

ARCH CREEK PARK MANAGEMENT PLAN

Miami-Dade County
Parks, Recreation and Open Spaces Department
275 N.W. 2nd Street
Miami, FL 33128



ARCH CREEK PARK MANAGEMENT PLAN

Updated: September 30, 2020

SUBMITTED TO:

Division of State Lands
Office of Environmental Services

PREPARED FOR:



Miami-Dade County Parks, Recreation and Open Spaces Department

PREPARED BY:



2122 Johnson Street Fort Myers, Florida 33901

Management Plan for Natural & Non-Natural Resource Properties

This management plan form is intended for all Board of Trustees leases and subleases that are less than 160 acres in size. It is intended to address the requirements of Chapter 253.034 and 259.032, Florida Statutes, and 18-2.021, Florida Administrative Code.

Board of Trustees of the Internal Improvement Trust Fund Lease #3052

LAND MANAGEMENT PLAN EXECUTIVE SUMMARY

Lead Agency: Miami-Dade County Parks, Recreation and Open Spaces Department (MDPROS)

Common Name of Property: Arch Creek Park

Location: 1885 NE 135 Street, North Miami Beach, Florida, 33181

Total Acreage: 9.81± Acres (8.60± Acres within Lease #3052 and 1.21± Acres in the County

Owned Addition).

Acreage Breakdown: Land Cover Classification Acreage

Natural Area Preserve $9.81\pm$

Use: Single ___ Multiple X Primary Uses: Passive Recreation and Conservation

Management Responsibility: Agency Responsibility

MDPROS/EEL Management
MDPROS/EEL Maintenance
MDPROS/EEL Programming

Designated Land Use: Passive Recreation and Conservation

Sublease(s): None

Encumbrances: None

Type Acquisition: The State of Florida Board of Trustees of the Internal Improvement Trust

Fund (TIITF) acquired the property from the City of North Miami Beach via Quit-Claim Deed dated September 9, 1974. Miami-Dade County leased the property from the TIITF in 1979 for a conservation and recreation area

now known as Arch Creek Park.

Unique Resources: Natural Archaeological/Historical

Natural Area Preserve State-Registered Archaeological Site

Management Needs: Daily garbage pick-up; maintenance; security; invasive plants treatments

Acquisition Needs/Acreage: None

Surplus Land Needs/Acreage: None

Public Involvement: Volunteer based, as needed

LIST of ABBREVIATIONS & APPENDICES

ABBREVIATIONS (Alphabetical Order)

BMPs Best Management Practices

DERM/RER Miami-Dade County Division of Environmental Resource Management,

Department of Regulatory and Economic Resources

EEL Miami-Dade County, Environmentally Endangered Lands Program

FDEP Florida Department of Environmental Protection

FDOT Florida Department of Transportation

FNAI Florida Natural Areas Inventory

FWC Florida Fish and Wildlife Conservation Commission

FWS U.S. Fish and Wildlife Service

NAM Natural Areas Management, a division of MDPROS

MDPROS Miami-Dade County Parks, Recreation and Open Spaces Department

SFWMD South Florida Water Management District

TIITF State of Florida Board of Trustees of the Internal Improvement Trust Fund

APPENDICES

Appendix A-1. Arch Creek Park Site Map

Appendix A-2. Arch Creek Park Site Aerial

Appendix B. Arch Creek Park Trails Map

Appendix C. Arch Creek Park Trails Map with Proposed Improvements

Appendix D. Adjacent Conservation Areas Map

Appendix E. USDA Soils Map

Appendix F. Arch Creek Park Property Map

Appendix G Arch Creek Northern Archaeological Zone Map

Appendix H. Division of Historical Resources Report

Appendix I. FNAI Report (March 2020)

Appendix J. FDOT Drainage Project Photo Documentation

LIST of ABBREVIATIONS & APPENDICES

A. GENERAL INFORMATION

- 1. Common name of the property: Arch Creek Park
- 2. Lease Number: 3052
- 3. Acres: 9.81± [8.60± Acres within Lease #3052 and 1.21± Acres in the Miami-Dade County, Environmentally Endangered Lands Program (EEL) Owned Addition]
- 4. Managing Agency: Miami-Dade County Parks, Recreation and Open Spaces Department (MDPROS)/EEL
- 5. Provide an executive summary/description of this property that includes a brief description of the resources, uses and proposed uses, outstanding features etc.

An Executive Summary is provided at the front of this document.

- 6. Attach a map showing the location and boundaries of the property including:
 - a) The location and type of structures or improvements currently on the property
 - **Appendix A-1** Arch Creek Park Site Plan
 - **Appendix A-2** Arch Creek Park Site Plan with Aerial Imagery
 - **Appendix B** Arch Creek Park Trails Map
 - b) The location and type of proposed improvements.

Appendix C – Arch Creek Park Trails Map with Proposed Interpretive Signs

7. Attach a map showing the proximity of this managed area to other conservation areas within 10 miles.

Please refer to the Adjacent Conservation Areas Map in **Appendix D** that illustrates the following areas: the mean high-water line of the Atlantic Ocean (containing State Sovereign Submerged Lands) approximately 2.5 miles east of Arch Creek Park; Biscayne Bay Aquatic Preserve located approximately 0.5 miles east of Arch Creek Park; the Florida Intracoastal Waterway located approximately 1.0 mile east of Arch Creek Park; Oleta River State Park located approximately 1.5 miles northeast of Arch Creek Park; and John U. Lloyd State Park located approximately 8.5 miles north of Arch Creek Park, in Broward County.

8. Please provide a legal description of the property.

The 9.81± acres that comprise Arch Creek Park are described by Miami-Dade County tax Folio Nos. 06-2220-014-0312, 07-2220-014-0301, 07-2220-014-0310, 07-2220-014-0300, 07-2221-002-0340, and 07-2221-002-0350, located in Sections 21 and 28, Township 52, Range 42. **Table 1** below provides an overview of the referenced folio numbers and acreage as identified on the Miami-Dade County Property Appraiser's website.

TABLE 1. Property Owners

Miami-Dade County Folio	Property Owner	Acreage
06-2220-014-0312	TIITF	1.99
07-2220-014-0301	TIITF	0.75
07-2220-014-0310	TIITF	5.86
07-2220-014-0300	Miami-Dade County	1.14
07-2221-002-0340	Miami-Dade County	0.03
07-2221-002-0350	Miami-Dade County	0.04

9. Provide a physical description of the land including a quantitative data description of the land which includes an inventory of forest and other natural resources, exotic and invasive plants, hydrological features, infrastructure including recreational facilities, and other significant land, cultural or historical features.

Arch Creek Park is approximately 9.81 acres comprised predominantly of native habitats, with less than 0.5 acres having been cleared to accommodate park infrastructure and amenities.

The native habitat onsite can be characterized as a disturbed tropical hammock, which has been altered over the past several decades by surrounding commercial development. Predominant native plants in the park include several large live oaks (Quercus virginiana), gumbo limbo (Bursera simaruba), cabbage palm (Sabal palmetto), pigeon plum (Coccoloba diversifolia), strangler fig (Ficus aurea), wild banyan tree (Ficus citrifolia), and wild lime (Zanthoxylum fagara). Rare species documented onsite include several State Endangered or Threatened plants including cardinal airplant (Tillandsia fasciculata var. densipica), giant airplant (Tillandsia utriculata), northern needleleaf (Tillandsia balbisiana), satinleaf (Chrysophyllum oliviforme), and Florida Keys blackbead (Pithecellobium keyense). Native understory consists predominantly of firebush (Hamelia patens), sugarberry (Celtis laevigata), saw palmetto (Serenoa repens), and wild coffee (Psychotria nervosa).

Invasive exotic vegetation comprises less than 1% total cover on the property due to the continued efforts by MDPROS Natural Areas Management (NAM) personnel. Where it does exist, invasive exotic vegetation is primarily characterized by air potato (*Dioscorea bulbifera*), creeping oxeye (*Sphagneticola trilobata*), and jasmine (*Jasminum* spp.).

Although not included within the park acreage, Arch Creek runs through the southwest portion of the property, near the park entrance. Park amenities and infrastructure near the entrance include the nature center, gravel parking, and stabilized access. The South Florida Water Management District (SFWMD) maintains a water monitoring station on the Creek, just north of the park entrance and south of a natural limestone bridge that crosses the creek. The stabilized access extends along the western property edge to the northern developed portion of the site, which includes a picnic shelter, fire circle, and secondary pedestrian entrance into the park. At grade trails traverse the native habitat, providing passive recreation and educational opportunities between the front and back gates of the park.

Of historic and cultural significance, the unused roadbed between the railroad right-of-way (west of the property) and the Arch Creek Addition is the site of the historic Military Trail. The Trail was the primary corridor for troop movement during the Seminole Wars of the 19th century and then became the first county road (later known as the Dixie Highway), which served as the main north-south route for early pioneers in Florida.

10. A brief description of soils types attaching USDA maps when available.

Arch Creek Park is comprised of an Urban land (Soil ID 15), Opalocka sand-rock outcrop complex (Soil ID 22), and Dade fine sand (Soil ID 41). A soils map is included as **Appendix E**.

11.	Is the property	adjacent t	to an aquatic preserve or designated area of critical state conc	cern?
	YES		NO <u>X</u>	
	If YES, plea	se identif	fy:	

12. Was the property acquired by a conservation land acquisition program?

Arch Creek Park was leased from the State of Florida, TIITF, in 1979 as a conservation and recreation area. The lease is for a term of fifty years and expires on October 20, 2028, at which time MDPROS intends to renew or extend the lease agreement.

13. Do any agency-specific statue requirements or legislative/executive directives constrain the use of the property? (These restrictions can frequently be found in the lease).

If YES, please identify:

The Arch Creek Park title is retained by the State of Florida and leased to MDPROS to manage. The adjoining Arch Creek Addition is owned by the County's Environmentally Endangered Lands (EEL) Program (Arch Creek Park Property Map – **Appendix F**). As a result of two different entities holding separate titles to Arch

Creek Park and Arch Creek Addition, a Management Plan for the entire property accommodates EEL and State of Florida requirements.

Per County Code section 24-A-13 (1), lands purchased with EEL program funds are required to prepare/be subject to Management Evaluation that is reviewed/approved by the EEL Project Review Committee. A ten-year management plan was prepared and implemented in 2005. The ten-year plan is periodically reviewed by PROS and EEL to ensure the plan remains consistent with both County and State requirements related to the preservation of the site's natural resources.

The Arch Creek Park must also comply with State and County regulatory requirements related to the preservation of the site's historical/archaeological resources, as it was designated by the Miami-Dade County Preservation Board as Arch Creek Northern Archaeological Zone (Northern Archaeological Zone Map – **Appendix G**).

14.	Are there any reserves or encumbrances on the property
	YES NO <u>X</u> _
	If YES, please identify:

B. NATURAL AND CULTURAL RESOURCES

15. Are there any archaeological or historical site on this property?

a) How do you plan to locate, protect, and preserve these resources?

The archaeological and historical sites were previously located and identified in the Division of Historical Resources Report (**Appendix H** – Division of Historical Resources Report). The unused roadbed between the railroad right-of-way and the Arch Creek Park is the site of the historic Military Trail. The trail was the primary corridor for troop movement during the Seminole Wars of the 19th century and then became the first county road (later known as the Dixie Highway), which served as the main north-south route for early pioneers in Florida. Arch Creek Park has the potential of yielding significant features or artifacts associated with the 19th century settlement of Arch Creek and the adjacent Military Trail, surveyed by Captain Abner Doubleday in 1856.

The park continues to protect and preserve these resources through conservation, while educating park visitors on early pioneer Florida. Prior to any site disturbance the site is assessed to ensure no archaeological or historical sites are disturbed.

b) Please describe the actions the agency plans to take to locate and identify unknown Resources such as surveys of unknown archeological or historical sites.

Additional surveys will be done prior to any site disturbance.

16.	Are there an	y buildings	on the	property	that are	efifty	or more	vears	old?

YES ____ NO <u>X</u>_

If YES,

- a) Please identify: Not Applicable.
- b) Have these buildings been evaluated by a historian or historic architect to determine their historical and/or architectural significance. If YES, please identify both the building(s) and the evaluator(s): N/A.
- c) Please state whether any such buildings are listed in the Florida Master Site File, National Register of Historic Places or a local register of historic places and identify such buildings.

No structures or buildings are listed.

By law, the managing agency must consult with the Division of Historical Resources with regard to any proposed land clearing or ground disturbing activities or with regard to any proposed rehabilitation, restoration, or demolition of structures 50 or more years old. Please contact the Division of Historic Resources if you would like to obtain information on archeological/historical site.

Division of Historical Resources Florida Department of State R.A. Gray building, MS-8 Tallahassee, Florida 32399 (850) 245-6312

17. Please identify natural resources on the property that are in the Florida Natural Areas Inventory.

A Biodiversity Matrix Query was run through the Florida Natural Areas Inventory (FNAI) in March 2020 (**Appendix I** – FNAI Report). With the exception of the Hawksbill sea turtle and manatee, all the species contained within the report could be supported to some degree by the site's natural habitats. Additionally, portions of the park are comprised of the imperiled rockland hammock habitat (FNAI, 2010).

18. Are any imperiled natural communities, unique features, or State and federally listed endangered or threatened plant or animal species on site?

YES <u>X</u> NO ___

If YES, please provide a specific description of how you plan to identify, locate, protect, and preserve these species.

Arch Creek Park and Preserve is a tropical hardwood hammock, with natural communities associated. An ecosystem consisting of broad leaf trees and shrubs and vines, nearly all of which native to the West Indies and South Florida. Hardwood hammocks form a dense canopy with a tangle of shrubs and vines at ground level. Most hammocks have been lost to development, leaving small patches of hammock habitat in South Florida. The wildlife that inhabit a hammock is derived almost entirely from South Eastern Temperate North America and the West Indies.

The site has been restored to maintenance condition by removal of exotic plant species, leaving less than one percent total cover. The remaining exotic species that continue to be treated, as needed, include air potato, creeping oxeye, jasmine, rosary pea, and guinea grass.

Should any significant vegetation removal become necessary in the future, surveys will be conducted by qualified personnel to ensure there is no direct or adverse secondary impacts to State, Federal, or County listed species.

The FNAI report provides guidance to Park staff on the protected plant species that may utilize the site. NAM and EEL routinely conduct site monitoring, inspection reports, and inventories. Staff would contact the Florida Department of Agriculture and Consumer Services, and/or the Florida Department of Environmental Protection (FDEP), as required to ensure the protection of any found species. If any protected animal species are observed within the park, conservation guidelines outlined by U.S. Fish and Wildlife Service (FWS), Florida Fish and Wildlife Conservation Commission (FWC) will be followed.

19. Please identify the water resources including swamps, marshes or other wetlands on the property including the water quality classification for each water body if the water body has been designated "Outstanding Florida Waters".

No Outstanding Florida Waters are located on the property. Arch Creek runs through the southwestern portion of the Park and is designated as a Class III water system by FDEP standards. The banks along Arch Creek are colonized by mangroves. Although there may be areas of lower elevation subject to inundation during the rainy season, the remainder of the site is comprised of disturbed oak hammock and rockland hammock habitats.

20. Are any known mineral resources, such as oil, gas and phosphates, or any unique natural features, such as coral reefs, beaches, dunes, natural springs, caverns, large sinkholes, virgin timber stands, scenic vistas, and natural rivers and streams, and outstanding native landscapes containing relatively unaltered flora, fauna, and geological features on site?

If YES, please identify and provide locations of these resources on a map.

Arch Creek is a natural stream with a natural limestone bridge. As a historical crossing, the limestone bridge was well known and widely used by both natives and settlers.

The natural bridge has been restored structurally. Both the stream and bridge are important and unique natural features within this highly developed urban area.

21. Are there fish or wildlife resources (both game and non-game) on the property?

YES _X_ NO ___

If YES, please describe:

Arch Creek Park's natural landscape provides habitat for a variety of listed and non-listed wildlife year-round. No hunting or fishing is allowed on the property. Please refer to the FNAI report in Appendix I for listed wildlife that may use the property, as applicable to the appropriate onsite habitat.

C. USAGE OF THE PROPERTY

22. Please provide a statement of purpose for which the lands were acquired, the projected use or uses as defined in Chapter 253.034, Florida Statues, and the statutory authority you have for such uses.

Miami-Dade County leased the property from the State of Florida because of its value as a historic, natural conservation, and passive recreation area. The property contains an archaeological site, former military trail, and natural oak and rockland hammock habitats, which make it unique. MDPROS and EEL continue to manage the use of the property for these purposes and educate the public about these important resources.

23. Please state the desired outcome for this property, and key management activities necessary to achieve the desired outcome, including public access.

The County desires to continue to manage the property for public recreational use and conservation of unique natural resources, while also educating the public about the historic natural resources. The natural areas and trails are maintained by MDPROS-NAM staff and volunteers. Interpretative programs and displays in the Nature Center provide information about the site history and natural resources.

In May 2019, MDPROS submitted a grant proposal to the Florida Department of State Division of Historical Resources requesting grant funds for interpretive signage along Arch Creek Park's nature trail, updates for the park's self-guided trail brochure, and replication of archaeological artifacts significant to the site for education use.

Also key to park management and educational opportunities for the public is the site's nature center, which serves as the welcome point for Arch Creek Park and the users' first experience with natural history displays/exhibits that highlight the archaeological/historical significance of the site. MDPROS intends to maintain the structure through ongoing maintenance and repair efforts, but if funding became available, a new nature center may be developed to better serve the public.

24.	Please state the single or multiple uses currently made of the property and if the property is
	single use, please provide an analysis of its potential for multiple-use.

Single ____ Multiple _X_ use(s) is/are: Passive Recreation and Conservation.

25. Were multiple uses considered but not adopted?

If YES, please describe why: N/A.

26. Please provide an analysis of the potential use of private land managers to facilitate the restoration or management of these lands.

No analysis of the potential use of private land managers to facilitate the restoration or management of this land was sought due to the success of the management activities currently provided by EEL and MDPROS-NAM division.

27. Please provide an analysis of the potential of the property to generate revenues to enhance the management of the property.

Arch Creek Park does not charge an entrance fee to its visitors. Opportunities for the Park to generate revenues are balanced with the conservation aspect of the Park. Guided tours and educational programs are offered periodically to generate revenue. The nominal fees received for these activities are invested back into the Park. Excessive foot traffic may impact the natural resources the Park is intended to preserve. With this in mind, it is the goal of MDPROS to provide quality educational and passive recreational experiences for the public while protecting the natural resources onsite. A carrying capacity of 70 students with 10 teachers/parent chaperones may be introduced to minimize negative impacts to the Park. The schedule and carrying capacities of the tours and programs will be continually assessed, as necessary, depending on the resulting impacts observed.

28. Describe the project, current and recent past uses of the property, and any unauthorized uses, if known.

The project is a passive use park used for recreational, conservation, and educational opportunities. It is comprised of a nature center, over 9 acres of natural habitat with at-grade trails, interpretive signage, benches, picnic shelter, fire pit, and associated parking. The natural areas of the park have been restored to maintenance condition by removal of exotic vegetation, leaving less than one percent total cover by undesirable plant species. The remaining exotic species are highly invasive species such as air potato, creeping oxeye and jasmine that NAM continues to treat on a routine basis.

Arch Creek Park has the potential to encompass archaeological features and artifacts associated with the Northern Arch Creek Archaeological Zone, and the associated archeological sites. Tequesta Indians inhabited the area from 500 B.C. to 1300 A.D,

as had been documented through archaeological artifacts having been identified on the adjacent Arch Creek Addition.

Arch Creek Park also serves as an integral part of connecting the community directly to early Florida pioneer history. The roadbed along the railroad right-of-way is the site of the historic Military Trail. The historic Military Trail was the primary corridor for troop movement during the Seminole Wars of the 19th century and then became the first county road (later known as the Dixie Highway), which served as the main north-south route for early pioneers in Florida. The Arch Creek property has the potential of yielding significant features or artifacts associated with the 19th century settlement of Arch Creek and the adjacent Military Trail, surveyed by Captain Abner Doubleday in 1856.

Please refer to the Arch Creek Trails Map with proposed Interpretive Signs in Appendix C for illustration of the referenced historical resources.

29.	Do the planned uses impact renewable and non-renewable resources on the property?
	YES NO <u>X</u> _
	If YES, please describe what specific activities will be taken to protect or enhance and conserve those resources and to compensate/mitigate the damage that is caused by the impacting use.
	The current and planned uses of the park have a minimal impact on the renewable and non-renewable resources on the property, due to MDPROS diligent management of the park as a natural area with a passive recreational facility.
30.	Should any parcels of land within or adjacent to the property be purchased because they are essential to management of the property?
	YES NO <u>X</u> _
	If YES, please attach a map of this area.
31.	Are there any portions of this property no longer needed for your use? YES NO _X_
	If YES, please attach a map of this area.
32.	Please describe public uses and public access that would be consistent with the purpose for

Nature trails run throughout the park and are used for both guided and self-guided tours. The picnic shelter, fire circle, and nature center provide the setting for educational programs, such as the Junior Naturalist program and the Wednesday night Ghost Tours. The nature center offers interpretive exhibits and educational opportunities about the renewable and non-renewable resources of the area and the importance of their protection through proper park and natural areas management.

which the property was acquired.

D. Management Activities

33. If more than one agency manages this property describe the management responsibilities of each agency and how such responsibilities will be coordinated.

Miami-Dade County does not receive funds or assistance from the State of Florida for the management/maintenance of Arch Creek Park. The property is managed by MDPROS and the County's Department of Environmental Resources Management (DERM) EEL. MDPROS-NAM Division receives reimbursement from the EEL program to maintain the natural areas. In 2020, EEL reimbursed \$13,200 to MDPROS-NAM for regular monitoring of exotic vegetation and routine maintenance of the nature trails.

34. Please discuss management needs and problems on the property including conservation of soil and water resources and control and prevention of soil erosion and water and soil contamination.

The Arch Creek area is prone to flooding. In March 2016, the Florida Department of Transportation (FDOT) was granted a temporary construction easement within Arch Creek Park to be used as a staging area for the public drainage project on the adjacent State Road 916/NE 135th Street right-of-way. The portion of the park utilized by FDOT during this project was a sodded area of the park located adjacent to the roadway and did not contain any natural forest area habitat. This project consisted of realigning the culverts near the southwest entrance of Arch Creek Park to improve area drainage. Following the completion of the project in November 2018, FDOT restored the easement area to its natural grade and reseeded the area. Please refer to **Appendix J** for photo documentation of the FDOT drainage improvement project.

Any future improvements shall be designed to have the least environmental impacts practical through proper siting and conservation best management practices (BMPs) in order to not contribute to the regional flooding concerns.

A build-up of debris in Arch Creek comes from upstream and gets trapped by the SFWMD monitoring station within the park, is reoccurring and must be addressed on a continual basis. As of October 2019, the SFWMD removes the debris quarterly to maintain the aesthetics and water quality of Arch Creek.

35. Identify adjacent land uses that will conflict with the planned use of this property, if any.

Arch Creek Park is bordered on the north by the 1.2-acre Arch Creek Addition (owned by EEL), and on the west by the former Dixie Highway right-of-way. The property is bordered on the south by commercial development along NE 135 Street, and on the east by U.S. Highway 1 (Biscayne Boulevard) and commercial development. These adjacent land uses do not represent a conflict to the continued use of the Park.

36. Please describe measures used to prevent/control invasive non-native plants

The NAM Division of MDPROS conducts routine monitoring and treatments of invasive non-native plants, as needed, to maintain less than 1% total cover of invasive plants.

37. Was there any public or local government involvement/participation in the development of this plan?

YES <u>X</u> NO ___

If YES, please describe:

Public participation was part of the planning efforts during the formation of the original Arch Creek Management Plan. Public workshops were held during the creation of the plan, in which citizens were presented with park development concepts and were given a chance to ask questions and make comments. Prior to each meeting, residents within a 700-1,500-foot radius were notified by U.S. mail. Meetings and workshops were also advertised in local newspapers.

Since Arch Creek Park is under 160 acres in size, public participation specific to this management plan update was not required. However, MDPROS encourages community involvement and feedback related to the park's management on an ongoing basis. Community input continues to be gathered through public meetings, park events, and suggestions received through the park manager, online and social media sites.

The Friends of Miami-Dade Arch Creek Park, "Arch Creek Trust," is a supportive, non-profit and engaged partner with a membership that meets monthly to support the park and preserve, as needed, which is another limited source for public participation.

38. If an arthropod control plan has been established for this property, please include it as an attachment. If one does not exist, provide a statement as to what arrangement exists between the local mosquito control district and the managing agency. See Chapter 388.4111 regarding mosquito control on public lands.

Miami-Dade County Mosquito Control provides mosquito control measures as well as courtesy inspections and reports, as needed. However, to adhere to NAM BMPs, regular chemical treatments within the natural areas onsite are avoided. If necessary due to health-related concerns, organic pesticide may be used in spraying applications on a limited basis.

39. Management Goals – The following 8 goals may not all be applicable to your site. Write N/A where appropriate. Please add as many goals, objectives, and measures as you wish.

Arch Creek Park is approximately 9.81 acres comprised predominantly of native habitats, with less than 0.5 acre developed to accommodate park infrastructure and amenities. It is used for passive recreation and educational purposes and represents conservation of native vegetative communities and historical/archaeological sites within the urban setting of Miami-Dade County. The onsite habitat is managed to keep exotic vegetation below 1% cover, but due to the park's small size and location in the surrounding landscape, many of the management goals outlines in the eight (8) tables below are not applicable to the site.

1. Habitat restoration and improvement (Description): N/A. Habitat restoration is not needed on the property. The natural onsite habitat, comprised predominantly of 9± acres of remnant oak hammock with the urban setting of Miami-Dade County, is in maintenance condition. NAM conducts routine inspections and treats invasive exotic vegetation on an on-going basis. See Core Object #5 below.

Core Objectives	Measure	Timeframe 2 yrs. = Short Term 10 yrs. = Long Term	Expenses and Personnel Budget
Prescribed burn N/A acres per year	Acres burned per year: N/A	_	
Maintain N/A acres per year within target fire return interval	Acres within fire return interval: N/A	_	_
Conduct habitat/ natural community improvement on N/A acres	Acres with restoration underway (already at maintenance condition at <1% exotic plant cover; no improvement needed): N/A	_	
Conduct habitat/ natural community restoration activities on N/A acres	Acres restored (already at maintenance condition at <1% exotic plant cover; no improvement needed): N/A	_	_
Conduct timber harvest for the purposes of habitat restoration on N/A acres	Acres harvested: N/A	_	_

2. Public access and recreational opportunities (Description): Public access to the nature center and on the associated trails is present within the site, this includes a picnic shelter, fire circle, and benches. At grade trails traverse the native habitat, providing passive recreation and educational opportunities throughout the park. A Junior Naturalist program, summer camps, guided trail walks, and volunteer workdays are just a few of the public recreational opportunities and environmental education programs offered throughout the year.

Core Objectives	Measure	Timeframe 2 yrs. = Short Term 10 yrs. = Long Term	Expenses and Personnel Budget
Continue to maintain public access and accessibility standards for public recreational opportunities	Continue to provide public access to recreational opportunities; conduct daily inspections of recreational facilities and trail conditions to ensure public access; perform routine evaluations and report priority maintenance needs.	Within 10 years renovate 1 publicly accessible facility to maintain access.	Routine maintenance budget and personnel are included in existing operations and no additional expenses are foreseeable to meet this objective.
Restore public access and recreational opportunities to the site as soon as feasible after storm events or other natural disasters.	After storm event, perform site visit to evaluate safety for public access. Evaluate the conditions of the facilities and determine restoration needs.	Report damage assessments to FEMA, as needed for FEMA reimbursement.	Cost estimates for restoring safe public access to the facility, would be conducted immediately after storm event; used to develop budget.
Develop additional events to promote recreational and environmental education opportunities, additional programming, (within the limitations of the site, i.e. parking available and carrying capacity of the site)	Develop additional partnerships; new materials for visitor self-guided tour opportunities; special events; more community engagement opportunities	Within 2 years, develop 1 more event. Within 10 years, develop 3 more events.	Expenses: additional budget for materials including printing costs Personnel: additional staff time and graphic consultant to create new materials
Continue to provide and improve upon the existing 9 interpretive/education programs per month, providing for an increased number of participants per program. Expand on new platforms for delivering environmental education programs and activities to reach a broader audience.	Continue to improve the quality of interpretive/ education programs by 1-2 programs per year; Pre and Post evals for educational programs and surveys for public programs provide metrics of the quality of the programming.	Continue to revise programs on an ongoing basis based on pre/post evals and public surveys. Programs are revised directly upon feedback when feasible.	Goal to expand budget to improve and enhance programs and hire additional staff of 1 or 2 more Interpretive Specialists, as funds become available.

3. Hydrological preservation and restoration (Description): Although not included within the park acreage, Arch Creek runs through the southwest portion of the property, near the Park entrance. The FDOT recently completed culvert renovations to improve Arch Creek's hydrologic flow under the roadway adjacent to the Park. The SFWMD maintains a water monitoring station on the creek and conducts quarterly debris removal and waterway cleanups, just north of the Park entrance and south of the natural limestone bridge that crosses the creek. SFWMD conducts the site assessments as needed for their management of the creek and regional hydrological drainage restoration needs.

Arch creek provides the Park the opportunity to develop educational programs regarding the importance of the creek, historic water flow, and the importance of water quality standards. Arch Creek Parks itself is a natural hammock and has no need to be hydrologically restored.

Core Objectives	Measure	Timeframe 2 yrs. = Short Term 10 yrs. = Long Term	Expenses and Personnel Budget
Continue to enhance and preserve natural hydrologic condition of Arch Creek while promoting the cultural and hydrologic importance of Arch Creek.	MDPROS is developing interpretive programs specific to the importance of Arch Creek, historical waterflow, and value of environmental protections for water quality.	Within 2 years Within 10 years X	These programs will continue to be further developed as resources become available.

4. Sustainable forest management (Description): County staff conduct routine evaluations of the natural habitats onsite and maintain a log of the locations of exotic or invasive nonnative vegetation to be treated and locations of threatened and endangered plant species observed. Arch Creek Park is managed conservation, not for traditional forest management objectives related to timber harvesting and managing timber stands.

Core Objectives	Measure	Timeframe 2 yrs. = Short Term 10 yrs. = Long Term	Expenses and Personnel Budget
Prepare & implement a silviculture management plan including reforestation, harvesting, prescribed burning, restoration, and timber stand improvement activities and goals.	Silviculture management plan complete? Y N X Acres managed for silvicultural management N/A		_
Develop and implement a process for conducting stand descriptions and forest inventory including a GIS database containing forest stands, roads & other attributes (including but not limited to: threatened & endangered species, archeological resources, exotic species locations, historical areas)	Complete GIS database and re-inventory all attributes every 3-5 years or as needed: N/A	_	<u></u>

5. Exotic and invasive species maintenance and control (Description): Invasive exotic vegetation comprises less than 1% total cover on the property due to the continued efforts by EEL and NAM personnel. Natural areas of Arch Creek Park represent a healthy managed forest, minimal maintenance and control is required on an annual basis to maintain the forest with less than 1% cover of invasive or exotic species. Maintenance costs are further minimized through implementation of volunteer workdays throughout the year.

Core Objectives	Measure	Timeframe 2 yrs. = Short Term 10 yrs. = Long Term	Expenses and Personnel Budget
Continue to Maintain the <1% total cover of invasive plants across all 9 acres.	Continue to inspect 9 acres annually, and if necessary, treat any areas with found invasive species	Ongoing	Avg cost of annual exotic maintenance event based upon current conditions is approximately \$500-1k per acre.
Implement control measures on exotic and nuisance animal species: N/A	Nuisance and exotic species for which control measures are implemented: N/A	_	_

6. Capital facilities and infrastructure (Description): The existing stabilized access that runs along the western property line is the only roadway existing/needed for the site. Approximately 0.75 miles (1 ± acres) of at-grade trails traverse the natural habitats onsite. No additional trails are proposed at this time. The nature center and picnic shelter represent the major facilities on the property, with the picnic shelter having been recently replaced. Should funding become available, improvements and/or a re-build of the nature center may be considered to better serve the growing use of the park.

Core Objectives	Measure	Timeframe 2 yrs. = Short Term 10 yrs. = Long Term	Expenses and Personnel Budget
Continue to maintain all existing facilities, existing maintenance and access roads, and all existing trails on site (as applicable).	Maintain the facilities, approximately 0.75-mile trails maintained/year.	Annual maintenance ongoing.	Existing personnel and budget; no additional needed.
Continue to construct sustainable (LEED/BMP) public park facilities. Improve restroom facilities. Expand storage capacity/construct storage facility. Create a multipurpose area for expanding educational programs and events. Create raised trail boardwalk where needed in low-land areas due to flooding and for archeological site preservation	As funding becomes available, continue to enhance and improve existing facilities and enhance trail system for improve accessibility	As funding becomes available (within reason for the carrying capacity of the site)	As funding becomes available (within reason for the carrying capacity of the site); continue to apply for grant funding sources for such improvements.
To improve infrastructure of site: improve WiFi/fiberoptic/etc. for improved communications and internet; improved security system installation; electrical/water/sewer system improvements as needed.	As funding becomes available.	Within 2 years X Within 10 years X	As funding becomes available (both a long term and a short-term goal).

7. Cultural and historical resources (Description): Previously recorded archaeological sites and historical standing structures have been identified in the vicinity of Arch Creek Park (Appendix H – Division of Historical Resources Report). Of historic and cultural significance within the park site itself, the unused roadbed along the railroad right-of-way (west of the property) is the site of the historic Military Trail. The Trail was the primary corridor for troop movement during the Seminole Wars of the 19th century and then became the first county road (later known as the Dixie Highway), which served as the main north-south route for early pioneers in Florida.

Core Objectives	Measure	Timeframe 2 yrs. = Short Term 10 yrs. = Long Term	Expenses and Personnel Budget
Continue to ensure all known sites are recorded in the FL Division of Historical Resources Master Site file.	Additional surveying where needed to record additional sites if applicable	Ongoing	As needed, and as funding becomes available
Continue to monitor currently recorded sites and send updates to DHR Master Site file, as needed.	Recorded sites continue to be monitored on an as needed basis, after storm events.	Ongoing	As needed, and as funding becomes available

8. Imperiled species habitat maintenance, enhancement, restoration, or population restoration (Description): Botanists from the Fairchild Botanical Gardens conducted a Floristic Inventory of Arch Creek Park. They continue to assist Miami-Dade County by providing an updated Floristic Inventory of the site on an as needed basis following storm events. Rare species documented onsite include several State Endangered or Threatened plants including cardinal airplant, giant airplant, northern needleleaf, satinleaf, and Florida Keys blackbead. Prior to any site work, NAM and EEL personnel conduct field reviews in the subject area to ensure there are no direct imparts to threatened and endangered species.

Core Objectives	Measure	Timeframe 2 yrs. = Short Term 10 yrs. = Long Term	Expenses and Personnel Budget
Maintain baseline inventory of imperiled species occurrence list	Baseline imperiled species occurrence inventory list complete Y X N	_	_
[If applicable, provide additional measurable objective(s) for new or ongoing species-specific management activities for each of the priority species such as population augmentation, translocations, nest box projects, etc.] N/A	Examples: Project-specific quantity, of nest boxes, # of individuals: N/A		_

40. Costs.

		Yearly Estimate Cost			
<u>Activity</u>		Priority Cost	Other Management Cost	Cost Effective Methods	
Resource Management		\$14,000		Volunteer days	
Administration	Overhead costs; administration; operations; cleaning; rental supplies; utilities; tele- communications	~\$29,200 for 40% of two Interpretive Program Leader's time and ~\$32,600 for 60% of one Interpretive Program Supervisor's time	~\$3,000 for Utilities ~\$15,000 rental supplies (copier, golf cart) ~\$7,500 for telecommunications and other misc. admin costs ~\$2,000 materials/supplies	PROS on-site staff provides routines site maintenance, janitorial and all other administrative activities	
Support		N/A	N/A	Arch Creek Trust	
Capital Improvements		\$34,400*		Grant funding; CIIP	
Recreation Visitor Services	Program development Preparation time Program Delivery	• ~\$43,800 for 60% of two Interpretive Program Leader's time • ~\$21,750 for 40% of one Interpretive Program Supervisor's time	~\$2,500 Recreational Supplies	Season Staff; Volunteer days; as needed programs	
Law Enforcement Activities				Provided by Miami- Dade County Police as needed, and Parks Enforcement	

^{*}contingent on grant funding.

41. A finding regarding whether each planned use conforms to the appropriate policies and guidelines of the State Lands Management Plan is required. The Plan can be found at http://www.dep.state.fl.us/lands/oes/slmp.pdf, by writing to the State of Florida Department of Environmental Protection, Division of State Lands, Office of Environmental Services, 3900 Commonwealth Boulevard, Mail Station 140, Tallahassee, Florida 32399-3000, or by calling (850) 245-2784. Does this plan conform to the State Lands Management Plan?

YES <u>X</u> NO ___

42. Please provide the following contact information below:

Name: Jessica Blackwell, MDPROS Planning Property Management

Managing Agency: MDPROS

Address: 275 NW 2nd Street, Suite 430, Miami, FL 33128

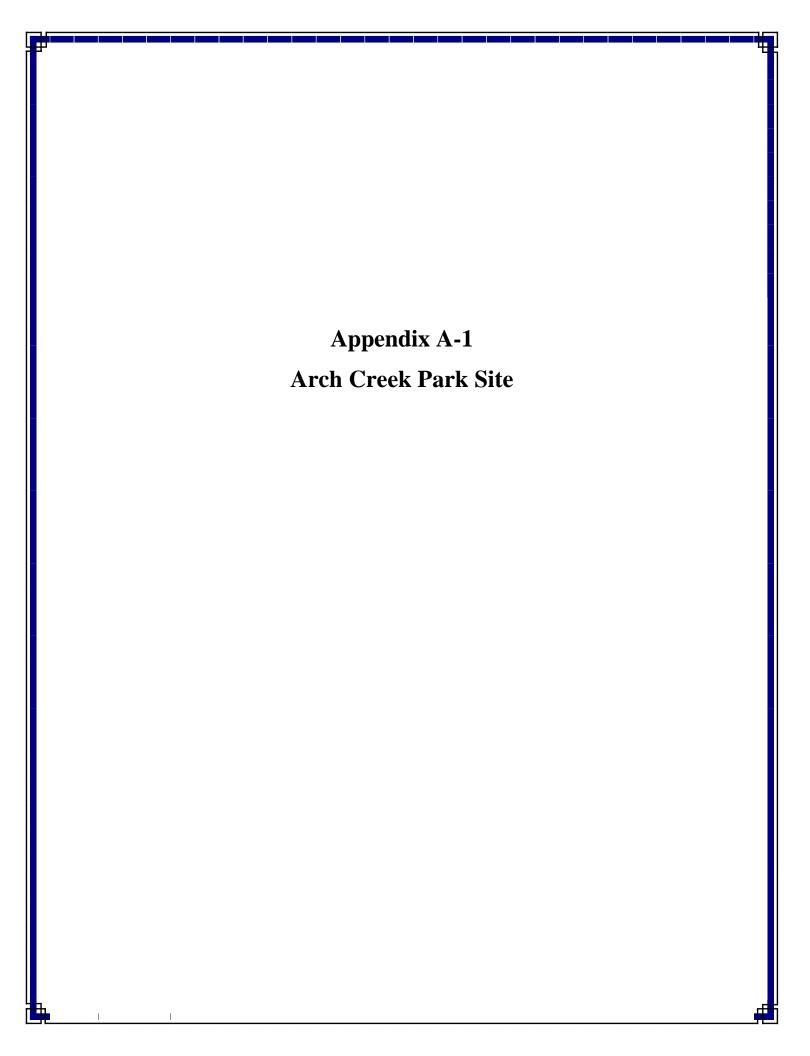
Phone: 305-755-7860

Email Address: Jessica.Blackwell@miamidade.gov

Date Management Plan Was Prepared: March – September 2020

Please send this completed form and attachments to:

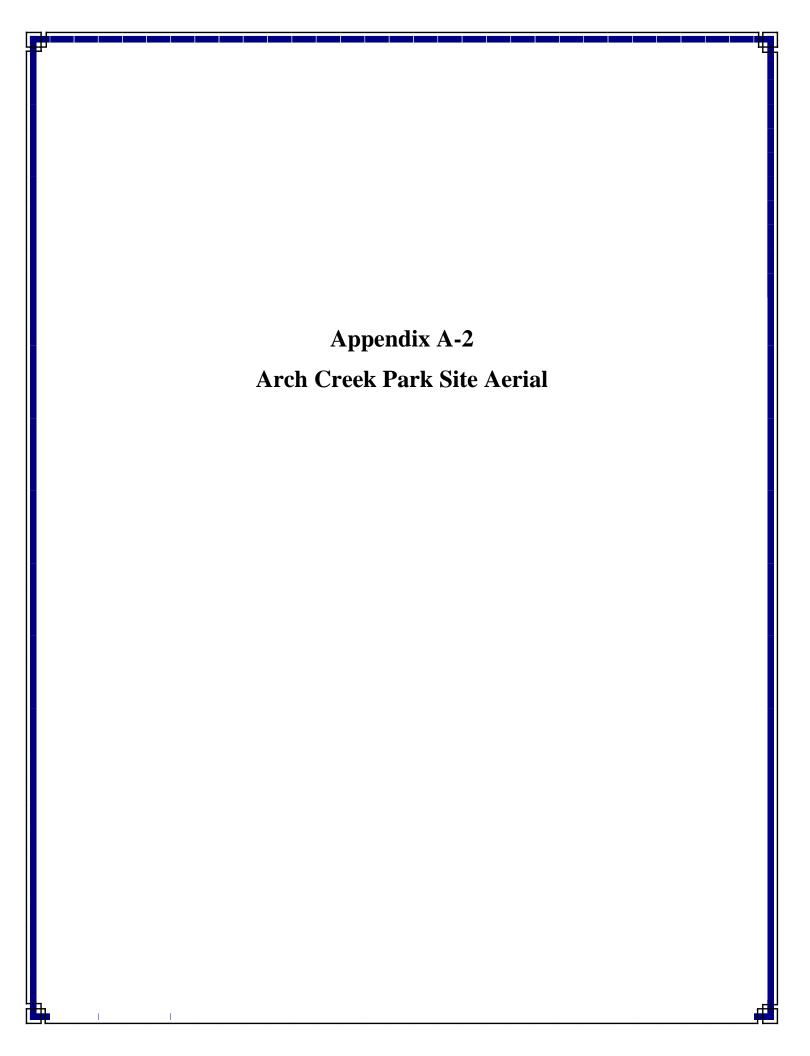
james.parker@dep.state.fl.us
Division of State Lands
D.E.P. M.S. 140
3900 Commonwealth Blvd.
Tallahassee Fl. 32399-3000
850-245-3045



Appendix A-1

Map Created Date: May 18, 2020

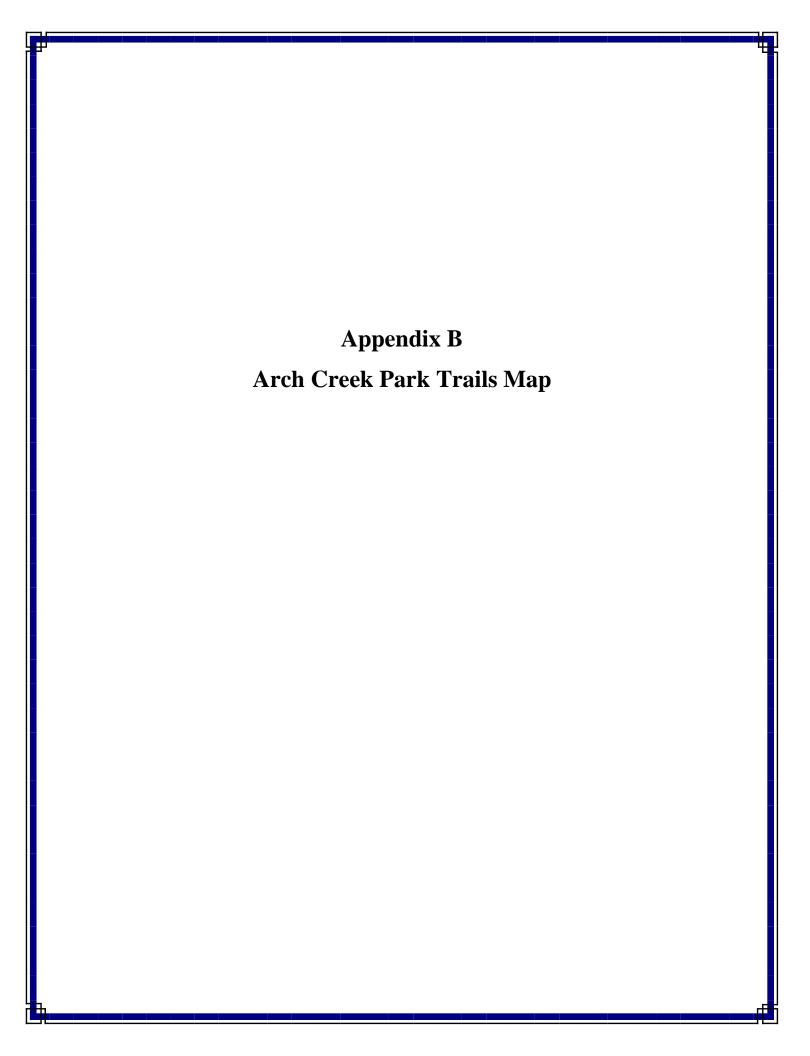




Appendix A-2

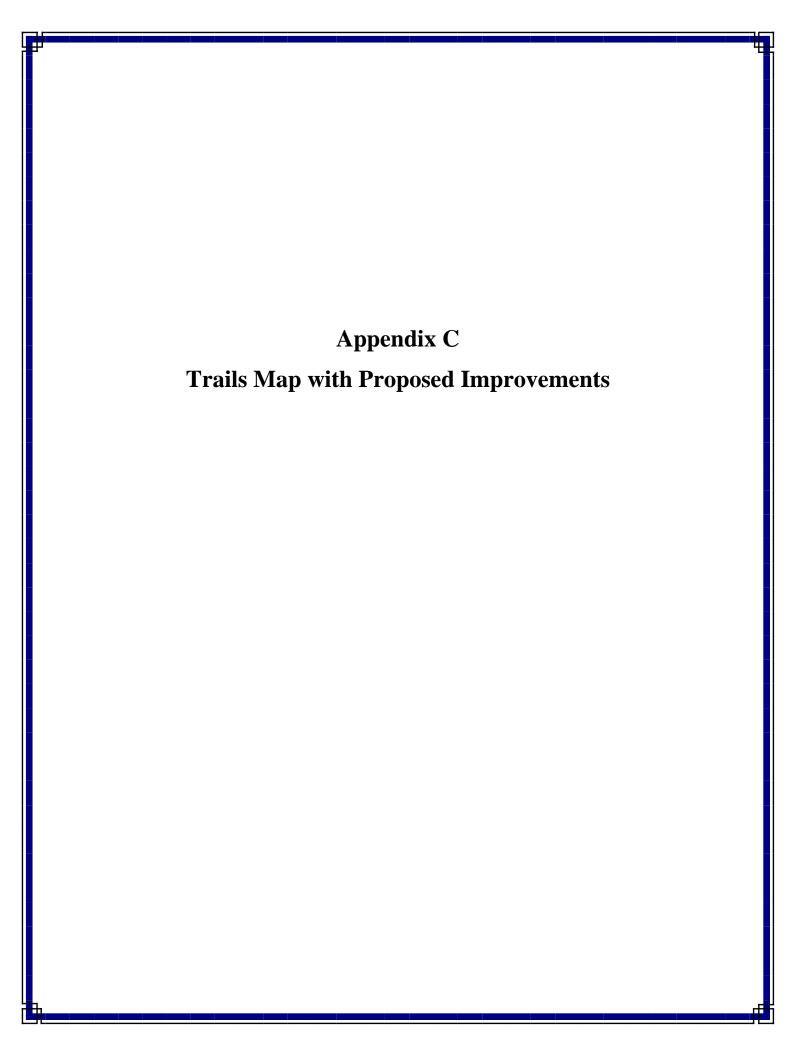
Arch Creek Park Site Aerial



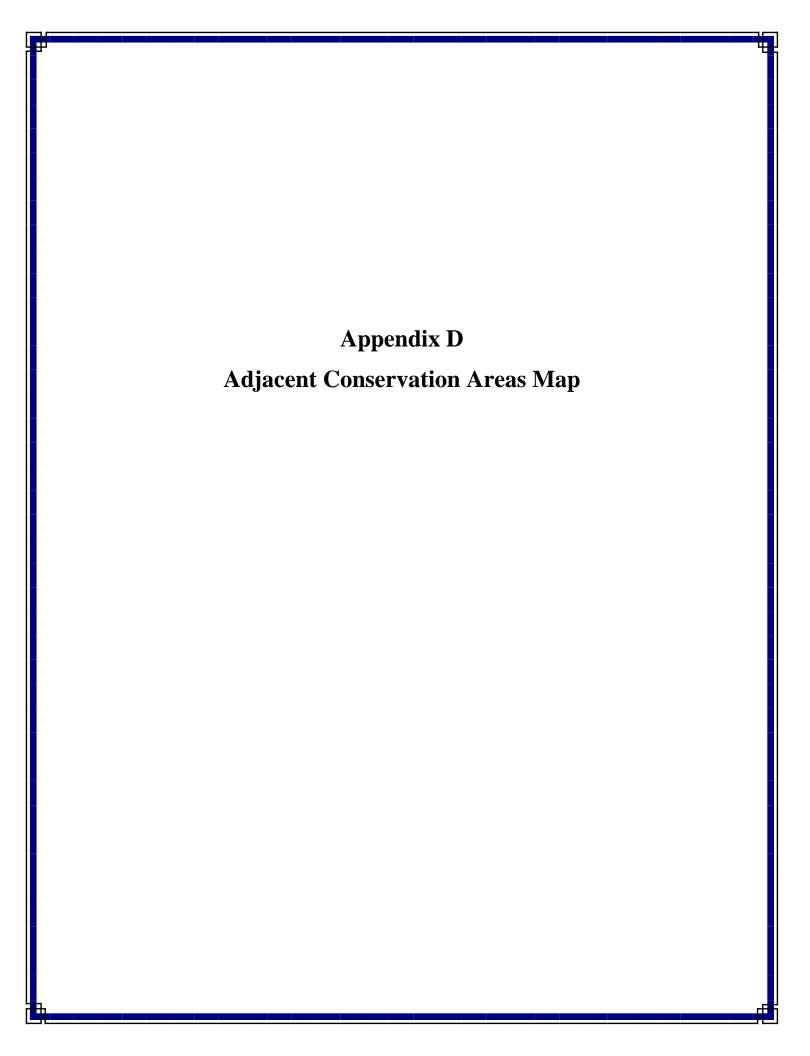


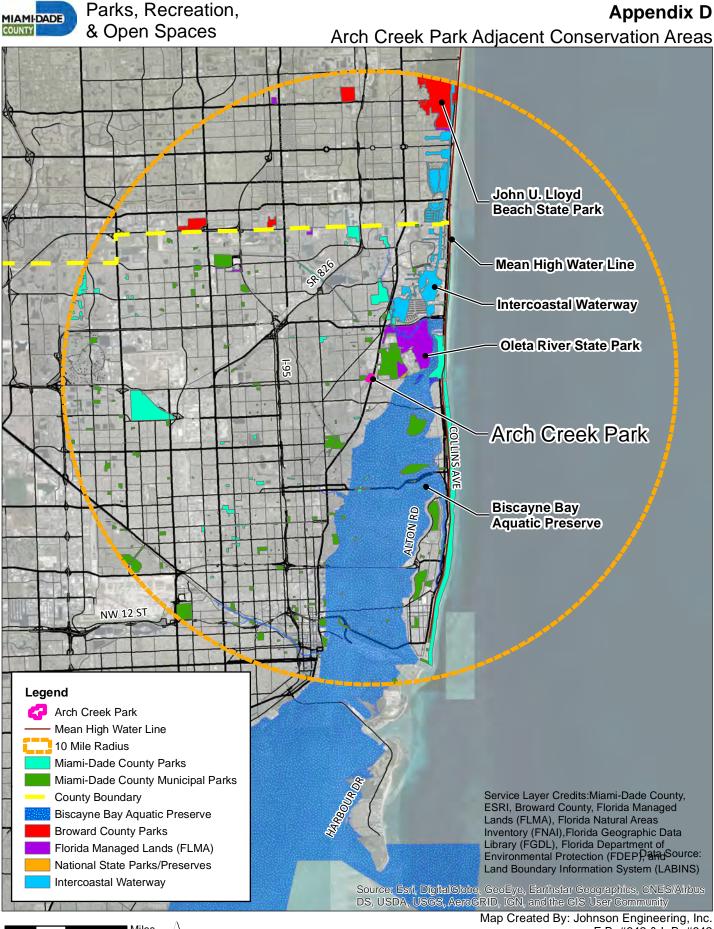
Arch Creek Park Trail Map



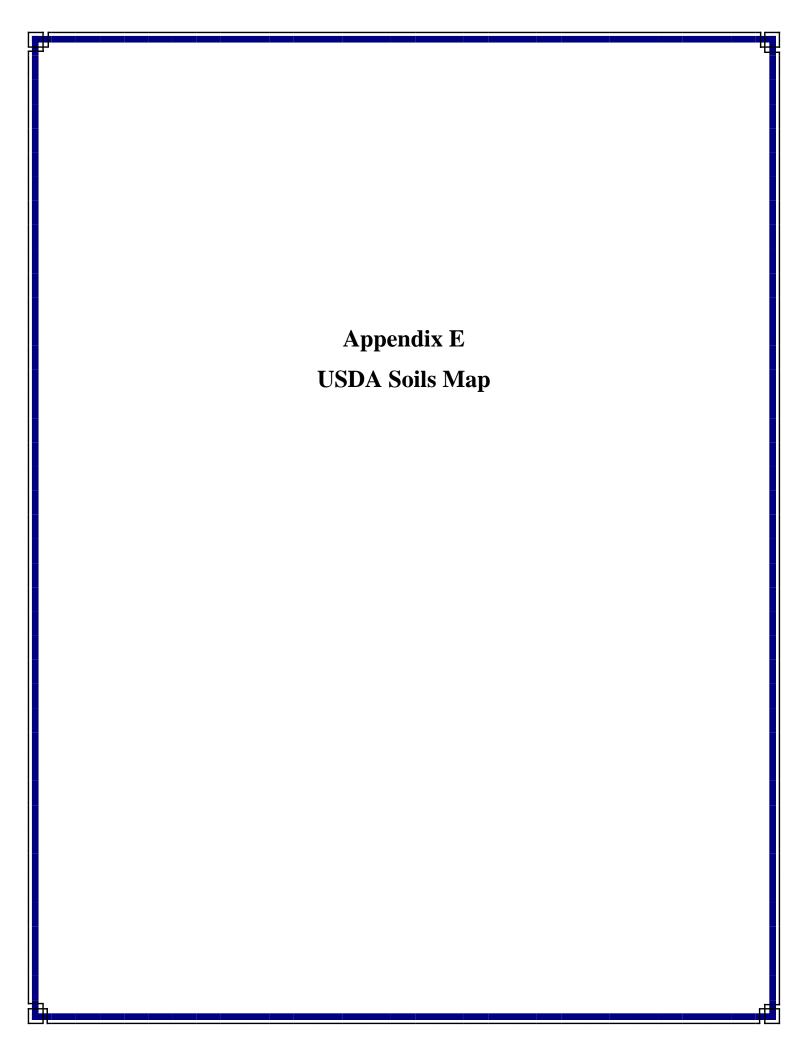


Arch Creek Park Trail Map **Proposed Educational Sign Proposed Interpretive Sign Current Historical Markers** BACK GATE **Proposed Interpretive Signs Topics:** 1. Tequesta & Midden 2. Early Settlers/Pioneers 3. Natural Limestone Bridge 4. Coontie Mill PICNIC SHELTER FIRE 5. Military Trail 6. Florida East Coast Railway CIRCLE **Proposed Educational Larger Sign:** *Map & Historical Overview REST AREA NATURE CENTER NE 135th ST FRONT NATURAL BRIDGE GATE **APPENDIX C - Arch Creek Park Trails** Map with Proposed Interpretive Signs





Map Created By: Johnson Engineering, Inc. E.B. #642 & L.B. #642 Map Created Date: September 28, 2020



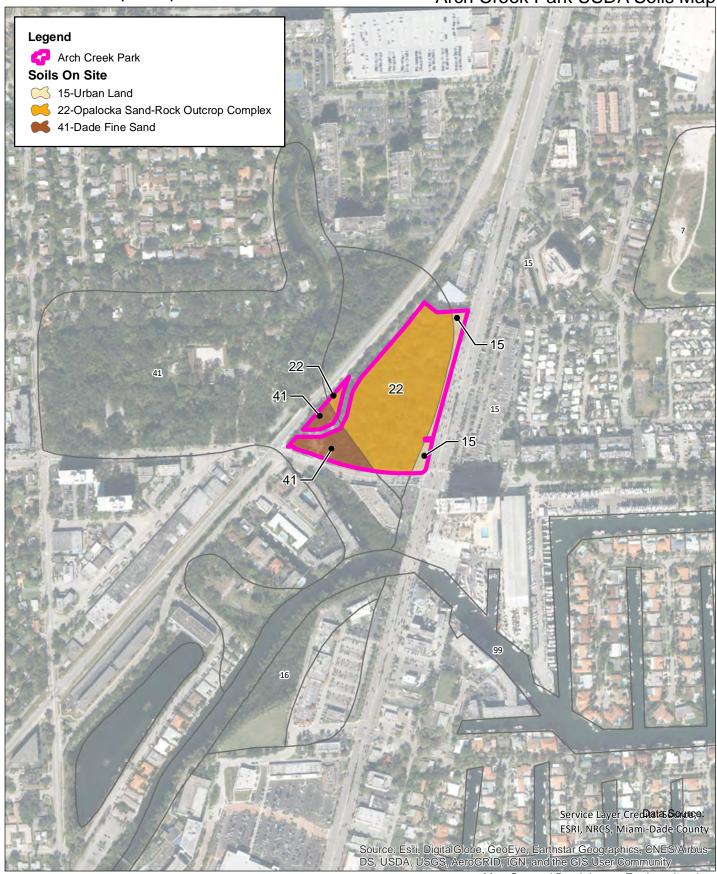
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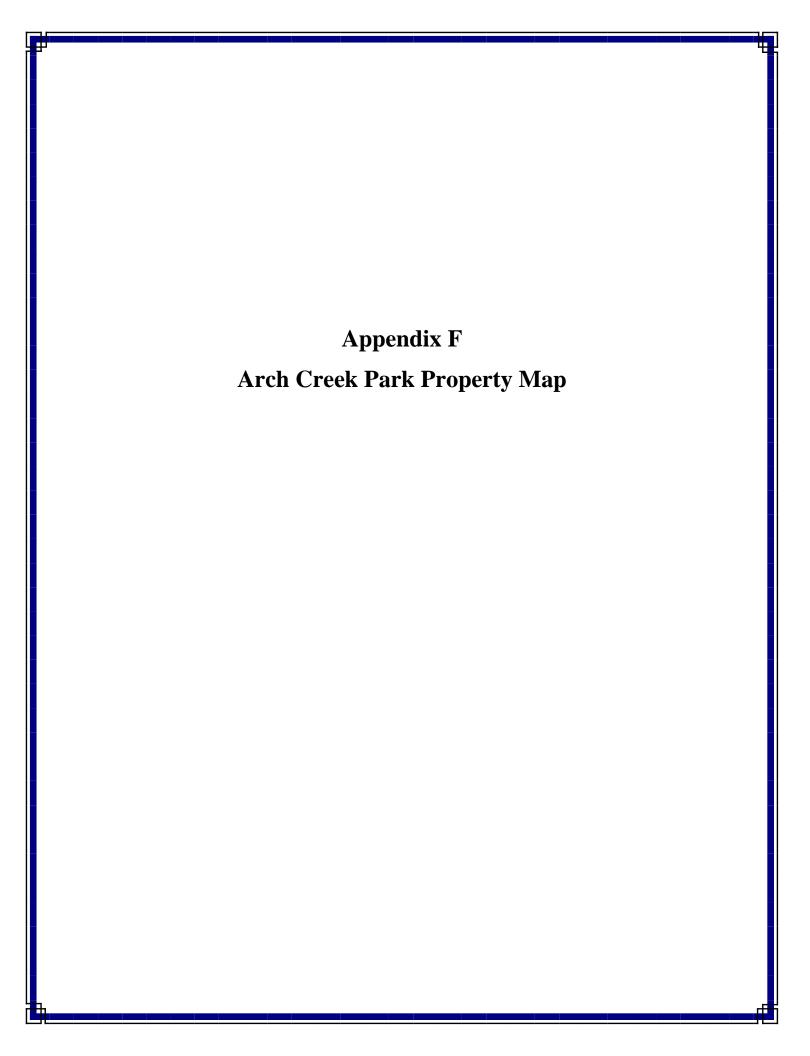
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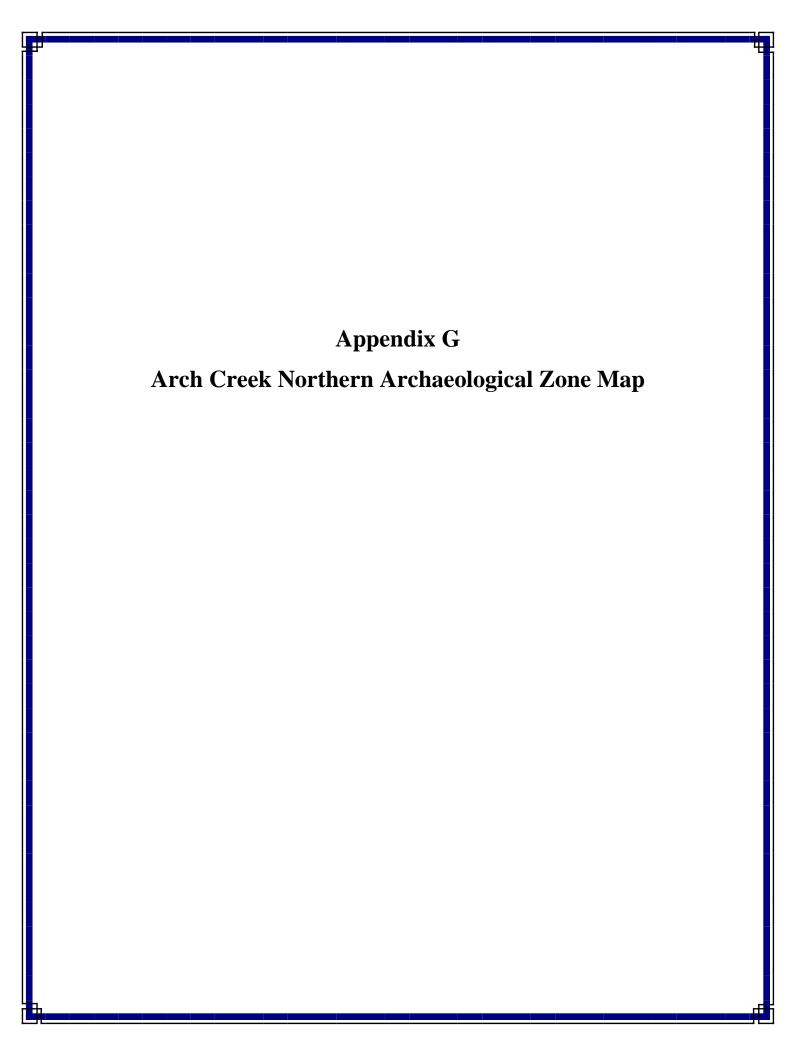
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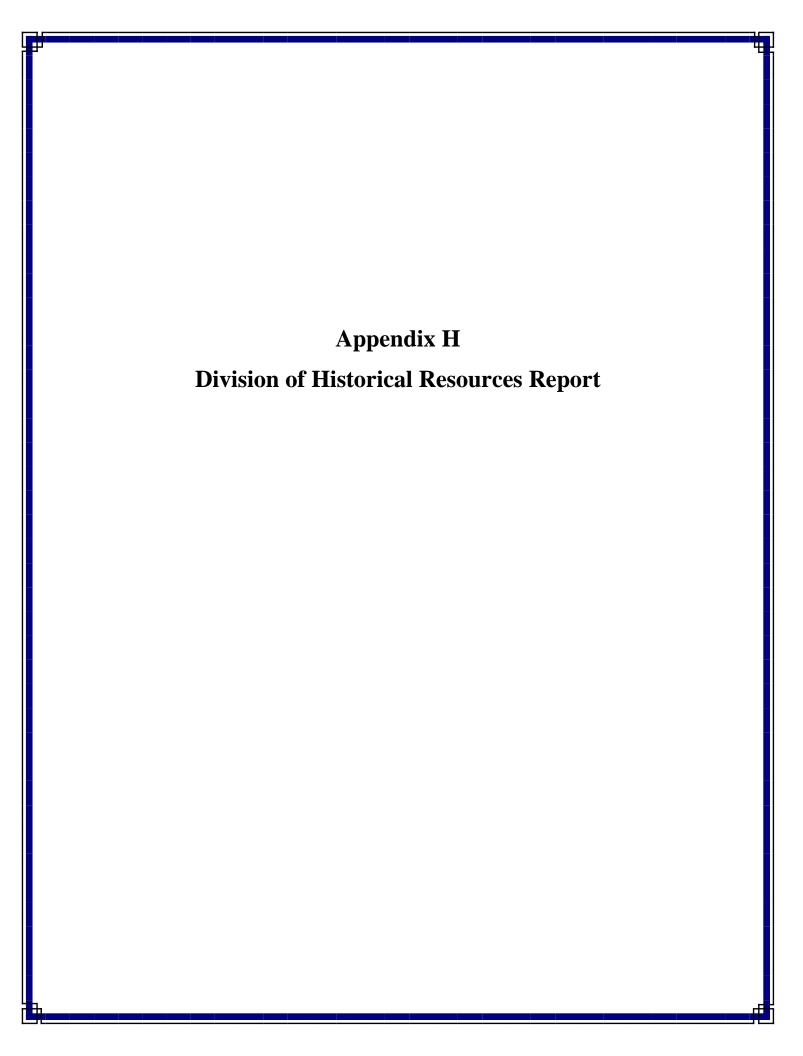
Appendix E

Arch Creek Park USDA Soils Map











FLORIDA DEPARTMENT OF STATE Glenda E. Hood Secretary of State DIVISION OF HISTORICAL RESOURCES

May 21, 2004

Andy McCall Miami-Dade County Parks & Recreation Dept. 275 N.W. 2nd Street, 4th Floor, Suite 423 Miami, FL 33128 Fax: 305-755-7864

Dear Mr. McCall,

In response to your inquiry of May 20, 2004, the Florida Master Site File lists no previously recorded cultural resources in the following parcels:

T53S, R40E Section 28 In interpreting the results of our search, please remember the following points:

 Areas which have not been completely surveyed, such as yours, may contain unrecorded archaeological sites, unrecorded historically important structures, or both.

As you may know, state and federal laws require formal environmental review for some projects. Record searches by the staff of the Florida Master Site File do not constitute such a review of cultural resources. If your project falls under these laws, you should contact the Compliance Review Section of the Bureau of Historic Preservation at 850-245-6333 or at this address.

Sincerely.

Spadra Shiver
Data Analyst, Florida Master Site File
Division of Historical Resources
R. A. Gray Building
500 South Bronough Street
Tallahassee, Florida 32399-0250

Phone: 850-245-6440 State SunCom: 205-6440 Fax line: 850-245-6439

Email: fmsfile@dos.state.fl.us

Web: http://www.dos.state.fl.us/dhr/msf/

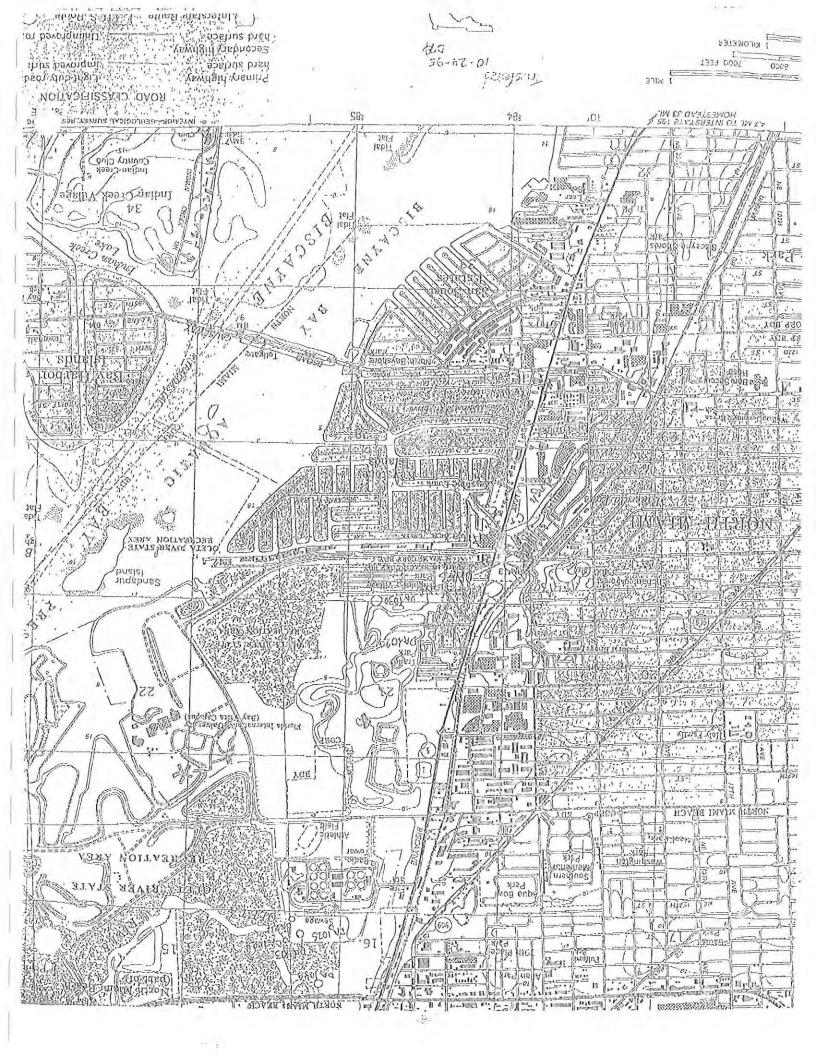
500 S. Bronough Street . Tallahassee, FL 32399-0250 . http://www.flheritage.com

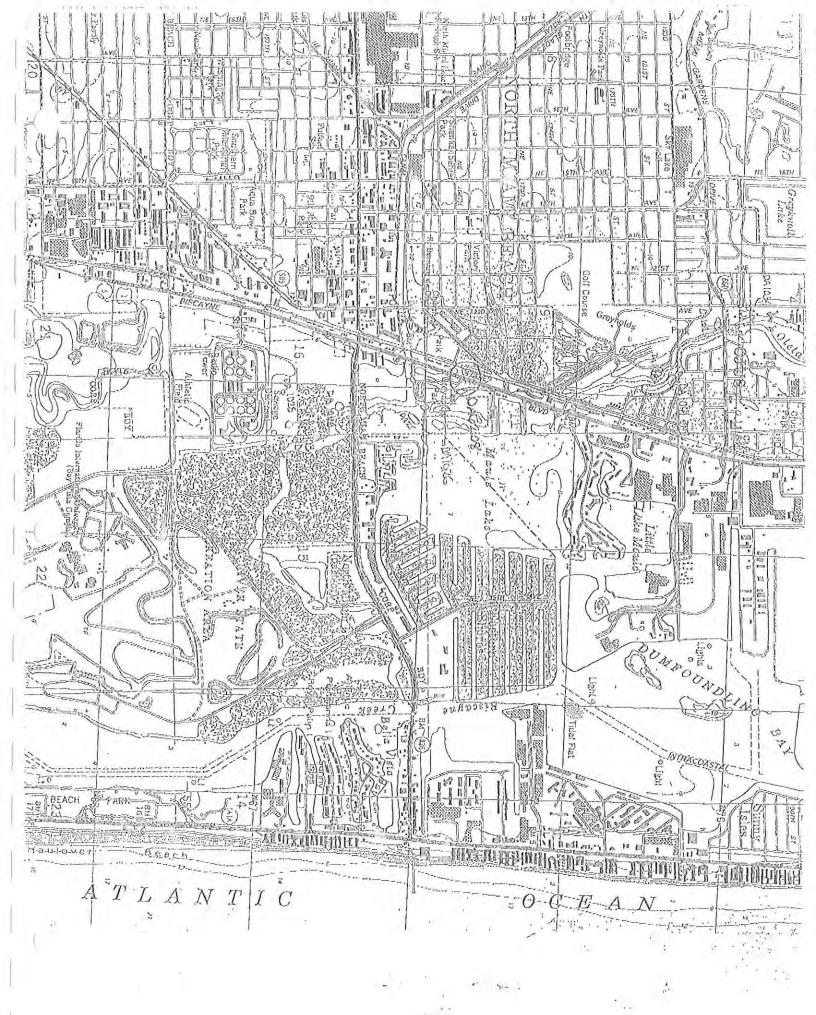
(850) 245-6300 • FAX: 245-6435

Archaeological Research
 (850) 245-6444 • FAX; 245-6436

☐ Historic Preservation (850) 245-6333 • FAX: 245-6437

O Historical Museums (850) 245-6400 • FAX: 245-6433







FLORIDA DEPARTMENT OF STATE Glenda E. Hood Secretary of State DIVISION OF HISTORICAL RESOURCES

May 21, 2004

Andy McCall Miami-Dade County Parks & Recreation Dept. 275 N.W. 2nd Street, 4th Floor, Suite 423 Miami, FL 33128 Fax: 305-755-7864

Dear Mr. McCall,

In response to your inquiry of May 20, 2004, the Florida Master Site File lists six previously recorded archaeological sites, and one historical standing structure in the following parcels of Dade County:

T52S, R42E, Sections 11, 14, & 21

In interpreting the results of our search, please remember the following points:

- o Areas which have not been completely surveyed, such as yours, may contain unrecorded archaeological sites or historical structures.
- While many of our records relate to historically significant properties, the entry of an archaeological site or an historical structure on the Florida Master Site File does not necessarily mean that the structure is significant.
- Since vandalism is common at Florida sites, we ask that you limit the distribution of location information on archaeological sites.
- As you may know, federal and state laws require formal environmental review for some projects. Record searches by the staff of the Florida Master Site File do not constitute If your project falls under these laws, you should contact the such a review. Compliance Review Section of the Bureau of Historic Preservation at 850-245-6333 or at this address.

If you have any further questions concerning the Florida Master Site File, please contact us as below.

Sincerely.

Sandra Shiver

Archaeological Data Analyst, Florida Master Site File

Division of Historical Resources

R. A. Gray Building

Phone:850-245-6440 Fax:850-245-6439

State SunCom: 205-6440

Email: fmsfile@dos.state.fl.us

Web: http://www.dos.state.fl.us/dhr/msf/

500 S. Bronough Street . Tallahassee, FL 32399-0250 . http://www.fiheritage.com

O Director's Office (850) 245-6300 · FAX: 245-6435

O Archaeological Research (850) 245-6444 · FAX: 245-6436

Historic Preservation (850) 245-6333 · FAX: 245-6437

Historical Museums (850) 245-6400 · FAX: 245-6433

D Palm Beach Regional Office (561) 279-1475 • FAX: 279-1476

CI St. Augustine Regional Office (904) 825-5045 · FAX: 825-5044

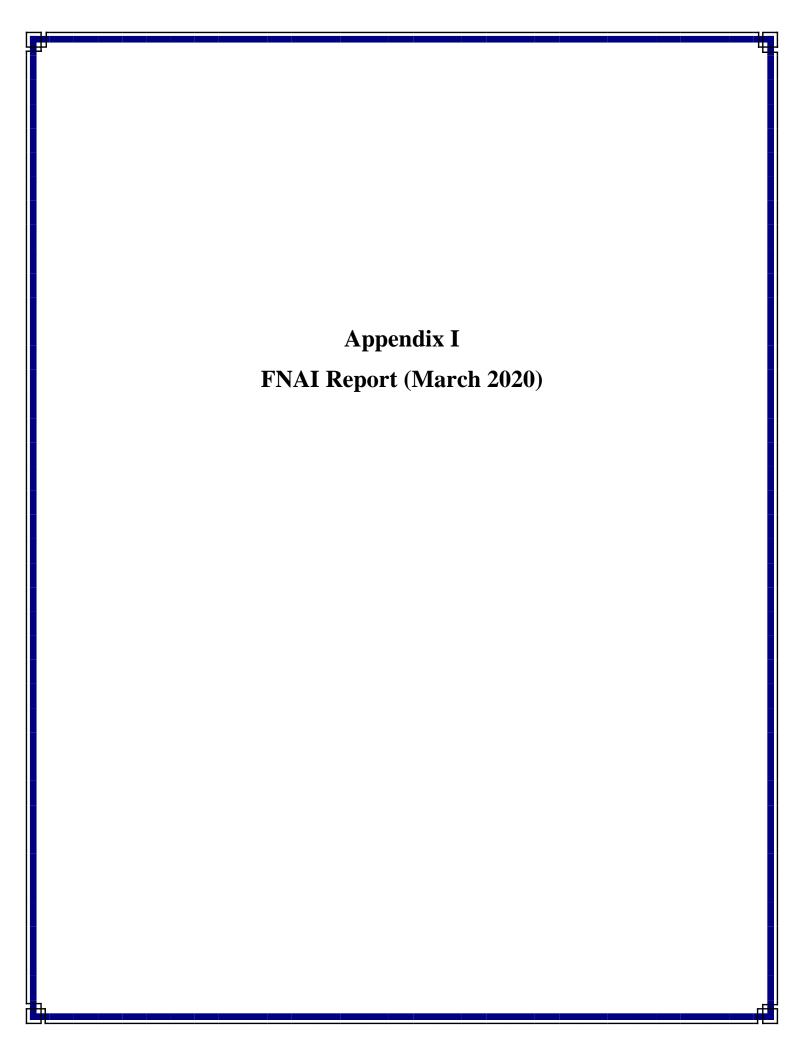
D Tampa Regional Office (813) 272-3843 • FAX: 272-2340

SITEID	FORMMO	T-R-S CR	SITEMANS	NRUIST SURVEY LOCATION	LOCATION
A00023	195604 5	25/425/20	CREEK (INCLUD'IN DA 398)	Eligib 340 Kap: NMIA	Culture: GL1. GL2 GL1
96500V	198509 5	25/42E/20	198509 525/42E/20 AR ARCH CREEK HIST & ARCHAROL SITE	Listed Map: NMIA	Sitetype: MIDD Culture: AMER. GIJ GIZ GIZ
A01029	197810 5	2S/42E/21	197010 525/42E/21 AR BAY RIDGE	602 Map: NNIA	Sitetype: HABI, MDBU, MIDD, MILL Culture: GL
401030	197812 5	197812 52S/42E/21	AR ARCH CREEK RIDGE	602 Map: NMIA	Sitetype: MIDD Culture: GL2
901657	198006 5	28/428/21	198006 525/425/21 AR ARCH CRESK (INCLUD IN DA 398)	602 Map: WATA	Sitetype: MIDD Culkure: AMER
30508T	199006 53	28/42E/14	905081 199006 528/42E/14 SS WATER COURT VILLA END PERGOLA	2127 334 ATIMITIC AVE,	MIMI
305130	199110 52	105130 199110 528/42E/21	AR NORTH ARCH CREEK	мар: жил	Duilt: 1927C Culture: AMER, GL
					Sitetype: CAMP, HABI, VADE

site(s) evaluated; 7 form(s) evaluated. fint date: 5/21/2004 9:53:33 AM

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Florida Natural Areas Inventory

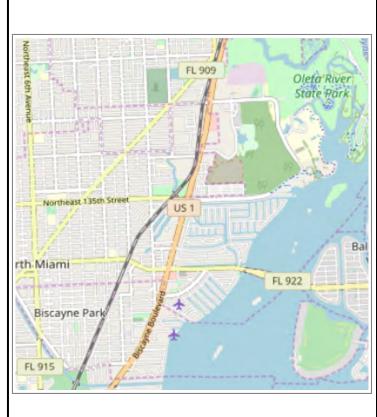
Biodiversity Matrix Query Results UNOFFICIAL REPORT

Created 3/12/2020

(Contact the FNAI Data Services Coordinator at 850.224.8207 or kbrinegar@fnai.fsu.edu for information on an official Standard Data Report)

NOTE: The Biodiversity Matrix includes only rare species and natural communities tracked by FNAI.

Report for 1 Matrix Unit: 68625



Descriptions

DOCUMENTED - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit.

DOCUMENTED-HISTORIC - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit; however the occurrence has not been observed/reported within the last twenty years.

LIKELY - The species or community is *known* to occur in this vicinity, and is considered likely within this Matrix Unit because:

- documented occurrence overlaps this and adjacent Matrix Units, but the documentation isn't precise enough to indicate which of those Units the species or community is actually located in; or
- there is a documented occurrence in the vicinity and there is suitable habitat for that species or community within this Matrix Unit.

POTENTIAL - This Matrix Unit lies within the known or predicted range of the species or community based on expert knowledge and environmental variables such as climate, soils, topography, and landcover.

Matrix Unit ID: 68625

1 **Documented** Element Found

Scientific and Common Names	Global	State	Federal	State
	Rank	Rank	Status	Listing
<i>Aphrissa statira</i> Statira	G5	S2S3	N	N

1 Documented-Historic Element Found

Scientific and Common Names	Global	State	Federal	State
	Rank	Rank	Status	Listing
Tantilla oolitica Rim Rock Crowned Snake	G1G2	S1S2	N	ST

2 **Likely** Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
<u>Eumops floridanus</u> Florida bonneted bat	G1	S1	LE	FE
<u>Trichechus manatus</u> West Indian Manatee	G2	S2	LE	FE

Matrix Unit ID: 68625

24 **Potential** Elements for Matrix Unit 68625

Global Rank	State Rank	Federal Status	State Listing
G4T3	S3	N	SSC
G3G4	S3	N	N
G2	S2	N	E
G3	S3	N	Т
G2	S2	LT	FT
G2	S2	N	N
G4T2	S2	N	N
G4G5T2	S2	N	E
G3	S1	LE	FE
G4T2	S2	N	N
G3	S3	N	N
G3	S3	N	Е
G3	S3	С	ST
G2	S2	LT	Е
G2	S2	N	Т
G4T2	S2	N	N
G5T3?	S3?	N	N
G4G5	S3	SC	SSC
G2G3	S2	N	E
G2	S2	N	Т
	Rank G4T3 G3G4 G2 G3 G2 G2 G4T2 G4G5T2 G3 G4T2 G3 G3 G4T2 G3 G3 G3 G3 G2 G2 G4T2 G5T3? G4G5 G2G3	Rank Rank G4T3 \$3 G3G4 \$3 G2 \$2 G3 \$3 G2 \$2 G2 \$2 G4T2 \$2 G4G5T2 \$2 G3 \$1 G4T2 \$2 G3 \$3 G2 \$2 G4T2 \$2 G5T3? \$3? G4G5 \$3 G2G3 \$2	Rank Rank Status G4T3 S3 N G3G4 S3 N G2 S2 N G3 S3 N G2 S2 LT G2 S2 N G4T2 S2 N G3 S1 LE G4T2 S2 N G3 S3 N G4 S2 N G4T2 S2 N G4G5 S3 SC G2G3 S2 N

Setophaga discolor paludicola Florida Prairie Warbler	G5T3	S3	N	N
<i>Swietenia mahagoni</i> West Indies Mahogany	G3G4	S3	N	Т
<i>Trichomanes punctatum ssp. floridanum</i> Florida Filmy Fern	G4G5T1	S1	Е	Е
<i>Zephyranthes simpsonii</i> Redmargin Zephyrlily	G2G3	S2S3	N	Т

Disclaimer

The data maintained by the Florida Natural Areas Inventory represent the single most comprehensive source of information available on the locations of rare species and other significant ecological resources statewide. However, the data are not always based on comprehensive or site-specific field surveys. Therefore, this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. FNAI shall not be held liable for the accuracy and completeness of these data, or opinions or conclusions drawn from these data. FNAI is not inviting reliance on these data. Inventory data are designed for the purposes of conservation planning and scientific research and are not intended for use as the primary criteria for regulatory decisions.

Unofficial Report

These results are considered unofficial. FNAI offers a <u>Standard Data Request</u> option for those needing certifiable data.

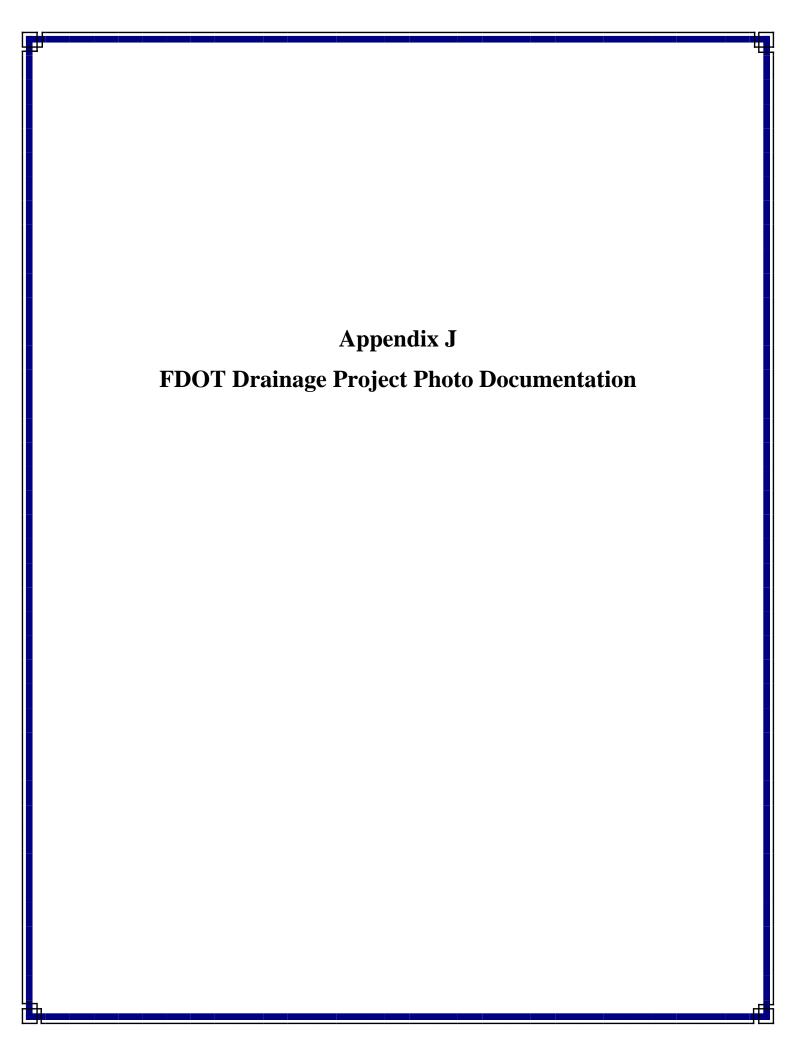




Photo taken of the portion of Arch Creek Park granted to FDOT to be used as a staging area for the public drainage project in March 2016 prior to its initiation.



Photo taken of the portion of the Arch Creek Park granted to the FDOT following the completion of the public drainage project in November 2018.



Photo taken of hydroseeding done in April 2019.



Photo taken in December 2019 documenting results of hydroseeding.