUTH 21°00'33" EAST, 244.50 FEET; THENCE SOUTH 70°27'34" EAST, 216.91 FEET, TO THE POINT OF CURVATURE OF A CURVE FOR AN ARC DISTANCE OF 188.76 FEET; THENCE SOUTH 21°03'37" EAST, 244.50 FEET; THENCE SOUTH 40°27'34" EAST, 216.91 FEET, TO A POINT ON CURVE CONCAVE TO THE EAST (A RADIAL BEARING THROUGH SAID POINT BEARS SOUTH 40°03'33" EAST), HAVING A RADIUS OF 581.00 FEET AND A CENTRAL ANGLE OF 188.76 THROES MOTH HIS AST,

EXHBIT "B"

LEGAL DESCRIPTION OF CITY PROPERTY

DESCRIPTON (PARCEL NORTH OF NORTHWEST 40TH STREET)

A PARCEL OF LAND LYING IN A PORTION OF PARCEL 1, AND A PORTION OF PARCEL 3, BOCA TECHNOLOGY CENTER PLAT 1; ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 96, PAGES 178 THROUGH 181, OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA, ALSO LYING IN A PORTION OF SECTION 12, TOWNSHIP 47 SOUTH, RANGE 42 EAST, PALM BEACH COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 12; THENCE SOUTH 01° 18'34" EAST, ALONG THE WEST LINE OF SAID SECTION 12, FOR 277.25 FEET; THENCE NORTH 88° 41'26" EAST (BASIS OF BEARINGS ARE GRID NORTH, (NORTH AMERICAN DATUM 83 (90) ADJUSTMENT), FOR 70.00 FEET TO THE EAST RIGHT OF WAY LINE OF MILITARY TRAIL (S.R. 809), AS SHOWN ON FLORIDA DEPARTMENT OF TRANSPORTATION (F.D.O.T.) RIGHT OF WAY MAP SECTION 93590-2608; THENCE ALONG THE SAID EAST RIGHT OF WAY LINE OF MILITARY TRAIL (S.R. 809), SOUTH 01° 18'34" EAST, FOR 1773.95 FEET; THENCE DEPARTING SAID EAST RIGHT OF WAY LINE OF MILITARY TRAIL, NORTH 88° 41'26" EAST, ALONG THE NORTH LINE OF DEED AS PER OFFICIAL RECORD BOOK 1060, PAGE 59 OF THE PALM BEACH COUNTY PUBLIC RECORDS FOR 500.00 FEET; THENCE SOUTH 01° 18'34" EAST, ALONG THE EAST LINES OF DEEDS, AS PER OFFICIAL RECORD BOOK 1050, PAGE 416, OFFICIAL RECORD BOOK 5270, PAGE 874, AND OFFICIAL RECORD BOOK 1060, PAGE 59, FOR 524.20 FEET; THENCE EASTERLY ALONG THE NORTH RIGHT OF WAY LINE OF N.W. 40TH STREET AS PER ROAD PLAT BOOK 4, PAGES 77 THROUGH 79 OF THE SAID PUBLIC RECORDS THE FOLLOWING FOUR COURSES; SOUTH 89° 53'20" EAST, FOR 101.35 FEET TO THE POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHWEST HAVING A RADIUS OF 2934.79 FEET AND A CENTRAL ANGLE OF 11° 14'45"; THENCE SOUTHEASTERLY ALONG THE ARC FOR 576.03 FEET TO THE POINT OF TANGENCY OF SAID CURVE; THENCE SOUTH 78° 38'35" EAST, 495.76 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE NORTH 00° 00'14" EAST, DEPARTING SAID NORTH RIGHT OF WAY LINE OF N.W. 40TH STREET, FOR 400.95 FEET TO A POINT ON A CURVE CONCAVE TO THE EAST HAVING A RADIUS OF 581.00 FEET, A CENTRAL ANGLE OF 106° 26'14". AND CHORD BEARING OF NORTH 03° 16'40" WEST; THENCE OF 106° 26'14", AND CHORD BEARING OF NORTH 03° 16'40" WEST; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE FOR AN ARC DISTANCE OF 1079.31 FEET; THENCE NORTH 40° 27'35" WEST, 39.00 FEET TO A POINT ON A CURVE CONCAVE TO THE SOUTHEAST HAVING A RADIUS OF 614.36 FEET, A CHORD BEARING OF SOUTH 89° 35'12" EAST AND A CENTRAL ANGLE OF 81° 44'30"; THENCE NORTHEASTERLY AND SOUTHEASTERLY ALONG SAID CURVE FOR AN ARC DISTANCE OF 876.48 FEET; THENCE NORTH 41° 17'03" EAST, 251.25 FEET, TO A POINT ON A CURVE CONCAVE TO THE SOUTHWEST HAVING A RADIUS OF 1003.78 FEET A CENTRAL ANGLE OF 06° 22'23" AND A CHORD BEARING OF SOUTH 44° 39'43" EAST; THENCE SOUTHEASTERLY ALONG SAID CURVE FOR AN ARC DISTANCE OF 111.65 FEET TO A POINT OF REVERSE CURVATURE OF A NON TANGENT CURVE CONCAVE TO THE NORTHEAST, HAVING A RADIUS OF 1472.50 FEET, A CENTRAL ANGLE OF 04° 05'18" AND A CHORD BEARING OF 15° 41'30" EAST; THENCE SOUTHEASTERLY ALONG SAID CURVE FOR AN ARC DISTANCE OF 105.07 FEET TO THE POINT OF TAGENCY; THENCE SOUTH 27° 44'09" EAST, 143.78 FEET TO THE POINT OF CURVATURE OF A CURVE CONCAVE TO THE NORTHEAST, HAVING A RADIUS OF 1172.50 FEET, A CENTRAL ANGLE OF 16° 16'35" AND A CHORD BEARING OF SOUTH 35° 52'27" EAST; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE FOR AN ARC DISTANCE OF 333.08 FEET; THENCE SOUTH 44° 00'44" EAST, 473.50 FEET TO THE POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHWEST, HAVING A RADIUS OF 427.50 FEET, A CENTRAL ANGLE OF 08° 31'13" AND A CHORD BEARING OF SOUTH 39° 45'08"EAST; THENCE SOUTHEASTERLY ALONG SAID CURVE FOR AN ARC DISTANCE OF 63.57 FEET; THENCE NORTH 77° 26'13" EAST, 1.46 FEET; THENCE SOUTH 44° 00'44" EAST, 40.01 FEET TO THE POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHWEST HAVING A RADIUS OF 312.00 FEET, A CENTRAL ANGLE OF 31° 39'31" AND A CHORD

BEARING OF SOUTH 28° 10'59" EAST; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE FOR 172.39 FEET; THENCE SOUTH 12° 29'35" EAST 88.94 FEET; THENCE SOUTH 22° 19'21" EAST, 38.84 FEET; THENCE SOUTH 12° 21'13" EAST, 17.92 FEET; THENCE SOUTH 19° 43'15"EAST, 11.70 FEET; THENCE SOUTH 12° 21'13" EAST, 146.83 FEET TO A POINT ON THE SOUTH BOUNDARY OF PARCEL 1, OF BOCA TECHNOLOGY CENTER PLAT 1, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 96, PAGES 178 THROUGH 181, OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA; THENCE NORTH 89° 59'47" WEST, ALONG SAID SOUTHERN BOUNDARY OF PARCEL 1, FOR A DISTANCE OF 1.60 FEET; THENCE SOUTH 12° 21'12" EAST, 139.50 FEET TO A POINT ON THE NORTH RIGHT-OF WAY LINE OF NORTHWEST 40TH STREET PER SAID BOCA TECHNOLOGY CENTER PLAT 1; THENCE SOUTH 89° 15'38" WEST ALONG SAID NORTH RIGHT-OF-WAY LINE 45.94 FEET; THENCE SOUTH 12° 21'12" EAST, 42.88 FEET, TO A POINT NORTH RIGHT-OF-WAY LINE OF THE AFOREMENTIONED N.W. 40TH STREET; THENCE SOUTH 89° 15'39" WEST, ALONG SAID NORTH RIGHT-OF-WAY LINE FOR 1101.21 FEET TO A POINT NORTH RIGHT-OF-WAY LINE OF THE AFOREMENTIONED N.W. 40TH STREET; THENCE SOUTH 89° 15'39" WEST, ALONG SAID NORTH RIGHT-OF-WAY LINE FOR 1101.21 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE NORTHEAST; HAVING A RADIUS OF 2794.79 FEET AND A CENTRAL ANGLE OF 12° 05'48", THENCE WESTERLY ALONG SAID NORTH RIGHT-OF-WAY LINE AND ALONG SAID CURVE FOR AN ARC DISTANCE OF 590.05 FEET TO THE POINT OF TANGENCY; THENCE NORTH 78° 38'35" WEST, 139.24 FEET TO THE POINT OF BEGINNING.

EXHIBIT "C"

GRANT AWARD AGREEMENT

This document prepared by: Kristen L. Coons Florida Communities Trust Department of Community Affairs 2555 Shumard Oak Blvd. Tallahassee, FL 32399

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GRANT AWARD AGREEMENT

THIS AGREEMENT is entered into this __day of _____, 2004, by and between the FLORIDA COMMUNITIES TRUST ("FCT"), a nonregulatory agency within the State of Florida Department of Community Affairs, and PALM BEACH COUNTY, a political subdivision of the State of Florida, and the CITY OF BOCA RATON, a local government of the State of Florida ("Recipient"), in order to impose terms, conditions, and restrictions on the use of the proceeds of certain bonds, hereinsfier described, and the lands acquired with such proceeds and as described in Exhibit "A" attached hereto and made a part hereof ("Project Site"), as shall be necessary to ensure compliance with applicable Florida Law and federal income tax law and to otherwise implement provisions of Chapters 259.105, 259.1051, and 380, Florida Statutes.

WHEREAS, Part III Chapter 380, Florida Statutes, the Florida Communities Trust Act, creates a nonregulatory agency within the Department of Community Affairs, which will assist local governments in bringing into compliance and implementing the conservation, recreation and open space, and coastal elements of their comprehensive plans or in conserving natural resources and resolving land use conflicts by providing financial assistance to local governments and nonprofit environmental organizations to carry out projects and activities authorized by the Florida Communities Trust Act;

WHEREAS, Section 259.105(3)(c), F.S., of the Florida Forever Act provides for the distribution of twenty-two percent (22%) less certain reductions of the net Florida Forever Revenue Bond proceeds to the Department to provide land acquisition grants to local governments and nonprofit environmental organizations through the FCT for acquisition of community-based projects, urban open spaces, natural resource conservation areas, parks, greenways and outdoor recreation areas to implement local comprehensive plans;

WHEREAS, the Bonds were issued as tax-exempt bonds, meaning that the interest on the Bonds is excluded from the gross income of Bondholders for federal income tax purposes;

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WHEREAS, Rule Chapter 9K-7, Florida Administrative Code (F.A.C.), authorizes FCT to impose conditions for funding on those FCT applicants whose projects have been selected for funding in accordance with Rule Chapter 9K-7, F.A.C.;

WHEREAS, the FCT has approved the terms under which the Project Site was acquired and this Agreement shall contain such covenants and restrictions as are sufficient to ensure that the use of the Project Site shall at all times comply with Section 375.051, Florida Statutes and Section 9, Article XII of the State Constitution and shall contain clauses providing for the conveyance of fille to the Project Site to the Board of Trustees of the Internal improvement Trust Find upon the failure of the FCT Recipient to use the Project Site acquired thereby for such purposes; and

WHEREAS, such covenants and restrictions shall be imposed by an agreement which shall describe with particularity the real property which is subject to the agreement and shall be recorded in the county in which the real property is located; and

WHEREAS, the purpose of this Agreement is to set forth the covenants and restrictions that are imposed on the Project Site subsequent to its acquisition using funds from the Florida Forever Trust Fund award.

NOW THEREFORE, in consideration of the mutual covenants and undertakings set forth herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, FCT and Recipient do hereby contract and agree as follows:

L GENERAL CONDITIONS.

1. Upon execution and delivery by the parties hereto, the Recipient shall cause this Agreement to be recorded and filed in the official public records of Palm Beach County, Florida, and in such manner and in such other places as FCT may reasonably request, and shall pay all fees and charges incurred in connection therewith.

2. The Recipient and FCT agree that the State of Florida Department of Environmental Protection will forward this Agreement to Department of Environmental Protection Bond Counsel for review. In the event Bond Counsel opines that an amendment is required to this Agreement so that the tax-exempt status of the Florida Forever Bonds is not jeopardized, FCT and Recipient shall amend the Agreement accordingly.

3. This Agreement may be amended at any time. Any amendment must be set forth in a written instrument and agreed to by both the Recipient and FCT.

4. This Agreement and the covenants and restrictions contained herein shall run with the Property herein described and shall bind, and the benefits shall inure to, respectively, the FCT and the Recipient and their respective successors and assigns.

5. This Agreement shall be governed by and construed in accordance with the laws of the State of Florida, with respect to both substantive rights and with respect to procedures and remedies.

6. Any notice required to be given hereunder shall be given by personal delivery, by registered mail or by registered expedited service at the addresses specified below or at such other addresses as may be specified in writing by the parties hereto, and any such notice shall be deemed received on the date of delivery if by personal delivery or expedited delivery service, or upon actual receipt if sent by registered mail.

FCT:	Florida Communities Trust
	Department of Community Affairs
	2555 Shumard Oak Blvd.
	Tallahassee, FL 32399-2100
	ATTN: Program Manager
Recipient:	Palm Beach County
	Department of Environmental Resources Management
	3323 Belvedere Road, Building 502
	West Palm Beach, Florida 33406-1548
	ATTN: Director
Recipient:	City of Boca Raton
	201 West Palmetto Park Road
	Boca Raton, Florida 33432-3795
	ATTN: City Manager

If any provision of the Agreement shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired.

II: PROJECT SITE REQUIREMENTS IMPOSED BY CHAPTER 259, CHAPTER 375, AND CHAPTER 380, PART III, FLORIDA STATUTES.

1. If any essential term or condition of this grant agreement is violated by the Recipient or by some third party with the knowledge of the Recipient and the Recipient does not correct the violation within 30 days of notice of the violation, fee simple title to all interest in the Project Site shall be conveyed to the Board of Trustees of the Internal Improvement Trust Fund. The FCT shall treat such property in accordance with Section 380.508(4)(e), Florida Statutes.

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GAA\02-051-FF2 DATE: January 12, 2004

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2. Any transfer of the Project Site shall be subject to the approval of FCT and FCT shall enter into a new agreement with the transferee, containing such covenants, clauses, or other restrictions as are sufficient to protect the interest of the people of Florida.

3. The interest, if any, acquired by the Recipient in the Project Site will not serve as security for any debt of the Recipient unless FCT approves the transaction.

4. If the existence of the Recipient terminates for any reason, title to all interest in real property it has acquired with the FCT award shall be conveyed to the Board of Trustees of the Internal Improvement Trust Fund, unless FCT negotiates an agreement with another local government or nonprofit organization which agrees to accept title to all interest in and to manage the Project Site.

5. In the event that the Project Site is damaged or destroyed or title to the Project Site, or any part thereof, is taken by any governmental body through the exercise or the threat of the exercise of the power of eminant domain, the Recipient shall deposit with the FCT any insurance proceeds or any condemnation award, and shall promptly commence to rebuild, replace, repair or restore the Project Site in such manner as is consistent with the Agreement. The FCT shall make any such insurance proceeds or condemnation award moneys available to provide funds for such restoration work. In the event that the Recipient fails to commence or to complete the rebuilding, repair, replacement or restoration of the Project Site after notice from the FCT, the FCT shall have the right, in addition to any other remedies at law or in equity, to repair, restore, rebuild or replace the Project Site so as to prevent the occurrence of a default hereunder.

Notwithstanding any of the foregoing, FCT will have the right to seek specific performance of any of the covenants and restrictions of this Agreement concerning the construction and operation of the Project Site:

III. PROJECT SITE OBLIGATIONS IMPOSED BY FCT ON THE RECIPIENT.

1. The Project Site shall be managed only for the conservation, protection and enhancement of natural and historical resources and for passive, natural resource-based public outdoor recreation which is compatible with the conservation, protection and enhancement of the Project Site, along with other related uses necessary for the accomplishment of this purpose. The proposed uses for the Project Site are specifically designated in the Project Plan as approved by FCT.

2. The Recipient shall prepare and submit to FCT an annual stewardship report as required by Rule 9K-7.013, F.A.C.

3. The Recipient shall ensure that the future land use designation assigned to the Project Site is for a category dedicated to open space, conservation, or outdoor recreation uses as

appropriate. If an amendment to the Recipient's comprehensive plan is required to comply with this paragraph, the amendment shall be proposed at the next comprehensive plan amendment cycle available to the Recipient.

4. Recipient shall ensure, and provide evidence thereof to FCT, that all activities under this Agreement comply with all applicable local, state, regional and federal laws and regulations, including zoning ordinances and the adopted and approved comprehensive plan for the jurisdiction as applicable. Evidence shall be provided to FCT that all required licenses and permits have been obtained prior to the commencement of any construction.

5. The Recipient shall, through its agents and employees, prevent the unauthorized use of the Project Site or any use thereof not in conformity with the FCT approved project plan.

 FCT staff or its duly authorized representatives shall have the right at any time to inspect the Project Site and the operations of the Recipient at the Project Site.

7. All buildings, structures, improvements, and signs shall require the prior written approval of FCT as to purpose. Further, tree removal, other than non-native species; and/or major land alterations shall require the written approval of FCT. The approvals required from FCT shall not be unreasonably with-held by FCT upon sufficient demonstration that the proposed structures, buildings, improvements, signs, vegetation removal or land alterations will not adversely impact the natural resources of the Project Site. The approval by FCT of the Recipient's management plan addressing the items mentioned herein shall be considered written approval from FCT.

8. If archaeological and historic sites are located on the Project Site, the Recipient shall comply with Chapter 267, Florida Statutes. The collection of artifacts from the Project Site or the disturbance of archaeological and historic sites on the Project Site will be prohibited unless prior written authorization has been obtained from the Department of State, Division of Historical Resources.

9. The Recipient shall ensure that the Project Site is identified as being publicly owned and operated as a passive, natural resource-based public outdoor recreational site in all signs, literature and advertising regarding the Project Site. The Recipient shall erect a sign(s) identifying the Project Site as being open to the public and as having been purchased with funds from FCT and Recipient.

IV. OBLIGATIONS INCURRED BY RECIPIENT AS A RESULT OF BOND PROCEEDS BEING UTILIZED TO PURCHASE THE PROJECT SITE.

1. If the Project Site is to remain subject, after its acquisition by the State and the Recipient, to any of the below listed activities or interests, the Recipient shall provide at least 60

days written notice of any such activity or interest to FCT prior to the activity taking place, and shall provide to FCT such information with respect thereto as FCT reasonably requests in order to evaluate the legal and tax con-sequences of such activity or interest:

a. any lease of any interest in the Project Site to a non-governmental person or organization;

b. the operation of any concession on the Project Site to a non-governmental person or organization;

c. any sales contract or option to buy things attached to the Project Site to be severed from the Project Site, with a non-governmental person or organization;

d. any use of the Project Site by non-governmental persons other than in such person's capacity as a member of the general public;

e. a management contract of the Project Site with a non-governmental person or organization; and

f. such other activity or interest as may be specified from time to time in writing by FCT to the Recipient.

2. Recipient agrees and acknowledges that the following transaction, events, and circumstances may not be permitted on the Project Site as they may have negative legal and tax consequences under Florida law and federal income tax law:

a. a sale of the Project Site or a lease of the Project Site to a non-governmental person or organization;

b. the operation of a concession on the Project Site by a non-governmental person or organization;

c. a sale of things attached to the Project Site to be severed from the Project Site to a non-governmental person or organization;

d. any change in the character or use of the Project Site from that use expected at the date of the issuance of any series of bonds from which the disbursement is to be made;

e. any use of the Project Site by non-governmental persons other than in such person's capacity as a member of the general public;

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f. a management contract of the Project Site with a non-governmental person or organization; and

g. such other activity or interest as may be specified from time to time in writing by FCT to the Recipient.

DELEGATIONS AND CONTRACTUAL ARRANGEMENTS BETWEEN THE RECIPIENT AND OTHER GOVERNMENTAL BODIES, NOT FOR PROFIT ENTITIES, OR NON GOVERNMENTAL PERSONS FOR USE OR MANAGEMENT OF THE PROJECT SITE WILL IN NO WAY RELIEVE THE Recipient OF THE RESPONSIBILITY TO ENSURE THAT THE CONDITIONS IMPOSED HEREIN ON THE PROJECT SITE AS A RESULT OF UTILIZING BOND PROCEEDS TO ACQUIRE THE PROJECT SITE ARE FULLY COMPLIED WITH BY THE CONTRACTING PARTY.

V. CONDITIONS THAT ARE PARTICULAR TO THE PROJECT SITE AS A RESULT OF THE FCT APPROVED MANAGEMENT PLAN.

1. Two or more resource-based outdoor recreational facilities including a nature trail and wetlands observation deck, shall be provided. The facilities shall be designed and located with minimal impact to natural resources on the Project Site.

2. A permanent recognition sign shall be maintained in the entrance area of the Project Site. The sign shall acknowledge that the Project Site is open to the public and was purchased with funds from the Florida Communities Trust Program, Palm Beach County, and the City of Boca Raton.

3. Interpretive signage shall be provided to educate visitors about the natural environment of the Project Site.

4. A biological inventory of the natural communities found on the Project Site, including the dominant and listed plant and animal species, shall be conducted prior to any site development. The inventory shall be used to ensure the protection of biological resources and be updated periodically.

5. The natural communities that occur on the Project Site shall be preserved and appropriately managed to ensure the long-term viability of these communities.

6. The Project Site shall be managed in a manner that protects and enhances habitat for native wildlife species that utilize or could potentially utilize the site, including gopher tortoise and Florida mouse. The development of the management plan shall be coordinated with the Fish and Wildlife Conservation Commission's Office of Environmental Services to ensure the preservation

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DATE: January 12, 2004

and viability of native wildlife species and their habitat. Periodic surveys shall be conducted to ensure that site management is compatible with the listed species using the Project Site.

7. A prescribed burn plan shall be implemented for the scrub and flatwoods communities. A vegetation analysis of the remainder of the Project Site shall be performed to determine which areas of the Project Site need a prescribed burn regime to maintain fire-dependent natural communities. If a prescribed burning regime is found to be necessary and feasible, the development of a prescribed burn plan shall be coordinated with the Division of Forestry and the Florida Fish and Wildlife Conservation Commission.

8. Any proposed stormwater facility for the Project Site shall be designed to provide recreational open space or wildlife habitat.

9. The area adjacent to the parking area and a buffer around the parking area shall be landscaped with native plant species to provide wildlife habitat and enhance the function and appearance of the Project Site.

10. At least five acres of the degraded wetland community shall be restored in terms of biological composition and ecological function.

11. An ongoing monitoring and control program for invasive vegetation including exotic (non-native) and nuisance native plant species shall be implemented at the Project Site. The objective of the control program shall be the elimination of invasive exotic plant species and the maintenance of a diverse association of native vegetation. The Management Plan shall reference the Exotic Pest Plant Council's List of Florida's Most Invasive Species to assist in identifying invasive exotics on the Project Site.

12. A feral animal removal program shall be developed and implemented, as necessary, for dogs, cats, ducks, and other non-native wildlife that may be found on the Project Site.

13. Prior to the commencement of any proposed development activities, measures shall be taken to determine the presence of any archaeological sites. All planned activities involving known archaeological sites or potential site areas shall be closely coordinated with the Department of State, Division of Historic Resources in order to prevent the disturbance of significant sites.

14. The location and design of the parking and other site improvements shall have minimal impact on natural resources. The parking area shall incorporate pervious material wherever feasible.

15. Pedestrian and bicycle access to the Project Site shall be promoted through the provision of pedestrian oriented walkways and bicycle facilities that link the Project Site with adjacent residential neighborhoods. Bike parking stands shall be installed at the Project Site to provide an alternative to automobile transportation to the Project Site.

16. The project site shall provide an additional destination point along the City of Boca Raton Bicycle, Pedestrian, Greenways and Trail Plan system. The proposed project site improvements shall include trailbead facilities and a pedestrian trail accessible from the City's multipurpose trail network.

17. Proposed site improvements shall be designed and located to minimize or eliminate the long-term risk of storm damage or flooding in conjunction with appropriate hazard mitigation agencies or experts.

18. The requirements imposed by other grant program funds that may be sought for activities associated with the Project Site shall not conflict with the terms and conditions of this Agreement.

This Agreement including Exhibit "A" embodies the entire agreement between the parties. IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement.

By

PALM BEACH COUNTY

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Walcsky, Director at of Environmenta

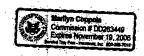
Witness: en Print) Tulie Aden

Print Name: US II Channer R 2004 0906 Mar 18 200

Approved as to Form and Deg B. Print Nam

STATE OF FLORIDA COUNTY OF PALM BEACH

The foregoing instrument was acknowledged before me this 5th day of FEBYuay y-2004, by Richard E. Walesky as Director of Elph of behalf of the Local Government, and who is personally known to me.



GAA\02-051-FF2 DATE: January 12, 2004 Marty Coppets______ Notary Public Print Name: Mar (19 Coppets Commission No. D0263449

R2004 0906 MAY 18 2004 Wit CITY OF BOCA RAT wato4 Store irea ute Print Name: Sharma Caronnantes Name: Steve Abrams Title: An Ulch Name: Shuson Michaire ۲, Date: Yehrwary 2. . . Ń 2004 Print Name: ÷ c Approved as to Form and Legality: By_______A.O. Waterly Print Name John O. Meldinchy STATE OF FLORIDA COUNTY OF PALM BEACH The foregoing instrument was acknowledged before me this 2^{10} 2004, by <u>Stered L. Abarnes</u> as <u>Hauss</u> of behalf of the Local Government, and who is personally known to me of Culy of Bica Storts on . 10 3. Hines DD142915 2004 Jani Notary Public Notary Public Print Name: <u>University</u> J. <u>Hines</u> Commission No. <u>DD/H3665</u> My Commission Expires: <u>10/14/06</u> Vonesac ISSION # THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK GAA\02-051-FF2 DATE: January 12, 2004 10

R2004 0906

MAY 1 8 2304

FLORIDA COMMUNITIES TRUST By: John Life My Kathy Baughman McLeod, Community Program Manager By: Long

Ton Print N Tenre Rebecca

BRIAL LOS

2/20/04 Date

proved as to frorm and Legality: Ap By

STATE OF FLORIDA COUNTY OF LEON

Witnes:

Print Na

The foregoing instrument was acknowledged before me this 20 day of 2004, by Janice Browning of Director of Housing and Community Directorme personally known to me. An Dougland McLess, Community RegRam Trift She is

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Notary Public Print Name: Commission No. My Commission nission Expires;



EXHIBIT "A"

LEGAL DESCRIPTION

A PARCEL OF LAND 1 YING IN SECTION 12, TOWNSHIP 47 SOUTH, RANGE 42 EAST, PALM BEACH COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A PARCEL OF LAND LYING IN SECTION 12, TOWNSHIP 47 SOUTH, RANGE 42 EAST, PALM BEACH COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

GAA\02-051-FF2 DATE: January 12, 2004

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Palm Beach County and City of Roca Raton Blue Lake Scrub FCT Project #02-051-772 Date: January 7, 2004 GRANT AWARD CALCULATION TOTAL PROJECT COSTS Land Purchase Price \$11,558,744.33(1) Acquisition Expenses Appraisals \$6,105.00 Appraisal Review \$1,984.50 Environmental Audit \$2,400.00 Total Acquisition Expenses \$ 10,489.50(2) Total Project Costs \$11,569,233.83 COMPUTATION OF GRAFT AWARD AND LOCAL MATCH AMOUNT FCT Award Computation Share of Purchase Frice Share of Acquisition Expenses Total Share of Project Costs \$5,779,372.16 5,244.75 \$ 5,784,616.91(3) City AND COUNTY Share of Purchase Frice Share of Acquisition Expenses Total Share of Project Costs \$5,779,372.17 _____5,244.75 \$_5,784,616.92 \$11,569,233.83 Total Project Costs COMPUTATION OF PREPAIDS, REINSURSEMENTS AND ADDITIONAL COSTS FLORIDA CONCUNITIES TRUST FCT Prepaid Project Costa Appraisal Review Total Prepaid Costs \$<u>1,984.50</u> \$1,984.50 FCT Amount Dua Shara of Total Project Costs \$5,784,616.91 Less Total Prepaid Costs _____1,984.50 Total Amount Dua from FCT \$5,782,632.41 CITY ME COUNTY roject Comts \$11,558,744.33 \$ 6,105.00 000 2.40<u>0.00</u> City AND County Prepaid Pr Land Purchase Price Appraisals Survey (in-house) Environmental Audit Total Prepaid Costs \$ 2,400.00 \$ 11,567,249.33

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Palm Beach County and City of Boca Raton Blue Lake Scrub FCT Project #02-051-FF2 Date: January 7, 2004 Page 2

City and County Amount Due

City and County Share of Total Project Costs Less City and County) Prepaids \$ 5,784,616.92 \$<u>11,567,249.33</u>

Total Amount Due To City and County \$5,782,632.41

City and County Additional Costs Record Grant Award Agreement \$55.50(4) Total Additional Costs \$55.50

Notes:

(1) Maximum approved purchase price is \$15,000,000.00 pursuant to memorandu dated August 15, 2003, from Mark F. Zegel, MAI, SRA to Janice Browning. The County acquired the property on July 29, 2002 at a price of \$11,558,744.33.

(2) Pursuant to the terms of the sale and purchase agreement, the seller paid the costs of title insurance.

AULS

(3) the cost Pursuant to the terms of the Conceptual Approval Agreement, the amount of grant shall be the lesser of \$5,786,000.00 or \$0% of the total project

Disbursed to Clerk of the Court, Palm Beach County, at time of mursement from PCT. (4) rei

sts is hereby The foregoing calculation of grant award and total project approved by the undersigned.

PALM 18-Wale А Print Name: Richard E Walesky Title: Director Department of Env Re Feb 5 2004 Date:

JETY:

. Or Steven L. Abrams Print Name:

. Director ing, DIVISI Of H

d. afto Form and Legality: Approved By AllA Kristen I ons Trust Counsel

NEYOT . Title: 212/04

Date:

DATED at West Peim Ber DOROTHY H. WILKEN.

COUNTY COM D.C. Bv:

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STATE OF FLORIDA, COUNTY OF PACING BEACH I, SHARON R. BOCK, Clerk & Comptroller certify this to be a true and correct copy of the Missian filed in my office on MAR 1 2008 UN Fr dated at West Palm Beach FL on 2006 Hou dated at West Palm Beach, FL on 3 t West Fam. Deputy Clerk By:

APPENDIX G

FIRE MANAGEMENT PLAN FOR

PONDHAWK NATURAL AREA

APPENDIX G

FIRE MANAGEMENT PLAN FOR PONDHAAWK NATURAL AREA

This plan contains generalized procedures that apply to all burns conducted on Pondhawk Natural Area (natural area) (also see Section 4.4.1 of the natural area management plan). Prescribed burn units (burn units) are typically equivalent to the site's management units (see Figure 4 of the natural area management plan). A prescribed burn plan shall be prepared for each burn unit during the burn planning process.

1. GOALS

The primary goal of the prescribed burn program is to reintroduce fire to the basin marsh, mesic flatwoods, scrub and scrubby flatwoods natural communities at a frequency and intensity that will maintain these communities in various stages of maturity within the natural area. Ideally, the prescribed fire will be allowed to burn in a "patchy" fashion to mimic natural fire patterns. The resulting patchwork of burned and unburned areas within a burn unit will produce a mosaic of vegetation, thereby maximizing diversity within and among communities. This will provide habitat for species which typically use, or may even be restricted to, communities in a particular state of maturity. Additional goals related to the reintroduction of fire include: 1) improving habitat for plant and animal species, including listed species that depend upon fire-maintained communities; 2) helping to control invasive/non-native vegetation; and 3) reducing fuel loads to prevent catastrophic wildfires. Unit-specific goals will be established as part of each burn prescription including a desired percent consumption of ground cover and understory, and acceptable percent crown scorch and consumption.

2. GENERAL PROCEDURES

The Incident Command System is used on all prescribed burns. This system uses a preestablished chain-of-command to ensure that all communications and activities related to the prescribed burn are conducted in an organized manner. Since the Incident Command System is used by Palm Beach County Fire-Rescue and the Florida Department of Agriculture and Consumer Services' Florida Forest Service (FFS), staff from these agencies can easily assist during a prescribed burn if additional personnel are needed.

2.1 Personnel

The Palm Beach County Department of Environmental Resources Management (ERM) will provide the personnel necessary to conduct prescribed burns. Additional personnel may be requested from Palm Beach County Fire-Rescue, Palm Beach County Parks and Recreation Department, FFS, the Florida Park Service, the Florida Fish and Wildlife Conservation Commission, and City of Boca Raton Fire Rescue Services.

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Each burn team will be headed by an Incident Commander (IC) who will supervise the prescribed burn. The IC will receive authorization from FFS for any prescribed burn, oversee the burn, and make final decisions and adjustments during the burn. The IC, who may be assisted by staff, will prepare the prescribed burn plan, conduct pre-burn coordination with other agencies and homeowners' groups, make crew assignments and coordinate communications.

2.2 Equipment

ERM will provide the equipment necessary to conduct prescribed burns. All burn crew shall wear Nomex fire-resistant outer clothing, leather lace-up boots with non-slip soles, fire-resistant gloves, a plastic firefighter's helmet and eye protection, and shall carry an emergency fire shelter and personal drinking water. All crew members have been issued radios for communication during burns. A first-aid kit shall be kept in each truck.

ERM also will supply 4-wheel-drive pickup trucks (equipped with water tanks, pumps, and hoses), all-terrain vehicles, round-point shovels, fire rakes, fire flaps and drip torches for crew use during the prescribed fire. Other fire-suppression equipment such as tractor-mounted plow units, pumper trucks and fire engines may be supplied by assisting agencies.

2.3 Pre-burn Activities:

- Prepare specific burn prescription plan for each burn unit
- Complete pre-burn notifications
- Establish perimeter firebreaks
- Inspect burn unit to identify potentially hazardous areas or species protection needs
- Assemble and inspect necessary equipment
- Make burn crew assignments
- Prepare maps and materials for pre-burn briefing
- Notify local agencies, officials, adjacent residents and businesses
- Arrange for law enforcement and backup assistance, if necessary
- Monitor weather forecasts as the proposed burn day approaches

2.4 Burn Day Activities:

- Obtain burn authorization from FFS
- Mobilize burn crew and equipment
- o Notify adjacent residents and others who have requested prior notification of the burn
- Post burn notices on site and on adjacent highways and other roads, as needed
- Obtain weather forecast for burn unit and other information necessary to determine that burn parameters will comply with prescription
- Coordinate with Palm Beach County Sheriff's Office to have deputies notify visitors to the natural area of the need to leave the site because of the pending burn
- Conduct pre-burn safety and ignition plan briefing for burn team

- Monitor weather forecasts and record on-site weather data
- Conduct test fire; conduct main burn if test fire is successful
- Mop-up and extinguish hot spots

2.5 Post-burn Activities:

- Monitor burn for rekindling of fire
- Remove burn notice signs
- Conduct post-burn review and briefing
- Evaluate burn for success in meeting environmental objectives; conduct post-burn monitoring at regular intervals
- Evaluate burn plan and burn crew for areas of improvement

3. FIRE MANAGEMENT PRESCRIPTION PREPARATION

A burn prescription will be developed for each burn unit prior to conducting a prescribed burn within that unit. The burn prescription is a carefully prepared legal document that provides strategies for reintroducing fire to the natural area in the safest manner possible. Preparation of the fire prescription involves the consideration of several factors, including, but not limited to:

- Size, location and boundaries of the burn unit
- Topography and soils of the burn unit
- o Habitat type, density and crown height
- Fuel load
- Proximity of smoke-sensitive areas and any precautions taken to avoid impacts to adjacent communities, businesses and public infrastructure
- Weather-related conditions, including Dispersion Index, Drought Index, temperature, wind speed and relative humidity
- Fire behavior, including fire methods, desired behavior and outcome
- Post burn evaluations
- Fine fuel moisture
- Staffing and equipment availability
- Time needed to complete the burn
- Specific goals and objectives