

Land Management Plan Compliance Checklist

Required for State-owned conservation lands over 160 acres (Updated July 2022)

Instructions for managers:

Complete each item and fill in the applicable correlating page numbers and/or appendix where the item can be found within the land management plan (LMP). If an item does not apply to the subject property, please describe that fact on a correlating page number of the LMP. Do not mark an "N/A" for any items below.

For more information, please visit the stewardship portion of the Division of State Lands' website at: <http://floridadep.gov/lands/environmental-services/content/land-stewardship>

Section A: Acquisition Information Items

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
1	The common name of the property.	18-2.018 & 18-2.021	Page 1 (Executive Summary); Page 8 (II.A.1)
2	The land acquisition program, if any, under which the property was acquired.	18-2.018 & 18-2.021	Page 1 (Executive Summary); Page 10 (II.A.4)
3	Degree of title interest held by the Board, including reservations and encumbrances such as leases.	18-2.021	Page 11 (II.B.2)
4	The legal description and acreage of the property.	18-2.018 & 18-2.021	Page 8 (II.A.2)
5	A map showing the approximate location and boundaries of the property, and the location of any structures or improvements to the property.	18-2.018 & 18-2.021	Exhibits B & D
6	An assessment as to whether the property, or any portion, should be declared surplus. <i>Provide Information regarding assessment and analysis in the plan, and provide corresponding map.</i>	18-2.021	Page 14 (II.D.3)
7	Identification of other parcels of land within or immediately adjacent to the property that should be purchased because they are essential to management of the property. <i>Please clearly indicate parcels on a map.</i>	18-2.021	Page 14 (II.D.2); Exhibit C
8	Identification of adjacent land uses that conflict with the planned use of the property, if any.	18-2.021	Page 15 (II.D.4)
9	A statement of the purpose for which the lands were acquired, the projected use or uses as defined in 253.034 and the statutory authority for such use or uses.	259.032	Page 3 (I.A)
10	Proximity of property to other significant State, local or federal land or water resources.	18-2.021	Page 9 (II.A.3); Exhibit F

Section B: Use Items

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
11	The designated single use or multiple use management for the property, including use by other managing entities.	18-2.018 & 18-2.021	Page 1 (Executive Summary); Page 3 (I.A); Page 11 (II.B.3)
12	A description of past and existing uses, including any unauthorized uses of the property.	18-2.018 & 18-2.021	Page 3 (I.B); Page 11 (II.B.4); Page 15 (II.D.6); Page 16 (II.E); Page 17 (III); Page 19 (IV); Page 29 (V); Page 32 (VI); Page 39 (VII)
13	A description of alternative or multiple uses of the property considered by the lessee and a statement detailing why such uses were not adopted.	18-2.018	Page 14 (II.D)

14	A description of the management responsibilities of each entity involved in the property's management and how such responsibilities will be coordinated.	18-2.018	Page 1 (Executive Summary); Page 16 (II.E.1)
15	Include a provision that requires that the managing agency consult with the Division of Historical Resources, Department of State before taking actions that may adversely affect archeological or historical resources.	18-2.021	Page 18 (III.C,D); Exhibit H
16	Analysis/description of other managing agencies and private land managers, if any, which could facilitate the restoration or management of the land.	18-2.021	Page 17 (II.E.6); Page 18 (III.C); Page 23 (IV.C.2); Page 38 (VI.F)
17	A determination of the public uses and public access that would be consistent with the purposes for which the lands were acquired.	259.032	Page 3 (I.A)
18	A finding regarding whether each planned use complies with the 1981 State Lands Management Plan, particularly whether such uses represent "balanced public utilization," specific agency statutory authority and any other legislative or executive directives that constrain the use of such property.	18-2.021	Page 12 (II.B.5)
19	Letter of compliance from the local government stating that the LMP is in compliance with the Local Government Comprehensive Plan.	BOT requirement	Page 15 (II.D.5); Exhibit T
20	An assessment of the impact of planned uses on the renewable and non-renewable resources of the property, including soil and water resources, and a detailed description of the specific actions that will be taken to protect, enhance and conserve these resources and to compensate/mitigate damage caused by such uses, including a description of how the manager plans to control and prevent soil erosion and soil or water contamination.	18-2.018 & 18-2.021	Page 7 (I.C Goal 7); Page 19 (IV); Exhibits J & K
21	*For managed areas larger than 1,000 acres, an analysis of the multiple-use potential of the property which shall include the potential of the property to generate revenues to enhance the management of the property provided that no lease, easement, or license for such revenue-generating use shall be entered into if the granting of such lease, easement or license would adversely affect the tax exemption of the interest on any revenue bonds issued to fund the acquisition of the affected lands from gross income for federal income tax purposes, pursuant to Internal Revenue Service regulations.	18-2.021 & 253.036	Page 3 (I.A); Page 11 (II.B.4)
22	If the lead managing agency determines that timber resource management is not in conflict with the primary management objectives of the managed area, a component or section, prepared by a qualified professional forester, that assesses the feasibility of managing timber resources pursuant to section 253.036, F.S.	18-021	Page 35 (VI.C)
23	A statement regarding incompatible use in reference to Ch. 253.034(10).	253.034(10)	Page 14(II.D.1)

*The following taken from 253.034(10) is not a land management plan requirement; however, it should be considered when developing a land management plan: The following additional uses of conservation lands acquired pursuant to the Florida Forever program and other state-funded conservation land purchase programs shall be authorized, upon a finding by the Board of Trustees, if they meet the criteria specified in paragraphs (a)-(e): water resource development projects, water supply development projects, storm-water management projects, linear facilities and sustainable agriculture and forestry. Such additional uses are authorized where: (a) Not inconsistent with the management plan for such lands; (b) Compatible with the natural ecosystem and resource values of such lands; (c) The proposed use is appropriately located on such lands and where due consideration is given to the use of other available lands; (d) The using entity reasonably compensates the titleholder for such use based upon an appropriate measure of value; and (e) The use is consistent with the public interest.

Section C: Public Involvement Items

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
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24	A statement concerning the extent of public involvement and local government participation in the development of the plan, if any.	18-2.021	Page 1 (Executive Summary); Page 16 (II.E.4); Exhibits S, T, U, W
25	The management prospectus required pursuant to paragraph (9)(d) shall be available to the public for a period of 30 days prior to the public hearing.	259.032	✓
26	LMPs and LMP updates for parcels over 160 acres shall be developed with input from an advisory group who must conduct at least one public hearing within the county in which the parcel or project is located. <i>Include the advisory group members and their affiliations, as well as the date and location of the advisory group meeting.</i>	259.032	Page 16 (II.E.4); Exhibit U
27	Summary of comments and concerns expressed by the advisory group for parcels over 160 acres	18-2.021	Exhibit U
28	During plan development, at least one public hearing shall be held in each affected county. Notice of such public hearing shall be posted on the parcel or project designated for management, advertised in a paper of general circulation, and announced at a scheduled meeting of the local governing body before the actual public hearing. <i>Include a copy of each County's advertisements and announcements (meeting minutes will suffice to indicate an announcement) in the management plan.</i>	253.034 & 259.032	✓
29	The manager shall consider the findings and recommendations of the land management review team in finalizing the required 10-year update of its management plan. <i>Include manager's replies to the team's findings and recommendations.</i>	259.036	Page 16 (II.E.4); Exhibit S
30	Summary of comments and concerns expressed by the management review team, if required by Section 259.036, F.S.	18-2.021	Exhibit S
31	If manager is not in agreement with the management review team's findings and recommendations in finalizing the required 10-year update of its management plan, the managing agency should explain why they disagree with the findings or recommendations.	259.036	Exhibit S

Section D: Natural Resources

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
32	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding soil types. <i>Use brief descriptions and include USDA maps when available.</i>	18-2.021	Page 19 (IV.A); Exhibit I
33	Insert FNAI based natural community maps when available.	ARC consensus	Exhibits L, P, Q
34	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding outstanding native landscapes containing relatively unaltered flora, fauna and geological conditions.	18-2.021	Page 22 (IV.C); I, L, M, Z
35	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding unique natural features and/or resources including but not limited to virgin timber stands, scenic vistas, natural rivers and streams, coral reefs, natural springs, caverns and large sinkholes.	18-2.018 & 18-2.021	Page 28 (IV.G)
36	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding beaches and dunes.	18-2.021	Page 28 (IV.E)
37	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding mineral resources, such as oil, gas and phosphate, etc.	18-2.018 & 18-2.021	Page 28 (IV.F)

38	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding fish and wildlife, both game and non-game, and their habitat.	18-2.018 & 18-2.021	Page 25 (IV.C.4); Exhibits L, M, Z
39	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding State and Federally listed endangered or threatened species and their habitat.	18-2.021	Page 22 (IV.C.1); Exhibits L, M, Z
40	The identification or resources on the property that are listed in the Natural Areas Inventory. <i>Include letter from FNAI or consultant where appropriate.</i>	18-2.021	Page 23 (IV.C.2); Exhibits L, P, Q
41	Specific description of how the managing agency plans to identify, locate, protect and preserve or otherwise use fragile, nonrenewable natural and cultural resources.	259.032	Page 4 (I.C); Page 18 (III.C,D); Page 19 (IV); Page 32 (VI.A,B); Page 39 (VII)
42	Habitat Restoration and Improvement	259.032 & 253.034	Page 19 (IV)
42-A.	Describe management needs, problems and a desired outcome and the key management activities necessary to achieve the enhancement, protection and preservation of restored habitats and enhance the natural, historical and archeological resources and their values for which the lands were acquired.	↓	Page 4 (I.C); Page 39 (VII)
42-B.	Provide a detailed description of both short (2-year planning period) and long-term (10-year planning period) management goals, and a priority schedule based on the purposes for which the lands were acquired and include a timeline for completion.		Page 4 (I.C)
42-C.	The associated measurable objectives to achieve the goals.		Page 4 (I.C)
42-D.	The related activities that are to be performed to meet the land management objectives and their associated measures. <i>Include fire management plans - they can be in plan body or an appendix.</i>		Page 4 (I.C); Page 32 (VI); Page 39 (VII)
42-E.	A detailed expense and manpower budget in order to provide a management tool that facilitates development of performance measures, including recommendations for cost-effective methods of accomplishing those activities.		Page 13 (II.C.4)
43	***Quantitative data description of the land regarding an inventory of forest and other natural resources and associated acreage. <i>See footnote.</i>	253.034	Page 8 (II.A.2,4); Page 12 (II.C); Page 39 (VII); Exhibits E, I, L, P, S
44	Sustainable Forest Management, including implementation of prescribed fire management	18-2.021, 253.034 & 259.032 ↓	Page 32 (VI); Exhibit N
44-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).		Page 5 (I.C. Goal 1); Page 32 (VI); Page 39 (VII)
44-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 5 (I.C. Goal 1)
44-C.	Measurable objectives (see requirement for #42-C).		Page 5 (I.C. Goal 1)
44-D.	Related activities (see requirement for #42-D).		Page 32 (VI); Page 39 (VII)
44-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V
45	Imperiled species, habitat maintenance, enhancement, restoration or population restoration	259.032 & 253.034 ↓	Page 22 (IV.C)
45-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).		Page 7 (I.C. Goal 4); Page 22 (IV.C.1); Page 39 (VII)
45-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 7 (I.C. Goal 4); Page 22 (IV.C.1); Page 39 (VII)
45-C.	Measurable objectives (see requirement for #42-C).		Page 7 (I.C. Goal 4)
45-D.	Related activities (see requirement for #42-D).		Page 22 (IV.C.1); Page 39 (VII)

45-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V
45-F	Assess the feasibility of managing the lands > 40 contiguous acres as a recipient site for gopher tortoises consistent with rules of the Fish and Wildlife Conservation Commission, as prepared by the agency or cooperatively with a Fish and Wildlife Conservation Commission wildlife biologist.	259.105	Page 27 (IV.C.6)
45-G	Economic feasibility of establishing a gopher tortoise recipient site, including the initial cost, recurring management costs and the revenue projections.	259.105	Page 27 (IV.C.6)
46	***Quantitative data description of the land regarding an inventory of exotic and invasive plants and associated acreage. <i>See footnote.</i>	253.034	Page 36 (VI.D); Exhibit O
47	Place the Arthropod Control Plan in an appendix. If one does not exist, provide a statement as to what arrangement exists between the local mosquito control district and the management unit.	BOT requirement via lease language	Exhibit W
48	Exotic and invasive species maintenance and control	259.032 & 253.034	Page 36 (VI.D)
48-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 7 (I.C. Goal 5); Exhibit O
48-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 7 (I.C. Goal 5)
48-C.	Measurable objectives (see requirement for #42-C).		Page 7 (I.C. Goal 5)
48-D.	Related activities (see requirement for #42-D).		Page 36 (VI.D,E); Page 39 (VII)
48-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V

Section E: Water Resources

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
49	A statement as to whether the property is within and/or adjacent to an aquatic preserve or a designated area of critical state concern or an area under study for such designation. <i>If yes, provide a list of the appropriate managing agencies that have been notified of the proposed plan.</i>	18-2.018 & 18-2.021	Page 12 (II.B.7)
50	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding water resources, including water classification for each water body and the identification of any such water body that is designated as an Outstanding Florida Water under Rule 62-302.700, F.A.C.	18-2.021	Page 19 (IV.B); Exhibits J, K
51	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding swamps, marshes and other wetlands.	18-2.021	Page 20 (IV.B.4)
52	***Quantitative description of the land regarding an inventory of hydrological features and associated acreage. <i>See footnote.</i>	253.034	Page 19 (IV.B); Page 39 (VII)
53	Hydrological Preservation and Restoration	259.032 & 253.034	Page 19 (IV.B)
53-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 7 (I.C. Goal 7); Page 19 (IV.B)
53-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 7 (I.C. Goal 7)
53-C.	Measurable objectives (see requirement for #42-C).		Page 7 (I.C. Goal 7)
53-D.	Related activities (see requirement for #42-D).		Page 7 (I.C. Goal 7); Page 19 (IV.B); Exhibits X, Y
53-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V

Section F: Historical, Archeological and Cultural Resources

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
54	**Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding archeological and historical resources. <i>Include maps of all cultural resources except Native American sites, unless such sites are major points of interest that are open to public visitation.</i>	18-2.018, 18-2.021 & per DHR's request	Page 18 (III.B); Exhibit G
55	***Quantitative data description of the land regarding an inventory of significant land, cultural or historical features and associated acreage.	253.034	Page 18 (III.B); Exhibit G
56	A description of actions the agency plans to take to locate and identify unknown resources such as surveys of unknown archeological and historical resources.	18-2.021	Page 18 (III.C,D); Exhibit H
57	Cultural and Historical Resources	259.032 & 253.034	Page 17 (III)
57-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 7 (I.C. Goal 6)
57-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 7 (I.C. Goal 6)
57-C.	Measurable objectives (see requirement for #42-C).		Page 7 (I.C. Goal 6)
57-D.	Related activities (see requirement for #42-D).		Page 18 (III.C,D)
57-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V

**While maps of Native American sites should not be included in the body of the management plan, the DSL urges each managing agency to provide such information to the Division of Historical Resources for inclusion in their proprietary database. This information should be available for access to new managers to assist them in developing, implementing and coordinating their management activities.

Section G: Facilities (Infrastructure, Access, Recreation)

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
58	***Quantitative data description of the land regarding an inventory of infrastructure and associated acreage. <i>See footnote.</i>	253.034	Page 12 (II.C); Exhibit D
59	Capital Facilities and Infrastructure	259.032 & 253.034	Page 12 (II.C)
59-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 8 (I.C. Goal 8); Page 12 (II.C)
59-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 8 (I.C. Goal 8); Page 12 (II.C)
59-C.	Measurable objectives (see requirement for #42-C).		Page 8 (I.C. Goal 8); Page 12 (II.C)
59-D.	Related activities (see requirement for #42-D).		Page 12 (II.C); Page 29 (V)
59-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4)
60	*** Quantitative data description of the land regarding an inventory of recreational facilities and associated acreage.	253.034	Page 29 (V); Exhibit D
61	Public Access and Recreational Opportunities	259.032 & 253.034	Page 29 (V)
61-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 5 (I.C. Goal 2)
61-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 5 (I.C. Goal 2)
61-C.	Measurable objectives (see requirement for #42-C).		Page 5 (I.C. Goal 2)
61-D.	Related activities (see requirement for #42-D).		Page 11 (II.B.4); Page 17 (II.E.5,6); Exhibits A, B, C, D
61-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V

Section H: Other/ Managing Agency Tools

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
62	Place this LMP Compliance Checklist at the front of the plan.	ARC and managing agency consensus	✓
63	Place the Executive Summary at the front of the LMP. Include a physical description of the land.	ARC and 253.034	Page 1 (Executive Summary)
64	If this LMP is a 10-year update, note the accomplishments since the drafting of the last LMP set forth in an organized (categories or bullets) format.	ARC consensus	Page 3 (I.B); Exhibit A
65	Key management activities necessary to achieve the desired outcomes regarding other appropriate resource management.	259.032	Page 4 (I.C); Page 39 (VII)
66	Summary budget for the scheduled land management activities of the LMP including any potential fees anticipated from public or private entities for projects to offset adverse impacts to imperiled species or such habitat, which fees shall be used to restore, manage, enhance, repopulate, or acquire imperiled species habitat for lands that have or are anticipated to have imperiled species or such habitat onsite. The summary budget shall be prepared in such a manner that it facilitates computing an aggregate of land management costs for all state-managed lands using the categories described in s. 259.037(3) which are resource management, administration, support, capital improvements, recreation visitor services, law enforcement activities.	253.034	Page 13 (II.C.4); Exhibit V
67	Cost estimate for conducting other management activities which would enhance the natural resource value or public recreation value for which the lands were acquired, include recommendations for cost-effective methods in accomplishing those activities.	259.032	Page 13 (II.C.4); Exhibit V
68	A statement of gross income generated, net income and expenses.	18-2.018	Page 13 (II.C.4); Exhibit V

*** = The referenced inventories shall be of such detail that objective measures and benchmarks can be established for each tract of land and monitored during the lifetime of the plan. All quantitative data collected shall be aggregated, standardized, collected, and presented in an electronic format to allow for uniform management reporting and analysis. The information collected by the DEP pursuant to s. 253.0325(2) shall be available to the land manager and his or her assignee.

TEN-YEAR LAND MANAGEMENT PLAN

FOR THE

MYAKKA STATE FOREST

SARASOTA COUNTY



PREPARED BY THE

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

FLORIDA FOREST SERVICE

APPROVED ON

MONTH DD, 2023

TEN-YEAR LAND MANAGEMENT PLAN
FOR THE
MYAKKA STATE FOREST



Approved by:

John Sabo, Interim Director
Florida Forest Service

Date

James Roberts, Chief
Forest Management Bureau

Date

TEN-YEAR LAND MANAGEMENT PLAN

MYAKKA STATE FOREST

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**TEN-YEAR LAND MANAGEMENT PLAN
MYAKKA STATE FOREST
EXHIBITS**

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Facilities, Recreation, and Improvements Map	Exhibit D
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Myakka River Critical Wildlife Area Map	Exhibit Z

LAND MANAGEMENT PLAN EXECUTIVE SUMMARY

LEAD AGENCY: Florida Department of Agriculture and Consumer Services (FDACS), Florida Forest Service
COMMON NAME: Myakka State Forest
LOCATION: Sarasota County
ACREAGE TOTAL: 8,593 acres

Historic Natural Communities	Approximate Acreage
Mesic flatwoods	5,385
Wet flatwoods	1,176
Depression marsh	1,122
Dry prairie	259
Wet prairie	127
Hydric hammock	54

Historic Natural Communities	Approximate Acreage
Scrubby flatwoods	29
Salt marsh	24
Mesic hammock	22
Mangrove swamp	18
Tidal creek	7

*Note – roughly 370 acres of MSF are not mapped in the northern portion of the property, generally east of the Myakka River

TIITF LEASE AGREEMENT NUMBERS: 4102, 4327

USE: Single ☐ Multiple ☒

MANAGEMENT AGENCY

Florida DACS, Florida Forest Service
Florida Fish and Wildlife Conservation Commission
Southwest Florida Water Management District
Department of State, Division of Historical Resources

RESPONSIBILITY

General Forest Resource Management
Wildlife Resources and Laws
Water Resource Protection and Restoration
Historical and Archaeological Resource Management

DESIGNATED LAND USE: Multiple-Use State Forest
SUBLEASES: None
ENCUMBRANCES: None
TYPE ACQUISITION: Conservation and Recreation Lands, Save Our Rivers, and Preservation 2000
UNIQUE FEATURES: Four waterways flow through Myakka State Forest. These waterways form a diverse network of aquatic and wetland habitats.
ARCHAEOLOGICAL / HISTORICAL: Four (4) recorded.
MANAGEMENT NEEDS: Non-native species control, public access to parcel east of Myakka River, upgraded recreation facilities
ACQUISITION NEEDS: Approximately 736 acres located in the Optimal Management Boundary
SURPLUS ACREAGE: None
PUBLIC INVOLVEMENT: 2013 and 2018 Land Management Reviews, Management Plan Advisory Group and Public Hearing, Liaison Committee Meetings, and FDEP Acquisition and Restoration Council Public Hearing -----

DO NOT WRITE BELOW THIS LINE
(FOR DIVISION OF STATE LANDS USE ONLY)

ARC Approval Date: _____ TIITF Approval Date: _____

Comments:

I. Introduction

The Myakka State Forest (MSF) is comprised of 8,593 acres located in the southwestern portion of Sarasota County and is almost entirely within the North Port city limits. MSF is made up primarily of mesic flatwoods with a mixture of longleaf pine and south Florida slash pine overstory with a palmetto understory. Numerous depression marshes are scattered throughout the flatwoods, providing many opportunities for viewing wading birds and other wildlife. MSF includes approximately 2.5 miles of frontage on the Myakka River, which is designated as an Outstanding Florida Water and a Wild and Scenic River and flows through the northeastern portion of MSF. The Myakkahatchee Creek flows through MSF for 1.5 miles and provides an additional water resource.

Significant wildlife species that can be found on MSF include the gopher tortoise, eastern indigo snake, bald eagle, Florida sandhill crane, and wood stork. Outdoor recreation activities available on MSF include hiking, camping, off-road biking, and horseback riding, as well as small game hunting opportunities and fishing on the Myakka River.

A. General Mission and Management Plan Direction

The primary mission of the Florida Forest Service (FFS) is to “protect Florida and its people from the dangers of wildland fire and manage MSF resources through a stewardship ethic to assure they are available for future generations.”

Management strategies for MSF center on the multiple-use concept, as defined in sections 589.04(3) and 253.034(2)(a) Florida Statutes. Implementation of this concept will utilize and conserve State Forest resources in a harmonious and coordinated combination that will best serve the people of the state of Florida, and that is consistent with the purpose for which MSF was acquired. Multiple-use management for MSF will be accomplished with the following strategies:

- Practice sustainable forest management for the efficient generation of revenue and in support of State Forest management objectives;
- Provide for resource-based outdoor recreational opportunities for multiple interests;
- Restore and manage healthy forests and native ecosystems ensuring the long-term viability of populations and species listed as endangered, threatened, or rare, and other components of biological diversity including game and non-game wildlife and plants;
- Protect known archaeological, historical, and cultural resources;
- Restore, maintain, and protect hydrological functions related to water resources, and health of associated wetland and aquatic communities; and
- Provide research and educational opportunities related to natural resource management.

This management plan is provided according to requirements of Sections 253.034, 259.032 and 373, Florida Statutes (F.S.), and was prepared utilizing guidelines outlined in Section 18-2.021 of the Florida Administrative Code (FAC). It is not an annual work plan or detailed operational plan but provides general guidance for the management of MSF for the next ten-year period and outlines the major concepts that will guide management activities on MSF.

B. Past Accomplishments

Data regarding past management activities and public use on MSF has been compiled monthly and are available from the forest manager. A table has been prepared for this plan that summarizes the accomplishments for each of the past ten years. See Exhibit A. The table does not attempt to account for all activities on MSF but summarizes major activities.

There have been numerous events, developments, and activities since the 2010 Ten-Year Land Management Plan was approved. Some noteworthy accomplishments include:

- Forest Management
 - Planted 401,625 containerized South Florida slash pines on 562 acres
 - Harvested 1622 tons of timber from approximately 159 acres
 - Conducted timber inventory on more than 10,046 acres
- Fire Management
 - Conducted prescribed burning on 16,230 acres
- Road / Boundary Management
 - Improved or rebuilt 6 miles of forest roads
 - Graded 169 miles of roads
 - Maintained 130 miles of forest boundary
- Recreation Management
 - Conducted 3 Operation Outdoor Freedom (OOF) hunt events
 - Hosted more than 271,000 day-use forest visits and 44,400 overnight camping visits
 - Thirteen BSA Eagle Scout candidates have installed 7 shelters at 5 different locations, 2 bridges at 2 different locations, a self-guided nature tour on an existing trail, a nature trail, a radial hammock garden at the group site, and a fire pit at the group site
- Biological Management
 - Actively treated 17 invasive plant species on 2,154 acres
 - Removed 1,027 feral hogs
- Education / Public Outreach
 - Hosted more than 52 forest-related program events (local school programs, clubs, and professional groups)
 - Produced 24 radio, television, and / or print articles featuring forest activities

C. Goals / Objectives for the Next Ten-Year Period

The following goals and objectives provide direction and focus management resources for the next ten-year planning period. Funding, agency program priorities, and the potential for wildfire or other natural disasters during the planning period will determine the degree to which these objectives can be met. Management activities on MSF during this period must conserve, protect, utilize, and enhance the natural and historical resources and manage resource-based public outdoor recreation, which is compatible with the conservation and protection of this forest. Most of the management operations will be conducted by the FFS, although appropriate activities will be contracted to private sector vendors or completed with the cooperation of other agencies. All activities will enhance the property's natural resource or public recreation value.

The management activities listed below will be addressed within the ten-year management period and are defined as goals, with each goal containing short-term objectives, long-term objectives, or ongoing objectives. Short-term objectives are those that are achievable within a two-year planning period, and long-term objectives are achievable within a ten-year planning period. Objectives are listed in priority order for each goal. Other activities will be completed with minimal overhead expense and existing staff.

➤ **GOAL 1: Sustainable Forest Management**

Objective 1: Continue to update and implement the Five-Year Silviculture Action Plan including reforestation, timber harvesting, prescribed burning, restoration, and timber stand improvement activities and goals. (Ongoing objective)

Performance Measures:

- Annual updates of the Five-Year Silviculture Action Plan completed
- Continued implementation of the Five-Year Silviculture Action Plan (acres treated)

Objective 2: Continue to implement the FFS process for developing stand descriptions and conducting forest inventory, including maintaining a GIS database containing forest stands, roads, and other attributes (including, but not limited to: rare, threatened, and endangered species, archaeological and historical resources, and non-native invasive species locations). (Ongoing objective)

Performance Measures:

- Update GIS database and re-inventory all attributes as required by FFS procedures
- Number of acres inventoried

➤ **GOAL 2: Public Access and Recreation Opportunities**

Objective 1: Maintain public access and recreation opportunities that are compatible with multiple-use management. (Ongoing objective)

Performance Measure: Number of visitor opportunities per day

Objective 2: Continue to safely integrate visitor use into MSF, follow the Five-Year Outdoor Recreation Plan and update annually. (Ongoing objective)

Performance Measures:

- Continued implementation of the Five-Year Outdoor Recreation Plan
- Annual updates of the Five-Year Outdoor Recreation Plan completed

Objective 3: Continue to involve and meet with the Liaison Committee. The purpose of Liaison Committee meetings is to facilitate communication between the FFS and committee members (and the groups they represent) about State Forest management and to obtain feedback from these entities. The Liaison Committee consists of local residents, community leaders, special interest group representatives (vendors, hunters and other recreation users, etc.), environmental group representatives, and other public / private entities. (Ongoing objective)

Performance Measures:

- Liaison Committee remains organized
- Annual meetings continue

Objective 4: Evaluate the potential for additional public access and recreation areas on MSF that are compatible with multiple-use management. Recreation opportunities will fall under the scope of multi-use management in accordance with watershed protection, conservation, and ecosystem restoration; and as detailed in the purpose for acquisition. (Short-term objective)

Performance Measure: Annual evaluation of additional visitor opportunities

Objective 5: Maintain cooperation with Florida Fish and Wildlife Conservation Commission

(FWC) to develop specific hunting season quotas and bag limits, and to address hunting issues which are to be agreed upon at an annual cooperator meeting between FFS and FWC. (Ongoing objective)

Performance Measures:

- Annual letter on agreed-upon hunting issues
- Updated rules posted and public small game hunting area brochures available online at MyFWC.com

Objective 6: Recruit volunteers and volunteer organizations to assist with recreation and / or resource management. (Ongoing objective)

Performance Measures:

- Number of volunteers and organizations that assist with projects
- Number of hours provided by volunteers

➤ **GOAL 3: Habitat Restoration, Improvement, and Fire Management**

Objective 1: The MSF currently contains approximately 6,860 acres of fire-dependent communities. MSF staff will plan and conduct prescribed burns in a manner that benefits these fire-dependent natural communities within MSF. To achieve an average fire-return interval of two (2) to five (5) years for most fire-dependent communities, FFS will attempt to conduct prescribed burns on an average of approximately 1,400 to 3,400 acres per year. Currently FFS staff estimates 4,814 acres at MSF are within the desired fire management interval. (Ongoing objective)

Performance Measures:

- Annual number of acres burned
- Number of acres burned within target fire-return interval

Objective 2: Continue to annually update and implement the Five-Year Prescribed Burning Management Plan and the prescribed burning goals. (Ongoing objective)

Performance Measures:

- Annual updates of the Five-Year Prescribed Burning Management Plan completed
- Continued implementation of the Five-Year Prescribed Burning Management Plan (acres treated)

Objective 3: Reduce the threat of wildfire within the wildland urban interface on MSF and the surrounding community through a comprehensive mitigation strategy that includes evaluating vegetative fuels near residential areas and identifying potential fuel reduction projects. (Ongoing objective)

Performance Measures:

- Evaluation complete
- Should fuel reduction be necessary, number of acres treated for fuel reduction

Objective 4: Utilize prescribed fire to enhance restoration of native groundcover. Evaluate areas where native groundcover has been eliminated or heavily impacted from historical land use on a case by case basis for alternative methods to address reestablishment of native groundcover plants. Restore native groundcover from historical land use where practical or heavily impacted.

(Long-term objective)

Performance Measure: Number of acres restored

➤ **GOAL 4: Listed and Rare Species Habitat Maintenance, Enhancement, Restoration, or Population Restoration**

Objective 1: In cooperation with FWC, develop a Wildlife Management Strategy addressing the wildlife species for MSF, with emphasis on imperiled species and associated management prescriptions for their habitats. (Ongoing objective)

Performance Measures:

- Imperiled species management strategy completed
- Baseline listed and rare species list completed for MSF

Objective 2: In consultation with FWC, implement survey and monitoring protocols, where feasible, for listed and rare species. (Ongoing objective)

Performance Measure: Number of species for which monitoring is ongoing

➤ **GOAL 5: Non-Native Invasive Species Management and Control**

Objective 1: Continue to follow and annually update the Five-Year Ecological Plan for MSF, to locate, identify, and control non-native invasive species. (Ongoing objective)

Performance Measures:

- Total number of acres identified and successfully treated
- Annual updates of the Five-Year Ecological Plan completed
- Continue to maintain MSF non-native invasive species database information annually

➤ **GOAL 6: Cultural and Historical Resource Management**

Objective 1: Ensure all known cultural and historical sites are recorded in the Department of State, Division of Historical Resources (DHR) Florida Master Site file. (Ongoing objective)

Performance Measure: Documentation of recorded sites

Objective 2: Monitor recorded sites and send updates to the DHR Florida Master Site File as needed. (Ongoing objective)

Performance Measure: Number of sites monitored. Reports submitted to DHR.

Objective 3: Maintain at least one qualified staff member as an Archaeological Resource Management (ARM) Monitor. (Ongoing objective)

Performance Measure: Number of local staff trained as ARM Monitors

➤ **GOAL 7: Hydrological Preservation and Restoration**

Objective 1: Protect water resources during management activities through the implementation of Silviculture Best Management Practices (BMP). (Ongoing objective)

Performance Measure: Percent compliance with Silviculture BMP

Objective 2: Conduct or obtain a site assessment / study to identify potential hydrological restoration needs. (Short-term objective)

Performance Measure: Assessment conducted

Objective 3: Close, rehabilitate, or restore roads, fire lines, and trails that are causing hydrologic alterations or negatively impacting water quality. (Ongoing objective)

Performance Measure: Total number of roads, firelines, and trails closed, rehabilitated, and / or restored

➤ **GOAL 8: Capital Facilities and Infrastructure**

Objective 1: MSF staff, along with help from volunteers, and / or user groups, will continue maintenance of four parking areas and four trailheads, 31.6 miles of trails, one boat/canoe/kayak launch, and 40.6 miles of primary, secondary, and tertiary roads. (Ongoing objective)

Performance Measure: Number of existing facilities, miles of roads, and miles of trails maintained

Objective 2: Continue to follow the Five-Year Roads and Bridges Management Plan and update annually. (Ongoing objective)

Performance Measures:

- Continued implementation of the Five-Year Roads and Bridges Management Plan
- Annual updates of the Five-Year Roads and Bridges Management Plan completed

Objective 3: Continue to implement the Five-Year Boundary Survey and Maintenance Management Plan and update annually. Approximately 20 percent of MSF's boundary will be evaluated and remarked annually as necessary which includes harrowing, reposting signage, and repainting boundary trees. (Ongoing objective)

Performance Measures:

- Continued implementation of the Five-Year Boundary Survey and Maintenance Management Plan
- Percentage of forest boundary maintained each year
- Annual updates of the Five-Year Boundary Survey and Maintenance Management Plan completed

II. Administration Section

A. Descriptive Information

1. Common Name of Property

The common name of the property is the Myakka State Forest.

2. Legal Description and Acreage

The MSF is comprised of 8,593 acres, more or less.

MSF is located in southwest Sarasota County and falls within the city limits of North Port. The property occupies all or part of Sections 1, 11-14, 22-28, 33-36 Township 40 South, Range 20 East. Acreage acquired is identified in Table 1.

Table 1. MSF Acreage by Funding Source

Funding Source	Acres
Conservation and Recreation Lands	8,532.39
Preservation 2000	60.40

A complete legal description of lands owned by the Board of Trustees of the Internal Improvement Trust Fund (TIITF) and the Southwest Florida Water Management District (SWFWMD) is on record at the MSF Headquarters, Florida Department of Environmental Protection (FDEP), and the FFS State Office in Tallahassee.

3. **Proximity to Other Public Resources**

Lands managed by state, federal, or local government for conservation of natural or cultural resources that are located within approximately 25 miles of the MSF are mapped in Exhibit F and listed in Table 2.

Table 2. Nearby Significant Public Conservation Lands

Tract	Lead Managing Agency	Distance
Ainger Creek Trails	Sarasota County	Adjacent W
Oyster Creek Regional Park	Charlotte County	1 mile SW
Cedar Point Environmental Park	Charlotte County	2 miles SW
Charlotte Harbor Preserve State Park	DRP	2 miles SW
Gasparilla Sound Charlotte Harbor Aquatic Preserve	DRP	2 miles SW
Lemon Bay Aquatic Preserve	DRP	2 miles SW
Deer Prairie Creek Preserve	SWFWMD	3 miles N
James E. Cook Memorial Preserve	TNC	3 miles SW
Stump Pass Beach State Park	DRP	3 miles SW
Port Charlotte Beach Recreation Area	DRP	3 miles SW
Thornton Key Preserve	Charlotte County	4 miles S
Tippecanoe Environmental Park	Charlotte County	4 miles E
Buck Creek Preserve	Charlotte County	4 miles S
Amberjack Environmental Park	Charlotte County	5 miles S
Don Pedro Island State Park	DRP	6 miles S
Orange Hammock Wildlife Management Area	FWC	6 miles NE
T. Mabry Carlton, Jr. Memorial Reserve	Sarasota County	6 miles N
Alligator Creek Conservation Area	Sarasota County	6 miles NW
Myakkahatchee Creek Conservation Easement	SWFWMD	9 miles NE
Island Bay National Wildlife Refuge	NFWS	10 miles S
Myakka River State Park	DRP	10 miles N
Lewis Longino Preserve	SWFWMD	11 miles NE
RV Griffin Reserve	SWFWMD	13 miles NE
Gasparilla Island State Park	DRP	14 miles S

Tract	Lead Managing Agency	Distance
Fred C. Babcock / Cecil M. Webb Wildlife Management Area	FWC	15 miles S
Peace River State Forest	FFS	16 miles E
Cayo Costa State Park	DRP	17 miles S
Bocilla Preserve	Lee County	17 miles SE
Matlacha Pass National Wildlife Refuge	NFWS	20 miles SE
Babcock Ranch Preserve	FFS	25 miles SE
Prairie Pines Preserve	Lee County	25 miles SE

DRP – Division of Recreation and Parks

FWC – Florida Fish and Wildlife Conservation Commission

NFWS – National Fish and Wildlife Service

SWFWMD – Southwest Florida Water Management District

FFS – Florida Forest Service

NPS – National Park Service

TNC – The Nature Conservancy

4. **Property Acquisition and Land Use Considerations**

TIITF and the SWFWMD purchased this property on October 13, 1995, from Atlantic Gulf Communities Corporation (AGCC) as part of the Myakka Estuary Conservation and Recreation Lands (CARL) project. See Exhibit R. It was acquired using Preservation 2000 bond funds from the CARL program and from the Save Our Rivers (SOR) conservation program. The western portions of the AGCC property, Tracts 21-708-101A, 21-708-101B and 21-708-106, are managed by the FFS as the MSF. These are the only portions of the purchase covered under this management plan.

The remainder of the AGCC property was assigned to the FDEP, Office of Resilience and Coastal Protection (RCP) for management as part of the Charlotte Harbor State Buffer Preserve.

In August 2001, an additional 60-acre parcel to the north of the present Winchester Tract was acquired and is now under management by the FFS in cooperation with FDEP. The Michael J. Peery parcel was funded through the Preservation 2000 conservation program. All TIITF-acquired parcels are identified in Table 3.

Table 3. Parcel Acquisition

Parcel Name	Lease No.	Lease Date	Acres
Atlantic Gulf	4102	3/10/1997	8,532.39
Michael J. Peery	4327	8/30/2001	60.40

B. **Management Authority, Purpose, and Constraints**

1. **Purpose for Acquisition / Management Prospectus**

The main objectives identified by the CARL program for purchasing the property were to:

- Conserve and protect environmentally unique and irreplaceable lands that contain native, relatively unaltered flora and fauna representing a natural area unique to, or scarce within, a region of this state or a larger geographical area;
- Conserve and protect native species habitat or endangered or threatened species;

- Conserve, protect, manage, or restore important ecosystems, landscapes, and forest, if the protection and conservation of such lands is necessary to enhance or protect significant surface water, ground water, coastal, recreation, and timber resources, or to protect fish and wildlife resources which cannot otherwise be accomplished through local and state regulatory programs;
- Provide areas, including recreation trails, for natural resource-based recreation;
- Preserve archaeological or historical sites; and
- Protect, preserve, and restore natural ecosystems, while maintaining timber management areas and provide recreation opportunities which are compatible with these purposes.

The objectives identified by the SOR program were to:

- Conserve and protect the water, natural resources, and natural areas along the Myakka River and Charlotte Harbor; and
- Protect, preserve, and restore natural ecosystems, while maintaining a working commercial forest and providing recreation opportunities.

2. Degree of Title Interest Held by the Board

The TIITF and the SWFWMD hold joint fee simple title to the 8,532.39 acres of MSF. Intergovernmental Lease Agreement Number 4102, between TIITF and SWFWMD, provides authority for the FFS to manage MSF.

The TIITF Lease Agreement Number 4327 for the Michael J. Peery parcel (60.4 acres) was executed on August 30, 2001

3. Designated Single or Multiple-Use Management

MSF is managed under a multiple-use concept by the FFS, under the authority of Chapters 253 and 589, F.S. The FFS is the lead managing agency as stated in TIITF Management Lease Numbers 4102 and 4327.

Multiple-use management is the harmonious and coordinated management of timber, recreation, conservation of fish and wildlife, forage, archaeological and historic sites, habitat and other biological resources, and water resources so they are utilized in the combination that will best serve the people of the state, making the most judicious use of the land for some or all these resources and considering the relative values of the various resources. Local demands, acquisition objectives, and other factors influence the array of uses that are compatible with and allowed on any specific area of MSF. This management approach is believed to provide for the greatest public benefit, by allowing compatible uses while protecting overall forest health, native ecosystems, and the functions and values associated with them.

4. Revenue Producing Activities

Numerous activities on MSF provide for multiple-use, as well as generate revenue, to offset management costs. Revenue producing activities will be considered when they have been determined to be financially feasible and will not adversely impact management of MSF.

Current and potential revenue producing activities for the MSF include, but are not limited to:

- Timber Harvests – Timber harvests on MSF will be conducted on a periodic basis to improve forest health, promote wildlife habitat, restore plant communities, and provide other benefits.
- Recreation Fees – Fees are collected through an online reservation system for day-use areas, campgrounds, annual passes, and vendor / special use permits. Vendor permits or special-use permits are collected in the office via check or money order.
- Apiaries – MSF currently has two apiary leases providing six sites for an average annual income of \$661 per year. There are additional tracts of land that have potential to support apiary sites.
- Other miscellaneous – The sale of other miscellaneous forest products including, but not limited to, palm fronds and palmetto berries, pinecones, pine straw, and firewood may be considered.

5. Conformation to State Lands Management Plan

Management of MSF under the multiple-use concept complies with the State Lands Management Plan and provides optimum balanced public utilization of the property. Specific authority for the FFS's management of public land is derived from Chapters 253, 259 and 589, F.S.

6. Legislative or Executive Constraints

FFS makes every effort to comply with applicable statutes, rules, and ordinances when managing MSF. For example, when public facilities are developed on State Forests, every effort is made to comply with Public Law 101-336, the Americans with Disabilities Act. As new facilities are developed, the universal access requirements of this law are followed in all cases except where the law allows reasonable exceptions (e.g., where handicap access is structurally impractical or where providing such access would change the fundamental character of the facility being provided).

There are no known legislative or executive constraints specifically directed toward MSF.

7. Aquatic Preserve / Area of Critical State Concern

MSF is not within an aquatic preserve, is not a designated area of critical state concern, and is not under study for such designation. However, MSF is within two miles of the Charlotte Harbor State Buffer Preserve and the Gasparilla Sound-Charlotte Harbor Aquatic Preserve.

C. Capital Facilities and Infrastructure

1. Property Boundaries Establishment and Preservation

MSF boundary lines, 21.7 miles total, are managed by State Forest personnel in accordance with the guidelines of the State Forest Handbook. There are 18 gates throughout MSF that require periodic maintenance. The MSF boundary lines are to be maintained by periodic clearing, repainting and reposting of State Forest boundary signs by FFS personnel. The boundaries are identified in Exhibit B.

2. Improvements

Current structures supporting operations consist of an administrative office, modular ranger room, pump house, two pole barns, and several storage sheds. An additional pole barn is under construction as of the writing of this plan update. Improvements supporting the recreation program include two vault restrooms and a recreation pavilion. See Exhibit D for a map of the recreation infrastructure at MSF.

3. On-Site Housing

FFS may establish additional on-site housing (mobile / manufactured home) on MSF if deemed necessary to alleviate security and management issues. The need and feasibility specific for the State Forest will be evaluated and established if considered appropriate by the District Manager and approved by the FFS Director. Prior to the occurrence of any ground disturbing activity for the purpose of establishing on-site housing, a notification will be sent to the DHR and Florida Natural Areas Inventory (FNAI) for review and recommendations. This type of housing will not exceed three homes per location with the possibility of more than one on-site housing location occurring if considered necessary by the District Manager and approved by the Director.

There are currently two mobile home sites on MSF for employee residences. One site contains a FFS owned mobile home and the other is currently occupied by an employee owned travel trailer.

4. Operations Infrastructure

a. Operations Budget

For Fiscal Year 2021-2022, the annual operational budget for MSF was \$36,686.56. This amount includes expenses, contractual services, and Other Personal Services Employment (OPS), etc. A summary budget for MSF is contained in Exhibit V. Implementation of any of the activities within this management plan is contingent on availability of funding, other resources, and other statewide priorities.

b. Equipment

To carry out the mission of the FFS, MSF maintains a diverse range of equipment including:

- 2 Tractor/Plows with transport units
- 1 Type 6 engine
- 1 Dump truck
- 2 Farm tractors with various implements
- 1 Soft track
- 4 Pickup trucks
- 3 Zero-turn mowers
- 1 ATV
- 1 UTV
- 3 Utility trailers

Additional equipment can be used from other resources throughout the Myakka River District, when needed, for management activities on MSF.

c. Staffing

Staffing at MSF consists of a Forest Area Supervisor, Forester, Senior Forest Ranger, two Forest Rangers, OPS Park Ranger, and OPS Staff Assistant. In addition, an Invasive Species Strike Team consisting of an OPS Forestry Supervisor and OPS Agricultural Technician are stationed at MSF and conduct invasive species treatments on MSF, Peace River State Forest, and Babcock Ranch Preserve.

The forester will work to achieve the goals outlined in this management plan. Recreation planning and management activities, as well as resource management and planning activities, such as trail flagging/identification, recreation facility placement, timber cruising, and sale administration, etc., are the responsibility of the forester under the direction of the Resource Administrator and District Manager. Forest operations, such as road maintenance, operations/recreation facility maintenance, prescribed burning, etc., are the responsibility of the Forest Area Supervisor under the direction of the District Manager.

D. Additional Acquisitions and Land Use Considerations

1. Alternate Uses Considered

No alternate uses are being considered at this time. Alternate uses will be considered as requests are made and will be accommodated as appropriate if they are determined to be compatible with existing uses and with the management goals and objectives of MSF. Uses determined as incompatible include, but are not limited to: water resource development projects, water supply projects, storm-water management projects, sewage treatment facilities, linear facilities, off-highway vehicle use, communication towers and antennas, dumping, mining, and oil well stimulation (e.g. hydraulic fracturing / fracking), or as determined by law, regulation or other incompatible uses as described elsewhere in this management plan. Deadhead logging is not compatible and is not considered an appropriate use within or adjacent to MSF's boundaries. Although no water resource projects are being considered at this time on SWFWMD-owned lands within MSF, they should not be precluded.

2. Additional Land Needs

The purchasing of additional land, within the optimal management boundary would facilitate restoration, protection, maintenance, and management of the natural resources on MSF.

There are three parcels of land comprised of 736 acres adjacent to the property which should receive priority for acquisition, as they would benefit the management of the property. FFS will work with the property owners, on a willing seller basis, to acquire these parcels. See Exhibit C.

3. Surplus Land Assessment

On conservation lands where FFS is the lead manager, FFS assesses and identifies areas for potential surplus land. This consists of an examination of resource and operational management needs, public access and recreation use, and GIS modeling and analysis.

The evaluation of MSF by FFS has determined that all portions of MSF are being managed and operated for the original purpose of acquisition, as well as emphasize the multiple-use

concept, as defined in sections 589.04(3) and 253.034(2)(a), F.S. Implementation of this concept will utilize and conserve State Forest resources in a harmonious and coordinated combination that will best serve the people of the state of Florida. Therefore, no portion of the MSF is recommended for potential surplus.

4. Adjacent Conflicting Uses

During the development of this management plan, FFS staff identified and evaluated adjacent land uses; reviewed current local comprehensive plans and future land use maps in making the determination that there are currently no known conflicting adjacent land uses. Additionally, FFS staff maintains liaison with adjacent landowners to ensure that any conflicting future land uses may be readily identified and addressed.

FFS will cooperate with adjacent property owners, prospective owners, or prospective developers to discuss methods to minimize negative impacts on management, resources, facilities, roads, recreation, etc., and discuss ways to minimize encroachment onto MSF.

Nearby developed areas, both existing and planned, and adjoining road systems may hinder prescribed burning due to smoke management concerns. Populations of non-native invasive plant species found on adjacent properties threaten to spread onto MSF.

5. Compliance with Local Comprehensive Plan

This plan was submitted to the Board of County Commissioners in Sarasota County for review and compliance with their local comprehensive plans. See Exhibit T.

6. Utility Corridors and Easements

FFS does not favor the fragmentation of natural communities with linear facilities. Consequently, easements for such uses will be discouraged to the greatest extent practical. When such encroachments are unavoidable, previously disturbed sites will be the preferred location. The objectives, when identifying possible locations for new linear facilities, will be to minimize damage to sensitive resources (e.g., listed species and archaeological sites), minimize habitat fragmentation, limit disruption of management activities, including prescribed burns, and limit disruption of resource-based multiple use activities such as recreation.

Collocation of new linear facilities with existing corridors will be considered but will be used only where expansion of existing corridors does not increase the level of habitat fragmentation and disruption of management and multiple-use activities. FFS will further encourage the use of underground cable where scenic considerations are desirable as well as encourage the development and use of wildlife crossings for unavoidable roadway development projects. Easements for such utilities are subject to the review and approval of the TIITF and the SWFWMD. Requests for linear facility uses will be handled according to the Governor and the Cabinet's linear facilities policy.

Currently there is one established utility corridor on MSF, a Florida Power and Light powerline.

E. Agency and Public Involvement

1. Responsibilities of Managing Agencies

FFS is the lead managing agency, responsible for overall forest management and public recreation activities, as stated in TIITF Management Lease Numbers 4102 and 4327. Pursuant to the management lease, the lead managing agency may enter into further agreements or to subleases on any part of MSF.

FFS will cooperate with DHR regarding appropriate management practices on historical or archaeological sites on the property as stated in Section 267.061, F.S. FFS will consult DHR prior to the initiation of ground disturbing activities as required per DHR guidelines.

FWC assumes law enforcement responsibilities, enforces hunting regulations, cooperatively sets hunting season dates with FFS, and conducts other wildlife management activities with input from FFS.

The SWFWMD will be consulted and involved in matters relating to water resources and hydrological restoration as appropriate.

2. Law Enforcement

Primary law enforcement responsibilities will be handled by FWC law enforcement officers. Rules governing the use of MSF are stated in Chapter 5I-4 of the F.A.C. FWC will enforce fish and wildlife regulations and aid in enforcing State Forest rules. FWC does not currently have an officer dedicated to patrolling and enforcement on MSF. This task is shared among multiple FWC officers who also patrol and enforce laws on properties and waterways outside of MSF.

The FDACS Office of Agricultural Law Enforcement (OALE) will assist with open burning and wildfire investigations as needed. The City of North Port Police Department provides additional assistance as needed.

Special rules under Chapter 5I-4 of the F.A.C. were promulgated for FDACS-FFS, to manage the use of state lands and better control traffic, and to oversee camping and other uses on MSF.

3. Wildland Fire

FFS has the primary responsibility for prevention, detection, and suppression of wildfires wherever they may occur. FFS shall provide leadership and direction in the evaluation, coordination, allocation of resources, and monitoring of wildfire management and protection as stated in 590.01, F.S. FFS also has the responsibility of authorizing prescribed burns as stated in 590.02 (1)(i), F.S.

4. Public and Local Government Involvement

This plan has been prepared by FFS and will be implemented by FFS. FFS responds to public involvement through liaison committees, management plan advisory groups, public hearings, and through ongoing direct contact with user groups. Land Management Review Teams as

coordinated by the Division of State Lands have conducted two reviews of management plan implementation in 2013 and 2018. See Exhibit S. The review team's recommendations were addressed in this plan, as appropriate.

A State Forest liaison committee of private citizens and representatives of forest user groups meet semi-annually to provide input on forest management activities and share their ideas with FFS staff to improve the State Forest.

This plan was developed with input from the MSF Management Plan Advisory Group and was reviewed at a public hearing on February 2, 2023. A summary of the advisory group's meetings and discussions, as well as written comments received on the plan, are included in Exhibit U. The Acquisition and Restoration Council (ARC) public hearing and meeting serve as an additional forum for public input and review of the plan.

5. Volunteers

Volunteers are important assets to MSF. Volunteer activities may occur as one-time events or in association with long-term recurring projects and routine maintenance. Additional volunteer recruitment will continue to assist furthering the FFS's mission.

6. Friends of Florida State Forest

Friends of Florida State Forests Inc. (FFSF) is a Direct Support Organization of the FFS. FFSF supports management activities and projects on Florida's State Forests. FFSF is an organization established by Florida statute that supports programs within Florida's State Forests and is governed by a board of directors representing all areas of the state. Through community support, FFSF assists the FFS to expand opportunities for recreation, environmental education, fire prevention, and forest management within Florida's State Forests.

The FFSF program is referenced in Chapter 589.012, F.S. For more information visit: www.floridastateforests.org.

III. Archaeological/Cultural Resources and Protection

A. Past Uses

Portions of the property have been used for agricultural purposes in the past. Cattle grazing, turpentine (naval stores) operations, and timber harvesting were the major factors to influence the property's appearance as it is today. On the larger Myakka Tract west of the Myakka River, many areas were cleared to develop pastures for grazing. Most of these areas were leased for cattle grazing until the property was purchased by the State and SWFWMD. In 1956, General Development Corporation purchased the property, and the area was soon rezoned for low density residential housing. A system of roads designed for this type of housing were developed and installed, but never paved. Many of these roads are still visible today and make excellent access roads and trails throughout MSF. The Myakkahatchee Tract east of the Myakka River is more remote and less accessible than the larger Myakka Tract. A large barrow pit on the south end of the Myakkahatchee Tract was developed in the late 1960's to provide fill material for development activities in North Port.

B. Archaeological and Historical Resources

A review of information contained in the DHR Florida Master Site file has determined there are four (4) recorded archaeological resource group on MSF. None are listed in the National Register of Historic Places. See Exhibit G.

Table 4. Historical Sites on MSF

Site ID	Site Name	Site Type
SO06958	Water's Edge Lithic Scatter	Archaeological site
SO06959	La Casa Clam Midden	Archaeological site
SO06960	Four Eyes Midden	Archaeological site
SO06961	Old Slough Herty Cup Scatter	Archaeological site

C. Ground Disturbing Activities

Representatives of DHR and FNAI will be consulted prior to the initiation of proposed ground disturbing activity as required per DHR guidelines. FFS will make every effort to protect known archaeological and historical resources. FFS will follow the “Management Procedures for Archaeological and Historical Sites and Properties on State Owned or Controlled Lands” and will comply with all appropriate provisions of Section 267.061(2)(a,b), F.S. See Exhibit H. Any significant ground disturbing activity proposal will be submitted to DHR’s Compliance and Review office for review prior to undertakings and allow the Division a reasonable opportunity to comment. Ground disturbing activities not specifically covered by this plan will be conducted under the parameters of the “Interim Management Guidelines.”

D. Survey and Monitoring

Currently, one MSF staff member has been trained by FDHR as Archaeological Resource Management (ARM) monitor. However, other district staff trained as ARM monitors provide oversight as required for any ground disturbing and management activities that occur. FFS will pursue opportunities for additional personnel to receive ARM Monitor training. FFS will consult with public lands archaeologists at FDHR as necessary to determine an appropriate priority and frequency of monitoring at each of the listed sites, and any protection measures that might be required. Unless required on a more frequent basis, all archaeological and historical sites within MSF will be monitored at least annually. FFS field staff will monitor the listed sites to note condition and any existing or potential threats.

Any known archaeological and historical sites will be identified on maps to aid State Forest personnel and if necessary, law enforcement personnel in patrolling and protecting sites. Applicable surveys will be conducted by ARM monitors or contracted archaeologists during the process of planning and implementing multiple-use management activities. FFS personnel will remain alert for any environmentally significant resource discoveries and protective actions will be taken as necessary. In addition, FFS will seek the advice and recommendations of DHR regarding any additional archaeological survey needs. Trained monitors may oversee limited types of ground disturbing activities in which DHR recommends monitoring. FFS will utilize the services of DHR Public Lands archaeologists, when available, to locate and evaluate unknown resources, and to make recommendations in the management of known resources.

IV. Natural Resources and Protection

The primary purpose for FFS management of MSF is to protect the water, natural resources, and natural areas along the Myakka River and Charlotte Harbor through a stewardship ethic to assure these resources will be available for future generations. Management activities will be executed in a manner to minimize soil erosion and maintain and protect / enhance the hydrological resources on MSF. If problems arise, corrective action will be implemented by FFS staff under the direction of FFS's Forest Hydrology Section. Efforts will be made to monitor and protect MSF's waterbodies and their associated water quality and native plants and animals.

MSF falls within the jurisdiction of the SWFWMD. FFS will coordinate with SWFWMD and / or FDEP, as necessary, on activities pertaining to water resource protection and management. Any activities requiring water management district permits will be handled accordingly. FFS will work with SWFWMD to ensure that levels and quality of ground and surface water resources are appropriately monitored.

A. Soils and Geologic Resources

1. Resources

Soil information for MSF was obtained from the United States Department of Agriculture's Natural Resources Conservation Service (NRCS). The predominant soils listed by the NRCS are: EauGallie and Myakka fine sands, Holopaw fine sand, and Pineda-Pineda wet, fine sand. See Exhibit I for detailed soils information from the NRCS Soil Survey Area: Sarasota County; Survey Area Data: Version 18, June 2020.

2. Soil Protection

Management activities will be executed in a manner to minimize soil erosion. As problems arise, corrective action will be implemented by FFS staff under the direction of the FFS Forest Hydrology section in conjunction with recommendations as contained in the most current version of the Florida Silviculture BMP Manual.

Currently there are no major or significant soil erosion problems on MSF.

B. Water Resources

The water resources on MSF perform essential roles in the protection of water quality, groundwater recharge, flood control, and aquatic habitat preservation. In the interest of maintaining these valuable resource functions, State Forest management personnel will work with the FFS Hydrology Section to incorporate wetland restoration into the overall resource management program as opportunities arise, particularly where wetland systems have been impaired or negatively impacted by previous management activities or natural disasters. See Exhibit K for a map of the water resources at MSF.

1. Resources

The Myakka River runs through the northeastern section of MSF, separating the Myakkahatchee Tract from the rest of MSF. The Myakka River is designated as an OFW as well as a Wild and Scenic River under the "Myakka River Wild and Scenic Designation and

Preservation Act”, 258.501, F.S. All of the Myakka River south of the western line of Section 35, Township 39 South, Range 20 East, to Charlotte Harbor is designated as Class II waters.

Big Slough (also known as Myakkahatchee Creek) enters the MSF at the northeastern corner of the smaller Myakkahatchee Tract, flows for 1.5 miles, and drains into the Myakka River. The larger Myakka Tract contains the headwaters of Rock Creek, also known as Ainger Creek, a tributary to Lemon Bay and a part of the Charlotte Harbor estuarine system. Some freshwater wetlands on MSF have been ditched to improve drainage and several restoration projects have been completed to restore the natural hydrology. Scattered depression marshes are found throughout the flatwoods of MSF. Small, tidal salt marsh creeks drain into the river on both the Myakka and Myakkahatchee Tracts where they border the river.

The Myakkahatchee Tract contains a small lake that was once a barrow pit that is used for recreation activities such as fishing and canoeing.

2. Water Classification

The Florida Department of Environmental Protection (FDEP) Standards Development Section reports the surface waters of the Myakka River from north of the site near US-41 to Charlotte Harbor are classified as Class II waters (Shellfish Propagation or Harvesting) according to subparagraphs 62-302.400(17)(b)58., F.A.C.; therefore, all of the remaining surface waters on or adjacent to the site are classified as Class III waters (Fish Consumption; Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife), which is the statewide default classification under subsection 62-302.400(15), F.A.C.

According to subparagraph 62-302.700(9) F.A.C., the Myakka River has been designated as an OFW under subparagraph 62-302.700(9), F.A.C. The waters upstream (northwest) of the Sarasota-Charlotte County line across the river are within the Myakka Florida Wild and Scenic River OFW under subparagraph 62-302.700(9)(j)2., F.A.C., and the portion downstream of the county line is part of the Myakka River OFW under subparagraph 62-302.700(9)(i)22., F.A.C. See Exhibit J.

3. Water Protection

To restore hydrologic function to degraded wetlands in the southeastern portion of MSF, the SWFWMD has developed a hydrologic restoration plan for MSF. The plan uses data generated from a predictive hydrologic model to assure that the restoration will not increase flood risk to adjacent lands. The objectives of the plan, titled “Myakka State Forest Water Quality and Bank Stabilization Project”, include repairing a washout that has resulted in significant erosion, installing control structures to prevent future erosion, and providing sufficient drainage along the southernmost property boundary. See Exhibit Y. Water resource protection measures, at a minimum, will be accomplished using BMP guidelines as described in the most current version of Silviculture Best Management Practices Manual.

4. Swamps, Marshes, and Other Wetlands

In addition to the waterways, MSF contains approximately 1,235 acres in five hydric

communities: depression marsh, hydric hammock, salt marsh, mangrove swamp, and tidal creek. Maintenance of naturally occurring wetland communities is a high priority and will be accomplished through appropriate management activities, including prescribed fire when necessary, and adherence to Silviculture BMPs.

5. Wetlands Restoration

Wetland restoration objectives on MSF include erosion control, restoration of water levels, and restoration of wetland plant and animal communities. To achieve these objectives, restoration activities may involve road and soil stabilization, water level control structure removal or installation, non-native invasive species control, site preparation and re-vegetation with native wetlands species, and project monitoring. These activities may be conducted individually or concurrently; implemented by FFS personnel or by non-FFS personnel under mitigation or grant contractual agreements. Wetland restoration projects should be conducted in conjunction with other restoration activities indicated elsewhere in this plan.

Where applicable, MSF, with assistance from the FFS Forest Management Bureau, may pursue funding to develop and implement wetlands restoration projects. Additionally, cooperative research among FFS, other state agencies, and the federal government will provide valuable information in determining future management objectives of wetlands restoration.

Wetlands restoration will be coordinated with the SWFWMD. Any activities requiring permits from the Water Management District will be handled accordingly and will follow the latest edition of the FFS Silviculture BMP Manual.

In the ten-year period contemplated by this plan, FFS and SWFWMD will evaluate a potential restoration project of a barrow pit on MSF, by creating some islands of vegetation and reshaping the bottom of the pit to a more natural form. The barrow pit is located near the end of Campbell Street on the Myakkahatchee Tract of MSF. See Exhibit X. The barrow pit was established in the late 1960's, presumably to support residential development in the North Port area. Before this, the property was used for ranchland. The project will be planned and administered by SWFWMD personnel with the cooperation of the FFS. In addition to the hydrological benefits provided, the restoration project will improve wildlife habitat, enhance aesthetics, and increase recreation opportunities.

6. Florida Department of Environmental Protection Basin Management Action Plans

A Basin Management Action Plan (BMAP) is a "blueprint" for restoring impaired waters by reducing pollutant loadings to meet the allowable loadings established in a Total Maximum Daily Load (TMDL). It represents a comprehensive set of strategies, including, but not limited to permit limits on wastewater facilities, urban and agricultural best management practices, conservation programs, financial assistance; and revenue generating activities, all designed to implement the pollutant reductions established by the TMDL. These broad-based plans are developed with local stakeholders, as they rely on local input and local commitment, and are adopted by Secretarial Order to be enforceable.

The BMAP provides for phased implementation under Subparagraph 403.067(7)(a)1, F.S. The phased BMAP approach allows for the implementation of projects designed to achieve incremental reductions, while simultaneously monitoring and conducting studies to better understand the water quality dynamics (sources and response variables) in the watershed.

Currently MSF does not reside in an active or pending BMAP zone.

7. **Hydrologic Restoration Activities**

Several hydrologic restoration projects have been completed by SWFWMD since acquisition. The Talon Bay Mitigation Project in 2003 included the installation of an 80-foot concrete weir near the eastern end of a drainage ditch to begin the process of rehydrating several depression marshes. The drainage ditch runs east to west through the Myakka Tract and was the subject of later projects.

A small project in 2005 included removal of a salinity barrier in Ainger Creek near the western boundary of the Winchester Tract. The barrier had been in place since the late 1960's and was installed to prevent salt water tidal movement into the upper reaches of Ainger Creek.

The Oyster Creek Project in 2015 included installation of earthen ditch plugs further west in the same drainage ditch that was partially addressed in the 2003 project. The primary focus of the Oyster Creek Project was the installation of a 250-foot geoweb weir near the southern boundary of the Myakka Tract where Oyster Creek exits the property. The purpose of these projects was to rehydrate wetlands forming the headwaters of Oyster Creek. See Exhibit Y.

C. **Floral and Faunal Resources**

1. **Rare, Threatened, and Endangered Species**

The intent of FFS is to manage MSF in a fashion that will minimize the potential for wildlife species to become imperiled. FFS employees continually monitor MSF for threatened or endangered species while conducting management activities. Specialized management techniques may be used, as necessary, to protect or increase protection of rare, threatened, and endangered species, as applicable for both plants and animals. See Table 5.

Table 5. Rare, Threatened, or Endangered Species Documented on MSF

Common Name	Scientific Name	FNAI Global Rank*	FNAI State Rank*	Federal Status*	State Status*
Bachman's Sparrow	<i>Peucaea aestivalis</i>	G3	S3	N	N
Bald Eagle	<i>Haliaeetus leucocephalus</i>	G5	S3	N	N
Golden Leather Fern	<i>Acrostichum aureum</i>	G5	S3	N	T
Gopher Tortoise	<i>Gopherus polyphemus</i>	G3	S3	C	ST
Osprey	<i>Pandion haliaetus</i>	G5	S3S4	N	N
Florida Sandhill Crane	<i>Grus canadensis pratensis</i>	G5T2	S2	N	ST
Wood Stork	<i>Mycteria americana</i>	G4	S2	T	FT
Roseate Spoonbill	<i>Platalea ajaja</i>	G5	S2	N	ST
Black-crowned Night-heron	<i>Nycticorax nycticorax</i>	G5	S3	N	N

Common Name	Scientific Name	FNAI Global Rank*	FNAI State Rank*	Federal Status*	State Status*
Little Blue Heron	<i>Egretta caerulea</i>	G5	S4	N	ST
Tricolored Heron	<i>Egretta tricolor</i>	G5	S4	N	ST
Snowy Egret	<i>Egretta thula</i>	G5	S3	N	N
Eastern Indigo Snake	<i>Drymarchon couperi</i>	G3	S3	T	FT
Florida Scrub-Jay	<i>Aphelocoma coerulescens</i>	G2	S2	T	FT
Florida Loosestrife	<i>Lythrum flagellare</i>	G2	S2	E	FE

* STATUS/RANK KEY

FNAI Global Rank: G1= Critically Imperiled, G2= Imperiled, G3= Rare, G4= Secure, G5= Demonstrably Secure, G#Q= Rare but questionable whether it is species or subspecies

FNAI State Rank: S1= Critically Imperiled in Florida, S2= Imperiled in Florida, S3= Rare in Florida, S4= Secure in Florida, S5= Demonstrably secure in Florida, SU= Not under review in Florida

Federal Status (USFWS): C= Candidate species for which Federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened, E= Endangered, N= Not currently listed, T= Threatened, SAT= Treated as Threatened due to similarity of appearance.

State Status (FWC): C= Candidate for listing, FE= Listed as Endangered Species at the Federal level by the USFWS, FT= Listed as Threatened Species at the Federal level by the USFWS, FT(S/A)= Federal Threatened due to similarity of appearance, N= Not currently listed, nor currently being considered for listing, ST= State population listed as Threatened by the FFWCC.

2. Florida Natural Areas Inventory

The Florida Natural Areas Inventory (FNAI) is the single most comprehensive source of information available on the locations of rare species and significant ecological resources throughout Florida. FNAI has reported the following:

a. **Element Occurrences**

FNAI element occurrences data layer includes occurrences of rare species and natural communities. For animals and plants, element occurrences usually indicate a viable population of the species, although they may also reflect historically documented observations which may no longer be extant. FNAI reports several documented Element Occurrences of rare or endangered species within the vicinity of the property. See Exhibit L.

Documented historic habitat includes: Depression marsh, dry prairie, hydric hammock, mangrove swamp, mesic flatwoods, mesic hammock, salt marsh, scrubby flatwoods, tidal creek, wet flatwoods, and wet prairie.

b. **Likely and Potential Habitat for Rare Species**

In addition to documented occurrences, other rare or threatened species may occur near MSF. Rare species and communities that have not been documented but that are likely or potential at the site are listed in Exhibit L.

c. **Land Acquisition Projects**

The Charlotte Harbor Estuary project was formed by combining the boundaries of three projects: the Myakka Estuary, the Cape Haze / Charlotte Harbor project, and the Charlotte Harbor project. The Charlotte Harbor Estuary is one of the largest and most productive estuaries in Florida and protects the water quality of the Charlotte Harbor and its recreation and commercial fisheries. This project provides an essential addition to lands

previously acquired through the Environmentally Endangered Lands (EEL) program.

FNAI recommends that professionals familiar with Florida's flora and fauna conduct a site-specific survey to determine the current presence or absence of rare, threatened, or endangered species before expansions or alterations are made to any facilities.

3. Florida Fish and Wildlife Conservation Commission

The FWC Fish and Wildlife Research Institute (FWRI) reports numerous records of listed species occurrences or critical habitats within the confines of the property. This includes state and federally listed endangered or threatened species.

Other findings by the FWC include:

- a. No Strategic Habitat Conservation Areas (SHCA) occur within the property boundaries, although the property itself is adjacent to a high priority SHCA.
- b. MSF is located within an area of high Species Richness which indicates the total number of species within potential habitat identified in a specific location.
- c. MSF is adjacent to Priority Wetlands, which are wetlands significant to listed wetland-dependent vertebrates.
- d. FWC's response includes a map indicating multiple species locations.

These data represent only those occurrences recorded by FWC staff and other affiliated researchers. The database does not necessarily contain records of all listed species that may occur in a given area. Also, data on certain species are not entered into the database on a site-specific basis. Therefore, one should not assume that an absence of occurrences in their database indicates that species of significance do not occur in the area. See Exhibit M.

The FWC recommends the review of management guidelines in the published FWC Gopher Tortoise Species Management Plan to guide management actions for the gopher tortoise (*Gopherus polyphemus*) on the area. The FWC Gopher Tortoise Species Management Plan provides beneficial resource guidelines for habitat management and monitoring of the gopher tortoise. For reference, the FWC Gopher Tortoise Species Management Plan can be accessed at MyFWC.com.

The FWC recommends the review of management guidelines in FWC's published Species Action Plans for the management of imperiled, rare, and focal species. The FWC Species Action Plans provide beneficial resource guidelines for habitat management and monitoring of the respective species. For reference, the FWC Species Action Plans can be accessed at MyFWC.com.

The Myakka River Critical Wildlife Management Area, located on an approximately 0.4-acre mangrove island on the Myakka River, which is approximately 0.3 miles to the west of the northern portion of the Myakkahatchee Tract, was re-established by the FWC. See Exhibit Z. In summary, the original FDEP proposal was modified to a 50-foot buffer on the east side of the island and 75-foot buffers on the north, south, and west sides. Additionally, the island's closure will seasonally protect the federally threatened wood stork throughout

the breeding season, from courtship until young are flight capable. This allows for posting of access restrictions above the mean high-water level between January 1 to August 31. Other species of water birds that will benefit from this protective measure are great egret (*Ardea alba*), great blue heron (*Ardea herodias*), anhinga (*Anhinga anhinga*), and snowy egret (*Egretta thula*).

4. Game Species and Other Wildlife

Wildlife management plays an important role in the management of resources on MSF. FWC provides cooperative technical assistance in managing the wildlife and fish populations, setting hunting seasons, establishing bag and season limits, and overall wildlife and fish law enforcement on MSF.

MSF is managed for fishing and small-game hunting as the Myakka Public Small Game Hunting Area (PSGHA) and is regulated by FWC. Management of this area will be directed to the production of biological diversity and species composition consistent with existing natural community types. Such communities will be restored and/or maintained through habitat management. All biological resources will be managed to maintain diversity.

Wildlife commonly seen in the PSGHA includes: gopher tortoise (*Gopherus polyphemus*), , bald eagle (*Haliaeetus leucocephalus*), Florida sandhill crane (*Antigone canadensis*), wood stork (*Mycteria americana*), pileated woodpecker (*Dryocopus pileatus*), northern bobwhite (*Colinus virginianus*), great egret (*Ardea alba*), eastern cottontail (*Sylvilagus floridanus*), bobcat (*Lynx rufus*), mourning dove (*Zenaida macroura*), and red-tailed hawk (*Buteo jamaicensis*). Other known inhabitants include Florida scrub-jay (*Aphelocoma coerulescens*), eastern diamondback rattlesnake (*Crotalus adamanteus*), American alligator (*Alligator mississippiensis*), eastern indigo snake (*Drymarchon couperi*), and a relatively small population of white-tailed deer (*Odocoileus virginianus*).

Non-game species will be managed and protected through the restoration and maintenance of native ecosystems found on MSF. The current State Forest Handbook gives additional details for such topics as snag management and retention.

5. Survey and Monitoring

FFS may implement species-specific management plans developed by FWC and other agencies as applicable. FFS will cooperate with FWC and other agencies in the development of new wildlife management plans and monitoring protocols, as necessary. Such plans will be consistent with rule and statute promulgated for the management of such species.

a. Gopher Tortoises

Surveys for gopher tortoise burrows have been conducted by FFS and FWC staff intermittently, as needed. All surveys are done in cooperation with FWC. Prior to implementing any management activities that may require heavy equipment or ground disturbance, the area is surveyed for any new tortoise burrows. Should new burrows be located, they are mapped with a GPS-enabled data collector, flagged and a buffer zone of at least 25 feet is established to keep heavy equipment away from the burrow apron and prevent

the collapse of the tunnel. All collected data are stored in an ArcMap geodatabase.

The FFS follows and utilizes the Best Management Practices for gopher tortoises to assist in meeting management objectives for both the species and the communities in which it is found.

b. Florida Black Bear

FFS will continue to cooperate with FWC to implement FWC's state-wide Florida Black Bear Management Plan, with an emphasis on maintaining sustainable black bear populations in suitable habitats throughout Florida for the benefit of the species and people.

c. Wood Stork

The wood stork (*Mycteria americana*) is known to forage within suitable wetland habitats throughout the MSF. Suitable wood stork foraging habitat consists of shallow wetlands with water depths of 2 to 15 inches. There is one active wood stork nesting colony on the Myakka River within the MSF boundary. This rookery was initially established as a CWA by FDEP in coordination with the Wild and Scenic River Program. It was more recently re-designated as a CWA by FWC and has protected buffer zone of at least 75 feet on three sides and 50 feet on the east side from early January through the end of August in order to protect wood storks for the full period of nesting, from courtship until the young gain the ability to fly. This reduction in buffer from the recommended 300 feet is necessary due to allowing safe navigation in between the narrower river width in this area. The ability of wood storks to forage successfully affects their decision to nest at historic rookeries and determines whether nest failure or fledgling survival will occur. On average, the southern Florida sub-population represents 53 percent of the Florida population and 34 percent of the southeastern United States population. In response to deteriorating habitat conditions in southern Florida, wood storks in this region delayed the initiation of nesting until February or March, or about two months, in most years since the 1970s. This shift in the timing of nesting is believed to be responsible for the increased frequencies of nest failures and colony abandonment in this region over the last 20 years. Colonies that start after January in southern Florida risk having young in the nests when May to June rains flood marshes and disperse forage fish. The primary factors affecting wood stork habitat surrounding the MSF are the loss and alteration of wetlands due to development and agriculture. Secondary factors such as weather (freezes and hurricanes), parasites, disease, and chemical contamination may affect wood storks, but there is insufficient information available to discuss the effects of these factors on this species.

d. Bald Eagle

Bald eagles (*Haliaeetus leucocephalus*) are considered a water-dependent species typically found near estuaries, large lakes, reservoirs, major rivers, and some seacoast habitats (USFWS 1999). Their distribution is influenced by the availability of suitable nest and perch sites near large, open water bodies, typically with high amounts of water-to-land edge. The bald eagle is an opportunistic feeder, but in southern Florida the bulk of its diet is fish. Bald eagles currently use MSF for nesting and foraging, although numbers are low. There are two known bald eagle nests located on MSF. One is active and near Shell Road. The second nest

has been inactive since 2016 and is located near the south loop off of Foresman Road. Bald eagles in Sarasota County typically nest in pine trees but are also known to nest in cypress. Bald eagle nests are protected consistent with the National Bald Eagle Management Guidelines (USFWS 2007).

e. Florida Scrub-Jay:

During the early stages of the original ten-year plan, MSF staff conducted annual surveys for presence of Florida scrub-jays (FSJ) in the abandoned pasture habitat on the Winchester Tract, where a small population was found. However, since additional surveys failed to detect FSJs, it was concluded that the FSJs had moved out of the area and into nearby suitable habitat. Surveys were discontinued by MSF staff, though volunteer birders continue to conduct annual scrub-jay surveys for the Sarasota County FSJ group. With recent renewed interest in FSJ habitat in Sarasota County, MSF staff has decided to re-establish the survey program for the upcoming plan duration. Audio surveys will be conducted in June-July where FSJs have been detected in the past; FFS will cooperate with FWC staff to conduct these surveys. Currently, most FSJ activity is along the eastern boundary of the main forest where they can be seen flying across the boundary to collect acorns, which are foraged in more suitable habitat in the open landscape of abandoned lots just off of the MSF property. There was one alleged sighting of a juvenile FSJ on the Winchester Tract in 2020. For this reason, the surveys will mostly concentrate on these areas.

f. Listed Plant Species

All known locations of listed or rare flora are GIS-mapped and location data are shared with FNAI.

g. Other Rare Biota Surveys

Surveys are done as time and staffing allow. High quality plant communities continue to incur ad hoc surveys for both listed plants and animals. The FFS will utilize FWC Species Action Plans for guidance both monitoring populations and for habitat management recommendations for rare and imperiled species, where appropriate.

During routine management activities, incidental sightings of rare animals and plants are GIS-mapped by FFS staff. All rare species data are collected and sent to FNAI annually.

Surveys conducted by university researchers, students, and knowledgeable naturalists on MSF augment information provided by formal surveys conducted by FWC and other cooperating agencies. The FFS will seek assistance from citizen scientists, colleges, universities, and other agencies to gather data on plant and animal species.

6. Gopher Tortoise Recipient Site Feasibility Assessment

The FFS has assessed the feasibility of establishing a gopher tortoise recipient site on MSF. Soil drainage classes present across the forest range from somewhat poorly drained to very poorly drained; often either frequently flooded or with a degree of surficial saturation during the wetter months of the year (see Exhibit I). Therefore, despite the property totaling just

under 8,600 acres in size, the FFS has determined there are no suitable soils for gopher tortoise recipient site establishment on MSF.

D. Sustainable Forest Resources

FFS practices sustainable multiple-use forestry to meet the MSF resource needs and values of the present without compromising future capabilities. Sustainable forestry involves practicing a land stewardship ethic that integrates the reforestation, managing, growing, nurturing, and harvesting of trees for useful products with the conservation of soil, air, and water quality, wildlife and fish habitat, and aesthetics. This is accomplished by maintaining and updating accurate estimates of standing timber in order to assure that the timber resources retain their sustainability. Forest inventories will be updated on a continual basis according to guidelines established by the FFS Forest Management Bureau.

E. Beaches and Dune Resources

No beaches or dunes occur on MSF.

F. Mineral Resources

No mineral resources of commercial value are known to exist on this property.

G. Unique Natural Features and Outstanding Native Landscapes

The MSF contains numerous natural communities including mesic flatwoods, depression marshes, scrub, tidal swamps, mesic hammock, and hydric hammock. The Myakka River, portions of which border MSF, is designated as an OFW.

H. Research Projects / Specimen Collection

Research projects may be performed on MSF on a temporary or permanent basis for the purpose of obtaining information that furthers the knowledge of forestry and related fields. FFS cooperates with other governmental agencies, non-profit organizations, and educational institutions, whenever feasible, on this type of research. FFS will consider assisting with research projects when funds and manpower are available.

All research to be conducted on MSF must be in accordance with the guidelines stated in the State Forest Handbook. Any requests for research should be submitted in writing to the appropriate field staff to be forwarded to the Forest Management Bureau for approval. Requests must include: a letter outlining the purpose, scope, methodology, and location of the proposed research. Requests are subject to review by FFS foresters, biologists, the Forest Health Section, and the Forest Hydrology Section, as appropriate. Authorization to conduct research will require that the investigator provide copies of any reports or studies generated from any research to the FFS and the MSF staff. Other special conditions may be applicable, and the authorization may be terminated at any point if the study is not in compliance.

Research projects / specimen collections that have been initiated on the property include:

- Taxonomy of Aculeate Hymenoptera (bees, wasps, ants, and allies) and Other Insects of Southern Florida, Dr. Matthias Buck, Invertebrate Zoology, Royal Alberta Museum, September 2014

- Fire adaptations of South Florida slash pine (*Pinus elliotii* var. *densa*) and longleaf pine (*Pinus palustris*), Dr. Geoff Wang, Professor of Silviculture and Ecology, Clemson University, December 2014
- Genetic Traits Within the Genus *Callisia*, Drs. Pamela and Douglas Soltis, Laboratory of Molecular Systematics and Evolutionary Genetics Florida Forest Service, Florida Museum of Natural History, University of Florida, July 2015
- Ecology and Evolutionary Distinctness of the Marsh Rice Rat (*Oryzomys palustris*) and the Hispid Cotton Rat (*Sigmodon hispidus*), Dr. Robert McCleery, Associate Professor Wildlife Ecology and Conservation, University of Florida, January 2017

I. Ground Disturbing Activities

Although the FFS's approach to handling ground disturbing activities is identified in other sections of this plan, the FFS's overall approach to this issue is summarized here. FFS recognizes the importance of managing and protecting sensitive resources and will take steps to ensure that such resources are not adversely impacted by ground disturbing activities. Sensitive resources include areas such as known sensitive species locations; archaeological, fossil, and historical sites; ecotones, wetlands, and water resources. The process for evaluating and obtaining approval for ground disturbing activities is outlined in Appendix 2.A.6. of the State Forest Handbook.

When new pre-suppression firelines, recreation trails, or other low-impact recreation site enhancements are necessary, their placement will be reviewed by State Forest field staff to avoid sensitive areas. For ground disturbing activities such as construction of buildings, parking areas, and new roads, the FFS will consult with FNAI, DHR, SWFWMD and ARC, as appropriate.

V. Public Access and Recreation

The primary recreation objective is to provide the public with dispersed outdoor recreation activities that are dependent on the natural environment and to provide outdoor recreation opportunities to wounded veterans through Operation Outdoor Freedom (OOF). FFS will continue to promote and encourage public access and recreation use by the public while protecting resources and practicing multiple-use management.

Periodic evaluations will be conducted by FFS staff to monitor recreation impacts on resources. Modifications to recreation uses will be implemented should significant negative impacts be identified. New recreation opportunities and facilities, which are compatible with the primary goals and responsibilities of the FFS, will be considered only after FFS determines their compatibility with other forest uses and forest resources. Assessment of visitor impacts, outdoor recreation opportunities and facilities, and proposed changes will all be addressed in the Five-Year Outdoor Recreation Plan updates.

A. Existing Recreation Opportunities

Recreation opportunities on MSF include camping, hiking, off-road bicycling, horseback riding, wildlife viewing, and small-game hunting. MSF contains a primitive campground and hike-in or paddle-in primitive campsites dispersed around the waterways.

MSF contains more than 30 miles of marked trails that are open to hiking, trail biking, and equestrian activities. MSF trails are included in the Florida Forest Service's Trailwalker Program for hikers, as well as horse trails in the Trailtrotter Program for equestrians. See Exhibit D for a map of the facilities and improvements.

Existing facilities and improvements include:

- 1 landing for canoe and kayak entry
- 1 picnic pavilion
- 2 vault style restroom facilities
- 5 self-contained RV or tent drive-up campsites
- 5 tent-only, hike-to campsites
- 1 drive-up group campsite (25-person maximum)
- 5 hike-in primitive campsites, one with Myakka River access
- Hunting area of more than 7,200 acres

B. Planned Recreation Opportunities

FFS will continue to assess plans for additional recreation opportunities based on demand, carrying capacity, demographics, and impact to the resources on MSF. All planned improvements may be completed as staff and funding permits. Both terrestrial and aquatic resources and related activities will be evaluated. Any specific plans will be incorporated into the Five-Year Outdoor Recreation Plan on file at MSF.

1. Public Access and Parking

Within this ten-year planning cycle, the addition of new parking and forest access points will be evaluated and constructed based on management-determined needs. FFS and Sarasota County are developing plans for a small parking area on the eastern boundary of the Winchester Tract that will provide public access to trails on MSF and adjacent county-owned properties. This project will involve surface improvement of an access road on county-owned property ending at a small, fenced parking area on MSF that will accommodate approximately 4 to 6 vehicles. Existing parking, forest access points, and recreation areas will continue to be evaluated for updates and improvements.

2. Recreation Trails

Installation of picnic shelters on the Palmetto Trail and Gordon Smith Memorial Trail are planned and will be undertaken by an Eagle Scout troop. Additional suitable locations are being evaluated for new hiking, bicycle, horse and/or multiple use trails. The construction and maintenance of these trails will be on-going.

3. Camping

Completion of ongoing improvements to the Flying A Campground is anticipated during the early years of this planning period. This will include completion of a bath house facility and dump station that will allow for drive-up utilization of all 20 designated sites for self-contained recreation vehicles or tents. Site plans are being developed for an equestrian camp near the main parking area that will accommodate four sites with electric and water hookups and a vault-style restroom facility. This equestrian camp will utilize an area of abandoned

pasture. Additional suitable locations are being evaluated for additional camping opportunities. Camping areas/campgrounds may be drive-up, hike-to, primitive, or may have electric and/or water facilities, and be recreation vehicle capable.

4. Recreation Vehicle (RV) Camping

Locations in the Flying A Campground are being evaluated for future full-service camping. A full-service campground may include sites with electric and water hookups, concrete pads, a bathhouse facility, and a central septic dump station.

5. Environmental, Cultural, and Historical Education

As the surrounding population continues to grow, environmental, cultural, and historical education opportunities will be supported by the FFS and local staff. Programs and/or projects with school groups, environmental organizations, private landowners, Boy/Girl Scouts, 4-H, local Future Farmers of America, and similar entities will be encouraged. Sarasota County, the City of North Port, and various Myakka River District staff will continue to deliver on-site and off-site environmental education programs as requested.

FFS currently provides visitors to MSF environmental, cultural, and historical education through interpretive displays in existing kiosks. The addition of new kiosks and other interpretive displays will be evaluated and installed based on management determined needs.

6. Operation Outdoor Freedom

OOF events are designed to provide nature based outdoor recreation activities for U.S. military veterans with service-connected disabilities may take place throughout Florida's State Forests. These events include, but are not limited to, guided game hunts, fishing, kayaking or other recreation activities.

7. Wildlife Viewing/Scenic Overlooks

Plans for a short boardwalk and viewing platform are being developed overlooking a depression marsh along the Foresman Trail. Other suitable locations may be evaluated for additional wildlife viewing or scenic overlook platforms.

C. Hunter Access

Regulated hunting and fishing on Florida's forests are managed cooperatively with FWC. Hunting season dates, limits, and methods are established annually by FWC, in cooperation with the FFS. Myakka PSGHA regulations are updated annually and are identified in the current online brochure provided by FWC at MyFWC.com. Non-hunting recreation users are encouraged to check the PSGHA regulations and season dates before visiting MSF.

OOF may host multiple events on MSF. These events will involve outdoor recreation activities including, but not limited to, hunting, fishing, hiking, camping, clay shooting and any other activity that is developed as an outdoor activity for wounded veterans. The supporting personnel will include state and private volunteers and any support personnel necessary for the operation, support, or funding of such events. Events can be recreation, fundraising, or planning in nature. The OOF program needs may include the upgrading of existing or construction of new facilities for lodging and recreation of participants, as well as logistical and operational needs of the

program. On-site and off-site fundraising for the benefit of OOF may occur to assist in these efforts and will be performed under the coordination of and be consistent with the guidelines of the Friends of Florida State Forests.

VI. Forest Management Practices

A. Prescribed Fire

Forest management practices on MSF are important in the restoration and maintenance of forest ecosystems and provide a variety of socio-economic benefits to Floridians. Management practices on MSF include a prescribed fire program, which is an effective tool in controlling the encroachment of shrubs and off-site hardwoods, stimulating the recovery of native herbaceous groundcover, and promoting the regeneration of native pines.

FFS utilizes a fire management program on state forests that includes wildfire prevention, detection and suppression, and prescribed burning. This program is the responsibility of FFS's Myakka River District and is detailed in the Five-Year Prescribed Burning Management Plan. Emphasis will be placed on prescribed burning, wildfire prevention, and education to help reduce wildfire occurrence on MSF.

A fire history graph detailing the recent history of prescribed burns and wildfires at MSF is available in Exhibit N.

FFS has use of two tractor-plow units located in Sarasota County. Additional support is available from neighboring counties. Personnel and equipment stationed at MSF will be used for pre-suppression practices, establishment of firebreaks, rehabilitation of existing firelines, construction of new firelines, maintenance of perimeter firebreaks, and prescribed burning.

The annual forest prescribed burning program produces multiple benefits. The purposes of prescribed burning on MSF are to facilitate forest management operations; enhance wildlife and listed species habitat; decrease fuel loading; enhance public safety; and restore, maintain, and protect all native ecosystems, ecotones, and their ecological processes. FFS personnel are responsible for planning and implementing the annual prescribed burn program for MSF, which will consist of dormant and growing season burns. An update to the Five-Year Prescribed Burning Management Plan is developed each year by FFS staff. All burns conducted on MSF are executed by Florida Certified Prescribed Burn Managers in accordance with Chapters 590.125, F.S. and 5I-2 F.A.C.

According to FNAI, approximately five (5) fire-dependent natural communities occur on MSF, encompassing 6,860 acres which will be burned on an average rotation of five years or less. Based on current conditions and management objectives, MSF will plan for 1,400 to 3,400 acres to be prescribed burned annually. Meeting prescribed fire goals will be largely dependent on weather conditions, available personnel, and statewide emergency situations such as wildfires, hurricanes, and other natural disaster response and relief.

1. Fire Management

The fire management plan serves as a working tool and an informational document for MSF. The plan provides guidelines in regard to wildfire suppression and prescribed fire

management. It will specify burn units, burn unit prescriptions, appropriate fire-return intervals, and fire suppression planning. The plan may be reviewed and amended as necessary.

The use of prescribed fire in the management of timber, wildlife, and ecological resources on MSF is necessary if the FFS is to fulfill the goals and objectives stated in this plan including enhancing and restoring native plant communities, managing protected species, managing timber, recreation, historical, and other resource values. The fire management plan and its objectives shall reflect and incorporate these multiple-resource objectives.

- a. Prescribed Fire:** Prescribed fire is the most important land management tool, both ecologically and economically, for managing vegetation and natural communities, and for perpetuating existing wildlife populations in Florida. Forest operational records and staff experience should be combined with the 2019 FNAI inventory and assessment to identify areas that may require mechanical or chemical treatments in conjunction with prescribed fire to restore a more natural vegetative structure.
- b. Burn Unit Plans:** Each prescribed fire will be conducted in accordance with FFS regulations and state law (Rule Chapter 5I-2 F.A.C., Chapter 590 F.S.) and have a burn unit plan (or prescription). Each prescription will contain, at a minimum, the information required by Section 590.125(3), F.S., needed to complete the FFS Prescribed Burn Plan Form FDACS 11461.

Aerial ignition may be considered for large burn units where this tactic can be cost effective for larger acreages. Consideration should be given to rotating burn units between dormant and growing season burns over time. Fire-return intervals for a burn unit are recommended to fall within the natural, historic range for the dominant natural community or communities within a given burn unit.

Based upon available species survey data, burn units within a prescription that have listed wildlife species shall explicitly state their presence and any restrictions or requirements relative to prescribed burning in proximity to these species or habitats. These may include time of year, pre-burn preparation, fire-return intervals, and other burn parameters.

B. Wildfire Prevention and Mitigation Strategies

FFS utilizes a comprehensive wildfire management approach on state forests that includes an ongoing program of wildfire prevention, detection and suppression, and prescribed burning. Implementation of this program is the responsibility of FFS's Myakka River District. Emphasis will be placed on consistent accomplishment of prescribed burning goals and community outreach to increase public understanding of wildfire prevention and the benefits of prescribed fire.

FFS has three paramount considerations regarding wildfires and are established in priority order:

- 1) Protection of human lives
- 2) Protection of improvements

3) Protection of natural resources

All procedures regarding wildfire will follow the State Forest Handbook and the MSF Fire Management Plan.

1. **Suppression Strategies**

If a wildfire occurs on MSF there are two alternative suppression strategies as defined below:

- a. **Contain and Control** is defined as a suppression strategy where a fire is restricted to a certain area by using existing natural or constructed barriers that stop the fire's spread under the prevailing and forecasted weather until it is out. This strategy allows the use of environmentally sensitive tactics based on fuels, fire behavior, and weather conditions that keep a wildfire from burning a large area or for a long duration.
- b. **Direct Suppression** is defined as a suppression strategy where aggressive suppression tactics are used to establish firelines around a fire to halt its spread and to extinguish all hotspots. This alternative is used whenever there is a threat to human life, property, private lands, and/or critical natural or cultural resources. This strategy should also be used when the total district fire load dictates that crews not be involved with individual fires for any longer than absolutely necessary.

Appropriate suppression action will be that which provides for the most reasonable probability of minimizing fire suppression cost and critical resource damage, consistent with probable fire behavior, total fire load, potential resource and environmental impacts, safety, and smoke management considerations. The Incident Command System (ICS) will be used for all suppression actions.

2. **Smoke Management**

Caution will be exercised to prevent a public safety or health hazard from the smoke of any prescribed burn or wildfire. Prescribed burns must pass the smoke screening procedure and be conducted by a certified burner. If smoke threatens to cause a safety hazard, then direct immediate suppression action will be taken.

3. **Fire Breaks and Firelines**

A system of permanent fire breaks has been developed and maintained around and within the boundaries of MSF to guard against fires escaping from and entering MSF. Such fire breaks will consist of natural barriers, roads, trails, permanent grass strips, and where appropriate, well-maintained harrowed lines. All pre-suppression fire breaks will meet the established Silvicultural BMP criteria.

During wildfire suppression, the use of water and foam, permanent fire breaks, natural barriers, and existing roads and trails for firelines can be used when human life, safety, property, and resource considerations allow. Plowed and / or bladed lines will be used for initial installation of firelines in heavy fuels and in cases where it's considered necessary to protect life, property, or resources and/or to minimize threats to firefighters. Plowed and bladed lines will be rehabilitated, and BMPs implemented as soon as practical after the fire is suppressed.

4. Sensitive Areas

MSF retains on file in the State Forest headquarters an Environmentally Sensitive Area Map that identifies protected sites such as critical wetlands and archaeological and historical sites known to occur on MSF. FFS personnel are aware of these areas in the event of a wildfire. Special precautions will be followed when prescribed burning in sensitive areas on MSF. When possible, fire staff will avoid line construction in wetland ecotones throughout MSF.

5. Firewise Communities

FFS has implemented a Firewise community approach for wildfire prevention statewide. Specifically, in the area adjacent to or nearby MSF, efforts in this regard will continue to identify communities at risk and to communicate with their representatives.

6. Adjacent Neighbor Contacts

The staff at MSF maintains a list of neighbors that have requested they be notified in advance of prescribed burns. These families are contacted by telephone or email with potential sites and dates of anticipated prescribed burns.

7. Post-Burn Evaluations

A post-burn evaluation is required for each prescribed burn on MSF to assess impacts on timber and habitat. Based on the evaluations after prescribed fires in particular, decisions will be made on the effectiveness of the prescribed burn and improvements that can be made in the future. A historical fire record for all significant fires and prescribed burns will be maintained. This will be accomplished using completed burn plans and through the maintenance of GIS data. These records are intended to provide data for future management decisions.

C. Sustainable Forestry and Silviculture

Timber is a valuable economic and ecological resource, and timber harvesting for the purposes of generating revenue, improving stand viability, forest health, wildlife, and ecological restoration and maintenance is critical to the silvicultural objectives on MSF.

1. Strategies

The following silvicultural strategies will apply to silvicultural practices on MSF:

- a. To restore and maintain forest health and vigor through timber harvesting, prescribed burning, and reforestation, both naturally and artificially, with species native to the site.
- b. To create, through natural or artificial regeneration, uneven-aged, and even-aged management, a forest with both young and old growth components that yields sustainable economic, ecological, and social benefits.

2. Silvicultural Operations

Silvicultural operations on MSF will be directed toward improving forest health, wildlife habitat, and ecological and economical sustainability, as well as toward recovery from past management practices that are not in accordance with the objectives of this plan. Stands of any off-site species with merchantable volume will be scheduled for harvest, followed by reforestation with the appropriate tree species. Herbicide applications may be necessary to control woody competition and to re-establish desired native species of both overstory and

groundcover. Site preparation methods may include prescribed fire, mechanical vegetation control, and / or herbicide applications. Herbicides used will be registered for forestry use by the U.S. Environmental Protection Agency (EPA) and will not adversely affect water resources.

Prescribed fire is the most desirable method of vegetation control in fire-dependent ecosystems. However, in areas where fuel loads have reached dangerous levels or urban interface dictates prescribed fire is not suitable, mechanical or chemical vegetation control may be used. Mechanical and / or chemical vegetation control will be utilized where appropriate as determined by FFS staff for wildlife enhancement, fuel mitigation, and reforestation.

Maintenance and restoration of timber stands and natural communities through timber harvesting will include thinning for maintenance, regeneration harvests applicable to the species present, and clear-cutting to remove off-site species.

All silvicultural activities, including timber harvesting and reforestation, will meet or exceed the standards in FFS's Silviculture BMP and State Forest Handbook, and will follow the Five-Year Silviculture Action Plan.

3. Forest Inventory

The purpose of a forest inventory is to provide FFS resource managers with information and tools for short and long-range resource management and planning. Ten percent (10%) of MSF's forested acreage will be re-inventoried annually to provide an accurate estimation of the standing timber and to ensure that stands will be managed sustainably.

Timber / forestry resources available on the property include commercially important pine species such as south Florida slash and longleaf.

4. Timber Sales

Timber sales are generally advertised for competitive bids and sold on a per unit or lump sum basis. All timber sales are conducted according to guidelines specified in the State Forest Handbook.

5. Cattle Grazing

Cattle grazing activities assist in maintaining pastures and controlling non-native plants, support the maintenance of fences and gates, and provide a source of revenue.

Currently there are no cattle leases on MSF.

D. Non-Native Invasive Species Control

FFS employees continually monitor MSF for non-native invasive species while conducting management activities. FFS will locate, identify, and apply control measures with the intent to eradicate or control non-native invasive species. Table 6 lists the general treatment strategy,

acres impacted, and population stability trend for non-native invasive plant species occurring on MSF. Also see Exhibit O.

Ongoing maintenance and monitoring strategies are outlined in the Five-Year Ecological Management Plan, which is developed to locate, identify, and control non-native invasive plant species. Occurrences of non-native invasive species are recorded in the MSF GIS database and are monitored and treated annually as funding permits. The GIS database is updated as new infestations are discovered.

Adjacent landowners who are known to have these species on their property will be approached to cooperate on control measures. FFS works to control the spread of non-native invasive species by decontaminating agency equipment and equipment used by private contractors according to the State Forest Handbook.

FFS will enlist support from FWC in efforts to control non-native invasive animals. Feral hogs (*Sus scrofa*) are present on MSF and occur in substantial numbers in the area. FFS will allow for feral hog removal on MSF through trapping and hunting as necessary.

Training in the identification and control of invasive species will be scheduled for personnel as time and resources permit. Training concerning non-native invasive plants will be coordinated with the Forest Management Bureau's Forest Health Section. Control of non-native invasive species will be target-specific and use a variety of methods including appropriately labeled and efficacious herbicides.

Table 6. Non-Native Invasive Plant Species Occurring on MSF

Common Name	Scientific Name	Treatment Strategy	Acres Impacted	Treatment Status
Air potato	<i>Dioscorea bulbifera</i>	Chemical/Biological	100	Steady
Australian pine	<i>Casuarina equisetifolia</i>	Chemical/Mechanical	30	Decreasing
Balsampear	<i>Momordica charantia</i>	Chemical	30	Steady
Bishcofia tree	<i>Bishcofia javanica</i>	Chemical	10	Steady
Brazilian pepper	<i>Schinus terebinthifolius</i>	Chemical	1000	Decreasing
Caesar weed	<i>Urena lobata</i>	Chemical	3000	Increasing
Carrotwood	<i>Cupaniopsis anacardioides</i>	Chemical	100	Steady
Castor bean	<i>Ricinus communis</i>	Chemical	20	Decreasing
Cathedral bells	<i>Kalanchoe pinnata</i>	Chemical	10	Steady
Chinese tallow	<i>Triadica sebifera</i>	Chemical	50	Increasing
Cogongrass	<i>Imperata cylindrica</i>	Chemical	800	Steady
Earleaf acacia	<i>Acacia auraculiformis</i>	Chemical	50	Steady
Giant reed	<i>Arundo donax</i>	Chemical	20	Steady
Guinea grass	<i>Megathyrus maximum</i>	Chemical	100	Increasing
Java plum	<i>Syzygium cumini</i>	Chemical	100	Steady
Lead tree	<i>Leucaena leucocephala</i>	Chemical	30	Increasing
Melaleuca	<i>Melaleuca quinquenervia</i>	Chemical	200	Decreasing
Molasses grass	<i>Melinis minutiflora</i>	Chemical	10	Steady
Natal grass	<i>Melinis repens</i>	Chemical	10	Steady

Common Name	Scientific Name	Treatment Strategy	Acres Impacted	Treatment Status
Old World climbing fern	<i>Lygodium microphyllum</i>	Chemical	800	Decreasing
Para grass	<i>Brachiaria mutica</i>	Chemical	500	Steady
Peruvian primrose-willow	<i>Ludwigia peruviana</i>	Chemical	200	Increasing
Rattlebox	<i>Crotalaria pallida</i>	Chemical	10	Increasing
Rosary pea	<i>Abrus precatorius</i>	Chemical	100	Steady
Senegal date palm	<i>Phoenix reclinata</i>	Chemical	5	Steady
Torpedo grass	<i>Panicum repens</i>	Chemical	200	Increasing
Tropical soda apple	<i>Solanum viarum</i>	Chemical	0	Eradicated
Wedelia	<i>Wedelia trilobata</i>	Chemical	200	Increasing
West Indian marsh grass	<i>Hymenachne amplexicaulis</i>	Chemical	50	Steady
Woman's tongue	<i>Albisia lebbeck</i>	Chemical	100	Steady

E. Insects, Disease, and Forest Health

Currently there are no significant insect or disease problems on MSF. State Forest staff monitors for incidental outbreaks of pine bark beetles (*Ips* spp.) throughout MSF. These outbreaks generally run their course without involving more than several acres. In the event of a forest pest or disease outbreak, MSF resource managers will consult with the Forest Management Bureau's Forest Health Section to formulate an appropriate and effective response.

In compliance with Section 388.4111, F. S., and in Section 5E-13.042, F.A.C., all lands have been evaluated and subsequently designated as environmentally sensitive and biologically highly productive. Such designation is appropriate and consistent with the previously documented natural resources and ecosystem values and affords the appropriate protection for these resources from arthropod control practices that would impose a potential hazard to fish, wildlife, and other natural resources existing on this property. The local arthropod control agency in Sarasota County will be notified of the approval of this plan, documenting this designation.

As a result, prior to conducting any arthropod control activities on MSF, the local agency must prepare a public lands control plan that addresses all concerns that FFS may have for protecting the natural resources and ecosystem values on the State Forest. In this regard, FFS will provide the local agency details on the management objectives for MSF. This public land control plan must be in compliance with FDACS guidelines and use the appropriate FDACS form. The plan must then be approved and mutually adopted by the county, FFS, and FDACS, prior to initiation of any mosquito control work. Should the local mosquito control district not propose any mosquito control operations on the property, no arthropod control plan is required. See Exhibit W.

F. Use of Private Land Contractors

The forest manager makes ongoing evaluations of the use of private contractors and consultants to facilitate the total resource management activities on MSF. The opportunities for outsourcing land management work include, or are anticipated to include:

1. Herbicide applications
2. Restoration
3. Site Preparation
4. Reforestation
5. Timber harvesting
6. Biological assessments and mapping
7. Fixed capital and infrastructure improvements

VII. Proposed Management Activities for Natural Communities

In 2019, FNAI completed an inventory and natural community mapping project on MSF. Current and historic natural community types can be found in Exhibits P and Q, and Table 7. This inventory included managed and altered community types which are habitats that have been impacted by humans and do not fit into FNAI's Natural Community Classification. See Tables 8 and 9.

Table 7. Natural Community Types

Community Type	Historic Acres*	Current Acres*
Depression marsh	1,122	1,110
Dry prairie	259	62
Hydric hammock	54	82
Mangrove swamp	27	27
Mesic flatwoods	5,385	4,049
Mesic hammock	22	22
Salt marsh	24	23
Scrubby flatwoods	29	28
Tidal creek	7	6
Wet flatwoods	1,177	995
Wet prairie	127	0
Managed and other altered landcover types**	0	1,830
TOTAL	8,233	8,234

* Rounding errors exist.

** See Tables 8 & 9

Table 8. Managed Community Types

Community Type*	Current Acres
Pine plantation	616

* Protocol as described in Appendix 2 of FNAI's "Guide to the Natural Communities of Florida", 2010 Edition.

Table 9. Altered Landcover Types

Landcover Type**	Current Acres*
Abandoned field / abandoned pasture	1,041
Artificial pond	19
Canal / ditch	5
Clearing	4
Developed	19

Landcover Type**	Current Acres*
Road	113
Spoil area	13
TOTAL	1,214

* Rounding errors exist.

** Protocol as described in Appendix 2 of FNAI's "Guide to the Natural Communities of Florida", 2010 Edition.

For the purposes of this management plan, restoration is defined as the process of returning ecosystems to the appropriate structure and species composition, based on soil type. Management during this ten-year period will begin with a forest-wide assessment of the fuel loading, timber densities, reforestation needs, and groundcover in order to develop a five-year comprehensive operational plan for prescribed burning and other management activities across MSF. Strategies may include thinning of pine plantations, mowing, or chopping in areas of heavy fuel buildup, application of both dormant and growing season fires, reforestation, the use of site preparation methods, both mechanically and/or the use of herbicides to control hardwoods and/or hardwood regeneration. Site preparation and reforestation may be required to increase pine stocking in stands with very poor stocking or in restoration efforts. Fire-return intervals are included as a guide and may vary depending upon specific conditions and are intended to attain desired forest and resource management goals. See Table 10.

Table 10. Prescribed Fire Interval Guide on MSF

Community Type	Historic Fire-Return Intervals*	MSF Fire Frequency Goal (Local)	Comments
Depression marsh	1-8 years	1-8 years	Edges typically burn with surrounding flatwoods
Dry prairie	1-2 years	1-4 years	Burned with surrounding flatwoods
Hydric hammock	N / A	N / A	Not fire maintained
Mangrove swamp	N / A	N / A	Not fire maintained
Mesic flatwoods	2-4 years	2-4 years	
Mesic hammock	N / A	N / A	Not fire maintained
Pine plantation	2-4 years	2-4 years	
Salt marsh	5-50 years	N / A	Not included in Rx fire planning
Scrubby flatwoods	3-15 years	4-10 years	Burned with surrounding mesic flatwoods
Tidal creek	N / A	N / A	Water
Wet flatwoods	2-5 years	2-4 years	
Wet prairie	2-3 years	N / A	No wet prairie currently mapped

* As determined by FNAI

The following community descriptions, existing condition descriptions, and management recommendations are taken from the 2019 FNAI mapping project report and the Guide to the Natural Communities of Florida (FNAI 2010), as well as from the knowledge and experience gained by FFS during forest inventory efforts and routine field work on MSF.

To achieve the objectives outlined in this plan, the following management activities will be performed in the natural and managed communities at MSF during the next ten-year planning period. Goals, desired conditions, standards, and guidelines provide management area direction. These goals and desired conditions may take many planning cycles to attain.

A. Depression Marsh

Description:

Depression marshes are isolated, non-forested wetland basins that are imbedded in a pyrogenic matrix community such as pine flatwoods or sandhill. These marshes typically have concentric zones of vegetation related to the length of hydroperiod and depth of flooding. Depression marshes are distinguished from basin marshes principally by their landscape position which subjects them to more frequent fires.

Current Conditions:

Depression marshes at MSF range in condition from undisturbed to highly altered (areas that had been converted to pasture or clearings). Several depression marshes have been ditched (visible on historic photos as well as current imagery) which has substantially shortened their hydrology. Undisturbed depression marshes typically have two or three zones of vegetation along the hydrologic gradient.

Grasses, rushes, and sedges found within the depression marshes include longleaf threeawn (*Aristida palustris*), sawgrass (*Cladium jamaicense*), jointgrass (*Coelorachis* sp.), Gulf Coast spikerush (*Eleocharis cellulosa*), rush (*Juncus* sp.), maidencane (*Panicum hemitomom*), torpedo grass (*Panicum repens*), narrowfruit horned beaksedge (*Rhynchospora inundata*), beaksedge (*Rhynchospora* sp.), Tracy's beaksedge (*Rhynchospora tracyi*), woolgrass (*Scirpus cyperinus*), and sand cordgrass (*Spartina bakeri*). The herbaceous layer also includes tenangle pipewort (*Eriocaulon decangulare*), white waterlily (*Nymphaea odorata*), little floatingheart (*Nymphoides cordata*), mild waterpepper (*Persicaria hydropiperoides*), rosy camphorweed (*Pluchea baccharis*), pickerelweed (*Pontederia cordata*), threadleaf arrowhead (*Sagittaria filiformis*), bulltongue arrowhead (*Sagittaria lancifolia*), bladderpod (*Sesbania vesicaria*), foxtail (*Setaria* sp.), toothed midsorus fern (*Telmatoblechnum serrulatum*), water cowbane (*Tiedemannia filiformis* ssp. *filiformis*), and southern cattail (*Typha domingensis*). Shrubs and trees found within depression marshes include groundsel tree (*Baccharis halimifolia*), common buttonbush (*Cephalanthus occidentalis*), white twinevine (*Funastrum clausum*), swamp rosemallow (*Hibiscus grandiflorus*), peelbark St. John's wort (*Hypericum fasciculatum*), myrtleleaf St. John's wort (*Hypericum myrtifolium*), clustered bushmint (*Hyptis alata*), dahoon (*Ilex cassine*), primrosewillow (*Ludwigia* sp.), melaleuca (*Melaleuca quinquenervia*), climbing hempvine (*Mikania scandens*), southern bayberry (*Morella cerifera*), slash pine (*Pinus elliottii*), coastalplain willow (*Salix caroliniana*), Brazilian pepper (*Schinus terebinthifolia*), and Caesar weed (*Urena lobata*).

Altered marshes have irregular vegetation zones with more broadleaf plants, higher shrub cover, and generally more open water habitat.

Fire Regimes:

Depression marshes likely burned irregularly every 1 to 8 years depending on water levels at the time of fires on the landscape. Fires generally occurred early (April-June) in the lightning season when water was low and surrounding communities were dry.

Management Needs:

Marshes should generally be allowed to burn with the surrounding communities. Ideally fire should be prescribed at a time when water is low or absent in the marshes. Marshes with substantial shrub cover (either within the marsh or surrounding edges) should be targeted for repeated lightning season fires on a short return interval where possible. Mechanical treatments that minimize ground disturbance, such as mowing or mastication, may be appropriate for reducing shrub cover around the edges of depression marshes where lightning season fires are not feasible.

B. Dry Prairie**Description:**

Dry prairie is a community of low shrubs and grasses occupying vast, level expanses in three major areas north and west of Lake Okeechobee in south-central Florida. Common shrubs are saw palmetto (*Serenoa repens*), which is often stunted, dwarf live oak (*Quercus minima*), gallberry (*Ilex glabra*), fetterbush (*Lyonia lucida*), shiny blueberry (*Vaccinium myrsinites*), netted pawpaw (*Asimina reticulata*), Atlantic St. John's wort (*Hypericum reductum*), dwarf wax myrtle (*Myrica cerifera* var. *pumila*), and dwarf huckleberry (*Gaylussacia dumosa*). These are mixed with about an equal proportion of herbs, predominantly wiregrass (*Aristida stricta* var. *beyrichiana*), along with bottlebrush threeawn (*Aristida spiciformis*), hemlock witchgrass (*Dichanthelium portoricense*), broomsedge bluestem (*Andropogon virginicus*), lopsided indiagrass (*Sorghastrum secundum*), and cypress witchgrass (*Dichanthelium ensifolium*), plus numerous forbs including narrowleaf silkgrass (*Pityopsis graminifolia*), milkworts (*Polygala* spp.), meadowbeauties (*Rhexia* spp.), yellow-eyed grasses (*Xyris* spp.), and wild pennyroyal (*Piloblephis rigida*).

Current Conditions:

The dry prairie community at MSF is made up of a herbaceous layer and a short shrub layer. The herbaceous layer includes bluestem (*Andropogon* sp.), bottlebrush threeawn, wiregrass (*Aristida stricta*), coastalplain chaffhead (*Carphephorus corymbosus*), slender flattop goldenrod (*Euthamia caroliniana*), blackroot (*Pterocaulon pycnostachyum*), and lopsided indiagrass. The short shrub layer includes roundpod St. John's wort (*Hypericum cistifolium*), fourpetal St. John's wort (*Hypericum tetrapetalum*), coastalplain staggerbush (*Lyonia fruticosa*), dwarf bayberry (*Morella pumila*), saw palmetto, and shiny blueberry.

Fire Regimes:

The natural fire-return interval is every 1 to 2 years, which is slightly more frequent than mesic flatwoods. These fires naturally occurred during the late spring/early summer lightning season. The slightly higher fire-return interval is thought to be the primary factor in limiting pine recruitment, thus creating dry prairie

Management Needs:

Management goals for the dry prairie at MSF should focus on maintaining the existing high-quality areas through frequent dormant and growing season prescribed fires. Prescribed fires should also be applied to disturbed areas to reduce the dense shrub cover and encourage native species recruitment and colonization. Seeding or planting of wiregrass and other native, pyrogenic species will allow these areas to burn more readily which will help reduce weedy and exotic species. Roller chopping may be effective in reducing dense shrub cover but should be implemented with careful consideration to wiregrass and other native species.

C. Hydric Hammock**Description:**

Hydric hammock occurs on low, flat, wet sites where limestone or shell deposits may be near the surface and soil moisture is kept high. This is an evergreen oak/palm forest with a variable understory typically dominated by palms and ferns. The closed canopy is dominated by swamp laurel oak (*Quercus laurifolia*), although some live oak (*Quercus virginiana*) may be present. Cabbage palm is a common to dominant component. Other canopy species include red maple (*Acer rubrum*), sweetgum (*Liquidambar styraciflua*), and water oak (*Quercus nigra*). In addition to saplings of canopy species, the understory may contain a moderate to dense cover of small trees and shrubs such as American beautyberry (*Callicarpa americana*), common buttonbush, common persimmon (*Diospyros virginiana*), dahoon, southern bayberry, myrsine (*Myrsine cubana*), swamp bay (*Persea palustris*), wild coffee (*Psychotria nervosa*), shortleaf wild coffee (*Psychotria sulzneri*), and occasionally saw palmetto. Eastern poison ivy (*Toxicodendron radicans*) is a common vine.

Herb cover is usually depauperate and may include bracken fern (*Pteridium aquilinum*), millet beaksedge (*Rhynchospora miliacea*), semaphore thoroughwort (*Eupatorium mikanioides*), and Virginia chain fern (*Woodwardia virginica*). Epiphytes are frequent on oak branches and cabbage palm trunks – golden polypody (*Phlebodium aureum*) and shoestring fern (*Vittaria lineata*) are commonly found. These hammocks also provide good habitat for the state listed endangered epiphytic hand fern (*Ophioglossum palmatum*).

Current Conditions:

Hydric hammocks at MSF are in fair to good condition. The closed canopy is dominated by cabbage palm (*Sabal palmetto*) with some slash pine, and live oak. In addition to saplings of canopy species, the understory may contain additional shrubs such as common persimmon, coralbean (*Erythrina herbacea*), sweetbay (*Magnolia virginiana*), southern bayberry, myrsine, and saw palmetto. Vines include saw greenbrier (*Smilax bona-nox*) and eastern poison ivy. Epiphytes are found on oak branches and cabbage palm trunks, including golden polypody, resurrection fern (*Pleopeltis michauxiana*), southern needleleaf (*Tillandsia setacea*), and Spanish moss (*Tillandsia usneoides*). Herb cover is usually depauperate and includes giant leather fern (*Acrostichum danaeifolium*), false nettle (*Boehmeria cylindrica*), toothpetal false rein orchid (*Habenaria floribunda*), and Caesar weed.

Fire Regimes:

Fires in hydric hammocks are believed to be occasional events. Prairie hammocks, small hammocks surrounded by open pyrogenic communities, tolerate occasional fires that burn in from surrounding habitats. Cabbage palm is highly tolerant of ground fires, but these fires may damage tropical species.

Management Needs:

Management of hydric hammocks at MSF should focus on removal of invasive plants. If hydrology has been altered (i.e. ditches/canals), normal hydroperiods should be restored if possible. A lowering of the water table will result in succession to mesic hammock, while more frequent inundation will result in the transition to a more swamp-like habitat. Feral hogs should also be controlled.

D. Mangrove Swamp**Description:**

Mangrove swamp is a dense forest occurring along relatively flat, low wave energy, marine and estuarine shorelines. The dominant plants of mangrove swamp are red mangrove (*Rhizophora mangle*), black mangrove (*Avicennia germinans*), white mangrove (*Laguncularia racemosa*), and buttonwood (*Conocarpus erectus*). These four species can occur either in mixed stands or often in differentiated, monospecific zones that reflect varying degrees of tidal influence, levels of salinity, and types of substrates. Red mangrove often dominates the lowest (or deep-water) zone, followed by black mangrove in the intermediate zone, and white mangrove and buttonwood in the highest, least tidally influenced zone. Buttonwood often occupies an ecotone, or transition zone, to the adjacent upland community.

The density and height of mangroves and the diversity of associated herbaceous species can vary considerably within a mangrove swamp. Mangroves typically occur in dense stands but may be sparse, particularly in upper tidal reaches where salt marsh species predominate. Mangroves may range from trees more than 80 feet tall to dwarf shrubs growing on solid limestone rock, but most commonly exist at intermediate heights of 10 to 20 feet tall. Mangrove swamps often exist with no understory, although shrubs such as seaside oxeye (*Borrchia arborescens*, *Borrchia frutescens*) and vines including gray nicker (*Caesalpinia bonduc*), coinvine (*Dalbergia ecastaphyllum*), and rubbervine (*Rhabdadenia biflora*), as well as herbaceous species such as saltwort (*Batis maritima*), shoregrass (*Monanthochloe littoralis*), perennial glasswort (*Sarcocornia perennis*), and giant leather fern, where present, occur most commonly in openings and along swamp edges.

Mangrove swamp occurs in flat coastal areas along saline or brackish portions of rivers, the edges of low-energy estuarine, and the seaward fringes of salt marshes and rockland hammocks. Soils are generally anaerobic and are saturated with brackish water at all times, becoming inundated during high tides. Mangrove swamp occurs on a wide variety of soils, ranging from sands and mud to solid limestone rock. Soils in south Florida are primarily calcareous marl muds or calcareous sands and, along the central Florida coastline, siliceous sands. In older mangrove swamps containing red mangroves, a layer of peat can build up from decaying plant material (mostly red and black mangrove roots), covering the soil.

Current Conditions:

Mangrove swamps at MSF contained white mangrove and red mangrove. Other herbs and shrubs found in mangrove swamps include coinvine, marshelder (*Iva frutescens*), and the invasive Brazilian pepper. Needle rush (*Juncus roemerianus*) and the invasive wedelia (*Sphagneticola trilobata*) were observed in the sparse herb layer.

Fire Regimes:

Mangrove swamp is not a fire-maintained community type.

Management Needs:

Management of mangrove swamps at MSF should focus on removal of invasive plants. If hydrology has been altered (i.e. ditches/canals), normal hydroperiods should be restored if possible.

E. Mesic Flatwoods**Description:**

Mesic flatwoods are forests of predominately southern yellow pines, but also include longleaf pine, slash pine, and in the case of MSF, south Florida slash pine (*Pinus elliottii* var. *densa*), among others. Slash pine is present more frequently in transitions to adjacent wetlands or on more calcareous soils. There is little or no subcanopy and tall shrub layer other than pine recruitment. The shrub layer is moderately dense with an average height that does not generally exceed four feet. Typical species include saw palmetto, gallberry, tarflower (*Bejaria racemosa*), coastalplain staggerbush, wax myrtle, winged sumac (*Rhus copallinum*), netted pawpaw, running oak (*Quercus elliottii*), dwarf live oak, shiny blueberry, and a diversity of other low shrubs. Herb cover is also moderately dense and dominated by grasses which help to carry frequent fires, especially wiregrass. Herbaceous species diversity is high in good quality mesic flatwoods. Vines occur rarely. Community types embedded within mesic flatwoods include dome swamp, basin swamp, depression marshes, wet flatwoods, and hydric hammocks.

Current Conditions:

The mesic flatwoods currently at MSF vary from relatively undisturbed (resembling the presumed historic condition) to highly disturbed areas (previously converted to pasture and possibly row crops and then left fallow prior to State acquisition). They are frequently part of a mosaic with wet flatwoods or wet prairie with scattered depression marshes.

Undisturbed areas typically have a canopy of longleaf pine. South Florida slash pine may be present or dominate some areas. There is occasionally a subcanopy of young longleaf pines indicating a good age structure. Other species in the shrub layer include netted pawpaw, Elliott's milkpea (*Galactia elliottii*), roundpod St. John's wort, clustered bushmint, gallberry, coastalplain staggerbush, southern bayberry, swamp bay, live oak, winged sumac, cabbage palm, saw palmetto, and shiny blueberry. Vines include peppervine (*Ampelopsis arborea*), climbing hempvine, earleaf greenbrier (*Smilax auriculata*), and muscadine (*Vitis rotundifolia*).

The herbaceous layer includes shortspike bluestem (*Andropogon brachystachyus*), chalky bluestem, bottlebrush threeawn, wiregrass, partridge pea (*Chamaecrista fasciculata*), witchgrass

(*Dichanthelium* sp.), dogfennel (*Eupatorium capillifolium*), slender flattop goldenrod, Elliott's milkpea, sweet goldenrod (*Solidago odora*), and lopsided indiangrass.

Fire Regimes:

Historically, fires ignited by lightning during the early thunderstorm season (April - June) would have burned the mesic flatwoods/wet flatwoods complex. These fires are critical for preserving the structure of the flatwoods, for preventing woody encroachment, and for reducing weedy competition. Frequent, low-intensity fires help maintain a diverse herbaceous layer and provide mineral soils for longleaf pine regeneration. For management purposes, prescribed fires should be applied on a 2 to 4-year interval to keep fuel levels manageable and maintain maximum native biodiversity. When fuel loads have been reduced sufficiently through dormant season burning, prescribed fires will be encouraged during the growing season.

Management Needs:

Management goals for the mesic flatwoods of MSF should focus on maintaining the existing high-quality areas through frequent dormant and growing season prescribed fires. Prescribed fires should also be applied to disturbed areas (mostly old agriculture areas) to reduce the dense shrub cover and encourage native species recruitment and colonization. Chopping these areas may be an option, but exposed soil may encourage colonization by weedy and non-native species. Seeding or planting of wiregrass and other native, pyrogenic species will allow these areas to burn more readily which will help reduce weedy and non-native species. Re-establishment of longleaf and south Florida slash pine will provide additional fine fuels through needle cast. Roller chopping may be effective in reducing dense shrub cover but should be implemented with careful consideration to wiregrass and other native species.

F. Mesic Hammock

Description:

Mesic hammock is a well-developed evergreen hardwood and/or palm forest on soils that are rarely inundated. Mesic hammock typically has a closed canopy of live oak with cabbage palm generally common in the canopy and subcanopy. Southern magnolia (*Magnolia grandiflora*) and pignut hickory (*Carya glabra*) may be occasional in the subcanopy. The shrubby understory may be dense or open, tall or short, and is typically composed of a mix of saw palmetto, American beautyberry, American holly (*Ilex opaca*), gallberry, sparkleberry (*Vaccinium arboreum*), hog plum (*Ximenia americana*), common persimmon, highbush blueberry (*Vaccinium corymbosum*), wild olive (*Osmanthus americanus*), and Carolina laurelcherry (*Prunus caroliniana*). The groundcover is often sparse or patchy and includes a variety of herbaceous species.

The desired future condition should resemble the current condition, with the exception of the presence of non-native species.

Current Conditions:

Mesic hammock occurs on moderately to poorly drained soils in areas that receive infrequent fire. They are typically associated with wetland communities that inhibit the spread of fire on the landscape. At MSF mesic hammock occurs along small creeks and areas that receive little to no fire. These hammocks are typically small, linear communities with few plant species. The

canopy is dominated by swamp laurel oak, live oak, and/or cabbage palm. Occasionally Brazilian pepper is also found in the canopy. Additional shrubs and herbs found in mesic hammock include gallberry, southern bayberry, saw palmetto, and Caesar weed. Occasionally epiphytes and vines are found growing on the canopy species including earleaf greenbrier, and southern needleleaf.

Fire Regimes:

Fire is infrequent in mesic hammock. In most cases leaf litter and mesic conditions retard fires throughout the year.

Management Needs:

Management in mesic hammocks should be focused on removal of non-native species. Typical prescribed burns in the adjacent flatwoods should naturally extinguish along the hammock edge. Firebreaks should be discouraged to allow a development of a natural ecotone and to help minimize invasion by weedy or non-native species.

G. Salt Marsh

Description:

Salt marsh is a largely herbaceous community that occurs in the portion of the coastal zone affected by tides and seawater and protected from large waves, either by the broad, gently sloping topography of the shore, by a barrier island, or by location along a bay or estuary. Salt marsh may have distinct zones of vegetation, each dominated by a single species of grass or rush. Saltmarsh cordgrass (*Spartina alterniflora*) dominates the seaward edge and borders of tidal creeks, areas most frequently inundated by the tides. Needle rush dominates higher, less frequently flooded areas. A border of salt-tolerant shrubs, such as groundsel tree, saltwater falsewillow (*Baccharis angustifolia*), marshelder, and christmasberry (*Lycium carolinianum*), often marks the transition to upland vegetation or low berms along the seaward marsh edge. High salinity areas are dominated by species such as saltwort, perennial glasswort (*Sarcocornia ambigua*), annual glasswort (*Salicornia bigelovii*), and bushy seaside oxeye, or short grasses, such as saltgrass (*Distichlis spicata*), seashore paspalum (*Paspalum vaginatum*), and shoregrass. Salt marsh should remain an herb-dominated community with no non-native invasive species.

Current Conditions:

Salt marsh is present along the Myakka River and its tributaries. The upper edge typically has a variably dense shrub layer of one or more of the following species: marsh elder, red mangrove, Carolina willow, buttonwood, and the non-native invasive Brazilian pepper (*Schinus terebinthifolius*). Herbaceous cover is also variable in cover and composition, dominated by black needle rush but also consisting of patches of the following species: leather fern, and bulrush (*Scirpus* sp.).

Fire Regimes:

Salt marsh burns irregularly every 5 to 50 years depending on position on the landscape. The small marshes at MSF likely burned during fires that moved from the uplands into the marsh rather than fires that naturally started in the marsh.

Management Needs:

Prescribed burns have traditionally been used in salt marshes to provide tender shoots as food for waterfowl and other wildlife and to decrease the possibility of wildfires. Fire should be used with caution in marshes so as not to cause destructive peat fires or adversely affect rare bird or other species dependent on the marsh habitat for nesting and foraging. Allow prescribed fires to extinguish naturally within the marsh. Remove non-native invasive plants.

H. Scrubby Flatwoods**Description:**

Scrubby flatwoods are a well-drained, pine-dominated community intermediate between scrub and mesic flatwoods. These communities are characterized by an open canopy of widely scattered pine trees with a sparse shrubby understory and areas of open white sand. The vegetation consists of a combination of scrub and mesic flatwoods species.

Scrubby flatwoods have a tree canopy of widely spaced longleaf pine and / or slash pine growing over a shrub stratum dominated by sand live oak (*Quercus geminata*). Myrtle oak (*Quercus myrtifolia*) and Chapman's oak (*Quercus chapmanii*) are often present as well. Saw palmetto, coastalplain staggerbush, and dwarf shrubs such as shiny blueberry and gopher apple (*Licania michauxii*) form the patchy short shrub layer. The herbaceous groundcover is patchy and usually has some wiregrass.

Scrubby flatwoods communities appear as medium to light gray areas with a small amount of texture in the historic aerial photographs. This community occurs on slightly higher ground than the surrounding mesic flatwoods.

Current Conditions:

Scrubby flatwoods at MSF have a tree canopy of slash pine growing over a shrub stratum dominated by scrub species such as Chapman's oak, sand live oak, dwarf live oak, myrtle oak, mixed with typical mesic flatwoods species including dwarf huckleberry, gallberry, coastalplain staggerbush, slash pine, saw palmetto, shiny blueberry, and Florida arrowroot (*Zamia integrifolia*). The herbaceous groundcover is patchy and includes netted pawpaw, bottlebrush threeawn, wiregrass, coastalplain honeycomb-head (*Balduina angustifolia*), tarflower, Elliott's milkpea, blazing star (*Liatris* sp.), Feay's palafox (*Palafoxia feayi*), pinebarren goldenrod (*Solidago fistulosa*), and lopsided indiagrass.

Fire Regimes:

Scrubby flatwoods natural fire regime ranges from 3 to 15 years, and prescribed fire regimes generally range from 3 to 8 years. Sparse groundcover and incombustible scrub oak leaf litter may reduce the occurrence of fires leading to a slightly longer average fire-return interval than is the case for mesic flatwoods. Variability in season and frequency of prescribed fires should produce a mosaic of burned and unburned patches desirable for maintaining high biotic diversity in this community.

Management Needs:

Fire-return intervals should be frequent enough to maintain shrub heights (<6 feet) within the range required by the Florida scrub-jay, at a recommended 5 to 15-year interval. Avoiding additional ground disturbance is important to prevent elimination of the natural groundcover and the establishment of weedy species.

I. Tidal Creek**Description:**

Tidal creeks are saline creeks that are adjacent to the Gulf of Mexico either created by tidal fluctuations within the salt marsh community or are the lower, tidally influenced ends of blackwater streams. It should be noted that this is not a published natural community recognized by FNAI. This community did not contain any evident plant species. Tidal creek and the associated salt marsh/mangrove swamp contain minimal disturbances.

Current Conditions:

Existing conditions for tidal creek are similar to desired future conditions.

Fire Regimes:

Tidal creek is not a fire-maintained community type.

Management Needs:

Management of tidal creek at MSF should focus on removal of non-native plants. If hydrology has been altered (i.e. ditches/canals), normal hydroperiods should be restored if possible.

J. Wet Flatwoods**Description:**

Wet flatwoods are characterized as relatively open-canopy forests of pines with a thick shrubby understory and very sparse groundcover, or a fire maintained, sparse understory and a dense groundcover of hydrophytic herbs and shrubs. Vegetation may be very similar to mesic flatwoods, but often with little or no saw palmetto. The canopy is typically longleaf pine or slash pine.

Wet flatwoods often occur in the ecotones between mesic flatwoods and shrub bogs, wet prairies, dome swamps, or strand swamps. Wet flatwoods also occur in broad, low flatlands, often in a mosaic with these communities.

The relative density of shrubs and herbs varies greatly in wet flatwoods. Shrubs tend to dominate where fire has been absent for a long period or where cool season fires predominate; herbs are more abundant in locations that are frequently burned. Soils and hydrology also influence relative density of shrubs and herbs. Soils of shrubby wet flatwoods are generally poorly to very poorly drained sands and include such series as Rutledge/Osier; these soils generally have a mucky texture in the uppermost horizon.

Current Conditions:

Wet flatwoods at MSF occur as a mosaic with mesic flatwoods or in broad poorly drained areas.

This community is similar to wet prairie but is dry enough to allow the establishment of pines and some shrubs. There is a sparse canopy of longleaf pine or south Florida slash pine. Typically, there is no tall shrub layer, but wax myrtle may dominate in areas that have not burned regularly. The short shrub layer is sparse, usually represented by small patches of saw palmetto or scattered wax myrtle. Herb cover is typically dense and diverse. Dominant species are wiregrass, nut rush (*Scleria ciliata*), panic grass (*Panicum tenerum*), and various sedges. Other common species include rose-of-plymouth (*Sabatia stellaris*), tall pinebarren milkwort (*Polygala cymose*), Baldwin's milkwort (*Polygala baldwinii*), wooly sunbonnet (*Chaptalia tomentosa*), and myrtleleaf St. John's wort. Former wet flatwoods areas likely occurred along with mesic flatwoods in areas modified for pasture or row crops in the central portion of the main property. These areas are now dominated by wax myrtle and weedy grasses and forbs (*Andropogon glomeratus*, *Eupatorium compositifolium*, and slender flattop goldenrod).

Fire Regimes:

Historically, the fire-return interval in wet flatwoods is 2 to 4 years for grassy wet flatwoods and 5 to 10 years for shrubby wet flatwoods. However, in areas of heavy fire exclusion and / or densely planted slash pine, mechanical vegetation removal and / or a more frequent fire interval may need to be applied for initial restoration.

Management Needs:

As with the mesic flatwoods, management goals for the wet flatwoods of MSF should focus on maintaining the existing high-quality areas through frequent dormant and growing season prescribed fires. Prescribed fires should also be applied to disturbed areas (mostly old agriculture areas) to reduce the dense shrub cover and encourage native species recruitment and colonization. Chopping these areas may be an option, but exposed soil may encourage colonization by weedy and non-native species. Seeding or planting of wiregrass and other native, pyrogenic species will allow these areas to burn more readily which will help reduce weedy and non-native species. Roller chopping may be effective in reducing dense shrub cover but should be implemented with careful consideration to wiregrass and other native species.

K. Wet Prairie**Description:**

Wet prairie is an herbaceous community found on continuously wet, but not inundated, soils on somewhat flat or gentle slopes between lower lying depression marshes, shrub bogs, or dome swamps and slightly higher wet or mesic flatwoods. Trees and shrubs are absent or very sparse. It is typically dominated by dense wiregrass in the drier portions, along with foxtail club-moss (*Lycopodiella alopecuroides*), cutover muhly (*Muhlenbergia expansa*), yellow butterwort (*Pinguicula lutea*), and savannah meadowbeauty (*Rhexia alifanus*). In the wetter portions, wiregrass may occur with, or be replaced by, species in the sedge family, such as plumed beaksedge (*Rhynchospora plumosa*), featherbristle beaksedge (*Rhynchospora oligantha*), Baldwin's nutrush (*Scleria baldwinii*), or slenderfruit nutrush (*Scleria georgiana*), plus longleaved threeawn. Also common in wetter areas are carnivorous species, such as pitcher plants (*Sarracenia* sp.), sundews (*Drosera* sp.), butterworts (*Pinguicula* sp.), and bladderworts (*Utricularia* sp.). Other characteristic species in this community include toothache grass (*Ctenium aromaticum*), pineland rayless goldenrod (*Bigelovia nudata*), flattened pipewort

(*Eriocaulon compressum*), water cowbane (*Oxypolis filifolia*), and coastalplain yellow-eyed grass (*Xyris ambigua*).

The desired future condition has the species composition described above for the undisturbed areas. There should be no trees or tall shrubs. Short shrubs should cover less than 20 percent of the community. Herb cover should be greater than 75 percent, with less than 5 percent weedy cover.

Current Conditions:

Wet prairies are herbaceous wetland communities that occur on topographically flat areas that are poorly drained. These situations may occur in low areas in wet flatwoods or between basin wetlands. There is typically no canopy or shrub layer. Fire suppression allows establishment of tall shrubs and eventually trees. There are currently no mapped wet prairies at MSF due to fire exclusion and shrub encroachment. This community now appears similar to existing wet flatwoods.

Fire Regimes:

Historically, the fire-return interval in wet prairie is 2 to 3 years. These frequent fires prevent the invasion of weedy shrubs and trees that shade out the herbaceous species

Management Needs:

Management goals for the wet prairies of MSF should focus on restoring historic wet prairies and use of frequent dormant and growing season prescribed fires. Prescribed fires should also be applied to disturbed areas (mostly old agriculture areas) to reduce the dense shrub cover and encourage native species recruitment and colonization. Chopping these areas may be an option, but exposed soil may encourage colonization by weedy and non-native species. Seeding or planting of wiregrass and other native, pyrogenic species will allow these areas to burn more readily which will help reduce weedy and non-native species. Roller chopping may be effective in reducing dense shrub cover but should be implemented with careful consideration to native species and potential impacts to hydrology of these sensitive communities.

L. Managed Community Types

Pine plantations and pastures represent vegetative communities that the FFS manages as integral components of the agency's multi-use management approach. These managed communities provide both ecological benefits, such as wildlife habitat and ground and surface water filtration, as well as opportunities for generating revenue that can be used to help offset management costs. Management of plantations and pastures within the State Forests is conducted to further ensure compatibility with other management goals and objectives.

1. Pine Plantation

Description:

Pine plantations mapped in MSF are located on historic wet prairie, mesic flatwoods and wet flatwoods and have desired future conditions matching those communities.

Current Conditions:

Pine plantations have a dense canopy of either south Florida slash pine or longleaf pine. Subcanopy species may include younger slash pine and cabbage palm. Other shrubs include groundsel tree, southern bayberry, and saw palmetto. The herbaceous layer may be sparse to moderate, depending on the history of thinning, burning and/or herbicide treatments. Bedded pine plantations with a dense pine canopy often have a thick layer of pine needles and contain very little herbs including bushy bluestem, broomsedge bluestem, and slender flattop goldenrod. Vines include earleaf greenbrier.

Fire Regimes:

Refer to the historic community. Historic pyrogenic communities may require more frequent fire in the beginning than is typical for the historic natural community.

Management Needs:

In historic pine flatwoods, thinning of the pine stand will promote more herbaceous cover in the understory, but planting of native species such as longleaf pine (in historic flatwoods) and wiregrass, as well as frequent prescribed burns, may be necessary in some areas to move the community towards a more natural structure and composition. However, most flatwoods should respond well to increased burning, especially growing season burns that will help to limit encroachment. Management activities that create further soil disturbances, particularly in historic wet prairies, should be avoided.

M. Other Altered Landcover Types**Description:**

Altered landcover types are mapped where the natural community has been overwhelmingly altered as a result of human activity. The altered landcover types described in this section are often not appropriate areas for restoration. If restoration is desired, the target future condition of the ruderal habitat is dependent on the historic community. Refer to the appropriate community type for a more specific explanation of the desired future condition.

Current Conditions:

Altered landcover types on MSF comprise abandoned field / abandoned pasture, barrow areas, canals / ditches, developed areas, spoil areas, and utility corridors.

Abandoned field / abandoned pasture (1,041 acres) – old fields, fallow pastures, early successional areas formerly grazed or in agriculture without recent activity to maintain the area as pasture or planted field. These areas are often dominated by weedy native (e.g., *Rubus* spp., *Myrica cerifera*) and non-native species (e.g., *Indigofera hirsuta*). In old pastures, generally designated when weedy cover from woody species (*Rubus* spp., *Myrica cerifera*, etc.) is greater than 20 percent.

Artificial pond (19 acres) – water retention ponds, cattle ponds, etc.

Canal/ditch (5 acres) – artificial drainage way.

Clearing (4 acres) – dove fields, wildlife food plots, recent or historic clearings that have significantly altered the groundcover and/or overstory of the original natural community (old homesites, etc.).

Developed (19 acres) – check stations, ORV use areas, parking areas, buildings, maintained lawns (as part of recreation, business, or residential areas), botanical or ornamental gardens, campgrounds, recreation, industrial, and residential areas.

Road (113 acres) – paved and unpaved.

Spoil area (13 acres) – area where dredge or spoil material is deposited, may be re-colonized by plants.

Fire Regimes:

N/A

Management Needs:

How ruderal areas should be managed depends on the specific site under consideration. These areas may be useful for placement of support facilities or may be targeted for restoration of the historic natural community. Left alone, most of these areas are likely to remain in a ruderal state. It may not be practical or desirable to restore some of the altered landcover types (e.g., developed land, roads, etc.) to the historic natural community.

VIII. References

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Florida Natural Areas Inventory. 2020. FNAI Manage Area Data Report. Tallahassee, Florida.

J.W. Fitzpatrick, G.E. Woolfenden, and M.T. Kopeny. 1991. Ecology and development-related habitat requirements of the Florida scrub jay (*Aphelocoma coerulescens*). Florida Game and Fresh Water Fish Commission, Nongame Wildlife Program Technical Report No. 8. Tallahassee, FL. 49 pp.

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IX. **Glossary of Abbreviations**

AGCC	Atlantic Gulf Communities Corporation
ARC	Acquisition and Restoration Council
ARM	Archaeological Resource Management
BMP	Best Management Practices
BSA.....	Boy Scouts of America
CARL.....	Conservation and Recreation Lands
CWA	Critical Wildlife Area
DHR.....	Division of Historical Resources
DRP.....	Division of Recreation and Parks
DSO	Direct Support Organization
F.A.C.....	Florida Administrative Code
FDACS	Florida Department of Agriculture and Consumer Services
FDEP.....	Florida Department of Environmental Protection
FFS.....	Florida Forest Service
FNAI.....	Florida Natural Areas Inventory
F.S.....	Florida Statutes
FWC.....	Florida Fish and Wildlife Conservation Commission
MSF	Myakka State Forest
NPS	National Park Service
NFWS	National Fish and Wildlife Service
NRCS	Natural Resources Conservation Service
OALE.....	FDACS Office of Agricultural Law Enforcement
OFW	Outstanding Florida Waters
OOF	Operation Outdoor Freedom
OPS	Other Personal Services Employment
PSGHA	Public Small Game Hunting Area

RCP.....Office of Resilience and Coastal Protection
SWFWMD.....Southwest Florida Water Management District
TIITF.....Trustees of the Internal Improvement Trust Fund, Board of

MYAKKA STATE FOREST
2023 LAND MANAGEMENT PLAN

EXHIBITS

Exhibit A

Ten-Year Management Accomplishment Summary

Myakka State Forest
10-Year Accomplishments

Site Preparation	Chop Single Pass	No.	371
	Chop Tandem	No.	185
	Burning	Acres	140

Planting	South Florida Slash, Containerized	No.	198,000
		Acres	286

Seedling survival checks	Planting Checks	Acres	409
---------------------------------	-----------------	-------	-----

Timber Sales	Cruising	Acres	0
	Harvest	Acres	73
		Tons	574

Timber Inventory	Inventory Update	Acres	7,567
	New Inventory	Acres	0
	Plots	Acres	381

Invasive Species Control	Melaleuca	Acres	804
	Brazilian Pepper	Acres	781
	Cogon Grass	Acres	400
	Air Potato	Acres	1
	Rosary pea	Acres	57
	Japanese Climbing Fern	Acres	24
	Lygodium	Acres	19
	Para Grass	Acres	13
	Tropical Soda Apple	Acres	3
	Jave Plum	Acres	3
	Torpedo grass	Acres	4
	Australian Pine	Acres	2
	Caesar Weed	Acres	0

Fire	Wildfire	No.	5
		Acres	27
	Prescribed Burning	No.	0
		Acres	13,438

Recreation	Day Use Estimated Forest Visitors	No.	228,421
	Overnight Primitive Camping	No.	35,687

	Annual Entrance Pass	No.	194
	State Forest Use Permit	No.	9

Roadwork	Roads Constructed	Miles	1
	Roads Graded	Miles	136
	Roads Rebuilt	Miles	8

Boundary Maintenance	Maintenance/Marking	Miles	107
-----------------------------	---------------------	-------	-----

I&E Activities	Programs/Tours	No.	51
	Radio/TV Articles	No.	29
	Education/Research	No.	10

Other Activities	Archaeological Sites Monitored	No.	4
	Hogs Removed	No.	1,135
	Apiary Permits (sites)	No.	12
	BSA Eagle Project	No.	6

Exhibit B

Boundary and Road Map



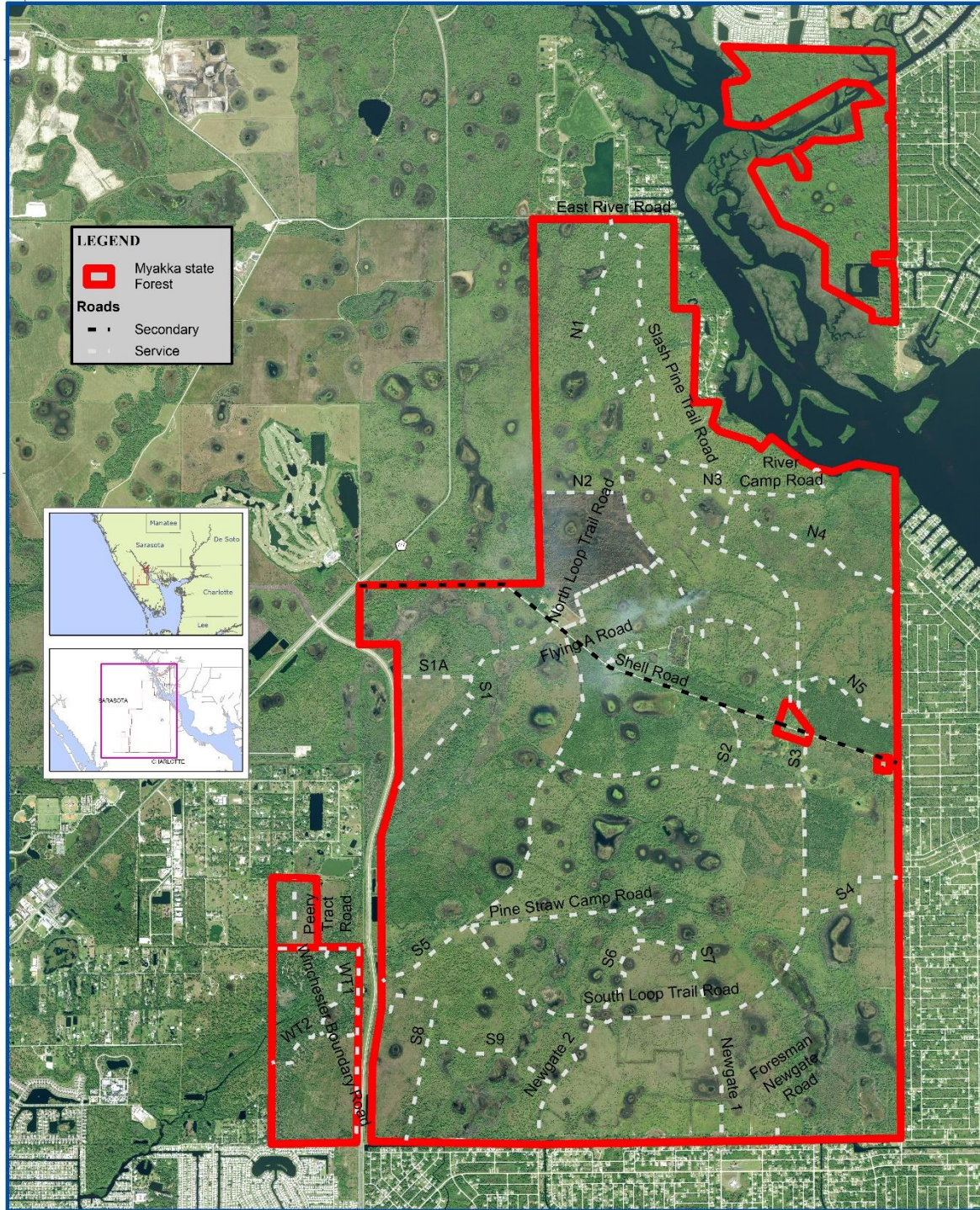
Florida Forest Service

Myakka State Forest

Boundary & Road Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum
82° 0' 0" W

DISCLAIMER:
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0.5 0.25 0 Miles



Map Month/Year: December 2020

1,000 500 0 1,000 Yards

Exhibit C

Optimal Management Boundary Map



Florida Forest Service

Myakka State Forest

Optimal Management Boundary Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum
82° 00' 00" W

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errors or omissions in this map.

Managed Area Boundaries courtesy of
the Florida Natural Areas Inventory
Faintly Used Service Areas (FUSAs)
from the US Army Corps of Engineers

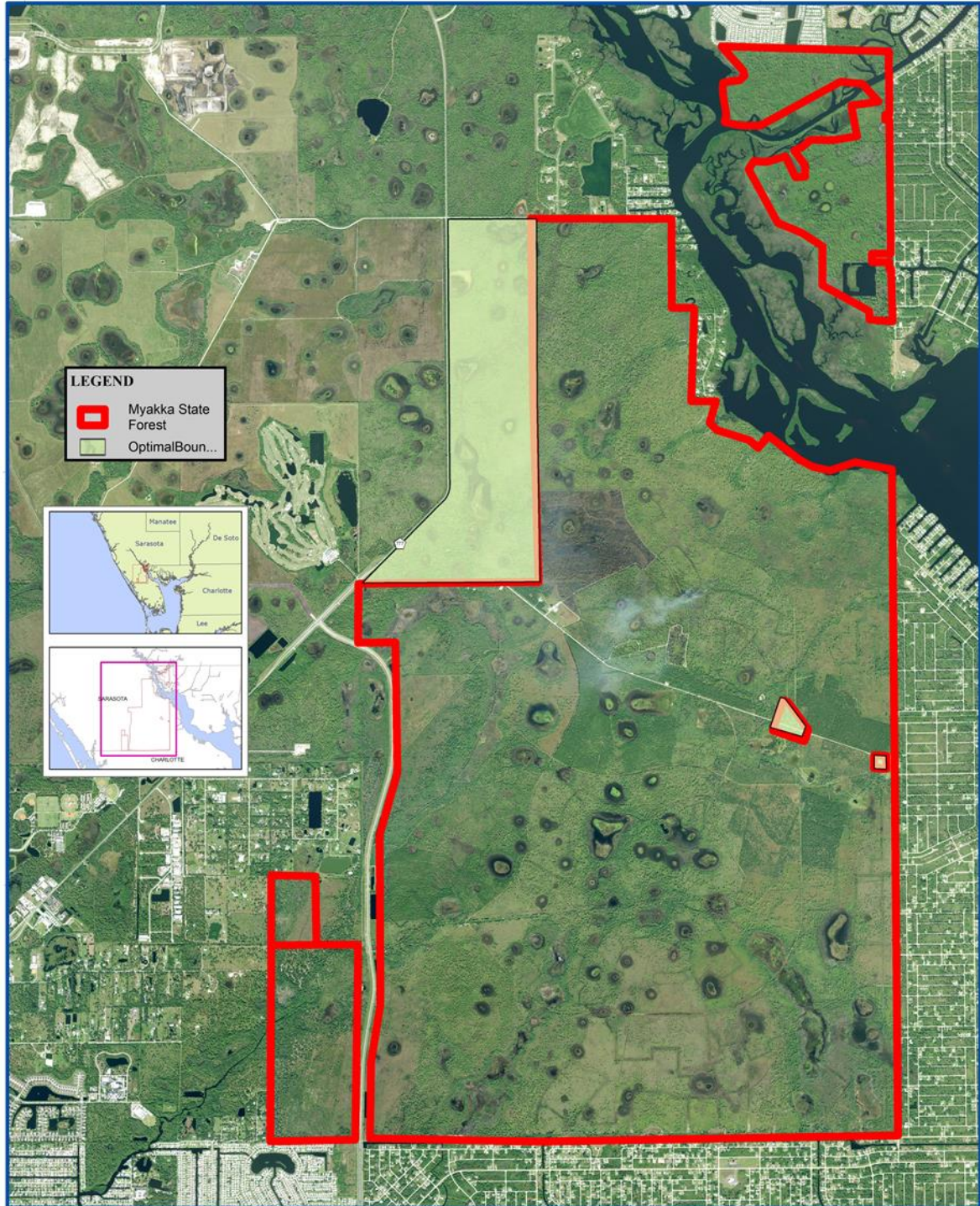


Exhibit D

Facilities, Recreation, and Improvements Map



Florida Forest Service

Myakka State Forest

Facilities, Recreation, and Improvements Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum
82° 00' 00" W
27° 00' 00" N

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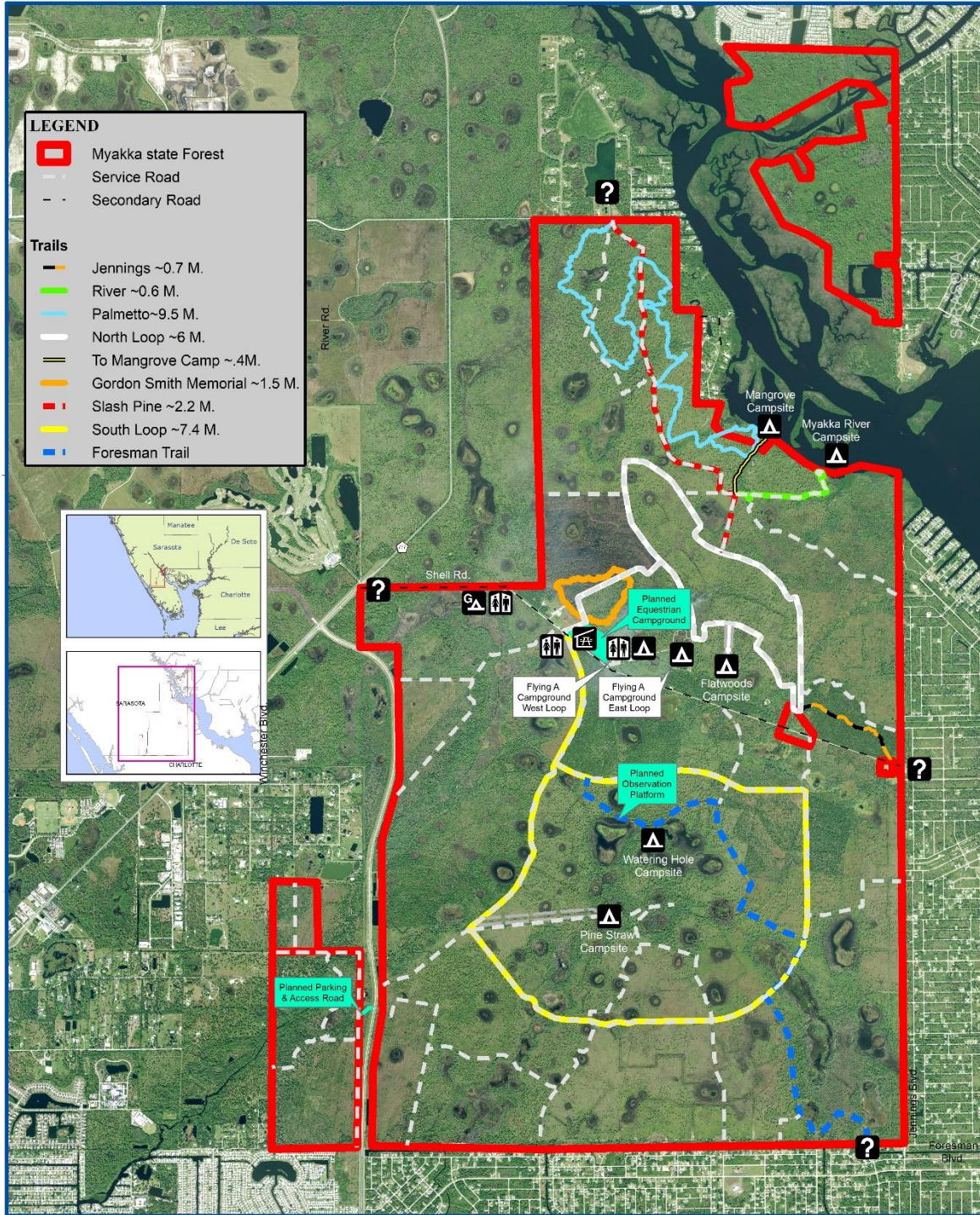


Exhibit E

Tract and Acreage Map



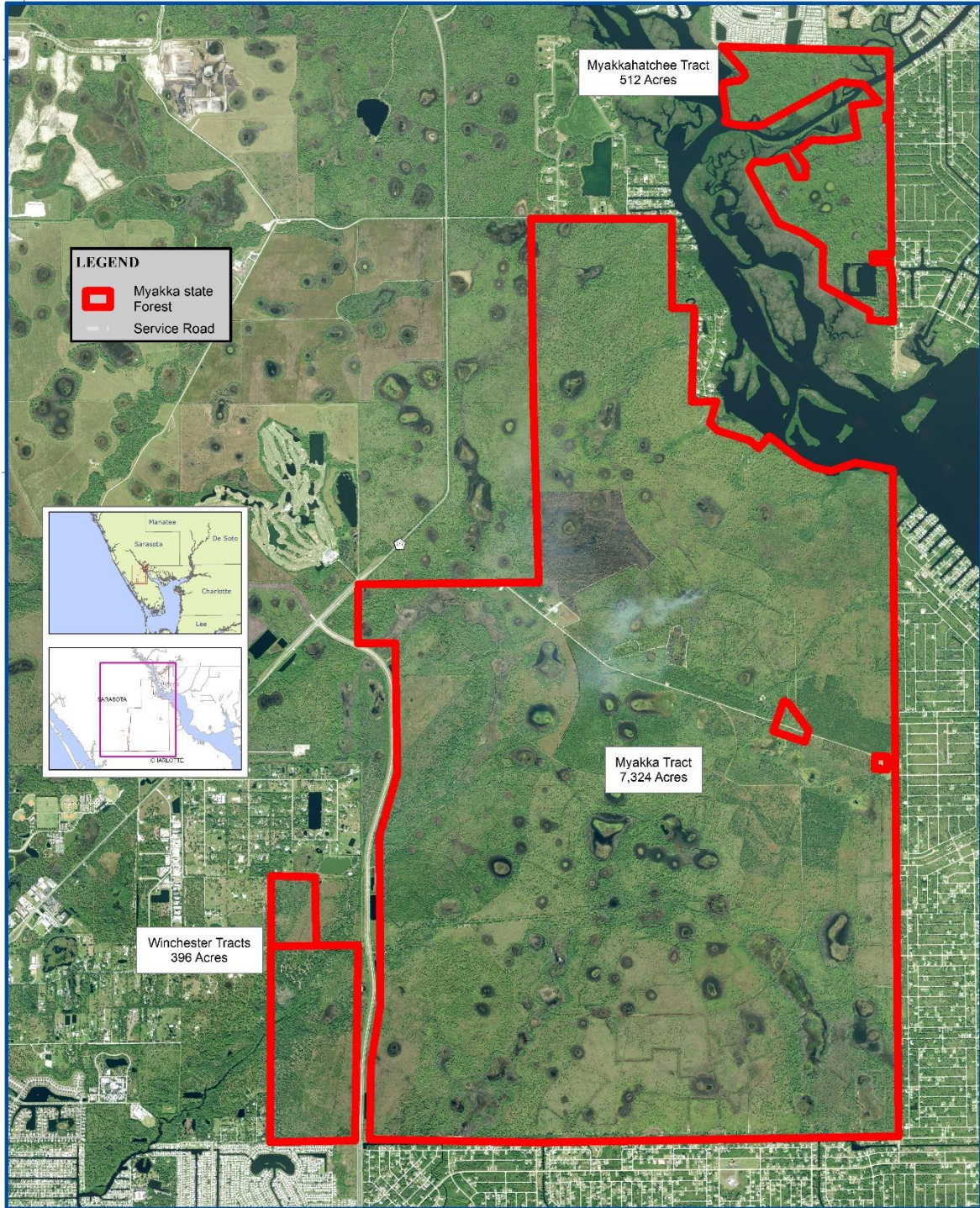
Florida Forest Service

Myakka State Forest

Tract Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum
62° 0' 0" W

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Map Month/Year: May 2021

Exhibit F

Proximity to Significant Managed Lands



Florida Forest Service

Myakka State Forest

Proximity to Significant Managed Lands Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum

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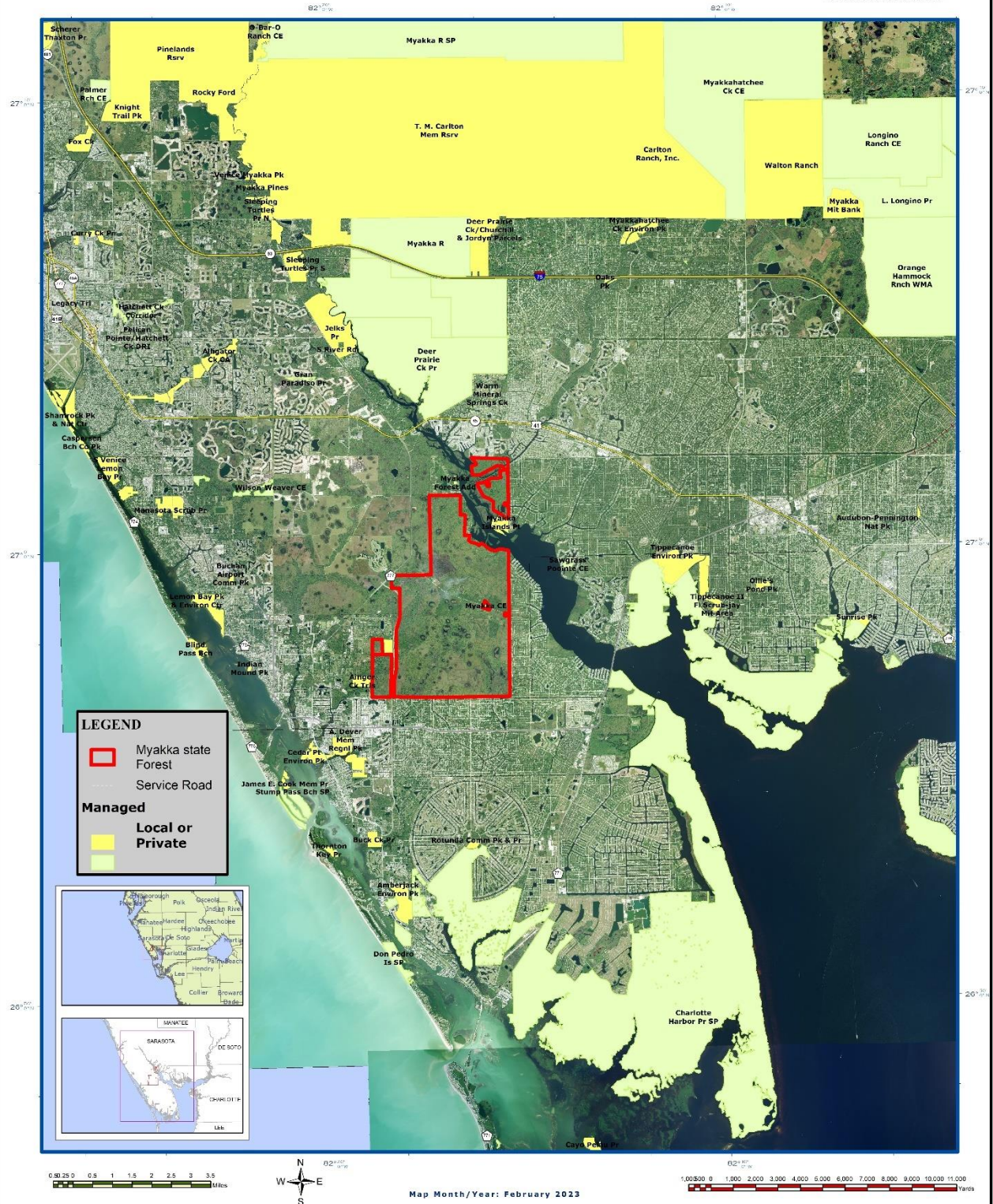


Exhibit G

Department of State Report on Archeological Sites
and Historical Sites



This record search is for informational purposes only and does NOT constitute a project review. This search only identifies resources recorded at the Florida Master Site File and does NOT provide project approval from the Division of Historical Resources. Contact the Compliance and Review Section of the Division of Historical Resources at CompliancePermits@dos.MyFlorida.com for project review information.

August 11, 2020

Patti Anderson

Land Management Planner

Florida Forest Service

Florida Department of Agriculture and Consumer Services

(850) 681-5889

Patricia.Anderson@FDACS.gov

In response to your inquiry of August 11, 2020 the Florida Master Site File lists four archeological sites recorded in the designated boundary for Myakka State Forest in Sarasota County

When interpreting the results of our search, please consider the following information:

- This search area may contain *unrecorded* archaeological sites, historical structures or other resources even if previously surveyed for cultural resources.
- Because vandalism and looting are common at Florida sites, we ask that you limit the distribution of location information on archaeological sites.
- While many of our records document historically significant resources, the documentation of a resource at the Florida Master Site File does not necessarily mean the resource is historically significant.
- Federal, state and local laws require formal environmental review for most projects. This search **DOES NOT** constitute such a review. If your project falls under these laws, you should contact the Compliance and Review Section of the Division of Historical Resources at 850-245-6333.

Please do not hesitate to contact us if you have any questions regarding the results of this search.

Sincerely,

Eman M. Vovsi, Ph.D.

Florida Master Site File

Eman.Vovsi@DOS.MyFlorida.com



AR=4
SS=0
CM=0
RG=0
BR=0
Total=4

Cultural Resource Roster

SiteID	Type	Site Name	Address	Additional Info	SHPO Eval	NR Status
SO06958	AR	Water's Edge Lithic Scatter	North Port			
SO06959	AR	La Casa Clam Midden	North Port			
SO06960	AR	Four Eyes Midden	North Port			
SO06961	AR	Old Slough Herty Cup Scatter	North Port			

Exhibit H

Management Procedures for Archaeological and Historical Sites and Properties on State Owned or Controlled Lands

Management Procedures for Archaeological and Historical Sites and Properties on State-Owned or Controlled Properties
(revised June 2021)

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

A. Historic Property Definition

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

B. Agency Responsibilities

Per Chapter 267, F.S. and state policy related to historic properties, state agencies of the executive branch must provide the Division of Historical Resources (Division) the opportunity to comment on any undertakings with the potential to affect historic properties that are listed, or eligible for listing, in the National Register of Historic Places, whether these undertakings directly involve the state agency, i.e., land management responsibilities, or the state agency has indirect jurisdiction, i.e. permitting authority, grants, etc. No state funds should be expended on the undertaking until the Division has the opportunity to review and comment on the undertaking. (267.061(2)(a))

State agencies must consult with the Division when, as a result of state action or assistance, a historic property will be demolished or substantially altered in a way that will adversely affect the property. State agencies must take timely steps to consider feasible and prudent alternatives to the adverse effect. If no feasible or prudent alternatives exist, the state agency must take timely steps to avoid or mitigate the adverse effect. (267.061(2)(b))

State agencies must consult with Division to establish a program to locate, inventory and evaluate all historic properties under ownership or controlled by the agency. (267.061(2)(c))

State agencies are responsible for preserving historic properties under their control. State agencies are directed to use historic properties available to the agency when that use is consistent with the historic property and the agency’s mission. State agencies are also directed to pursue preservation of historic properties to support their continued use. (267.061(2)(d))

C. Statutory Authority

The full text of Chapter 267, F.S. and additional information related to the treatment of historic properties is available at:

<https://dos.myflorida.com/historical/preservation/compliance-and-review/regulations-guidelines/>

D. Management Implementation

Although the Division sits on the Acquisition and Restoration Council and approves land management plans, these plans are conceptual and do not include detailed project information. Specific information for individual projects must be submitted to the Division for review and comment.

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

Projects such as additions or alterations to historic structures as well as new construction must also be submitted to the Division for review. Projects involving structures fifty years of age or older must be submitted to the Division for a significance determination. In rare cases, structures under fifty years of age may be deemed historically significant.

Adverse effects to historic properties must be avoided when possible, and if avoidance is not possible, additional consultation with the Division is necessary to develop a mitigation plan. Furthermore, managers of state property should make preparations for locating and evaluating historic properties, both archaeological sites and historic structures.

E. Archaeological Resource Management (ARM) Training

The ARM Training Course introduces state land managers to the nature of archaeological resources, Florida archaeology, and the role of the Division in managing state-owned archaeological resources. Participants gain a better understanding of the requirements of state and federal laws with regard to protecting and managing archaeological sites on state managed lands. Participants also receive a certificate recognizing their ability to conduct limited monitoring activities in accordance with the Division's Review Procedure, thereby reducing the time and money spent to comply with state regulations. Additional information regarding the ARM Training Course is available at:

<https://dos.myflorida.com/historical/archaeology/education/arm-training-courses/>

F. Matrix for Ground Disturbance on State Lands

The matrix is a tool designed to help streamline the Division's Review Procedure. The matrix allows state land managers to make decisions about balancing ground disturbance and stewardship of historic resources. The matrix establishes types of undertakings that are either minor or major disturbances and then guides the land manager to consult the Division, conduct ARM-trained project monitoring, or proceed with the project. Additional information regarding the matrix is available at:

<https://dos.myflorida.com/historical/archaeology/education/dhr-matrix-for-ground-disturbance-on-state-lands/>

G. Human Remains Treatment

Chapter 872, *Florida Statutes* makes it illegal to willfully and knowingly disturb human remains. In the event human remains are discovered, cease all activity in the area that may disturb the remains. Leave the bones and nearby items in place. Immediately notify law enforcement or the local district medical examiner of the discovery and follow the provisions of Chapter 872, FS. Additional information regarding the treatment of human remains and cemeteries is available at:

<https://dos.myflorida.com/historical/archaeology/human-remains/>
<https://dos.myflorida.com/historical/archaeology/human-remains/abandoned-cemeteries/what-are-the-applicable-laws-and-regulations/>

H. Division of Historical Resources Review Procedure

Projects on state owned or controlled properties may submit projects to the Division for review using the streamlined State Lands Consultation Form. The form provides instructions to submit projects for review and outlines the necessary information for the Division to complete the review process. The State Lands Consultation Form and additional information about the Division's review process is available at:

<https://dos.myflorida.com/historical/preservation/compliance-and-review/state-lands-review/>

* * *

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

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

StateLandsCompliance@dos.myflorida.com

Phone: (850) 245-6333
Toll Free: (800) 847-7278
Fax: (850) 245-6435

Exhibit I

Soil Survey Map and Descriptions



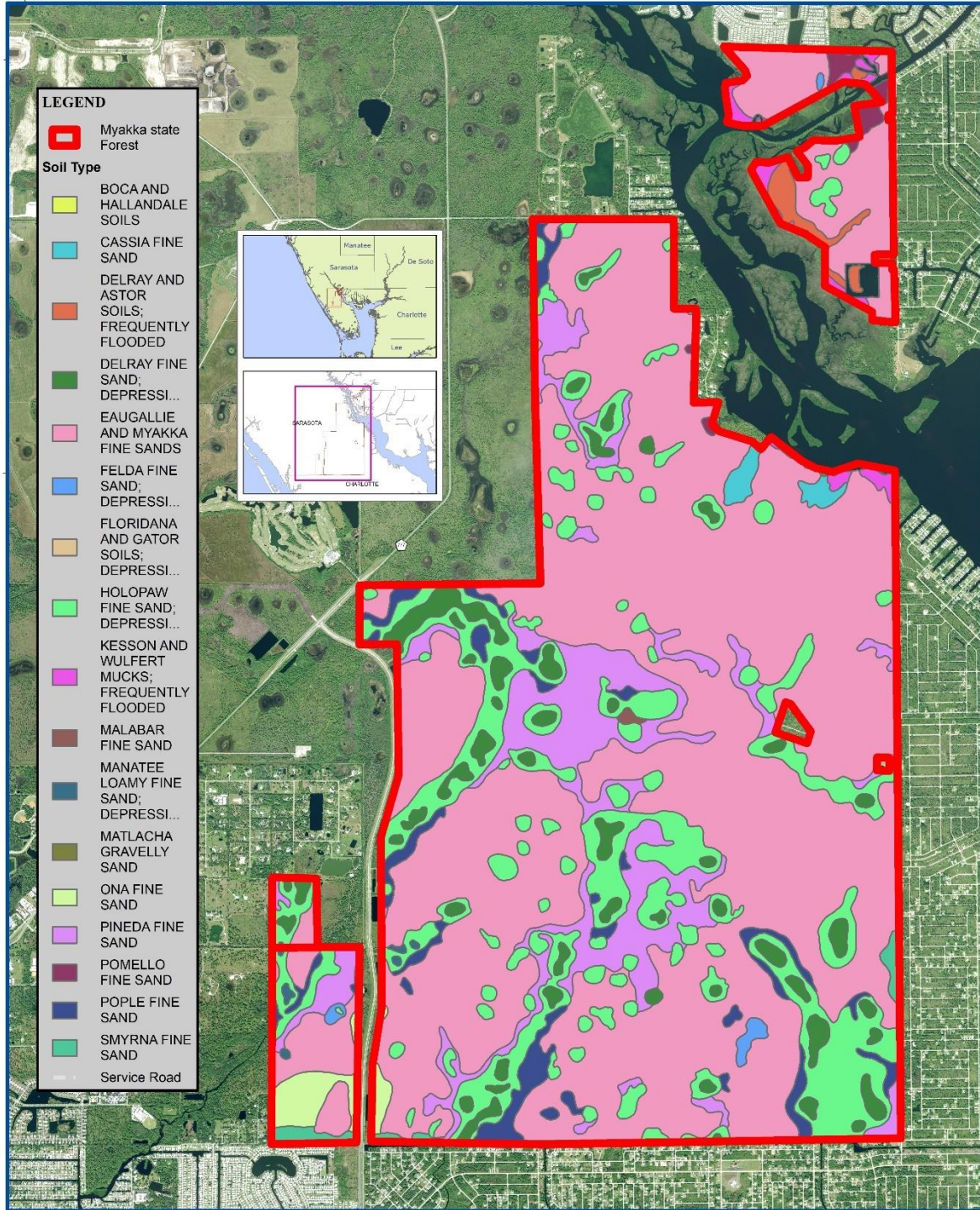
Florida Forest Service

Myakka State Forest

Soil Maps and Descriptions

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum
82° 00' 00" W
27° 00' 00" N

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0.5 0.25 0 Miles



Map Month/Year: December 2020

1,000 500 0 1,000 Yards

Map Unit Description (Brief, Generated)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, provide information on the composition of map units and properties of their components.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

Report—Map Unit Description (Brief, Generated)

Charlotte County, Florida

Map Unit: 7—Matlacha gravelly fine sand-Urban land complex, 0 to 2 percent slopes

Component: Matlacha (48%)

The Matlacha component makes up 48 percent of the map unit. Slopes are 0 to 2 percent. This component is on fills, marine terraces on coastal plains. The parent material consists of sandy mine spoil or earthy fill over sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Urban land (42%)

Generated brief soil descriptions are created for major soil components. The Urban land is a miscellaneous area.

Component: St. Augustine (5%)

Generated brief soil descriptions are created for major soil components. The St. Augustine soil is a minor component.

Component: Caloosa (5%)

Generated brief soil descriptions are created for major soil components. The Caloosa soil is a minor component.

Map Unit: 11—Myakka fine sand, 0 to 2 percent slopes

Component: Myakka (85%)

The Myakka component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Basinger (5%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Wabasso (4%)

Generated brief soil descriptions are created for major soil components. The Wabasso soil is a minor component.

Component: Cassia (3%)

Generated brief soil descriptions are created for major soil components. The Cassia soil is a minor component.

Component: Immokalee (2%)

Generated brief soil descriptions are created for major soil components. The Immokalee soil is a minor component.

Component: Satellite (1%)

Generated brief soil descriptions are created for major soil components. The Satellite soil is a minor component.

Map Unit: 24—Kesson fine sand, tidal, 0 to 1 percent slopes

Component: Kesson, tidal (88%)

The Kesson, tidal component makes up 88 percent of the map unit. Slopes are 0 to 1 percent. This component is on tidal marshes on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is very frequently flooded. It is not ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 8w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 2 percent. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 25 within 30 inches of the soil surface.

Component: Wulfert, tidal (6%)

Generated brief soil descriptions are created for major soil components. The Wulfert, tidal soil is a minor component.

Component: Captiva, tidal (6%)

Generated brief soil descriptions are created for major soil components. The Captiva, tidal soil is a minor component.

Map Unit: 28—Immokalee sand, 0 to 2 percent slopes

Component: Immokalee (85%)

The Immokalee component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Valkaria (5%)

Generated brief soil descriptions are created for major soil components. The Valkaria soil is a minor component.

Component: Oldsmar (4%)

Generated brief soil descriptions are created for major soil components. The Oldsmar soil is a minor component.

Component: Pomello (3%)

Generated brief soil descriptions are created for major soil components. The Pomello soil is a minor component.

Component: Satellite (2%)

Generated brief soil descriptions are created for major soil components. The Satellite soil is a minor component.

Component: Felda (1%)

Generated brief soil descriptions are created for major soil components. The Felda soil is a minor component.

Map Unit: 36—Immokalee sand-Urban land complex, 0 to 2 percent slopes

Component: Immokalee (43%)

The Immokalee component makes up 43 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Urban land (35%)

Generated brief soil descriptions are created for major soil components. The Urban land is a miscellaneous area.

Component: Basinger (5%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Oldsmar (4%)

Generated brief soil descriptions are created for major soil components. The Oldsmar soil is a minor component.

Component: Pomello (4%)

Generated brief soil descriptions are created for major soil components. The Pomello soil is a minor component.

Component: Satellite (2%)

Generated brief soil descriptions are created for major soil components. The Satellite soil is a minor component.

Component: Immokalee (2%)

Generated brief soil descriptions are created for major soil components. The Immokalee soil is a minor component.

Component: Felda (2%)

Generated brief soil descriptions are created for major soil components. The Felda soil is a minor component.

Component: Hallandale (2%)

Generated brief soil descriptions are created for major soil components. The Hallandale soil is a minor component.

Component: Margate (1%)

Generated brief soil descriptions are created for major soil components. The Margate soil is a minor component.

Map Unit: 67—Smyrna fine sand-Urban land complex, 0 to 2 percent slopes

Component: Smyrna (45%)

The Smyrna component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Urban land (38%)

Generated brief soil descriptions are created for major soil components. The Urban land is a miscellaneous area.

Component: EauGallie (5%)

Generated brief soil descriptions are created for major soil components. The EauGallie soil is a minor component.

Component: Basinger (4%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Immokalee (4%)

Generated brief soil descriptions are created for major soil components. The Immokalee soil is a minor component.

Component: Placid (2%)

Generated brief soil descriptions are created for major soil components. The Placid soil is a minor component.

Component: Smyrna (2%)

Generated brief soil descriptions are created for major soil components. The Smyrna soil is a minor component.

Map Unit: 99—Water

Component: Water (100%)

Generated brief soil descriptions are created for major soil components. The Water is a miscellaneous area.

Map Unit: 107—EauGallie sand-Urban land complex, 0 to 2 percent slopes

Component: EauGallie (45%)

The EauGallie component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Urban land (40%)

Generated brief soil descriptions are created for major soil components. The Urban land is a miscellaneous area.

Component: Malabar (4%)

Generated brief soil descriptions are created for major soil components. The Malabar soil is a minor component.

Component: Myakka (3%)

Generated brief soil descriptions are created for major soil components. The Myakka soil is a minor component.

Component: Oldsmar (3%)

Generated brief soil descriptions are created for major soil components. The Oldsmar soil is a minor component.

Component: Wabasso (3%)

Generated brief soil descriptions are created for major soil components. The Wabasso soil is a minor component.

Component: EauGallie (2%)

Generated brief soil descriptions are created for major soil components. The EauGallie soil is a minor component.

Map Unit: 123—Myakka fine sand-Urban land complex, 0 to 2 percent slopes

Component: Myakka (45%)

The Myakka component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Urban land (38%)

Generated brief soil descriptions are created for major soil components. The Urban land is a miscellaneous area.

Component: Basinger (5%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Wabasso (4%)

Generated brief soil descriptions are created for major soil components. The Wabasso soil is a minor component.

Component: Cassia (3%)

Generated brief soil descriptions are created for major soil components. The Cassia soil is a minor component.

Component: Immokalee (2%)

Generated brief soil descriptions are created for major soil components. The Immokalee soil is a minor component.

Component: Myakka (2%)

Generated brief soil descriptions are created for major soil components. The Myakka soil is a minor component.

Component: Satellite (1%)

Generated brief soil descriptions are created for major soil components. The Satellite soil is a minor component.

Sarasota County, Florida

Map Unit: 3—Boca and Hallandale soils, 0 to 2 percent slopes

Component: Boca (45%)

The Boca component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 8 to 53 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 2 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Hallandale (35%)

The Hallandale component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 4 to 30 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 2 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Rock outcrop (5%)

Generated brief soil descriptions are created for major soil components. The Rock outcrop soil is a minor component.

Component: Felda (5%)

Generated brief soil descriptions are created for major soil components. The Felda soil is a minor component.

Component: Pompano (5%)

Generated brief soil descriptions are created for major soil components. The Pompano soil is a minor component.

Component: Pineda (5%)

Generated brief soil descriptions are created for major soil components. The Pineda soil is a minor component.

Map Unit: 7—Cassia fine sand, 0 to 2 percent slopes

Component: Cassia (80%)

The Cassia component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Myakka (7%)

Generated brief soil descriptions are created for major soil components. The Myakka soil is a minor component.

Component: Pomello (6%)

Generated brief soil descriptions are created for major soil components. The Pomello soil is a minor component.

Component: Satellite (4%)

Generated brief soil descriptions are created for major soil components. The Satellite soil is a minor component.

Component: Jonathan (3%)

Generated brief soil descriptions are created for major soil components. The Jonathan soil is a minor component.

Map Unit: 8—Delray fine sand, frequently ponded, 0 to 1 percent slopes

Component: Delray (85%)

The Delray component makes up 85 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Pompano (7%)

Generated brief soil descriptions are created for major soil components. The Pompano soil is a minor component.

Component: Placid (5%)

Generated brief soil descriptions are created for major soil components. The Placid soil is a minor component.

Component: Gator (3%)

Generated brief soil descriptions are created for major soil components. The Gator soil is a minor component.

Map Unit: 9—Delray and Astor soils, 0 to 2 percent slopes, frequently flooded

Component: Delray, flooded (45%)

The Delray, flooded component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Astor, flooded (35%)

The Astor, flooded component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 10 percent. Nonirrigated land capability classification is 6w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Floridana, flooded (10%)

Generated brief soil descriptions are created for major soil components. The Floridana, flooded soil is a minor component.

Component: Felda, flooded (10%)

Generated brief soil descriptions are created for major soil components. The Felda, flooded soil is a minor component.

Map Unit: 10—EauGallie and Myakka fine sands, 0 to 2 percent slopes

Component: EauGallie (45%)

The EauGallie component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Myakka (40%)

The Myakka component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Ona (4%)

Generated brief soil descriptions are created for major soil components. The Ona soil is a minor component.

Component: Basinger (4%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Cassia (4%)

Generated brief soil descriptions are created for major soil components. The Cassia soil is a minor component.

Component: Wabasso (3%)

Generated brief soil descriptions are created for major soil components. The Wabasso soil is a minor component.

Map Unit: 12—Felda fine sand, frequently ponded, 0 to 1 percent slopes

Component: Felda (85%)

The Felda component makes up 85 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. Organic matter content in the surface horizon is about 2 percent. This component is in the R155XY011FL Slough ecological site. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Floridana (5%)

Generated brief soil descriptions are created for major soil components. The Floridana soil is a minor component.

Component: Basinger (3%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Winder (2%)

Generated brief soil descriptions are created for major soil components. The Winder soil is a minor component.

Component: Eaton (2%)

Generated brief soil descriptions are created for major soil components. The Eaton soil is a minor component.

Component: Kaliga (1%)

Generated brief soil descriptions are created for major soil components. The Kaliga soil is a minor component.

Component: Sanibel (1%)

Generated brief soil descriptions are created for major soil components. The Sanibel soil is a minor component.

Component: Myakka (1%)

Generated brief soil descriptions are created for major soil components. The Myakka soil is a minor component.

Map Unit: 15—Floridana and Gator soils, frequently ponded, 0 to 1 percent slopes

Component: Floridana (75%)

The Floridana component makes up 75 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. Organic matter content in the surface horizon is about 11 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Gator (25%)

The Gator component makes up 25 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of herbaceous organic material over sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is very high. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 75 percent. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Map Unit: 22—Holopaw fine sand, frequently ponded, 0 to 1 percent slopes

Component: Holopaw (85%)

The Holopaw component makes up 85 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Basinger (6%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Riviera (4%)

Generated brief soil descriptions are created for major soil components. The Riviera soil is a minor component.

Component: Floridana (3%)

Generated brief soil descriptions are created for major soil components. The Floridana soil is a minor component.

Component: Manatee (2%)

Generated brief soil descriptions are created for major soil components. The Manatee soil is a minor component.

Map Unit: 24—Kesson and Wulfert mucks, tidal, 0 to 1 percent slopes

Component: Kesson, tidal (50%)

The Kesson, tidal component makes up 50 percent of the map unit. Slopes are 0 to 1 percent. This component is on tidal marshes on marine terraces on coastal plains. The parent material consists of thin herbaceous organic material over sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is very frequently flooded. It is not ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 75 percent. Nonirrigated land capability classification is 8w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 2 percent. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 25 within 30 inches of the soil surface.

Component: Wulfert, tidal (40%)

The Wulfert, tidal component makes up 40 percent of the map unit. Slopes are 0 to 1 percent. This component is on tidal marshes on marine terraces on coastal plains. The parent material consists of herbaceous organic material over sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very high. Shrink-swell potential is low. This soil is very frequently flooded. It is not ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 75 percent. Nonirrigated land capability classification is 8. This soil meets hydric criteria. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 25 within 30 inches of the soil surface.

Component: Canaveral (5%)

Generated brief soil descriptions are created for major soil components. The Canaveral soil is a minor component.

Component: St. Augustine (5%)

Generated brief soil descriptions are created for major soil components. The St. Augustine soil is a minor component.

Map Unit: 25—Malabar fine sand, 0 to 2 percent slopes

Component: Malabar (85%)

The Malabar component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during July, August, September, October. Organic matter content in the surface horizon is about 3 percent. This component is in the R155XY011FL Slough ecological site. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Valkaria (5%)

Generated brief soil descriptions are created for major soil components. The Valkaria soil is a minor component.

Component: Oldsmar (4%)

Generated brief soil descriptions are created for major soil components. The Oldsmar soil is a minor component.

Component: Pineda (4%)

Generated brief soil descriptions are created for major soil components. The Pineda soil is a minor component.

Component: Basinger (2%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Map Unit: 26—Manatee loamy fine sand, frequently ponded, 0 to 1 percent slopes

Component: Manatee (85%)

The Manatee component makes up 85 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 2 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Floridana (5%)

Generated brief soil descriptions are created for major soil components. The Floridana soil is a minor component.

Component: Parkwood, loamy fine sand (4%)

Generated brief soil descriptions are created for major soil components. The Parkwood, loamy fine sand soil is a minor component.

Component: Placid (3%)

Generated brief soil descriptions are created for major soil components. The Placid soil is a minor component.

Component: Winder (3%)

Generated brief soil descriptions are created for major soil components. The Winder soil is a minor component.

Map Unit: 30—Ona fine sand, 0 to 2 percent slopes

Component: Ona (85%)

The Ona component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Basinger (5%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Myakka (3%)

Generated brief soil descriptions are created for major soil components. The Myakka soil is a minor component.

Component: Immokalee (3%)

Generated brief soil descriptions are created for major soil components. The Immokalee soil is a minor component.

Component: EauGallie (2%)

Generated brief soil descriptions are created for major soil components. The EauGallie soil is a minor component.

Component: Pomello (2%)

Generated brief soil descriptions are created for major soil components. The Pomello soil is a minor component.

Map Unit: 31—Pineda-Pineda, wet, fine sand, 0 to 2 percent slopes

Component: Pineda (45%)

The Pineda component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Pineda, wet (40%)

The Pineda, wet component makes up 40 percent of the map unit. Slopes are 0 to 1 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Felda (6%)

Generated brief soil descriptions are created for major soil components. The Felda soil is a minor component.

Component: Wabasso (3%)

Generated brief soil descriptions are created for major soil components. The Wabasso soil is a minor component.

Component: Boca (2%)

Generated brief soil descriptions are created for major soil components. The Boca soil is a minor component.

Component: Valkaria (2%)

Generated brief soil descriptions are created for major soil components. The Valkaria soil is a minor component.

Component: Hallandale (2%)

Generated brief soil descriptions are created for major soil components. The Hallandale soil is a minor component.

Map Unit: 33—Pomello fine sand, 0 to 2 percent slopes

Component: Pomello (85%)

The Pomello component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 1 percent. This component is in the R155XY001FL Sand Pine Scrub ecological site. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Duette (5%)

Generated brief soil descriptions are created for major soil components. The Duette soil is a minor component.

Component: Immokalee (5%)

Generated brief soil descriptions are created for major soil components. The Immokalee soil is a minor component.

Component: Jonathan (3%)

Generated brief soil descriptions are created for major soil components. The Jonathan soil is a minor component.

Component: Tavares (2%)

Generated brief soil descriptions are created for major soil components. The Tavares soil is a minor component.

Map Unit: 36—Pople fine sand, wet, 0 to 2 percent slopes

Component: Pople (85%)

The Pople component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during July, August, September, October. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 2 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Wabasso (5%)

Generated brief soil descriptions are created for major soil components. The Wabasso soil is a minor component.

Component: EauGallie (5%)

Generated brief soil descriptions are created for major soil components. The EauGallie soil is a minor component.

Component: Bradenton (5%)

Generated brief soil descriptions are created for major soil components. The Bradenton soil is a minor component.

Map Unit: 38—Smyrna fine sand, 0 to 2 percent slopes

Component: Smyrna (85%)

The Smyrna component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: EauGallie (5%)

Generated brief soil descriptions are created for major soil components. The EauGallie soil is a minor component.

Component: Basinger (4%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Pomello (2%)

Generated brief soil descriptions are created for major soil components. The Pomello soil is a minor component.

Component: Placid (2%)

Generated brief soil descriptions are created for major soil components. The Placid soil is a minor component.

Component: Immokalee (2%)

Generated brief soil descriptions are created for major soil components. The Immokalee soil is a minor component.

Map Unit: 55—EauGallie-Myakka fine sands-Urban land complex, 0 to 2 percent slopes

Component: EauGallie (31%)

The EauGallie component makes up 31 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Myakka (28%)

The Myakka component makes up 28 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Urban land (26%)

Generated brief soil descriptions are created for major soil components. The Urban land is a miscellaneous area.

Component: Cassia (4%)

Generated brief soil descriptions are created for major soil components. The Cassia soil is a minor component.

Component: Basinger (4%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Ona (4%)

Generated brief soil descriptions are created for major soil components. The Ona soil is a minor component.

Component: EauGallie (3%)

Generated brief soil descriptions are created for major soil components. The EauGallie soil is a minor component.

Map Unit: 63---Holopaw fine sand, ponded-Urban land complex, 0 to 1 percent slopes

Component: Holopaw (43%)

The Holopaw component makes up 43 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 3 inches during January, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Urban land (40%)

Generated brief soil descriptions are created for major soil components. The 1 Urban land soil is a minor component.

Component: Basinger (6%)

Generated brief soil descriptions are created for major soil components. The Basinger soil is a minor component.

Component: Riviera (4%)

Generated brief soil descriptions are created for major soil components. The Riviera soil is a minor component.

Component: Floridana (3%)

Generated brief soil descriptions are created for major soil components. The Floridana soil is a minor component.

Component: Manatee (2%)

Generated brief soil descriptions are created for major soil components. The Manatee soil is a minor component.

Component: Holopaw (2%)

Generated brief soil descriptions are created for major soil components. The Holopaw soil is a minor component.

Map Unit: 69—Pineda fine sand-Urban land complex, 0 to 2 percent slopes

Component: Pineda (40%)

The Pineda component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Urban land (33%)

Generated brief soil descriptions are created for major soil components. The Urban land is a miscellaneous area.

Component: Pineda, wet (10%)

Generated brief soil descriptions are created for major soil components. The Pineda, wet soil is a minor component.

Component: Felda (6%)

Generated brief soil descriptions are created for major soil components. The Felda soil is a minor component.

Component: Wabasso (3%)

Generated brief soil descriptions are created for major soil components. The Wabasso soil is a minor component.

Component: Boca (2%)

Generated brief soil descriptions are created for major soil components. The Boca soil is a minor component.

Component: Hallandale (2%)

Generated brief soil descriptions are created for major soil components. The Hallandale soil is a minor component.

Component: Valkaria (2%)

Generated brief soil descriptions are created for major soil components. The Valkaria soil is a minor component.

Component: Pineda (2%)

Generated brief soil descriptions are created for major soil components. The Pineda soil is a minor component.

Map Unit: 70—Pomello fine sand-Urban land complex, 0 to 2 percent slopes

Component: Pomello (45%)

The Pomello component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 1 percent. This component is in the R155XY001FL Sand Pine Scrub ecological site. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Urban land (40%)

Generated brief soil descriptions are created for major soil components. The Urban land is a miscellaneous area.

Component: Immokalee (5%)

Generated brief soil descriptions are created for major soil components. The Immokalee soil is a minor component.

Component: Duette (5%)

Generated brief soil descriptions are created for major soil components. The Duette soil is a minor component.

Component: Jonathan (3%)

Generated brief soil descriptions are created for major soil components. The Jonathan soil is a minor component.

Component: Tavares (2%)

Generated brief soil descriptions are created for major soil components. The Tavares soil is a minor component.

Map Unit: 99—Water

Component: Water (100%)

Generated brief soil descriptions are created for major soil components. The Water is a miscellaneous area.

Data Source Information

Soil Survey Area: Charlotte County, Florida
Survey Area Data: Version 19, Jun 8, 2020

Soil Survey Area: Sarasota County, Florida
Survey Area Data: Version 18, Jun 9, 2020

Exhibit J

Department of Environmental Protection
Outstanding Florida Waters



FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

January 10, 2019

Ms. Patti Anderson
Florida Forest Service Land Management Plan Coordinator
Florida Department of Agriculture and Consumer Services
3125 Conner Boulevard, Suite I-262, Mail Stop C-25
Tallahassee, FL 32399-1650

RE: Myakka State Forest

Dear Ms. Anderson:

Thank you for your inquiry regarding the surface water quality classification of waters on and near Myakka State Forest in Sarasota County. The surface waters of the Myakka River from north of the site near US 41, to Charlotte Harbor in Charlotte County are classified as Class II waters (Shellfish Propagation or Harvesting) according to subparagraphs 62-302.400(17)(b)58. and 8., Florida Administrative Code (F.A.C.). There are no other waters listed as exceptions to Class III in subparagraph 62-302.400(17)(b)58., F.A.C.; therefore, all of the remaining surface waters on or adjacent to the site are classified as Class III waters (Fish Consumption; Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife), which is the statewide default classification under subsection 62-302.400(15), F.A.C.

As requested, we also checked to see if there are any Outstanding Florida Waters (OFWs) near the state forest. In this area, the Myakka River has been designated as Outstanding Florida Waters (OFW) under subparagraph 62-302.700(9), F.A.C. More specifically, the waters upstream (northwest) of the Sarasota-Charlotte County line across the river (aka extension of Campbell Street or Jennings Blvd. across the water) are within the Myakka Florida Wild and Scenic River OFW under subparagraph 62-302.700(9)(j)2., F.A.C, and the portion downstream of the county line is part of the Myakka River OFW under subparagraph 62-302.700(9)(i)22., F.A.C. While there are several other parcels on, adjacent, or near the State Forest that are considered conservation lands at a Federal, State or Local level (according to the Florida Natural Areas Inventory Managed Areas data layer), these have not been designated as OFWs beyond what is described above.

If you have any questions or need additional information, please feel free to contact me at the letterhead address (mail station 6511), by phone at 850-245-8427, or via E-mail at Janet.Klemm@FloridaDEP.gov.

Sincerely,

A handwritten signature in blue ink that reads "Janet Klemm".

Janet Klemm
Environmental Specialist
DEP Water Quality Standards Program

Exhibit K

Water Resources Map



Florida Forest Service

Myakka State Forest Water Resources Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum
82° 00' 00" W

DISCLAIMER:
This map was created as the property of the Florida Forest Service. It is not to be used for any other purpose without the express written permission of the Florida Forest Service. The Florida Forest Service is not responsible for any errors or omissions in this map. The Florida Forest Service is not responsible for any damages or injuries resulting from the use of this map. The Florida Forest Service is not responsible for any claims or liabilities resulting from the use of this map.

LEGEND

- Myakka state Forest
- Water Resources



Map Month/Year: December 2020



Exhibit L

Florida Natural Areas Inventory Managed Area Data Records



1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
850-224-8207
fax 850-681-9364
www.fnai.org

August 19, 2020

Patti Anderson
Forest Service
Florida Department of Agriculture & Consumer Services
3125 Conner Boulevard, Suite I-258, Mail Stop C-25
Tallahassee, FL 32399-1650

Dear Ms. Anderson,

Thank you for requesting information from the Florida Natural Areas Inventory (FNAI). At your request we have produced the following report for your project area.

The purpose of this Standard Data Report is to provide objective scientific information on natural resources located in the vicinity of a site of interest, in order to inform those involved in project planning and evaluation. This Report makes no determination of the suitability of a proposed project for this location, or the potential impacts of the project on natural resources in the area.

Project: Myakka State Forest
Date Received: 8/14/2020
Location: Sarasota County

Based on the information available, this site appears to be located in a significant region of natural areas and habitat for several rare species.

Element Occurrences

A search of our maps and database indicates that we currently have several element occurrences mapped in the vicinity of the study area (see enclosed map and element occurrence table). Please be advised that a lack of element occurrences in the FNAI database is not a sufficient indication of the absence of rare or endangered species on a site.

Federally Listed Species

Our data indicate federally listed species are present on or very near this site, specifically *Mycteria americana* and *Drymarchon couperi* (see enclosed map and tables for details). This statement should not be interpreted as a legal determination of presence or absence of federally listed species on a property.



Florida Resources
and Environmental
Analysis Center

Institute of Science
and Public Affairs

The Florida State University

The element occurrences data layer includes occurrences of rare species and natural communities. The map legend indicates that some element occurrences occur in the general vicinity of the label point. This may be due to lack of precision of the source data, or an element that occurs over an extended area (such as a wide ranging species or large natural community). For animals and plants, element occurrences generally refer to more than a casual sighting; they usually indicate a viable population of the species. Note that some element occurrences represent historically documented observations which may no longer be extant. Extirpated element occurrences will be marked with an 'X' following the occurrence label on the enclosed map.

Tracking Florida's Biodiversity

Likely and Potential Rare Species

In addition to documented occurrences, other rare species and natural communities may be identified on or near the site based on habitat models and species range models (see enclosed Biodiversity Matrix Report). These species should be taken into consideration in field surveys, land management, and impact avoidance and mitigation.

FNAI habitat models indicate areas, which based on land cover type, offer suitable habitat for one or more rare species that is known to occur in the vicinity. Habitat models have been developed for approximately 300 of the rarest species tracked by the Inventory, including all federally listed species.

FNAI species range models indicate areas that are within the known or predicted range of a species, based on climate variables, soils, vegetation, and/or slope. Species range models have been developed for approximately 340 species, including all federally listed species.

The FNAI Biodiversity Matrix Geodatabase compiles Documented, Likely, and Potential species and natural communities for each square mile Matrix Unit statewide.

CLIP

The enclosed map shows natural resource conservation priorities based on the Critical Lands and Waters Identification Project. CLIP is based on many of the same natural resource data developed for the Florida Forever Conservation Needs Assessment, but provides an overall picture of conservation priorities across different resource categories, including biodiversity, landscapes, surface waters, and aggregated CLIP priorities (that combine the individual resource categories). CLIP is also based primarily on remote sensed data and is not intended to be the definitive authority on natural resources on a site.

For more information on CLIP, visit <http://www.fnai.org/clip.cfm>.

Florida Scrub-jay Survey – U.S. Fish and Wildlife Service

This survey was conducted by staff and associates of the Archbold Biological Station from 1992 to 1996. An attempt was made to record all scrub-jay (*Aphelocoma coerulescens*) groups, although most federal lands were not officially surveyed. Each map point represents one or more groups.

This data layer indicates that there are potential scrub-jay populations on or very near your site. For additional information:

Fitzpatrick, J.W., B. Pranty, and B. Stith, 1994, Florida scrub jay statewide map, 1992-1993. U. S. Fish and Wildlife Service Report, Cooperative Agreement no. 14-16-004-91-950.

Managed Areas

Portions of the site appear to be located within the Myakka State Forest, managed by the FL Dept. of Agriculture and Consumer Services, Florida Forest Service.

The Managed Areas data layer shows public and privately managed conservation lands throughout the state. Federal, state, local, and privately managed conservation lands are included.

Land Acquisition Projects

This site appears to be located within the Charlotte Harbor Estuary Florida Forever BOT Project, which is part of the State of Florida's Conservation and Recreation Lands land acquisition program. For more information on this Florida Forever Project, contact the Florida Department of Environmental Protection, Division of State Lands.

Florida Forever Board of Trustees (BOT) projects are proposed and acquired through the Florida Department of Environmental Protection, Division of State Lands. The state has no specific land management authority over these lands until they are purchased.

The Inventory always recommends that professionals familiar with Florida's flora and fauna conduct a site-specific survey to determine the current presence or absence of rare, threatened, or endangered species.

Please visit www.fnai.org/trackinglist.cfm for county or statewide element occurrence distributions and links to more element information.

The database maintained by the Florida Natural Areas Inventory is the single most comprehensive source of information available on the locations of rare species and other significant ecological resources. 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. 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.

Information provided by this database may not be published without prior written notification to the Florida Natural Areas Inventory, and the Inventory must be credited as an information source in these publications. **The maps contain sensitive environmental information, please do not distribute or publish without prior consent from FNAI.** FNAI data may not be resold for profit.

Thank you for your use of FNAI services. If I can be of further assistance, please contact me at (850) 224-8207 or at kbrinegar@fnai.fsu.edu.

Sincerely,

Kerri Brinegar

Kerri Brinegar
GIS / Data Services

Encl

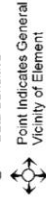


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FLORIDA Natural Areas INVENTORY

Element Occurrences

- Animals
- Plants
- Communities
- Other
- Data Sensitive



U.S. Fish & Wildlife Service
Scrub Jay Survey 1992-96

Conservation Lands

- Federal
- State
- Local
- Private
- State Aquatic Preserves

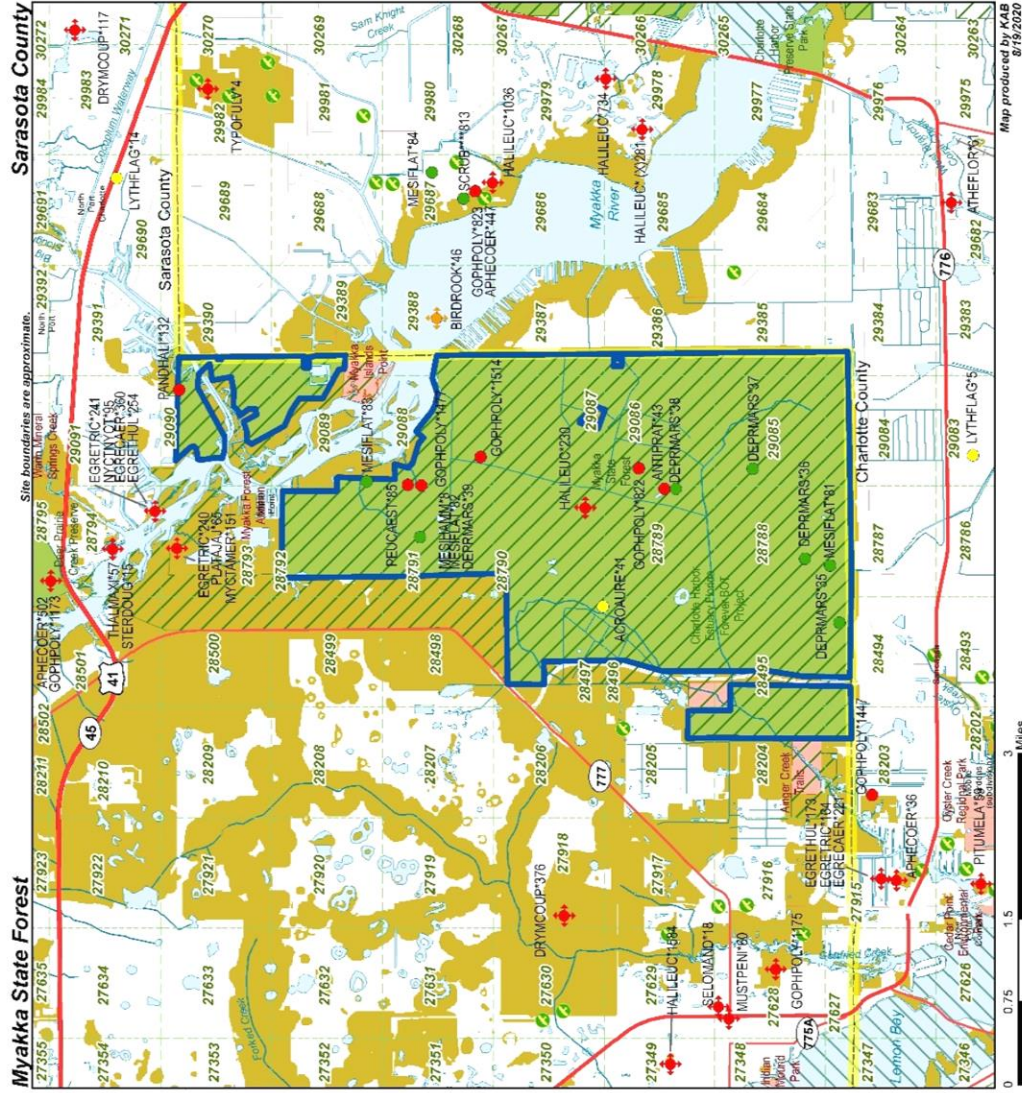
Land Acquisition Projects

- Florida Forever
- Board of Trustees Projects
- FNAI Rare Species
- Habitat
- FNAI Biodiversity Matrix
- Square Mile Units

County Boundary

- Roads
- Water

NOTE
This map contains environmentally sensitive information. Please do not distribute or publish without prior consent from FNAI. Map should not be interpreted without accompanying documents.





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CLIP v4.0 Resource Priorities

Biodiversity Resource Category

Priority 1 - highest

Priority 2

Priority 3

Priority 4

Priority 5

Landscape Resource Category

Priority 1 - highest

Priority 2

Priority 3

Priority 4

Priority 5

Surface Water Resource Category

Priority 1 - highest

Priority 2

Priority 3

Priority 4

Priority 5

Aggregated CLIP Priorities

Priority 1 - highest

Priority 2

Priority 3

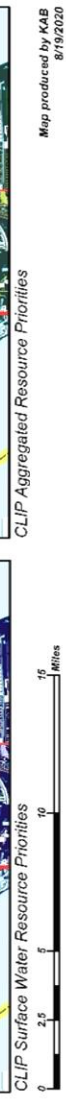
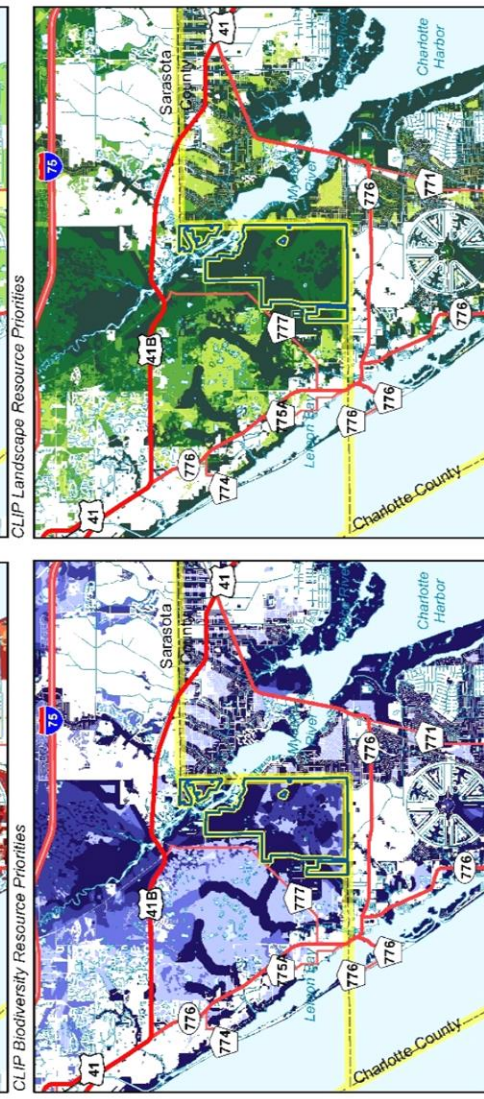
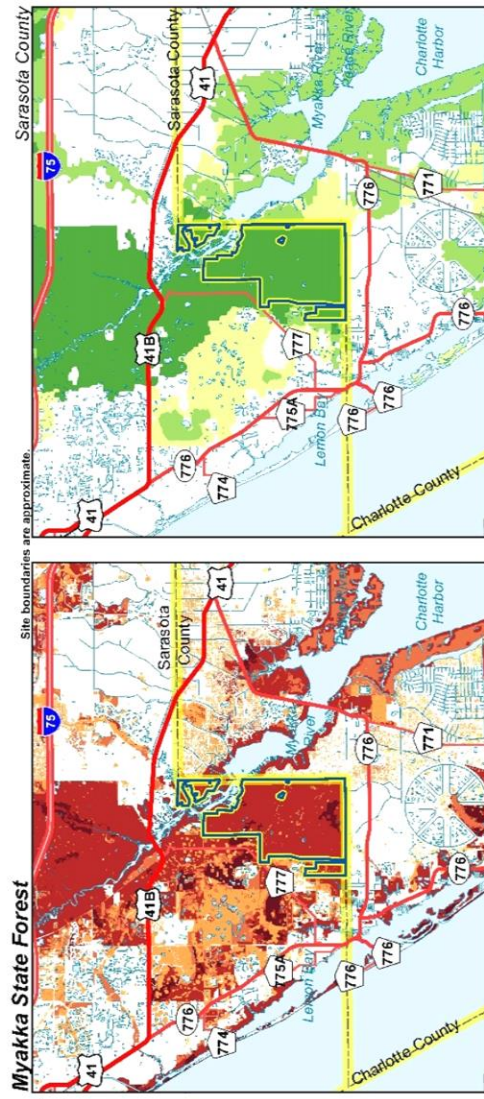
Priority 4

Priority 5

Site Boundary

Map should not be interpreted without accompanying documents.

Critical Lands and Waters Identification Project
This map is a product of the Florida Natural Areas Inventory, UF Center for
Landscape Conservation Planning, and FL Fish &
Wildlife Conservation. It was developed in partnership with the
Florida Department of Environmental Protection and UF Fish & Wildlife Service.



Map produced by KAB
8/19/2020

FNAI ELEMENT OCCURRENCE REPORT on or near
Myakka State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
ACROAURE*41	<i>Acrostichum aureum</i>	golden leather fern	G5	S3	N	T	2014-03-16	edges of black needle rush/Spartina sp. marsh	7-8 plants observed in 2 areas of marsh edge.
ANTIPRAT*43	<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST	1993-06-03	Large, relatively deep pond with maidencane (<i>Panicum hemitomon</i>).	1993: a pair of sandhill cranes seen wading and feeding in pond. Diver (PNDDIV01) reports they nested and raised one chick in the past year.
APHECOER*36	<i>Aphelocoma coerulescens</i>	Florida Scrub-Jay	G2?	S2	T	FT	1981-08-07	LOW DENSITY RESIDENTIAL AREA, SOME SLASH PINE SCRUB [=SCRUBBY FLATWOODS] REMAINS	1981-08-07: 2 ADULT SCRUB JAYS, 2 JUVENILE SCRUB JAYS
BIRDROOK*46	Bird Rookery		G5	SNR	N	N	1978-07	COLONY SITE IS A SPOIL ISLAND IN RIVER SURROUNDED BY WATER. NESTING SUBSTRATE IS MANGROVES OVER WATER. AS OF 1978 MORE THAN .8 KM FROM HUMAN DISTURBANCE.	GREAT BLUE HERON (15 NESTING PRS, 4/77; 5 NP IN 4/78; 1 NP IN 7/78), CATTLE EGRET (50 NP IN 7/78); GREAT EGRET (10 NP IN 4/77; 13 IN 4/78; 5 IN 7/78).
DEPRMARS*35	Depression marsh		G4	S4	N	N	1999	Temporary ponds form circular depressions scattered throughout flatwoods.	1999: Update to last obs date was based on interpretation of aerial photography (previous value was 1993-06-03) (U05FNA02FLUS). Two ponds connected by slightly higher area between them. Southernmost pond had dried center of bare mud with bodies of garfish scattered on it. Next higher zone was occupied by spikerush (<i>Eleocharis cellulosa</i>) which was flowering. Highest zone is dominated by beakrush (<i>Rhynchospora microcarpa</i>) with scattered clumps of sand cordgrass (<i>Spartina bakeni</i>). Some Brazilian pepper (<i>Schinus terebinthifolius</i>) on edges of ponds.



FNAI ELEMENT OCCURRENCE REPORT on or near
Myakka State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
DEPRMARS*36	Depression marsh		G4	S4	N	N	1999	Grassy temporary pond, now mostly dried up.	1999: Update to last obs date was based on interpretation of aerial photography (previous value was 1993-06-03) (U05FNA02FLUS). Central portion is open water surrounded by a ring of spikerush (<i>Eleocharis cellulosa</i>) followed by a zone of sparse grass (possibly <i>Amphicarpum muhlenbergianum</i>). The highest zone is occupied by a sparse stand of shrubs including <i>Myrica cerifera</i> and <i>Hypericum fasciculatum</i> . Also in this zone are scattered plants of water lily (<i>Nymphaea odorata</i>), <i>Juncus megacephalus</i> , a creeping species of <i>Ludwigia</i> with sulphur yellow flowers, and a small species of arrowhead (<i>Sagittaria isoetiformis</i>).
DEPRMARS*37	Depression marsh		G4	S4	N	N	1999	Shallow rounded depression surrounded by flatwoods.	1999: Update to last obs date was based on interpretation of aerial photography (previous value was 1993-06-03) (U05FNA02FLUS). Broad grassy border surrounding a small central depression filled with pickerelweed (<i>Pontederia cordata</i>). Grassy border composed of various grasses including but not limited to: <i>Muhlenbergia capillaris</i> , <i>Andropogon</i> spp., <i>Syntherisma flavidulus</i> , <i>Amphicarpum muhlenbergianum</i> . Other species present are <i>Hypericum fasciculatum</i> , <i>Drosera capillaris</i> , <i>Xyris elliotii</i> , and <i>Sabatia grandiflora</i> .
DEPRMARS*38	Depression marsh		G4	S4	N	N	1999	Large, relatively deep pond with maidencane.	1999: Update to last obs date was based on interpretation of aerial photography (previous value was 1993-06-03) (U05FNA02FLUS). Maidencane (<i>Panicum hemitomon</i>) in center with horned bladderwort (<i>Utricularia cornuta</i>) on edges.

FNAI ELEMENT OCCURRENCE REPORT on or near
Myakka State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
DEPRMARS*39	Depression marsh		G4	S4	N	N	2004	Two interconnected rounded depressions in midst of flatwoods which hold water temporarily during rainy season. Stands of palm/oak hammock are found on their edges.	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1993-06-03) (U05FNA02FLUS). Deeper central portions occupied by pickerel weed (Pontederia cordata). Blue hyssop (Bacopa caroliniana), sand cordgrass (Spartina bakeni), and horned bladderwort (Utricularia cornuta) occupy the edges. Wading birds (herons and egrets) were observed in the distance in larger northern pond.
DRYMCOUN*376	<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT	1956	No general description given	MUSEUM SPECIMENS: DALTON, PRIOR TO 1942, CAS-SU-10150; AUFFENBERG, 1956, MC2 55521.
EGRECAER*221	<i>Egretta caerulea</i>	Little Blue Heron	G5	S4	N	ST	1989-05-03	borrow pit "peninsula"	1989/05/03: D.E. Runde, GFC, observation, fixed wing flight; GREG & GBHE w/ large young "Total" = C (includes GREG, SNEG, GBHE, LBHE, TCHE, BRPE, DCCO).
EGRECAER*360	<i>Egretta caerulea</i>	Little Blue Heron	G5	S4	N	ST	1986-05-29	Tidal swamp	1986/05/29: B.A. Millsap, GFC, observation. CWA-Myakka River: WADING BIRD RECORD FROM MILLSAP'S OCCUR.DBF
EGRETHUL*173	<i>Egretta thula</i>	Snowy Egret	G5	S3	N	N	1989-05-03	Freshwater river or stream	1989/05/03: D.E. Runde, GFC, fixed wing flight; Habitat= borrow pit "peninsula", GREG & GBHE w/ large young "Total" = C (includes GREG, SNEG, GBHE, LBHE, TCHE, BRPE, DCCO).
EGRETHUL*254	<i>Egretta thula</i>	Snowy Egret	G5	S3	N	N	1986-05-29	Basin marsh	1986/05/29: B.A. Millsap, GFC - 40 nests. CWA-Myakka River: Wading Bird Record from Millsap's Occur.DBF
EGRETRIC*164	<i>Egretta tricolor</i>	Tricolored Heron	G5	S4	N	ST	1989-05-03	Freshwater river or stream	1989/05/03: D.E. Runde, GFC, fixed wing flight; Habitat= borrow pit "peninsula", GREG & GBHE w/ large young "Total" = C (includes GREG, SNEG, GBHE, LBHE, TCHE, BRPE, DCCO).
EGRETRIC*240	<i>Egretta tricolor</i>	Tricolored Heron	G5	S4	N	ST	1989-05-02	Freshwater river or stream	1989/05/02: D.E. Runde, GFC, fixed wing flight; Habitat= mangrove isle "Total" = D (includes GREG, GBHE, TCHE, WOST).

FNAI ELEMENT OCCURRENCE REPORT on or near
Myakka State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
EGRETRIC*241	<i>Egretta tricolor</i>	Tricolored Heron	G5	S4	N	ST	1986-05-29	Tidal swamp	1986/05/29: B.A. Millsap, GFC. CWA-Myakka River. WADING BIRD RECORD FROM MILLSAP'S OCCUR.DBF
GLANTAMP*7	<i>Glandularia tampensis</i>	Tampa vervain	G2	S2	N	E	1957-06-26	ON A SANDY, GRASSY AREA CLOSE TO THE COAST.	FLOWER'S PURPLE-PINK 1957-06-26.
GOPHPOLY*1447	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	2011-10-31	Residential community that borders what may be a forested green space based on examination of 2014 Google Earth aerial photography.	Population of tortoises within a residential subdivision bordered by a forested natural area, with observations from 2007-2011.
GOPHPOLY*1477	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	2005-04-19	Matrix of mesic flatwoods and scrub in Myakka River SF	2 active burrows and 1 inactive burrow
GOPHPOLY*1514	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	2005-04-18	Mesic flatwoods	2 active burrows and 1 inactive burrow
GOPHPOLY*822	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	1993-06-03	Matrix of mesic flatwoods and scrub in Myakka River State Forest.	1993: adult seen (F93J0H03FLUS).
HALILEUC*230	<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3	N	N	2003	No general description given	2003: active. 2002-1999: not assessed/unknown. 1996, 1995: inactive. 1998, 1997: Unknown/not assessed(U03FWC01FLUS). 1980-1984, 1987-1988: active. 1986: gone. 1980-1982, 1988: fledged young. 1985, 1993: no data (PNDDIV01FLUS).
LYTHFLAG*5	<i>Lythrum flagellare</i>	lowland loosestrife	G2	S2	N	E	2019-04-22	Growing in in the maintained wetland R/Ws in residential area with Centella asiatica, Hypericum mutilum, Phyla nodiflora, Carex longii, Diodia virginiana, Eryngium baldwinii, Hydrocotyle umbellata, Ptilimnium capillaceum, Bacopa monnieri.	Growing in abundance in flower. Growing in in the maintained wetland R/Ws in residential area with Centella asiatica, Hypericum mutilum, Phyla nodiflora, Carex longii, Diodia virginiana, Eryngium baldwinii, Hydrocotyle umbellata, Ptilimnium capillaceum, Bacopa monnieri.
MESIFLAT*81	Mesic flatwoods		G4	S4	N	N	1999	Scattered slash pines in a monotonous plain of low saw palmettos with scattered tarflowers blooming.	1999: Update to last obs date was based on interpretation of aerial photography (previous value was 1993-06-03) (U05FNA02FLUS). Occasional slash pine (Pinus elliotii) dotted within a matrix of low saw palmetto (Serenoa repens) with scattered tarflower (Befaria racemosa).



FNAI ELEMENT OCCURRENCE REPORT on or near
Myakka State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
MESIPLAT*82	Mesic flatwoods		G4	S4	N	N	1999	Slash pine/palmetto flatwoods.	1999: Update to last obs date was based on interpretation of aerial photography (previous value was 1993-06-03) (U05FNA02FLUS). Fairly dense slash pine (Pinus elliotii) canopy with understory of saw palmetto (Serenoa repens) evenly interspersed with grassy openings with Aristida gyrans, Rhynchospora fascicularis, Bulbostylis sp., Syngonanthus flavidulus, dwarfed Myrica cerifera, and Hypericum reductum.
MESIPLAT*83	Mesic flatwoods		G4	S4	N	N	1999	Recently burned pine/palmetto flatwoods near old homesite.	1999: Update to last obs date was based on interpretation of aerial photography (previous value was 1993-06-03) (U05FNA02FLUS). Fairly dense slash pine (Pinus elliotii) canopy with understory of saw palmetto (Serenoa repens) interspersed with grassy openings. Other species present include milkweed (Asclepias feayi), pawpaw (Asimina reticulata), coontie (Zamia pumila), St John's wort (Hypericum reductum), and gallberry (Ilex glabra).
MESIHAM*8	Mesic hammock		G3	S3?	N	N	1999	Small stand of palm/oak hammock between two interconnected temporary ponds.	2010: Prior to the 2010 natural community reclassification effort this EO had been known as Prairie hammock EO number 8 (see U10FNA01FLUS for updated community descriptions). 1999: Update to last obs date was based on interpretation of aerial photography (previous value was 1993-06-03) (U05FNA02FLUS). Canopy of cabbage palm (Sabal palmetto) and live oak (Quercus virginiana). Understory primarily of saw palmetto (Serenoa repens) and fern (possibly Blechnum serrulatum). Other shrubs include wax myrtle (Myrica cerifera) and beautyberry (Callicarpa americana). Persimmon (Diospyros virginiana) is frequent in both under-and overstory.

FNAI ELEMENT OCCURRENCE REPORT on or near
Myakka State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
MYCTAMER*151	<i>Mycteria americana</i>	Wood Stork	G4	S2	T	FT	2010	Freshwater river or stream (U97GFC02FLUS).	Long-lived colony, active for 15 years; species present intermittently from 1983 through 2010, with a maximum of 520 nests in 1993 (U11TSA01FLUS). Spreadsheet in U11TSA01FLUS gives number of nests by year.
NYCTNYCT*95	<i>Nycticorax nycticorax</i>	Black-crowned Night-heron	G5	S3	N	N	1986-05-29	Tidal swamp	1986-05-29: B.A. Millsap, GFC, observation. 1 nest. CWA-Myakka River. WADING BIRD RECORD FROM MILLSAP'S OCCUR.DBF
PANDHALI*132	<i>Pandion haliaetus</i>	Osprey	G5	S3S4	N	N	2005-04-19	2005-04-19: nest in a large pine within scrubby flatwoods adjacent to Myakka River estuary (PNDHIP01flus).	2005-04-19: Hipes observed a nest with one chick (U05FNA06FLUS).
PEUCAEST*85	<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N	2005-04-19	2005-04-19: Extensive areas of mesic flatwoods (U05FNA06FLUS).	2005-04-19: 3 males singing in extensive flatwoods (U05FNA06FLUS).
PITUMELA*59	<i>Pituophis melanoleucus</i>	Pine Snake	G4	S3	N	ST	ZZ	No general description given	SPEC. (UM-109109), COLLECTOR N/A, DATE N/A.
PLATAAJA*65	<i>Platalea ajaja</i>	Roseate Spoonbill	G5	S2	N	ST	1986-05-29	Tidal swamp	1986-05-29: B.A. Millsap, GFC, observed 1 nest. CWA-Myakka River. WADING BIRD RECORD FROM MILLSAP'S OCCUR.DBF.
STERDOUG*15	<i>Sterna dougallii</i>	Roseate Tern	G4	S1	T	FT	1992 – 1993	No general description given	B. Perry observed Roseate and Royal terns feeding around island May-July. Data from FY 1992-93 Coastal Wildlife Questionnaire. Delorme page 97, site # 5.
THALMAXI*57	<i>Thalasseus maximus</i>	Royal Tern	G5	S3	N	N	1992 – 1993	No general description given	B. Perry - RSTE, ROTE observed feeding around island May-July. Data from FY 1992-93 Coastal Wildlife Questionnaire. Delorme page 97, site # 5.
TYPOLFUL*4	<i>Typocerus fulvocinctus</i>	Yellow-banded Typocerus Long-horned Beetle	G2G3	S2S3	N	N	1994 pre	1994-Pre: occurs in pine flatwoods (B94DEY01FLUS).	1994-Pre: This species occurs in pine flatwoods (B94DEY01FLUS).



Florida Natural Areas Inventory

Aggregated Biodiversity Matrix Report



Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Documented					
<i>Acrostichum aureum</i>	golden leather fern	G5	S3	N	T
Depression marsh		G4	S4	N	N
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3	N	N
Mesic flatwoods		G4	S4	N	N
Mesic hammock		G3	S3?	N	N
<i>Pandion haliaetus</i>	Osprey	G5	S3S4	N	N
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
Likely					
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S3	T	FT
<i>Mycteria americana</i>	Wood Stork	G4	S2	T	FT
<i>Sterna dougallii</i>	Roseate Tern		S1	T	FT
<i>Thalasseus maximus</i>	Royal Tern	G5	S3	N	N
<i>Trichechus manatus</i>	West Indian Manatee	G2	S2	T	FT
Potential					
<i>Acipenser oxyrinchus desotoi</i>	Gulf Sturgeon	G3T2T3	S2?	T	FT
<i>Aphelocoma coerulescens</i>	Florida Scrub-Jay	G2?	S2	T	FT
<i>Ardea herodias occidentalis</i>	Great White Heron	G5T2	S2	N	N
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	ST
Bird Rookery		G5	SNR	N	N
<i>Calopogon multiflorus</i>	many-flowered grass-pink	G2G3	S2S3	N	T
<i>Centrosema arenicola</i>	sand butterfly pea	G2Q	S2	N	E
<i>Chamaesyce cumulicola</i>	sand-dune spurge	G2	S2	N	E
<i>Chrysopsis floridana</i>	Florida goldenaster	G3	S3	E	E
<i>Coleataenia abscissa</i>	cutthroatgrass		S3	N	E
<i>Deeringothamnus pulchellus</i>	beautiful pawpaw	G1	S1	E	E
<i>Egretta caerulea</i>	Little Blue Heron	G5	S4	N	ST
<i>Egretta thula</i>	Snowy Egret		S3	N	N
<i>Egretta tricolor</i>	Tricolored Heron		S4	N	ST
<i>Eretmochelys imbricata</i>	Hawksbill Sea Turtle	G3	S1	E	FE
<i>Eumops floridanus</i>	Florida bonneted bat	G1	S1	E	FE
<i>Lechea cernua</i>	nodding pinweed	G3	S3	N	T
<i>Lechea divaricata</i>	pine pinweed	G2	S2	N	E
<i>Linum carteri</i> var. <i>smallii</i>	Small's flax	G2T2	S2	N	E
<i>Lithobates capito</i>	Gopher Frog	G3	S3	N	N
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Mustela frenata peninsulae</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N
<i>Nemastylis floridana</i>	celestial lily	G2	S2	N	E
<i>Nolina atopocarpa</i>	Florida beargrass	G3	S3	N	T
<i>Nycticorax nycticorax</i>	Black-crowned Night-heron	G5	S3	N	N
<i>Platalea ajaja</i>	Roseate Spoonbill		S2	N	ST
<i>Pteroglossaspis ecristata</i>	giant orchid	G2G3	S2	N	T
<i>Rallus longirostris scottii</i>	Florida Clapper Rail	G5T3?	S3?	N	N
<i>Schizachyrium niveum</i>	scrub bluestem	G1G2	S1S2	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Setophaga discolor paludicola</i>	Florida Prairie Warbler	G5T3	S3	N	N
<i>Typocerus fulvocinctus</i>	Yellow-banded Typocerus Long-horn	G2G3	S2S3	N	N

Definitions: Documented - Rare species and natural communities documented on or near this site.
 Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years.
 Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity.
 Potential - This site lies within the known or predicted range of the species listed.



Florida Natural Areas Inventory
Managed Area Element Summary
Myakka State Forest



SCIENTIFIC NAME	COMMON NAME	Global rank	State rank	Federal status	State status
PLANTS					
<i>Acrostichum aureum</i>	golden leather fern	G5	S3	N	T
REPTILES					
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
BIRDS					
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3	N	N
<i>Pandion haliaetus</i>	Osprey	G5	S3S4	N	N
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N

Note: Summary includes all documented and likely species occurrence records currently in the FNAI database.



Florida Natural Areas Inventory

Managed Area Element Summary

Myakka State Forest



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

FNAI GLOBAL ELEMENT RANK

- G1 = Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
- G2 = Imperiled globally because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
- G3 = Either very rare 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.
- GH = Of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker).
- GX = Believed to be extinct throughout range.
- GXC = Extirpated from the wild but still known from captivity or cultivation.
- G#? = Tentative rank (e.g., G2?).
- G#G# = Range of rank; insufficient data to assign specific global rank (e.g., G2G3).
- G#T# = Rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1).
- G#Q = Rank of questionable species - ranked as species but questionable whether it is species or subspecies; numbers have same definition as above (e.g., G2Q).
- G#T#Q = Same as above, but validity as subspecies or variety is questioned.
- GU = Unrankable; due to a lack of information no rank or range can be assigned (e.g., GUT2).
- GNA = Ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
- GNR = Element not yet ranked (temporary).
- GNRTNR = Neither the element nor the taxonomic subgroup has yet been ranked.

FNAI STATE ELEMENT RANK

- S1 = Critically imperiled in Florida because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
- S2 = Imperiled in Florida because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
- S3 = Either very rare 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 (e.g., ivory-billed woodpecker).
- SX = Believed to be extirpated throughout Florida.
- SU = Unrankable; due to a lack of information no rank or range can be assigned.
- SNA = State ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
- SNR = Element not yet ranked (temporary).

FEDERAL LEGAL STATUS

Note: Summary includes all documented and likely species occurrence records currently in the FNAI database.



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Florida Natural Areas Inventory

Managed Area Element Summary

Myakka State Forest



Legal status information provided by FNAI for information only. For official definitions and lists of protected species, consult the relevant federal agency.

Definitions derived from U.S. Endangered Species Act of 1973, Sec. 3. Note that the federal status given by FNAI refers only to Florida populations and that federal status may differ elsewhere.

C = Candidate species for which federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened.
LE = Endangered: species in danger of extinction throughout all or a significant portion of its range.
LE, LT = Species currently listed endangered in a portion of its range but only listed as threatened in other areas
LE, PDL = Species currently listed endangered but has been proposed for delisting.
LE, PT = Species currently listed endangered but has been proposed for listing as threatened.
LE, XN = Species currently listed endangered but tracked population is a non-essential experimental population.
LT = Threatened: species likely to become Endangered within the foreseeable future throughout all or a significant portion of its range.
SAT = Treated as threatened due to similarity of appearance to a species which is federally listed such that enforcement personnel have difficulty in attempting to differentiate between the listed and unlisted species.
SC = Not currently listed, but considered a "species of concern" to USFWS.

STATE LEGAL STATUS

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Animals: Definitions derived from "Florida's Endangered Species and Species of Special Concern, Official Lists" published by Florida Fish and Wildlife Conservation Commission, 1 August 1997, and subsequent updates.

FE = Listed as Endangered Species at the Federal level by the U. S. Fish and Wildlife Service
FT = Listed as Threatened Species at the Federal level by the U. S. Fish and Wildlife Service
F(XN) = Federal listed as an experimental population in Florida
FT(S/A) = Federal Threatened due to similarity of appearance
ST = State population listed as Threatened by the FFWCC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at a rapid rate and as a consequence is destined or very likely to become an endangered species within the foreseeable future. (ST* for *Ursus americanus floridanus* (Florida black bear) indicates that this status does not apply in Baker and Columbia counties and in the Apalachicola National Forest. ST* for *Neovison vison* pop.1 (Southern mink, South Florida population) indicates that this status applies to the Everglades population only.)
SSC = Listed as Species of Special Concern by the FFWCC. Defined as a population which warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in its becoming a threatened species. (SSC* indicates that a species has SSC status only in selected portions of its range in Florida. SSC* for *Pandion haliaetus* (Osprey) indicates that this status applies in Monroe county only.)
N = Not currently listed, nor currently being considered for listing.

Plants: Definitions derived from Sections 581.011 and 581.185(2), Florida Statutes, and the Preservation of Native Flora of Florida Act, 5B-40.001. FNAI does not track all state-regulated plant species; for a complete list of state-regulated plant species, call Florida Division of Plant Industry, 352-372-3505 or see: <http://www.doacs.state.fl.us/pi/>.

LE = Endangered: species of plants native to Florida 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; includes all species determined to be endangered or threatened pursuant



Florida Natural Areas Inventory
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Myakka State Forest



to the U.S. Endangered Species Act

LT = Threatened: 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 number as to cause them to be Endangered.

N = Not currently listed, nor currently being considered for listing.

Elements and Element Occurrences

An **element** is any exemplary or rare component of the natural environment, such as a species, natural community, bird rookery, spring, sinkhole, cave, or other ecological feature.

An **element occurrence (EO)** is an area of land and/or water in which a species or natural community is, or was, present. An EO should have practical conservation value for the Element as evidenced by potential continued (or historical) presence and/or regular recurrence at a given location.

Element Ranking and Legal Status

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

FNAI GLOBAL ELEMENT RANK

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- 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.
- GH** = Of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker).
- GX** = Believed to be extinct throughout range.
- GXC** = Extirpated from the wild but still known from captivity or cultivation.
- G#?** = Tentative rank (e.g., G2?).
- G#G#** = Range of rank; insufficient data to assign specific global rank (e.g., G2G3).
- G#T#** = Rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1).
- G#Q** = Rank of questionable species - ranked as species but questionable whether it is species or subspecies; numbers have same definition as above (e.g., G2Q).
- G#T#Q** = Same as above, but validity as subspecies or variety is questioned.
- GU** = Unrankable; due to a lack of information no rank or range can be assigned (e.g., GUT2).
- GNA** = Ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
- GNR** = Element not yet ranked (temporary).
- GNRTNR** = Neither the element nor the taxonomic subgroup has yet been ranked.

FNAI STATE ELEMENT RANK

- S1** = Critically imperiled in Florida because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
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- 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 (e.g., ivory-billed woodpecker).
- SX** = Believed to be extirpated throughout Florida.
- SU** = Unrankable; due to a lack of information no rank or range can be assigned.
- SNA** = State ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
- SNR** = Element not yet ranked (temporary).

FEDERAL LEGAL STATUS

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Definitions derived from U.S. Endangered Species Act of 1973, Sec. 3. Note that the federal status given by FNAI refers only to Florida populations and that federal status may differ elsewhere.

C = Candidate species for which federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened.

E = Endangered: species in danger of extinction throughout all or a significant portion of its range.

E, T = Species currently listed endangered in a portion of its range but only listed as threatened in other areas

E, PDL = Species currently listed endangered but has been proposed for delisting.

E, PT = Species currently listed endangered but has been proposed for listing as threatened.

E, XN = Species currently listed endangered but tracked population is a non-essential experimental population.

T = Threatened: species likely to become Endangered within the foreseeable future throughout all or a significant portion of its range.

PE = Species proposed for listing as endangered

PS = Partial status: some but not all of the species' infraspecific taxa have federal

PT = Species proposed for listing as threatened

SAT = Treated as threatened due to similarity of appearance to a species which is federally listed such that enforcement personnel have difficulty in attempting to differentiate between the listed and unlisted species.

SC = Not currently listed, but considered a "species of concern" to USFWS.

STATE LEGAL STATUS

Provided by FNAI for information only. For official definitions and lists of protected species, consult the relevant state agency.

Animals: Definitions derived from "Florida's Endangered Species and Species of Special Concern, Official Lists" published by Florida Fish and Wildlife Conservation Commission, 1 August 1997, and subsequent updates.

C = Candidate for listing at the Federal level by the U. S. Fish and Wildlife Service

FE = Listed as Endangered Species at the Federal level by the U. S. Fish and Wildlife Service

FT = Listed as Threatened Species at the Federal level by the U. S. Fish and Wildlife Service

FXN = Federal listed as an experimental population in Florida

FT(S/A) = Federal Threatened due to similarity of appearance

ST = State population listed as Threatened by the FFWCC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at a rapid rate and as a consequence is destined or very likely to become an endangered species within the foreseeable future.

SSC = Listed as Species of Special Concern by the FFWCC. Defined as a population which warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in its becoming a threatened species. (SSC* for *Pandion haliaetus* (Osprey) indicates that this status applies in Monroe county only.)

N = Not currently listed, nor currently being considered for listing.

Plants: Definitions derived from Sections 581.011 and 581.185(2), Florida Statutes, and the Preservation of Native Flora of Florida Act, 5B-40.001. FNAI does not track all state-regulated plant species; for a complete list of state-regulated plant species, call Florida Division of Plant Industry, 352-372-3505 or see: <http://www.doacs.state.fl.us/pi/>.

E = Endangered: species of plants native to Florida 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; includes all species determined to be endangered or threatened pursuant to the U.S. Endangered Species Act.

T = Threatened: 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 number as to cause them to be Endangered.

N = Not currently listed, nor currently being considered for listing.

Element Occurrence Ranking

FNAI ranks of quality of the element occurrence in terms of its viability (EORANK). Viability is estimated using a combination of factors that contribute to continued survival of the element at the location. Among these are the size of the EO, general condition of the EO at the site, and the conditions of the landscape surrounding the EO (e.g. an immediate threat to an EO by local development pressure could lower an EO rank).

A = Excellent estimated viability
A? = Possibly excellent estimated viability
AB = Excellent or good estimated viability
AC = Excellent, good, or fair estimated viability
B = Good estimated viability
B? = Possibly good estimated viability
BC = Good or fair estimated viability
BD = Good, fair, or poor estimated viability
C = Fair estimated viability
C? = Possibly fair estimated viability
CD = Fair or poor estimated viability
D = Poor estimated viability
D? = Possibly poor estimated viability
E = Verified extant (viability not assessed)
F = Failed to find
H = Historical
NR = Not ranked, a placeholder when an EO is not (yet) ranked.
U = Unrankable
X = Extirpated

*For additional detail on the above ranks see: <http://www.natureserve.org/explorer/eorankguide.htm>

FNAI also uses the following EO ranks:

H? = Possibly historical
F? = Possibly failed to find
X? = Possibly extirpated

The following offers further explanation of the H and X ranks as they are used by FNAI:

The rank of H is used when there is a lack of recent field information verifying the continued existence of an EO, such as (a) when an EO is based only on historical collections data; or (b) when an EO was ranked A, B, C, D, or E at one time and is later, without field survey work, considered to be possibly extirpated due to general habitat loss or degradation of the environment in the area. This definition of the H rank is dependent on an interpretation of what constitutes "recent" field information. Generally, if there is no known survey of an EO within the last 20 to 40 years, it should be assigned an H rank. While these time frames represent suggested maximum limits, the actual time period for historical EOs may vary according to the biology of the element and the specific landscape context of each occurrence (including anthropogenic alteration of the environment). Thus, an H rank may be assigned to an EO before the maximum time frames have lapsed. Occurrences that have not been surveyed for periods exceeding these time frames should not be ranked A, B, C, or D. The higher maximum limit for plants and communities (i.e., ranging from 20 to 40 years) is based upon the assumption that occurrences of these elements generally have the potential to persist at a given location for longer periods of time. This greater potential is a reflection of plant biology and community dynamics. However, landscape factors must also be considered. Thus, areas with more anthropogenic impacts on the environment (e.g., development) will be at the lower end of the range, and less-impacted areas will be at the higher end.

The rank of X is assigned to EOs for which there is documented destruction of habitat or environment, or persuasive evidence of eradication based on adequate survey (i.e., thorough or repeated survey efforts by one or more experienced observers at times and under conditions appropriate for the Element at that location).

Exhibit M

Florida Fish and Wildlife Conservation Commission Listed Species Occurrence Records



**Florida Fish
and Wildlife
Conservation
Commission**

Commissioners

Bo Rivard
Chairman
Panama City

Robert A. Spottswood
Vice Chairman
Key West

Joshua Kellam
Palm Beach Gardens

Gary Lester
Oxford

Gary Nicklaus
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Sonya Road
St. Augustine

Michael W. Sole
Tequesta

**Office of the
Executive Director**
Eric Sutton
Executive Director

Thomas H. Eason, Ph.D.
Assistant Executive Director

Jennifer Fitzwater
Chief of Staff

850-487-3796
850-921-5786 FAX

*Managing fish and wildlife
resources for their long-term
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Tallahassee, Florida
32399-1600
Voice: 850-488-4676

Hearing/speech-impaired:
800-955-8771 (T)
800 955-8770 (V)

MyFWC.com

01/08/2019

Patti Anderson
Land Planning Coordinator
Florida Forest Service
3125 Conner Boulevard
Tallahassee, FL
32399

Dear Patti Anderson:

This letter is in response to your request for listed species occurrence records and Strategic Habitat Conservation Areas (SHCA's), on the following properties: Little-Big Econ, Charles H. Bronson, Holopaw, Pine log, Carl Duval Moore, Watson Island, Tiger Bay, and Myakka. Records from The Florida Fish and Wildlife Conservation Commission's database indicate that listed species occurrence data and critical habitats are located within the project areas. The Florida Fish and Wildlife Conservation Commission's database indicates that SHCA's for short-tailed hawk occur on Carl Duval Moore. SHCA's for Cooper's hawk, swallow-tailed kite, and short-tailed hawk occur in Charles H. Bronson. SHCA's for Cooper's hawk and Florida black bear were found on Pine Log, and SHCA's for Cooper's hawk and Florida black bear occur on Tiger Bay. Enclosed are 8.5 x 11 maps showing prioritized SHCA's, priority wetlands, landcover, species richness, and species locations for all projects. Additional species records were found on, or within a 1-mile distance of, the properties will be included in a spreadsheet; these species records are maintained by FNAI and cannot be distributed through FWC.

This letter and attachments should not be considered as a review or an assessment of the impact upon threatened or endangered species of the project site. It provides FWC's most current data regarding the location of listed species and their associated habitats.

Our SHCA recommendations are intended to be used as a guide. Land development and ownership in Florida is ever-changing and priority areas identified as SHCA might already have been significantly altered due to development or acquired into public ownership. Onsite surveys, literature reviews, and coordination with FWC biologists remain essential steps in documenting the presence or absence of rare and imperiled species and habitats within the project area.

Our fish and wildlife location data represents only those occurrences recorded by FWC staff and other affiliated researchers. It is important to understand that our database does not necessarily contain records of all listed species that may occur in a given area. Also, data on certain species, such as gopher tortoises, are not entered into our database on a site-specific basis.

Therefore, one should not assume that an absence of occurrences in our database indicates that species of significance do not occur in the area.

The Florida Natural Areas Inventory (FNAI) maintains a separate database of listed plant and wildlife species, please contact FNAI directly for specific information on the location of element occurrences within the project area.

Because FNAI is funded to provide information to public agencies only, you may be required to pay a fee for this information. County-wide listed species information can be located at their website (<http://www.fnai.org>).

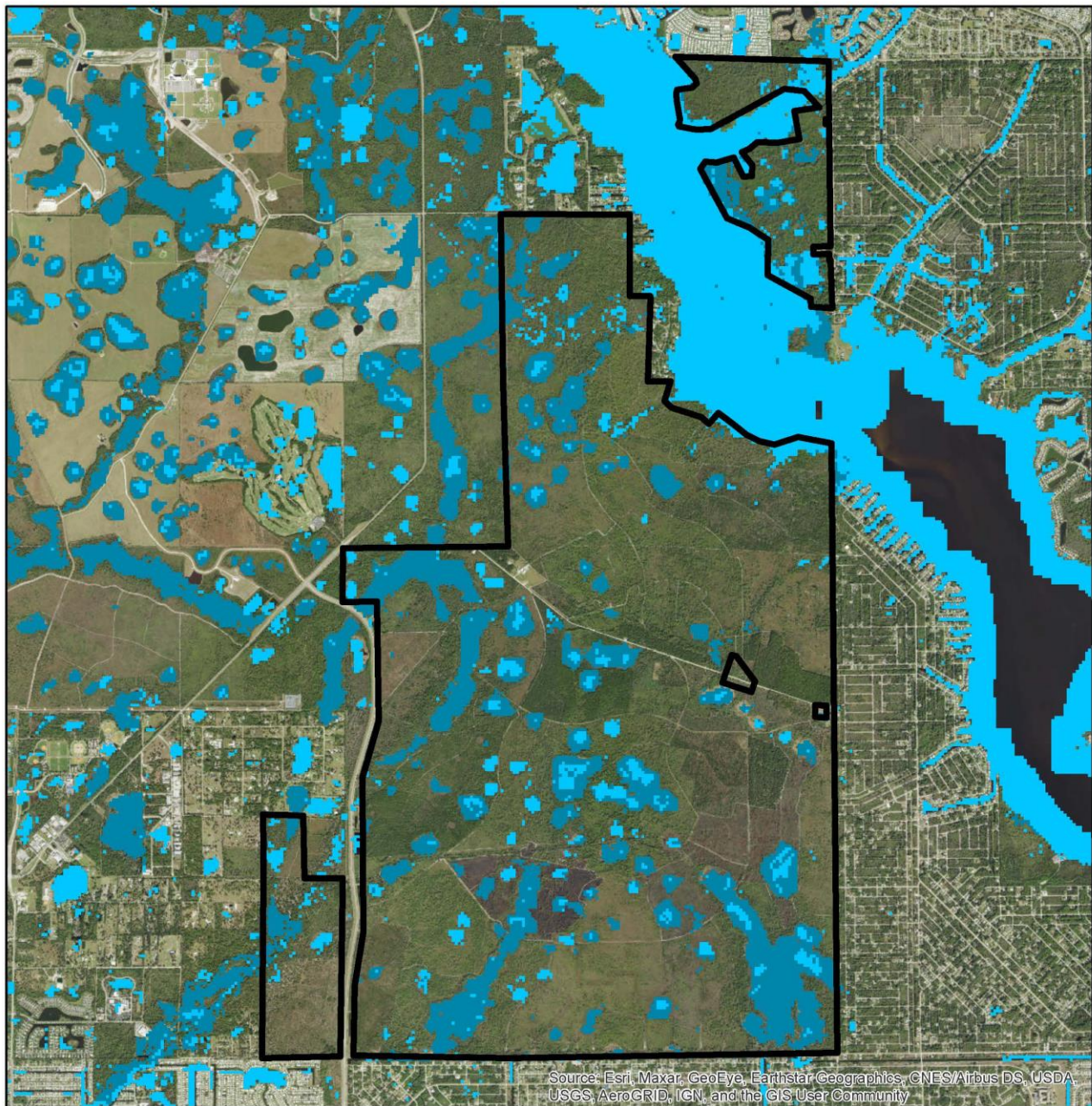
Please credit the Florida Fish and Wildlife Conservation Commission in any publication or presentation of these data. If you have any questions or further requests, please contact me at (850) 488-0588 or gisrequests@myfwc.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'E. Salinas'.

Eva Salinas
Research Assistant

ES
2019_6326
Enclosures



Priority Wetlands

- 1-3 Species, Wetlands habitat
- 4-6 Species, Wetlands habitat
- 7-9 Species, Wetlands habitat
- 10-11 Species, Wetlands habitat

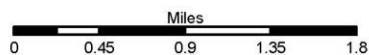


Myakka State Forest

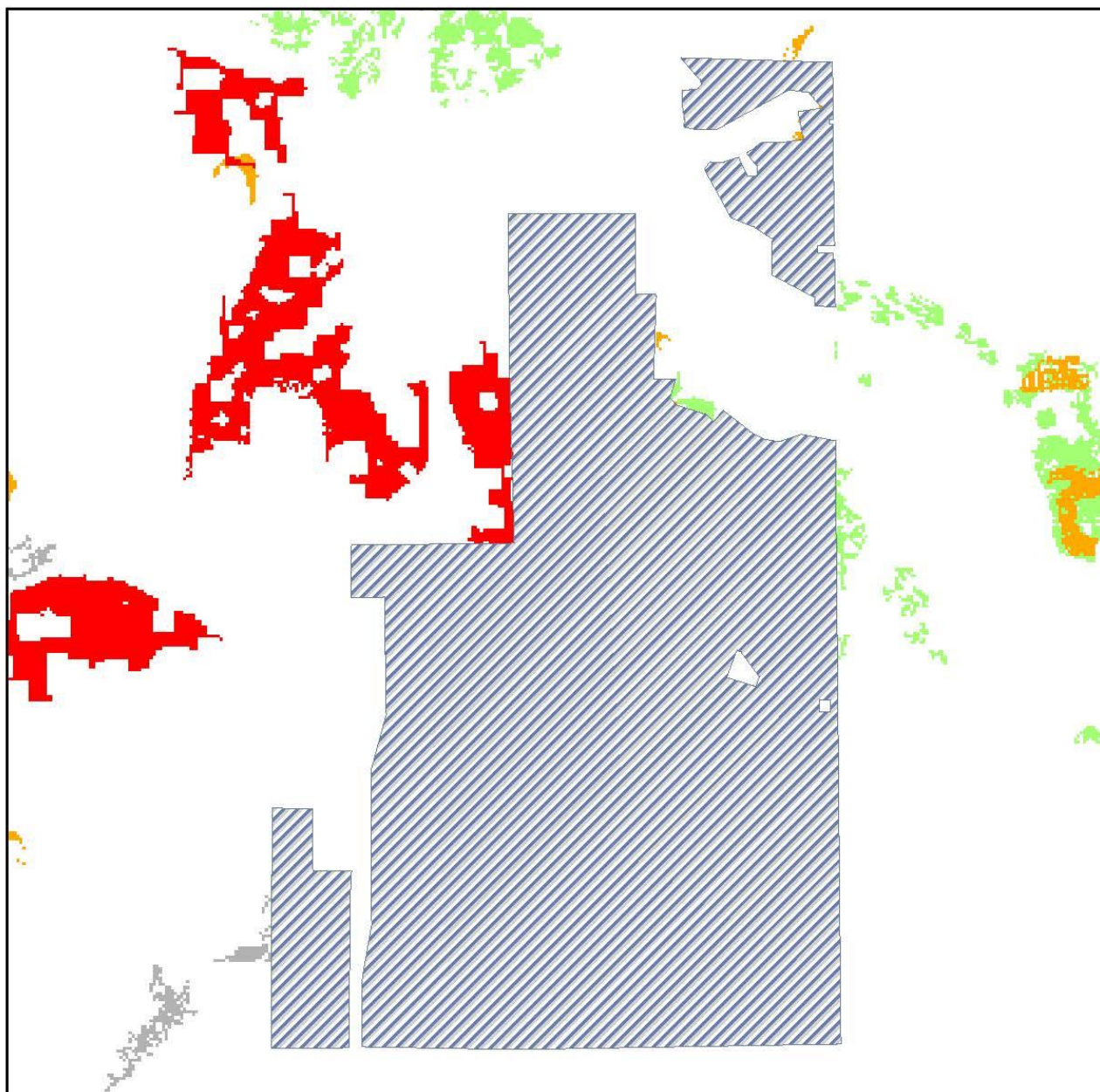
This raster dataset identifies Florida wetlands important to wetland-dependent vertebrates listed by the State of Florida as endangered, threatened, or species of special concern. The dataset also ranks the relative importance of wetland areas based on species richness of the selected vertebrate species.



Florida Fish and Wildlife
Conservation Commission
MyFWC.com



FWC ID: 2019_6326 January 7th, 2019



Myakka

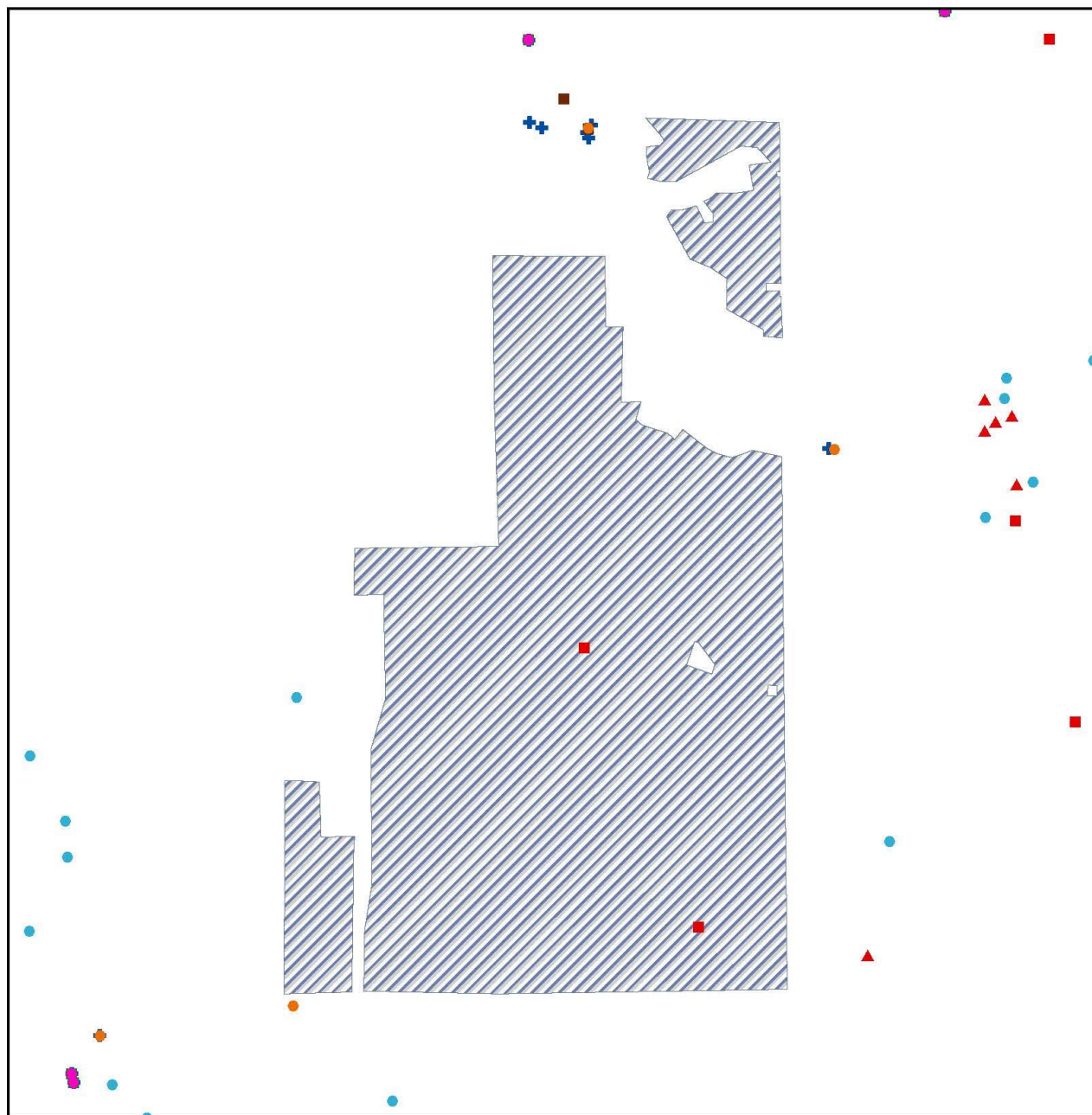


The prioritized SHCA map identifies 5 classes of SHCA based upon Heritage ranking criteria developed by The Nature Conservancy, the Natural Heritage Program Network, and the Florida Natural Areas Inventory. There are 2 possible ranks used to prioritize a species' SHCA: 1) the global rank based on a species worldwide status, and 2) the state rank based upon the species status in Florida. The state and global ranks are based upon many factors such as known occurrence locations, estimated abundance, range, amount of habitat currently protected, perceived levels of threats towards the species, and ecological fragility.



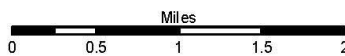
Florida Fish and Wildlife
Conservation Commission
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FWC ID: 2019_6326 January 7th, 2019



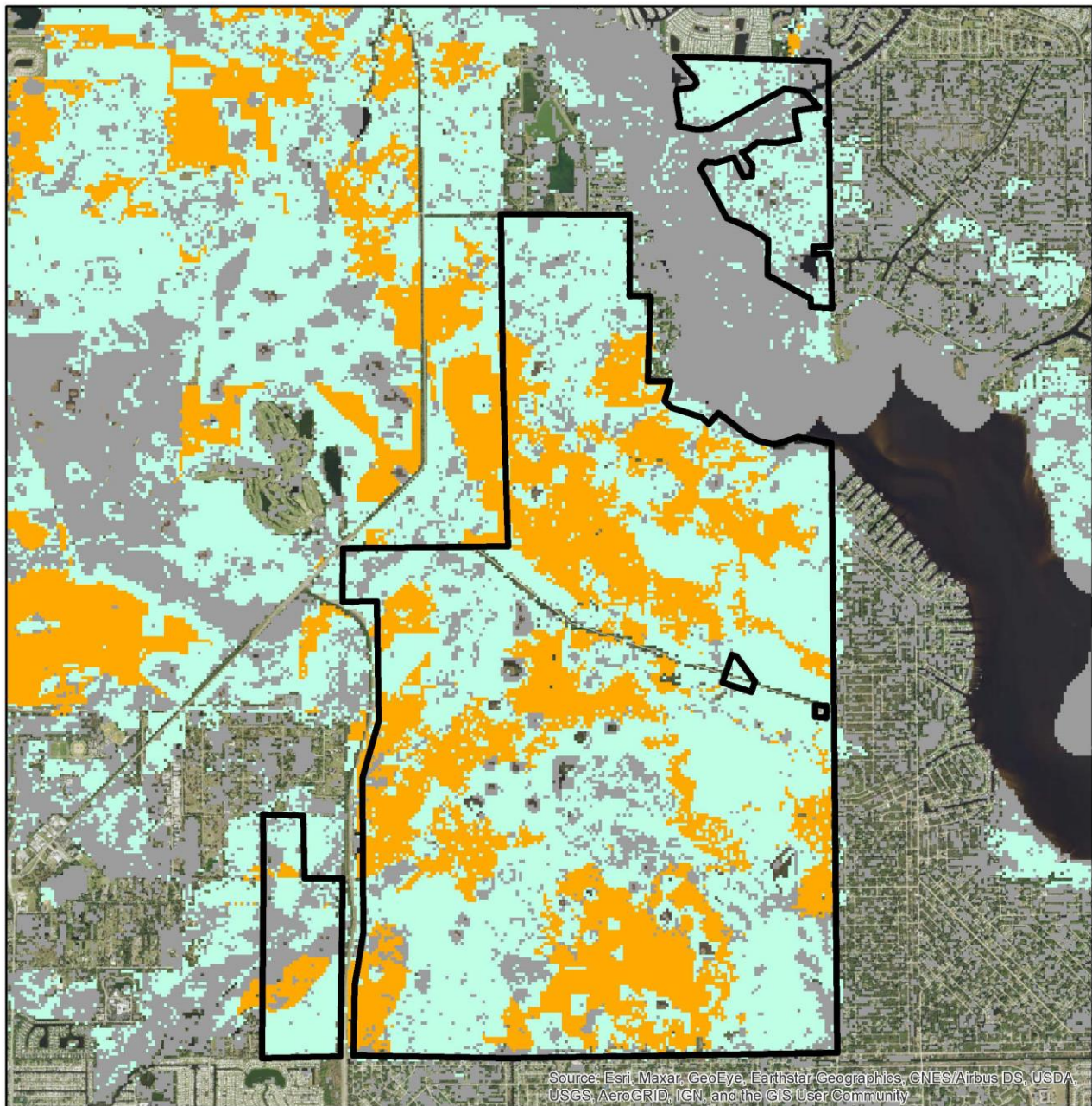
Myakka

- Scrub-jay
- Shorebirds
- Wading Bird Rookeries 1999
- Eagles Nests
- Florida Wood Stork Nests -FWC
- Shore Birds Nests 2002
- ▲ Bear Calls
- ▲ Bear Capture
- + Wildlife Observations

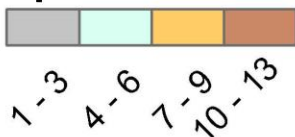


Florida Fish and Wildlife
Conservation Commission
MyFWC.com

FWC ID: 2019_6326 January 8th, 2019



Species Richness

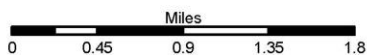


Myakka State Forest

This dataset represents the richness of potential habitat for selected focal species in Florida. Potential habitat includes areas that have been occupied by the species and areas where occupancy is unknown based on available occurrence records. We combined the potential habitats generated for Florida into a single grid layer indicating diversity. Pixel cell value indicates the total number of species potential habitat identified at the specific location.



Florida Fish and Wildlife
Conservation Commission
MyFWC.com



FWC ID: 2019_6326 January 7th, 2019

Exhibit N

Fire History

Myakka State Forest Burn Acres by Fiscal Year

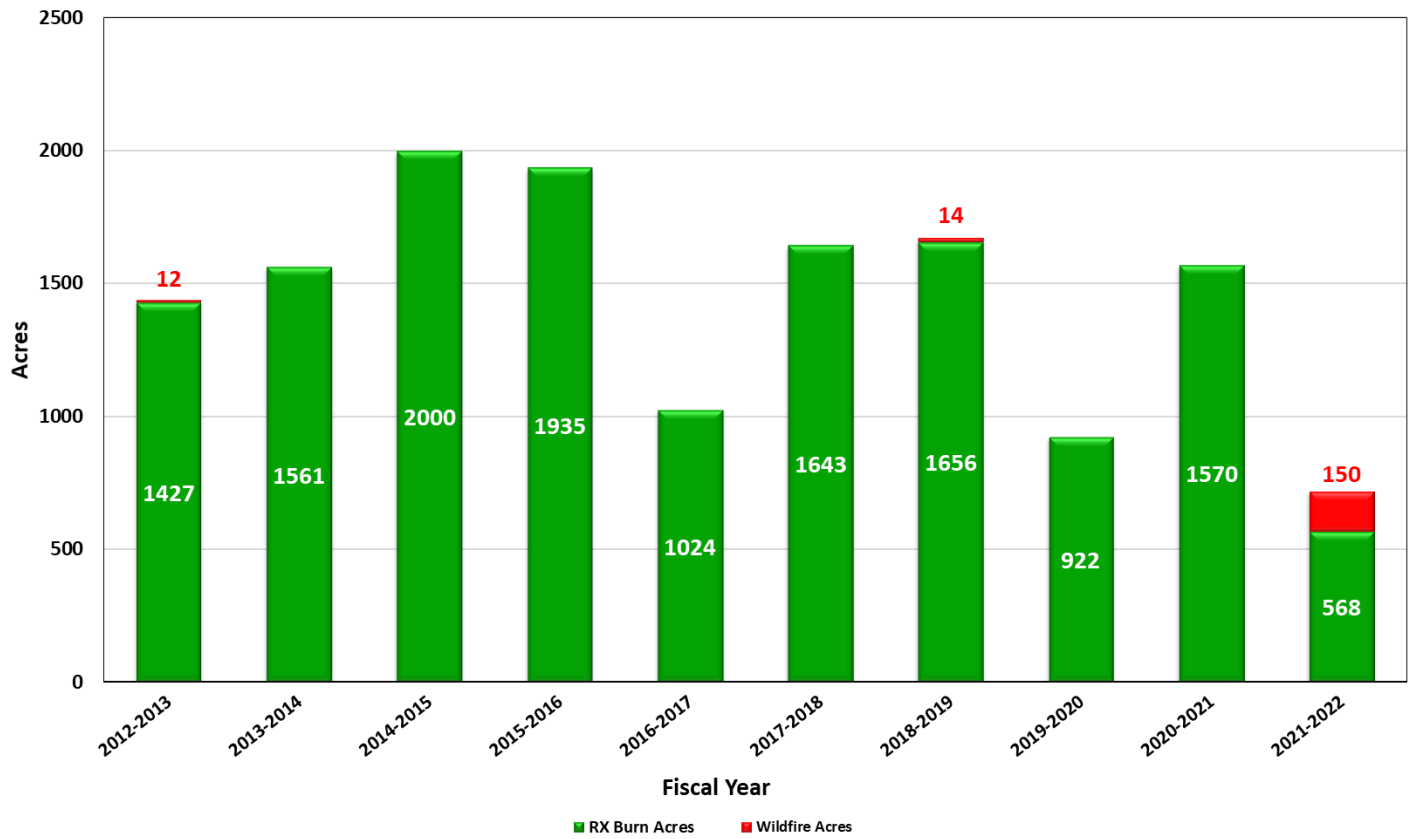


Exhibit O

Non-Native Invasive Species Map



Florida Forest Service

Myakka State Forest

Non-Native Invasive Species Map (FNAI) Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum
62° 0' 0" W

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LEGEND

Exotic Species

- Australian pine
- Brazilian pepper
- Chinese tallow tree
- Guinea grass
- Java plum
- Natal grass
- Senegal date palm
- West Indian marsh grass
- air-potato
- balsampear
- bischofia
- carrotwood
- cathedral bells
- cogon grass
- melaleuca
- molassesgrass
- old world climbing fern
- para grass
- rosary pea
- torpedo grass
- wedelia
- Earleaf Acacia
- Giant Reed Grass
- Lead Tree
- Womans Tongue
- Myakka state Forest

0.5 0.25 0
miles



Map Month/Year: August 2022

1,000 500 0 1,000
yards

Exhibit P

Current Natural Communities Map



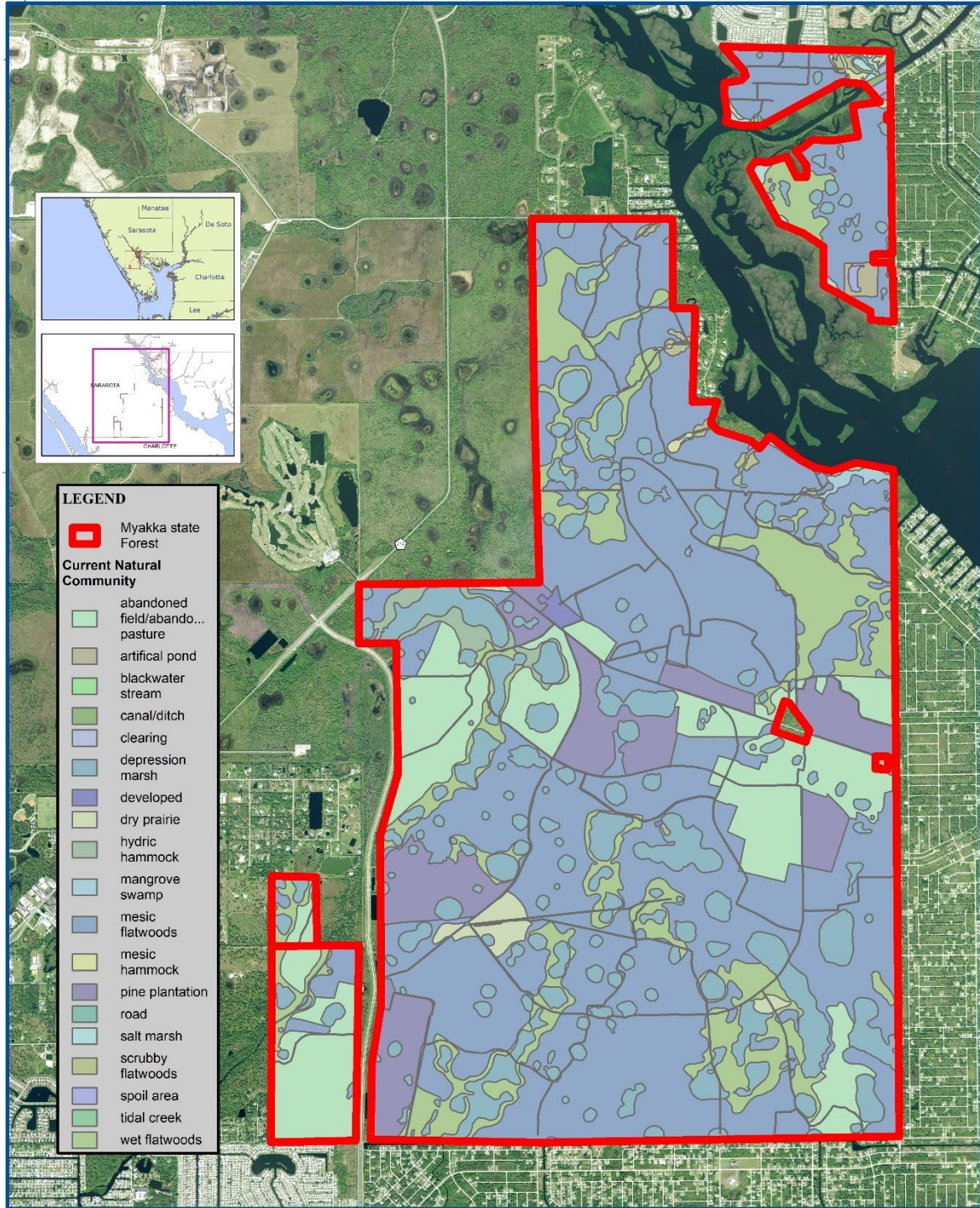
Florida Forest Service

Myakka State Forest

Current FNAI Natural Communities and Cover Type

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum
82° 00' 00" W

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LEGEND

Myakka state Forest

Current Natural Community

- abandoned field/abandoned pasture
- artificial pond
- blackwater stream
- canal/ditch
- clearing
- depression marsh
- developed
- dry prairie
- hydric hammock
- mangrove swamp
- mesic flatwoods
- mesic hammock
- pine plantation
- road
- salt marsh
- scrubby flatwoods
- spoil area
- tidal creek
- wet flatwoods

0.5 0.25 0
Miles



Map Month/Year: December 2020

1,000 500 0 1,000
Feet

Exhibit Q

Historic Natural Communities Map



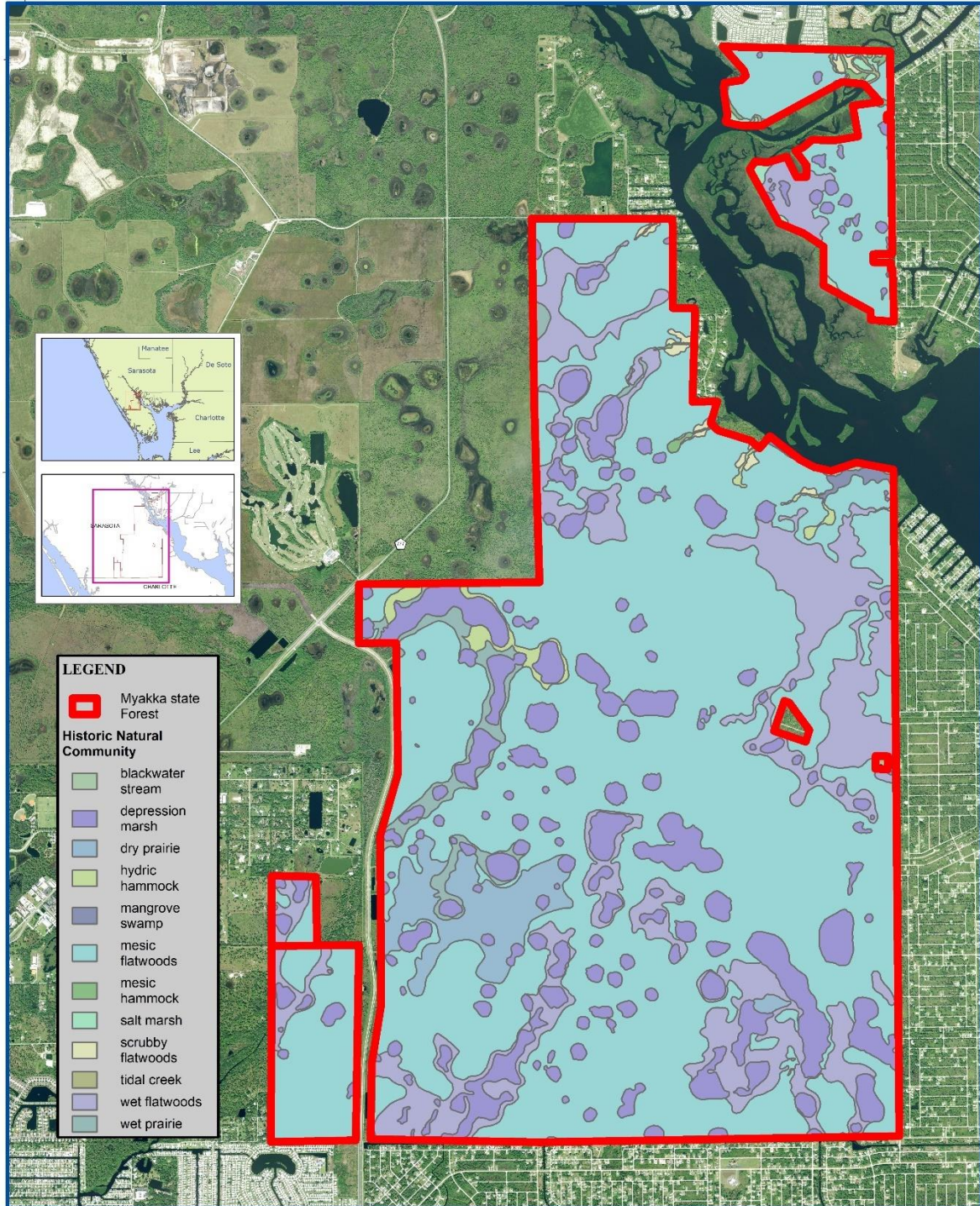
Florida Forest Service

Myakka State Forest

Historic FNAI Natural Communities and Cover Type

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum
82° 00' 00" W

DISCLAIMER:
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LEGEND

- Myakka state Forest
- Historic Natural Community**
 - blackwater stream
 - depression marsh
 - dry prairie
 - hydric hammock
 - mangrove swamp
 - mesic flatwoods
 - mesic hammock
 - salt marsh
 - scrubby flatwoods
 - tidal creek
 - wet flatwoods
 - wet prairie

0.5 0.25 0 Miles



Map Month/Year: December 2020

1,000 500 0 1,000 Yards

Exhibit R

Management Prospectus



Charlotte Harbor Estuary

Charlotte, Lee, Sarasota
Substantially Complete

Project-at-a-Glance

<i>Placed on List</i>	1972
<i>Project Area</i>	45,704
<i>Acres Acquired</i>	39,402
<i>at a Cost of</i>	\$35,040,125
<i>Acres Remaining</i>	6,301

Purpose for State Acquisition

The Charlotte Harbor Estuary was formed by combining the boundaries of three projects: the Myakka Estuary, the Cape Haze/Charlotte Harbor project, and the Charlotte Harbor project.

The Myakka Estuary project portion of Charlotte Harbor Estuary protects the largest natural area left around northern Charlotte Harbor, conserving flatwoods, scrub, and salt marshes that support bald eagles, sandhill cranes, scrub jays, and manatees. The project will also help protect an important fishery and provide residents of, and visitors to, the rapidly growing Charlotte Harbor area with opportunities for hiking, camping, and other recreational pursuits.

The Charlotte Harbor Estuary is one of the largest and most productive estuaries in Florida, supports an important recreational and commercial fishery, but is rapidly being surrounded by residential developments that could harm this important resource. Conserving flatwoods and prairies behind the mangrove swamps and salt marshes along Charlotte and Placida Harbors will help the Cape Haze/Charlotte Harbor project protect the water quality of the estuary, protect habitat for the Florida manatee and other rare wildlife, and provide residents of and visitors to the area with opportunities for boating, fishing, and other recreational pursuits.

Manager(s)

The Division of Recreation and Parks (DRP) of the Florida Department of Environmental Protection (DEP), will manage most of the project. The DRP will manage that portion of the project west of SR 775. Florida Forest Service/FFS, Department of Agriculture and Consumer Services will manage the western portion of the Myakka Estuary portion of the project, with the DRP managing the east side.

General Description

The project includes the ecotone of flatwoods and dry prairies, and the estuarine tidal marshes and mangrove swamps along Charlotte Harbor and Placida Harbor. Less than 10 percent of the area is disturbed. The area provides habitat for rare animals—the bald eagle, scrub jay, indigo snake, and gopher tortoise—and influences important manatee habitat offshore.

The project protects the water quality of the Charlotte Harbor estuary, designated as a series of Outstanding Florida Waters, and its recreational and commercial fisheries. The Coral Creek Mound is a possibly significant archaeological site; no other sites are known from the area. The area is vulnerable to development, invasive exotic plants, and damage by off-road vehicles. There are 12,000 platted lots in the project vested from most development restrictions, so endangerment is extremely high. This project provides an essential addition to lands previously acquired through the Environmentally Endangered Lands (EEL) program. Most of the lands are wetlands, including mangrove, salt marsh, and salt flats, but there are some mesic flatwoods. The project area offers habitat for several rare species, and directly influences the water quality of Charlotte Harbor. There are two shell midden archaeological sites known from the project. Regulations notwithstanding, the area is threatened by dredging and filling from residential development.

The nearly intact uplands of the Myakka Estuary are primarily mesic flatwoods, like those in the Charlotte Harbor Flatwoods project, 15 miles to the south, but different in that they include scrub and the Florida scrub jay. The project provides habitat for nesting bald eagles and sandhill cranes and buffers the tidal marsh and waters of the Myakka River and Sam Knight Creek. Manatees use the adjacent waters heavily all year. The Myakka River estuary and the coastal wetlands associated with this project will support valuable commercial and recreational fisheries. The Florida Site File records five archaeological sites in the project. The project is surrounded by development and its uplands will inevitably be developed if not purchased.

FNAI Element Occurrence Summary 2019

<u>FNAI Element</u>	<u>Score</u>
Manatee	G2/S2
Florida Scrub-Jay	G27/S2
Gopher Tortoise	G3/S3
Florida Black Bear	G5T4/S4
<i>aboriginal prickly apple</i>	G1/S1
<i>beautiful pawpaw</i>	G1/S1
<i>lowland loosestrife</i>	G2/S2
Florida Sandhill Crane	G5T2/S2
Southern Mink, Southern Florida Pop	G5T2Q/S2
<i>iguana hackberry</i>	G5/S1
Wood Stork	G4/S2
Bachman's Sparrow	G3/S3

21 rare species are associated with the project

Source: Florida Natural Areas Inventory (FNAI, January 2020)

Public Use

This project qualifies as a forest and buffer preserve. Wetlands will limit outdoor recreation to such activities as fishing, canoeing, picnicking, hiking, and natural-resource education. The Myakka Estuary area has potential for such public uses as hiking, picnicking, camping, and nature appreciation.

Acquisition Planning

In 1980, the Charlotte Harbor project was added to the Conservation and Recreation Lands (CARL) Priority list. The project, which was started in 1972 under the EEL (Environmentally Endangered Lands) program, consisted of approximately 17,854 acres of which 15,582 acres had been acquired under EEL. The remaining 2,272 acres had a taxable value of \$1,931,820. Essential tracts included Atlantic Gulf Communities (acquired in 1995) and Mariner Properties (unwilling seller but for wetlands).

In September 1986, the Land Acquisition Selection Committee (LASC) approved adding 840 acres (Alligator Creek) to the project. Sponsored by Charlotte County, the addition had four landowners (Starnes, City of Punta Gorda, Lowe, and Punta Gorda Isles) that owned a majority of the addition). In June 1988, the LASC approved the modification of the project design that retained 16-17 parcels from the original project (2215 acres) and added 10 parcels in nine ownerships (3141 acres) for a total of 5,356 acres with a taxable value of \$2,302,000. To date, 17,141 acres have been acquired at a cost of \$8,070,838.

On November 20, 1992, the Land Acquisition Advisory Council (LAAC) approved adding three parcels, totaling 188 acres with an estimated tax value of \$66,086, to the project boundary. The Southwest

Florida Aquatic Preserve (60 acres), and the Trust for Public Lands (TPL), (128 acres) sponsored the addition.

On March 9, 1994, the LAAC approved the addition of 892 acres located in Lee County to the project boundary. The landowners, Burnt Store Company, Inc, sponsored the amendment with an estimated taxable value of \$2,119,000.

On July 14, 1995, the LAAC approved a 750-acre addition with a taxable value of \$953,918. The Southwest Florida Water Management District (SWFWMD) sponsored the addition.

On October 15, 1998, the LAAC designated additional acreage of Cape Haze/Charlotte Harbor as essential—approximately 174 acres consisting of the Rotonda Properties out-parcels, and the Cole and Lemon Bay Partners parcels. The Council also designated an additional 1,390 acres of the Myakka Estuary as essential. Previously, essential parcels had included all acreage acquired up to January 26, 1995, and the Cayo Pelau, Lowe, Ansin, and Freeland ownerships. The essential acreage also includes approximately 100 acres adjacent to the Amberjack Scrub site, an FCT project that has been acquired.

On December 9, 1999, the LAMAC transferred this project to the Substantially Complete group.

On April 6, 2001, the Acquisition and Restoration Council (ARC) combined the Cape Haze/Charlotte Harbor project with the Charlotte Harbor project. The total project acreage became 32,909. To date, 28,133 acres have been acquired at a cost of \$29,337,199. The updated acreage and cost include EEL, CARL, and Donations.

On December 5, 2001, the ARC combined the Cape Haze/Charlotte Harbor project with the Myakka Estuary project and renamed the project Charlotte Harbor Estuary. The total project acreage became 46,709 acres. To date, 32,736 acres have been acquired at a cost of \$35,461,055. The updated acreage and cost include EEL, CARL, and Donations.

On June 12, 2009, ARC approved a 79-acre addition owned by Burnt Store Land Group, LLC.

On February 19, 2010, ARC approved removal of 13 sites with 466 individual parcels totaling 2,260 acres containing residential/commercial structures or infrastructure.

On December 9, 2011, ARC placed this project in the Substantially Complete category.

On October 16, 2015, ARC voted to add the 5-acre (GIS) Lemon Bay Midden parcel (\$48,322 tax assessed value) to the project to protect an archeological site the site of a historic Indian encampment and very large pre-Columbian midden. The site straddles two adjacent waterfront parcels with more than 800 feet of frontage on Lemon Bay Aquatic Preserve.

In calendar year 2017, a total of .27 acres in this project were acquired using Florida Forever program funding.



On June 14, 2019, the ARC approved an addition of 8 acres (GIS) known as the Don Pedro parcel to the Charlotte Harbor Estuary. The proposal in Charlotte county and had a 2019 tax assessed value of \$825,590. This amendment will add to the main portion of Don Pedro Island State Park and would be managed as part of the park if acquired. It will provide additional habitat for wading birds and gopher tortoise and enhance the protection of the Lemon Bay Aquatic Preserve. The land within the approved boundary was designated essential. It would be managed by the Division of Recreation and Parks if acquired.

Coordination

SWFWMD was an acquisition partner in the purchase of the Rotonda ownership (Cape Haze). The TPL has been an intermediary in the state's acquisition of two large tracts within the Charlotte Harbor project.

In 1995, the SWFWMD negotiated the purchase (CARL program reimbursed half) of the Atlantic Gulf Communities Corporation's ownership land within the Charlotte Harbor (704 acres) and Myakka Estuary (9,264 acres) projects.

Management Policy Statement

The primary goals of management of the Charlotte Estuary project are to conserve and protect significant habitat for native species or endangered and threatened species; to conserve, protect, manage, or restore important ecosystems, landscapes, and forests, in order to enhance or protect significant surface water, coastal, recreational, timber, fish, or wildlife resources which local or state regulatory programs cannot adequately protect; to provide areas, including recreational trails, for natural-resource-based recreation; and to preserve significant archaeological or historical sites.

Achieving this objective will help to protect the water quality of Charlotte Harbor, its important nursery areas for fish and shellfish, its important recreational and commercial fisheries, and its manatee habitat. It will also provide the public with an additional area for natural resource-based recreation.

The project should be managed under the single-use language change made October 1999. Managers should control access to the project; limit public motor vehicles to one or a few main roads; thoroughly inventory resources; restore hydrological disturbances; burn the fire-dependent pine flatwoods in a pattern mimicking natural lightning-season fires, using natural firebreaks or existing roads for control; strictly limit timbering in old-growth stands; and monitor management activities to ensure that they are preserving resources.

Management Prospectus

Qualifications for state designation

The project provides essential additions to lands previously acquired through the EEL program of the 1970's and the Save Our Coast (SOC) Program of the 1980's. Most of the lands are wetlands, including mangrove, salt marsh, and salt flats, with occasional uplands including pine flatwoods, and oak/sabal palm hammocks. The forest resources around the Myakka River estuary have the diversity and size to make a state forest. These lands will aid in the protection or buffering of state waters, primarily the Cape Haze, and Charlotte Harbor / Gasparilla Sound Aquatic Preserves, as well as improve the protection and recreational value of the existing state-owned lands. They will also provide a land base for public access to the Don Pedro Island State Park. These lands therefore qualify as an addition to the existing Charlotte Harbor State Buffer Preserve and the Don Pedro Island State Park.

Manager

The DRP will manage these lands as an addition to the state park system. FFS proposes to manage 12,800 acres north and west of Highway 776. The Florida Coastal Office would manage the Lemon Bay Midden added in 2015 as part of the Aquatic Preserve.

Conditions affecting intensity of management

The project is surrounded by rapidly developing areas. Development in the area may alter the flow of water and nutrients by dredging, filling, and shoreline armoring. Urbanization of surrounding lands is also increasing, thereby justifying the need for an increased patrol and law enforcement presence.

Initially the project lands will be "high need," requiring management to control exotic plants and animals and reducing illegal activities, such as poaching and trash dumping. Thereafter, routine management activities will be at the "moderate need" level. Lands to be used, and developed, as a land base to provide access to Don Pedro Island State Park will be "high need" areas. West of the Myakka River there are no known major disturbances and the level of management is expected to be typical for that of a state forest.

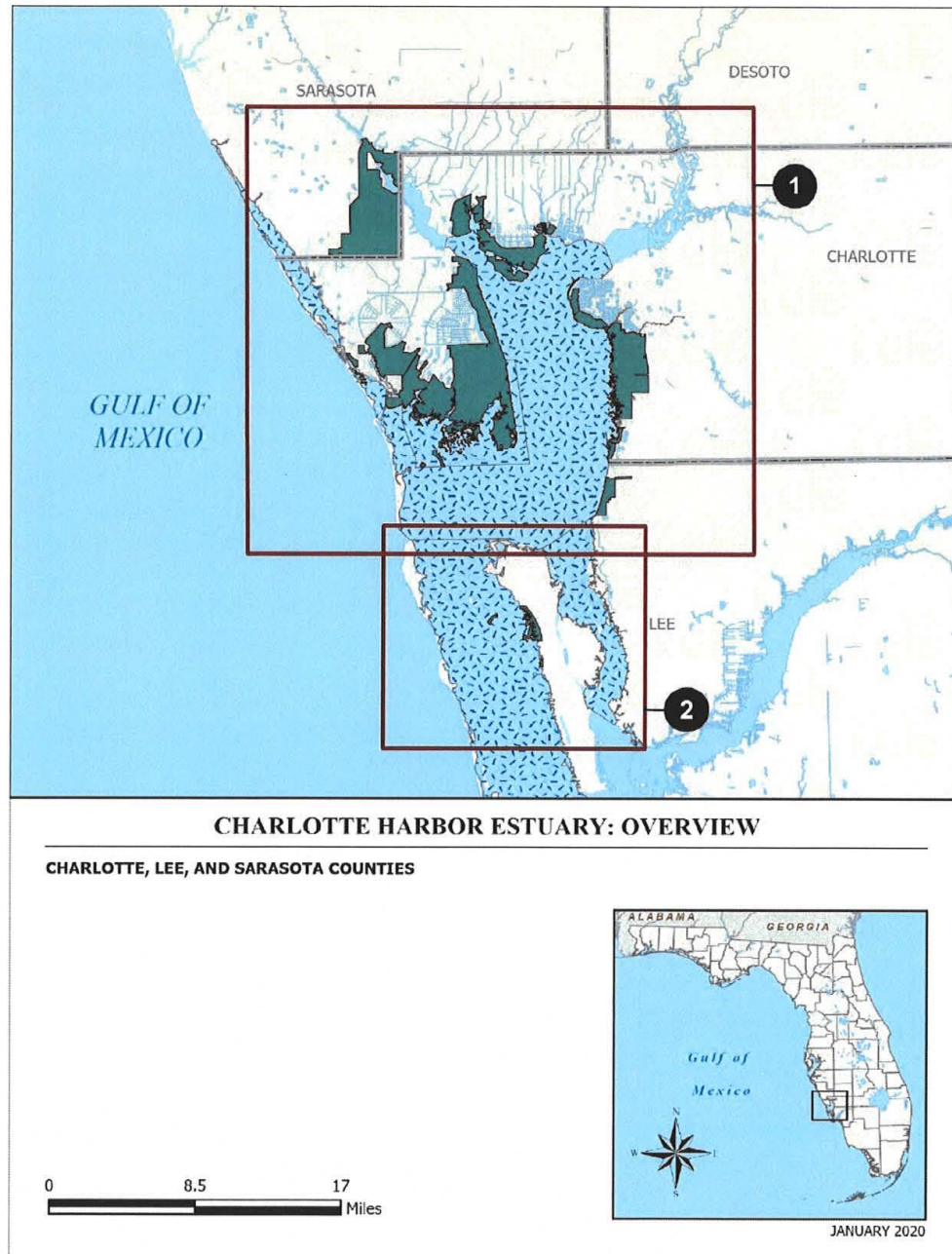
Timetable for implementing management and provisions for security and protection of infrastructure

Within the first year of appropriate funding, management activities will concentrate on; property security, including fencing, posting, and patrols; public access, staff access for management activities such as prescribed fire and restoration projects, trash removal; and exotic plant and animal eradication. The DRP will provide appropriate resource based public access while protecting critical resources. The site will be biologically inventoried, and a management plan will be written within one year. Long range goals will be established by the management plan and will provide for ecological restoration and habitat maintenance. Prescribed and natural fires will be used to maintain the appropriate communities and associated wildlife populations. The resource inventory will be used to identify appropriate uses for the property, including management activities and public use. Areas disturbed by man and exotic plants will

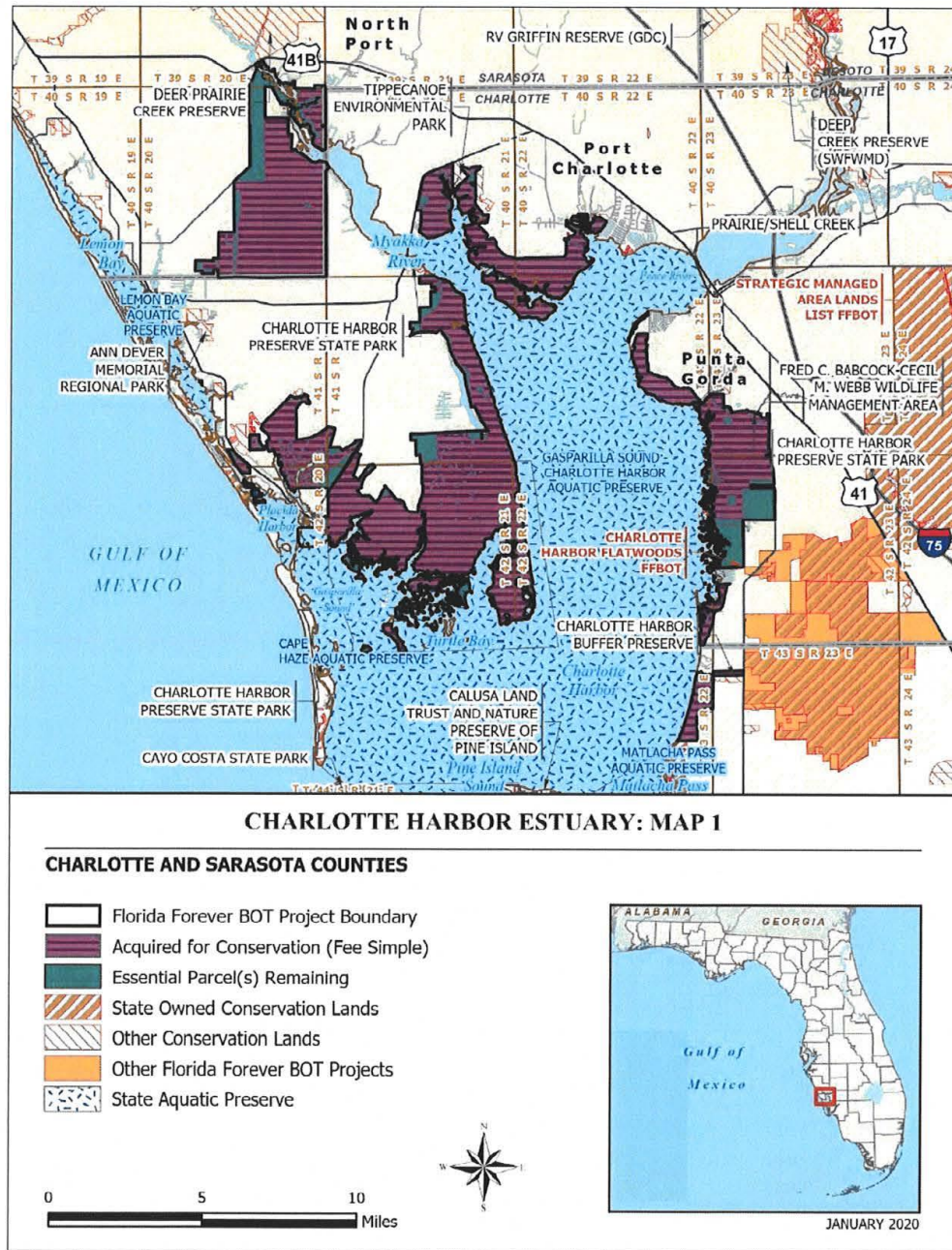
be restored to an “as natural as possible” condition. Infrastructure will be kept to a minimum and include only a sufficient amount of structures to provide for management facilities, public access, and resource interpretation. After the core of the Myakka River forests are acquired, the FFS and DRP will provide public access for low-intensity, non-facilities-related outdoor recreation. The FFS’s long-range plan is generally to restore disturbed areas to their original conditions, as far as possible, as well as protecting threatened and endangered species. An all-season burning program will use, whenever possible, existing roads, black lines, foam lines, and natural breaks to contain fires. Timber management will mostly involve improvement thinning and regeneration harvests.

Revenue-generating potential

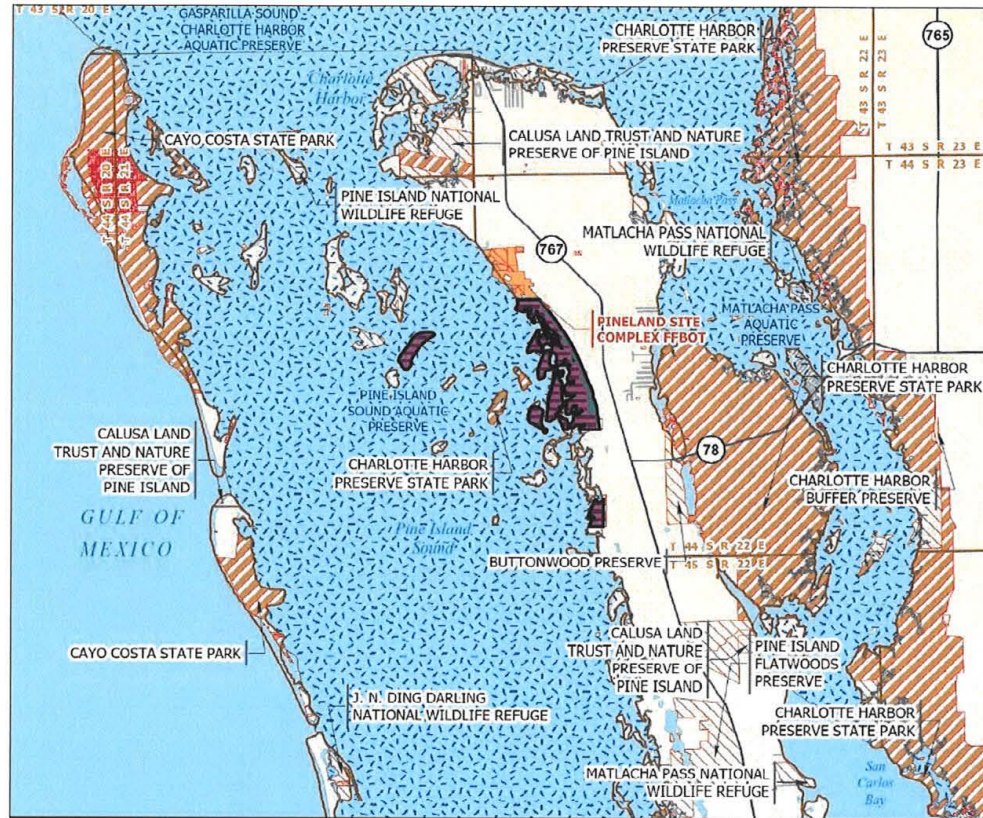
The forest land in the Myakka River estuary portion of the project has potential for a variable source of revenue from timber sales, but the revenue-generating potential for this project is expected to be low to moderate. The part of the project east of the river will provide indirect financial benefit to the state including enhanced water quality, fisheries, and public recreation opportunities. Limited revenue may be available through small timber sales to initially thin some stands and through some entrance and user permit fees in the future. Elsewhere, the project will benefit the state indirectly by enhancing water quality, fisheries and public recreation activities, and preserving natural and historical resources. Future user fees may also contribute limited revenue.



Project Map 34: Source → Florida Natural Areas Inventory (FNAI, January 2020)



Project Map 35: Source → Florida Natural Areas Inventory (FNAI, January 2020)



CHARLOTTE HARBOR ESTUARY: MAP 2

CHARLOTTE AND LEE COUNTIES

- Florida Forever BOT Project Boundary
- Acquired for Conservation (Fee Simple)
- Essential Parcel(s) Remaining
- State Owned Conservation Lands
- Other Conservation Lands
- Other Florida Forever BOT Projects
- State Aquatic Preserve

0 2.5 5
Miles



JANUARY 2020

Project Map 36: Source → Florida Natural Areas Inventory (FNAI, January 2020)

Exhibit S

Land Management Reviews (2013 and 2018)

Name of Site: Myakka State Forest

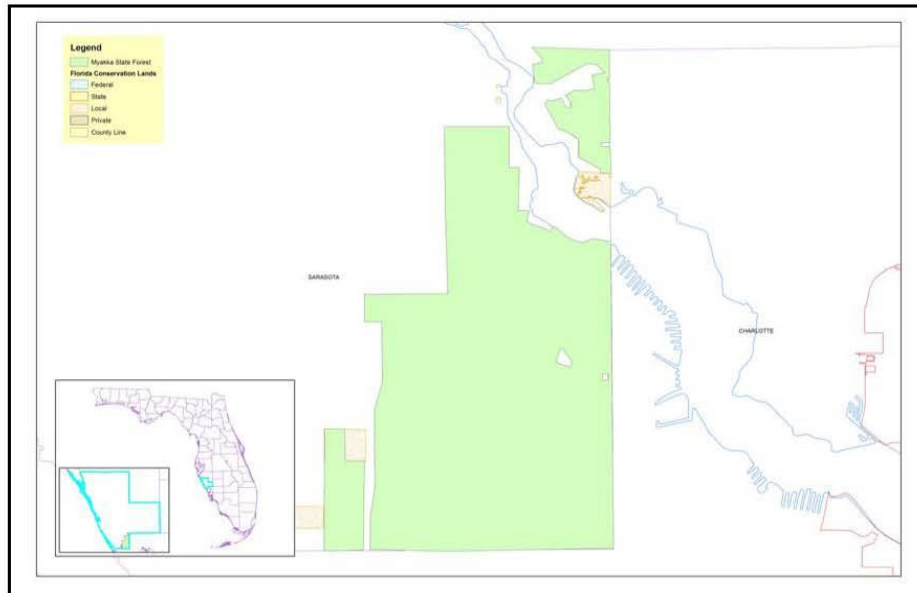
County: Sarasota

Managed by: Department of Agriculture and Consumer Services
Florida Forest Service

Acres: 8,592.79 Acres

Review Date: 01/17-18/13

Management Plan Approval Date: 01/17/08



Review Team Determination

Managed in accordance with
acquisition purpose? Yes = 8, No = 0



Management practices, including public access,
in compliance with the management plan? Yes = 8, No = 0



Categories	Management Plan Review	Field Review
Natural Communities	1.00	3.83
Listed Species	0.72	3.88
Natural Resource Survey	0.91	3.69
Cultural Resources	0.94	3.50
Prescribed Fire	0.88	4.42
Restoration	0.98	4.18
Exotic Species	0.96	3.96
Hydrology	0.98	4.13
Groundwater Monitoring	0.92	3.40
Surface Water Monitoring	0.92	3.40
Resource Protection	0.97	4.09
Adjacent Property Concerns	0.88	3.39
Public Access & Education	0.97	4.06
Management Resources	N/A	3.88
Managed Area Uses	1.00	N/A
Buildings, Equipment,		

Consensus Commendations to the Managing Agency

The following commendations resulted from discussion and vote of the review team members.

1. The team commends the FFS staff on how well the site is being managed, and improved overall, with the limited staffing and funding available to date. (VOTE 8+, 0-)



2. The team commends the FFS staff for their efforts to increase the frequency of burning and improve habitat conditions in the flatwoods and depression marshes. (VOTE: 8+, 0-)



3. The team commends the FFS staff for increasing the amount of invasive exotic plant treatment which has significantly reduced the impact of exotic plants from previous high levels. (VOTE: 8+, 0-)



4. The team commends the FFS for their approach to establishing and managing a program of primitive campsites and a small multisite primitive camping zone that offers an aesthetically pleasing and desirable camping experience. (VOTE: 8+, 0-)



5. The team commends the FFS for past, and planned, work with SWFWMD to restore depression marsh systems to remove ditches, invasive exotics, and restore the natural hydrology. (VOTE: 8+, 0-)



Consensus Recommendations to the Managing Agency

The following recommendations resulted from a discussion and vote of review team members. The management plan must include responses to the recommendations identified below.

1. The team recommends that FFS fund additional OPS positions, and especially additional hours for the staff assistant position. (VOTE: 8+, 0-)



Managing Agency Response: The Florida Forest Service will continue to seek increased funding and positions, as needed, to maintain and improve the current resource management of the Myakka State Forest.

Field Review Checklist Findings

The following items received high scores on the review team checklist, indicating the management actions in the field exceeded expectations.

- Natural Communities, specifically mesic flatwoods/wet flatwoods, depression marsh/wet prairie, scrub/scrubby flatwoods and mesic hammock.
- Listed Species, specifically animal inventory, gopher tortoise, scrub jay and bald eagle.
- Natural Resources Survey, specifically listed species or habitat monitoring, fire effects monitoring, other habitat management effects monitoring and invasive species survey/monitoring.
- Cultural Resources, specifically protection and preservation.
- Resource Management, Prescribed Fire, specifically area being burned (no. acres), frequency and quality.

- Restoration of Ruderal Areas, specifically pastures, ditches/depression marsh and exotics/depression marsh.
- Forest Management, specifically, timber inventory, timber harvesting, reforestation/afforestation and site preparation.
- Non-Native, Invasive & Problem Species, specifically prevention and control of plants, animals and pests/pathogens.
- Hydrologic/Geologic Function, specifically roads/culverts, ditches, hydro-period alteration, water level alteration, dams, reservoirs or other impoundments.
- Resource Protection, specifically boundary survey, gates/fencing, signage and law enforcement presence.
- Adjacent Property Concerns, specifically expanding development.
- Public Access & Education, specifically roads, parking and boat access.
- Environmental Education & Outreach, specifically wildlife, invasive species, habitat management activities and interpretive facilities and signs, recreational opportunities and management of visitor impacts.
- Management Resources, specifically waste disposal, sanitary facilities and buildings.

Items Requiring Improvement Actions in the Management Plan

The following items received low scores on the review team checklist, which indicates that the text noted in the Management Plan Review does not sufficiently address this issue (less than .5 score on average.). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The management plan must include responses to the checklist items identified below:

There were no low scores.

Items Requiring Improvement Actions in the Field

The following items received low scores on the review team checklist, which indicates that management actions noted during the Field Review were not considered sufficient (less than 2.5 score on average). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The management plan must include responses to the checklist items identified below:

1. The review team average score indicates a need for acknowledgement of management resources, specifically funding. Please provide documentation in the management plan.

Managing Agency Response: The Florida Forest Service will continue to seek increased funding and positions, as needed, to maintain and improve the current resource management of the Myakka State Forest.

Forestry Forest Service Manager and Key Staff Present:

- Ed Flowers, FFS Forester
- Duane Weis
- Rick Christman
- Tom Williams

2018 Land Management Review Team Report for Myakka State Forest

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1. Introduction

Section 259.036, F.S. requires a periodic on-site review of conservation and recreation lands titled in the name of the Board of Trustees to determine (1) whether the lands are being managed for the purposes for which they were acquired and (2) whether they are being managed in accordance with their land management plan adopted pursuant to s. 259.032, F.S. In case where the managed areas exceed 1,000 acres in size, such a review must be scheduled at least every five years. In conducting this review, a statutorily constructed review team “shall evaluate the extent to which the existing management plan provides sufficient protection to threatened or endangered species, unique or important natural or physical features, geological or hydrological functions or archaeological features. The review shall also evaluate the extent to which the land is being managed for the purposes for which it was acquired and the degree to which actual management practices, including public access, are in compliance with the adopted management plan.”

The land management review teams are coordinated by the Division of State Lands and consist of representatives from the Division of Recreation and Parks (DEP), the Florida Forest Service (DACS), the Fish and Wildlife Conservation Commission, the local government in which the property is located, the DEP District in which the parcel is located, the local soil and water conservation district or jurisdictional water management district, a conservation organization member, and a local private land manager.

Each Land Management Review Report is divided into three sections. Section 1 provides the details of the property being reviewed as well as the overall results of the report. Section 2 provides details of the Field Review, in which the Review Team inspects the results of management actions on the site. Section 3 provides details of the Land Management Plan Review, in which the team determines the extent to which the Management Plan provides for and documents adequate natural and recreational resource protection.

Finally, each report may also contain an Appendix that lists individual team member comments. This is a compilation of feedback, concerns or other thoughts raised by individual team members, but not necessarily indicative of the final consensus reached by the Land Management Review Team.

1.1. Property Reviewed in this Report

Name of Site: Myakka State Forest

Managed by: Department of Agriculture and Consumer Services Florida Forest Service

Acres: 8,592.79

County: Sarasota

Purpose(s) for Acquisition: to protect and restore the natural and cultural values of the property and provide the greatest benefit to the citizens of the state.

Acquisition Program(s): P2000/CARL

Original Acquisition Date: 10/13/95

Area Reviewed: Entire Property

Last Management Plan Approval Date: 12/10/10

Review Date: 1/12/18

Agency Manager and Key Staff Present:

- Clint Wardlow, Manager
- Duane Weis, FFS
- Eric Strickland, FFS
- Richard Christman, FFS

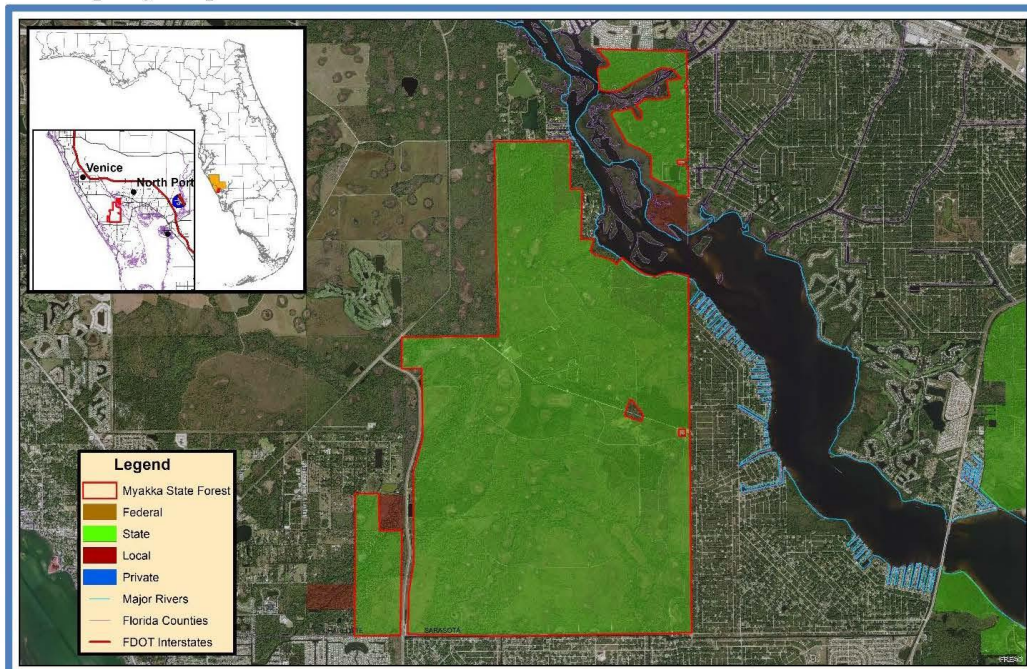
Review Team Members Present (voting)

- Alan Squires, Conservation Org.
- Chris Meyer, Local Government
- Duane Rawls, Private Land Manager
- Derrick Hudson, DEP District
- Bill Korn, FFS
- Chris Oliver, DRP District
- Jennifer Myers, FWC
- Water Management District, None

Other Non-Team Members Present (attending)

- James Parker, DEP/DSL
- Jane Wallace, Observer, FNPS
- Keith Singleton, DEP/DSL

1.2 Property Map



1.3. Overview of Land Management Review Results

Is the property managed for purposes that are compatible with conservation, preservation, or recreation?

Yes = 7, No = 0

Are the management practices, including public access, in compliance with the management plan?

Yes = 7, No = 0

Table 1 shows the average scores received for each applicable category of review. *Field Review* scores refer to the adequacy of management actions in the field, while *Management Plan Review* scores refer to adequacy of discussion of these topics in the management plan. Scores range from 1 to 5 with 5 signifying excellence. For a more detailed key to the scores, please see *Appendix A*.

Table 1: Results at a glance.

Major Land Management Categories	Field Review	Management Plan Review
Natural Communities / Forest Management	4.42	4.25
Prescribed Fire / Habitat Restoration	4.46	4.26
Hydrology	3.50	3.74
Imperiled Species	3.23	2.65
Exotic / Invasive Species	3.68	3.35
Cultural Resources	4.14	3.57
Public Access / Education / Law Enforcement	4.26	3.92
Infrastructure / Equipment / Staffing	3.81	N/A
Color Code (See Appendix A for detail)		
Excellent	Above Average	Below Average
		Poor

1.3.1 Consensus Commendations for the Managing Agency

The following commendations resulted from discussion and vote of the review team members:

1. The team commends the Florida Forest Service (FFS) for an excellent, ongoing prescribed burning program at this forest which has averaged nearly 90 percent of their annual burning goals. (7+, 0-)
2. The team commends the FFS for their strong relationship with the Southwest Florida Water Management District that has resulted in several significant wetland restoration projects that have benefited depression marsh communities. (7+, 0-)
3. The team commends the FFS for their past efforts to seek FWC funding to support an effective invasive plant treatment program, specifically as it relates to control of melaluca and cogon grass. (7+, 0-)

1.3.2. Consensus Recommendations to the Managing Agency

The following recommendations resulted from a discussion and vote of review team members. The next management plan update should include information about how these recommendations have been addressed:

1. The team recommends the FFS coordinate with FWC to identify the role of Myakka State Forest for imperiled wildlife species and identify actions needed to ensure the state forest fulfills its role in supporting imperiled wildlife. (7+, 0-)

Managing Agency Response:

FFS field staff will coordinate with state ecologist and FWC to identify the role of Myakka State Forest for imperiled wildlife species.

2. The team recommends the FFS incorporate more growing season prescribed fire into the burn program at Myakka State Forest. (7+, 0-)

Managing Agency Response:

FFS will continue to look for opportunities to conduct prescribed burns during the growing season where applicable.

3. The team recommends the FFS coordinate with FWC to assess treatment protocol and potential funding for control of para grass and torpedo grass. (7+, 0-)

Managing Agency Response:

FFS will continue to utilize a variety of funding sources to aggressively treat invasive species including implementing a treatment protocol for para grass and torpedo grass.

2. Field Review Details

2.1 Field Review Checklist Findings

The following items received high scores on the review team checklist, which indicates that management actions exceeded expectations.

1. Natural communities, specifically mesic flatwoods/wet flatwoods, depression marsh/wet prairie, scrub/scrubby flatwoods, mesic hammock, tidal creek/salt marsh
2. Natural resources survey/monitoring specifically fire effects monitoring, invasive species survey/monitoring.
3. Cultural resources, specifically cultural resource survey, and protection and preservation
4. Resource management (prescribed fire), specifically area being burned, frequency and quality.
5. Restoration, specifically Ditches/depression marsh, exotics/depression marsh
6. Forest Management, specifically timber inventory/assessment, timber harvesting, reforestation/afforestation, site preparation
7. Non-native, invasive, and problem species, specifically prevention and control of plants.
8. Hydrologic/Geologic function hydro-alteration, specifically roads/culverts, ditches, and hydro-period alteration.
9. Resource protection, specifically gates and fencing, signage and law enforcement presence.
10. Public access, specifically roads, parking, boat access,
11. Environmental education and outreach, specifically wildlife, interpretive facilities and signs, recreational opportunities, management of visitor impacts
12. Management resources, specifically waste disposal, buildings, equipment

2.2. Items Requiring Improvement Actions in the Field

The following items received low scores on the review team checklist, which indicates that management actions noted during the Field Review were not considered sufficient (less than 3.0 score on average). Please note that

overall good scores do not preclude specific recommendations by the review team requiring remediation. The management plan update should include information on how these items have been addressed:

1. **Listed species: Protection & Preservation, specifically scrub jay received below average scores. The review team is asked to evaluate, based on their perspective, whether management actions are sufficient for protection and preservation of the species**

Managing Agency Response:

FFS field staff will coordinate with state ecologist and FWC to determine the appropriate management approach for scrub jays on the Winchester Tract.

2. **Natural Resources Survey, specifically listed species or their habitat monitoring and other nongame species or their habitat monitoring, received below average scores. The review team is asked to evaluate, based on information provided by the managing agency, whether survey and monitoring of the resources or their habitats are sufficient.**

Managing Agency Response:

FFS will coordinate with state ecologist and FWC to develop an appropriate monitoring plan.

2.3. Field Review Checklist and Scores

Field Review Item	Reference #	Anonymous Team Members								Average
		1	2	3	4	5	6	7	8	
Natural Communities (I.A)										
Mesic Flatwoods/Wet Flatwoods	I.A.1	4	4	4	4	4	4	4		4.00
Depression Marsh/Wet Prairie	I.A.2	5	4	5	3	5	5	5		4.57
Scrub/Scrubby Flatwoods	I.A.3	5	3	x	4	5	5	5		4.50
Mesic Hammock	I.A.4	4	4	5	4	5	5	5		4.57
Tidal Creek/Salt Marsh	I.A.5	4	4		3	5	5	4		4.17
Natural Communities Average Score										4.36
Listed species: Protection & Preservation (I.B)										
Animals	I.B.1		4		4	3	3	3		3.40
Scrub Jay	I.B.1.b	3	4	2	2	3	3	3		2.86
Bald Eagle	I.B.1.c	4	4	4	2		3	4		3.50
Plants	I.B.2	3	4	4	2	2	4	3		3.14
Listed Species Average Score										3.23
Natural Resources Survey/Management Resources (I.C)										
Listed species or their habitat monitoring	I.C.2	2	4	2	3	1	3	2		2.43
Other non-game species or their habitat monitoring	I.C.3	2	4	3	3	2	3	3		2.86
Fire effects monitoring	I.C.4	4	5	5	3	3	5	4		4.14

Other habitat management effects monitoring	I.C.5	4	5	3	3	3	4	4		3.71
Invasive species survey / monitoring	I.C.6	4	5	3	3	4	5	4		4.00
Cultural Resources (Archeological & Historic sites) (II.A, II.B)										
Cultural Res. Survey	II.A	5	5	4	4	4	5	3		4.29
Protection and preservation	II.B	5	5	4	3	4	x	3		4.00
Cultural Resources Average Score										4.14
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	5	5	5	5	5	5	5		5.00
Frequency	III.A.2	5	4	5	5	4	5	5		4.71
Quality	III.A.3	4	5	5	5	5	5	5		4.86
Resource Management, Prescribed Fire Average Score										4.86
Restoration (III.B)										
Pastures	III.B.2	3	4	4	3	4	5	3		3.71
Ditches/Depression Marsh	III.B.3	3	4	5		4	5	5		4.33
Exotics/Depression Marsh	III.B.4	3	4	4	4	4	5	5		4.14
Restoration Average Score										4.06
Forest Management (III.C)										
Timber Inventory / Assessment	III.C.1	5	5	5	4	4	5	5		4.71
Timber Harvesting	III.C.2	5	5	4	3	4	x	5		4.33
Reforestation/Afforestation	III.C.3	5	5	5	4	4	5	5		4.71
Site Preparation	III.C.4	5	4	4	3	4	5	4		4.14
Forest Management Average Score										4.48
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.D.1. a	4	4	4		4	5	3		4.00
prevention - animals	III.D.1. b	3	4	4		3	4	3		3.50
prevention - pests/pathogens	III.D.1.c	2	4	x		3	5	3		3.40
Control										
control - plants	III.D.2. a	3	4	4	4	4	5	4		4.00
control - animals	III.D.2. b	4	5	4	3	4	4	3		3.86
control - pest/pathogens	III.D.2.c	2	5	x	3	3	4	3		3.33
Non-Native, Invasive & Problem Species Average Score										3.68
Hydrologic/Geologic function Hydro-Alteration (III.E.1)										
Roads/culverts	III.E.1. a	5	4	5	4	4	5	4		4.43
Ditches	III.E.1. b	5	5	4	4	4	5	4		4.43
Hydro-period Alteration	III.E.1.c	5	4	4	4	4	4	5		4.29
Hydrologic/Geologic function, Hydro-Alteration Average Score										4.38
Ground Water Monitoring (III.E.2)										
Ground water quality	III.E.2. a	x	x	x	x	3	x	3		3.00
Ground water quantity	III.E.2. b	x	x	x	x	3	x	3		3.00
Ground Water Monitoring Average Score										3.00
Surface Water Monitoring (III.E.3)										
Surface water quality	III.E.3. a	x	x	x	3	3	x	3		3.00

Surface water quantity	III.F.3. b	x	x	4	3	3	x	3		3.25
Surface Water Monitoring Average Score										3.13
Resource Protection (III.F)										
Boundary survey	III.F.1	4	5	3	3	4	4	4		3.86
Gates & fencing	III.F.2	5	5	4	2	4	5	5		4.29
Signage	III.F.3	5	5	5	3	4	5	5		4.57
Law enforcement presence	III.F.4	4	4	5	4	5	5	5		4.57
Resource Protection Average Score										4.32
Adjacent Property Concerns (III.G)										
Land Use										
Expanding development	III.G.1. a	4	4	3	3	2	x	4		3.33
Inholdings/additions	III.G.2	4	5	4	3	2	4	4		3.71
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Roads	IV.1. a	5	5	5	4	4	5	5		4.71
Parking	IV.1. b	5	5	4	4	4	5	5		4.57
Boat Access	IV.1.c	5	3	4	3	4	5	5		4.14
Environmental Education & Outreach										
Wildlife	IV.2. a	4	5	4	4	4	4	3		4.00
Invasive Species	IV.2. b	4	4	3	4	4	4	3		3.71
Habitat Management Activities	IV.2.c	4	4	4	4	4	4	3		3.86
Interpretive facilities and signs	IV.3	4	5	4	4	3	4	4		4.00
Recreational Opportunities	IV.4	4	5	5	4	4	4	5		4.43
Management of Visitor Impacts	IV.5	3	5	4	4	4	5	5		4.29
Public Access & Education Average Score										4.19
Management Resources (V.1, V.2, V.3, V.4)										
Maintenance										
Waste disposal	V.1.a	4	4	4	3	5	5			4.17
Sanitary facilities	V.1.b	4	4	4	3	4	4			3.83
Infrastructure										
Buildings	V.2.a	5	5	4	3	4	5			4.33
Equipment	V.2.b	5	5	4	3	4	4			4.17
Staff	V.3	5	4	2	3	2	3			3.17
Funding	V.4	4	4	2	3	3	3			3.17
Management Resources Average Score										3.81
Color Code: Excellent Above Average Below Average Poor Missing Vote Insufficient Information See Appendix A for detail										

3. Land Management Plan Review Details

3.1 Items Requiring Improvements in the Management Plan

The following items received low scores on the review team checklist, which indicates that the text noted in the Management Plan Review does not sufficiently address this issue (less than 3.0 score on average.). Please note

that overall good scores do not preclude specific recommendations by the review team requiring remediation. The next management plan update should address the checklist items identified below:

1. **Listed Species protection and preservation, specifically scrub jay, bald eagle, plants received a below average score. This is an indication that the management plan does not sufficiently address these listed species.**

Managing Agency Response:

FFS will better address listed species protection and preservation in the new management plan

2. **Non-native, Invasive & Problem Species, specifically control of pest/pathogens, received below average scores. This is an indication that the management plan does not sufficiently address control of invasive species.**

Managing Agency Response:

FFS will evaluate the management plan guidance regarding control of pest/pathogens and consider improvements understanding that the Myakka State Forest land management plan is not an operational plan

3.2 Management Plan Review Checklist and Scores

Plan Review Item	Reference #	Anonymous Team Members								Average
		1	2	3	4	5	6	7	8	
Natural Communities (I.A)										
Mesic Flatwoods/Wet Flatwoods	I.A.1	4	4	4	4	4	5	5		4.29
Depression Marsh/Wet Prairie	I.A.2	4	4	5	4	4	5	5		4.43
Scrub/Scrubby Flatwoods	I.A.3	4	4		4	4	4	5		4.17
Mesic Hammock	I.A.4	4	4	5	4	4	5	5		4.43
Tidal Creek/Salt Marsh	I.A.5	4	5	4	4	4	4	4		4.14
Natural Communities Average Score										4.29
Listed species: Protection & Preservation (I.B)										
Animals	I.B.1		5	3	3	2	2	3		3.00
Scrub Jay	I.B.1.b	3	4	2	2	2	2	2		2.43
Bald Eagle	I.B.1.c	3	4		2	1	2	3		2.50
Plants	I.B.2	3		3	2	2	4	2		2.67
Listed Species Average Score										2.65
Natural Resources Survey/Management Resources (I.C)										
Listed species or their habitat monitoring	I.C.2	4	4	2	3	2	4	3		3.14
Other non-game species or their habitat monitoring	I.C.3	4	4	3	3	2	4	3		3.29
Fire effects monitoring	I.C.4	4	4	4	3	3	4	3		3.57

Other habitat management effects monitoring	I.C.5	4	4	3	3	3	4	3		3.43
Invasive species survey / monitoring	I.C.6	4	4	3	3	3	4	2		3.29
Cultural Resources (Archeological & Historic sites) (II.A, II.B)										
Cultural Res. Survey	II.A	5	4	4	4	3	5	1		3.71
Protection and preservation	II.B	5	4	4	3	3	4	1		3.43
Cultural Resources Average Score										3.57
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	5	5	5	5	4	5	4		4.71
Frequency	III.A.2	5	4	5	5	4	5	4		4.57
Quality	III.A.3	5	5	4	5	4	5	4		4.57
Resource Management, Prescribed Fire Average Score										4.62
Restoration (III.B)										
Pastures	III.B.2	4	4	4	3	4	4	3		3.71
Ditches/Depression Marsh	III.B.3	4	4	5	4	4	4	3		4.00
Exotics/Depression Marsh	III.B.4	4	4			4	5	3		4.00
Restoration Average Score										3.90
Forest Management (III.C)										
Timber Inventory / Assessment	III.C.1	5	5	5	4	4	5	4		4.57
Timber Harvesting	III.C.2	4	4	4	3	4	4	4		3.86
Reforestation/Afforestation	III.C.3	4	5	4	4	4	5	4		4.29
Site Preparation	III.C.4	5	4	4	3	4	5	4		4.14
Forest Management Average Score										4.21
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention – plants	III.D.1. a	4	4	3	3	4	5	3		3.71
prevention – animals	III.D.1. b	4	4	3	3	3	4	3		3.43
prevention – pests/pathogens	III.D.1.c	2	4		3	3	4	2		3.00
Control										
control – plants	III.D.2. a	4	4	3	3	4	4	2		3.43
control – animals	III.D.2. b	4	5	3	3	4	4	3		3.71
control - pest/pathogens	III.D.2.c	2	4		3	3	3	2		2.83
Non-Native, Invasive & Problem Species Average Score										3.35
Hydrologic/Geologic function, Hydro-Alteration (III.E.1)										
Roads/culverts	III.E.1. a	4	4	4	4	4	4	4		4.00
Ditches	III.E.1. b	4	5	4	4	4	5	4		4.29
Hydro-period Alteration	III.E.1.c	4	4	4	4	4	4	4		4.00
Hydrologic/Geologic function, Hydro-Alteration Average Score										4.10
Ground Water Monitoring (III.E.2)										
Ground water quality	III.E.2. a		5		3	3	4	3		3.60
Ground water quantity	III.E.2. b		5		3	3	4	3		3.60
Ground Water Monitoring Average Score										3.60
Surface Water Monitoring (III.E.3)										
Surface water quality	III.E.3. a		4		3	3	4	3		3.40

Surface water quantity	III.E.3. b		5	4	3	3	4	3		3.67
Surface Water Monitoring Average Score										3.53
Resource Protection (III.F)										
Boundary survey	III.F.1	4	5	3	3	3	5	4		3.86
Gates & fencing	III.F.2	4	5	4	3	3	5	4		4.00
Signage	III.F.3	4	5	4	3	3	5	4		4.00
Law enforcement presence	III.F.4	5	4	4	3	3	5	3		3.86
Resource Protection Average Score										3.93
Adjacent Property Concerns (III.G)										
Land Use										
Expanding development	III.G.1. a	4	4	3	3	3	4	3		3.43
Inholdings/additions	III.G.2	4	4	4	3	3	5			3.83
Discussion of Potential Surplus Land Determination	III.G.3	4	5		3	2	3	3		3.33
Surplus Lands Identified?	III.G.4	5				4	5	3		4.25
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Roads	IV.1. a	5	5	4	3	3	5	4		4.14
Parking	IV.1. b	5	5	4	4	3	5	4		4.29
Boat Access	IV.1.c	3	3	4	3	3	5	4		3.57
Environmental Education & Outreach										
Wildlife	IV.2. a	4	4	4	3	3	4	4		3.71
Invasive Species	IV.2. b	4	4	3	3	3	4	4		3.57
Habitat Management Activities	IV.2.c	4	4	4	3	3	4	4		3.71
Interpretive facilities and signs	IV.3	4	5	4	3	3	4	4		3.86
Recreational Opportunities	IV.4	4	5	4	3	4	5	5		4.29
Management of Visitor Impacts	IV.5	3	5	4	3	3	5	5		4.00
Public Access & Education Average Score										3.90
Managed Area Uses (VI.A, VI.B)										
Existing Uses										
Hiking	VI.A.1	4	5	5	5	4	5	5		4.71
Bicycling	VI.A.2	3	5	4	5	4	5	4		4.29
Equestrian Use	VI.A.3	3		4	4	4	5	4		4.00
Fishing	VI.A.4	3	4	4	3	4	5	5		4.00
Apiaries	VI.A.5	2	4	2	5	4	5	4		3.71
Hunting	VI.A.6	2	4	2	4	4	5	4		3.57
Primitive Camping	VI.A.7	3	5	4	5	4	5	5		4.43
Geocaching	VI.A.8	4	5	4	3	4	5	4		4.14
Boating	VI.A.9	2	4	3	4	4	4	4		3.57
Kayak/Canoeing	VI.A.10	4		4	4	4	4	5		4.17
Proposed Uses										
Cattle Leasing (Winchester Tract)	VI.B.1	4	5	2		3	5	4		3.83

Color Code:

Excellent

Above
Average

Below
Average

Poor

Missing Vote

Insufficient
Information

See
Appendix A
for detail

Appendix A: Scoring System Detail

Explanation of Consensus Commendations:

Often, the exceptional condition of some of the property's attributes impress review team members. In those instances, team members are encouraged to offer positive feedback to the managing agency in the form of a commendation. The teams develop commendations generally by standard consensus processes or by majority vote if they cannot obtain a true consensus.

Explanation of Consensus Recommendations:

Subsection 259.036(2), F.S., specifically states that the managing entity shall consider the findings and recommendations of the land management review. We ask team members to provide general recommendations for improving the management or public access and use of the property. The teams discuss these recommendations and develop consensus recommendations as described above. We provide these recommendations to the managing agency to consider when finalizing the required ten-year management plan update. We encourage the manager to respond directly to these recommendations and include their responses in the final report when received in a timely manner.

Explanation of Field Review Checklist and Scores, and Management Plan Review Checklist and Scores:

We provide team members with a checklist to fill out during the evaluation workshop phase of the Land Management Review. The checklist is the uniform tool used to evaluate both the management actions and condition of the managed area, and the sufficiency of the management plan elements. During the evaluation workshop, team members individually provide scores on each issue on the checklist, from their individual perspective. Team members also base their evaluations on information provided by the managing agency staff as well as other team member discussions. Staff averages these scores to evaluate the overall conditions on the ground, and how the management plan addresses the issues. Team members must score each management issue 1 to 5: 1 being the management practices are clearly insufficient, and 5 being that the management practices are excellent. Members may choose to abstain if they have inadequate expertise or information to make a cardinal numeric choice, as indicated by an "X" on the checklist scores, or they may not provide a vote for other unknown reasons, as indicated by a blank. If a majority of members failed to vote on any issue, that issue is determined to be irrelevant to management of that property or it was inadequately reviewed by the team to make an intelligent choice. In either case staff eliminated the issue from the report to the manager.

Average scores are interpreted as follows:

Scores 4.0 to 5.0 are *Excellent*

Scores 3.0 to 3.99 are *Above Average*

Scores 2.0 to 2.99 are *Below Average*

Scores 1.0 to 1.99 are considered *Poor*

Exhibit T

Compliance with Local Comprehensive Plan
(Requested of counties after MPAG; Placeholder until letter
received from County)

FLORIDA FOREST SERVICE
(850) 681-5800



THE CONNER BUILDING
3125 CONNER BOULEVARD
TALLAHASSEE, FLORIDA 32399-1650

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
COMMISSIONER WILTON SIMPSON

February 20, 2023

Sarasota County Planning and Zoning
1660 Ringling Boulevard, 1st Floor
Sarasota, Florida 34236
(941) 861-5000
planner@scgov.net

To Whom It May Concern:

Greeting from the Florida Forest Service! Attached is a draft copy of the Ten-Year Land Management Plan and Exhibits for Myakka State Forest, prepared in accordance with Chapter 253.034, Florida Statutes. Please review the draft plan at your earliest convenience and reply as to whether the plan is consistent with Sarasota County's Comprehensive Plan.

Please address all correspondence concerning the Management Plan on official letterhead to the above mailing address or via email. I can be reached by telephone at (850) 681-5890 or by email at Brian.Camposano@FDACS.gov if you have any questions.

Thank you for assisting us in managing Myakka State Forest resources through a stewardship ethic to ensure they are available for future generations.

Sincerely,

Brian Camposano
Assistant Chief, Forest Management Bureau
Florida Forest Service

Exhibit U

State Forest Management Plan Advisory Group Summary

Management Plan Advisory Group Public Hearing
Myakka State Forest
10-Year Land Management Plan

February 2, 2023

10:30 A.M.

Meeting Minutes

MPAG Members Present:

- | | |
|------------------------------|---|
| • Duane Weis | Deputy Chief of Field Operations, Region IV, Florida Forest Service (FFS) |
| • Hunter Folmar | Florida Fish and Wildlife Conservation Commission (FWC; for Cason Pope) |
| • Todd Underhill | Sarasota County Soil & Water District |
| • Kathy Worley | Conservancy of Southwest Florida |
| • Jeremy Waters | Local Property Manager |
| • Commissioner Ron Cutsinger | Sarasota County Commissioner – District 5 |

MPAG Members Not Present:

- | | |
|----------------|--|
| • Cason Pope | Florida Fish and Wildlife Conservation Commission |
| • Chris Reed | Land Manager, Southwest Florida Water Management District (SWFWMD) |
| • Susanne Park | Local Property Manager |

FFS Staff:

- | | |
|-------------------|---|
| • Alan Davis | Land Planning Coordinator |
| • Brian Camposano | Forest Management Assistant Bureau Chief |
| • Eric Strickland | Myakka River District Forestry Resource Administrator |
| • Patrick Mahoney | Myakka River District Mitigation Specialist |

Guests:

- None

Public Meeting Start Time: 10:40 A.M. (Delayed 10 minutes)

- Land Planning Coordinator, Alan Davis opened the meeting by introducing himself and explained the purpose and statutory framework for the Myakka State Forest 10-Year Land Management Plan process. He explained that the Plan is not an annual work plan or detailed operational plan but provides general and conceptual guidance for management of Myakka State Forest (MSF) for the next 10-year period.
- Mr. Davis confirmed compliance with the Florida Sunshine Law advising MPAG members to not discuss the draft outside of the public meetings. He stated that the meetings are open to the public, recorded, and minutes taken.
- Mr. Davis stated both MPAG meetings are open to the public and proper notice was given. The meetings were advertised to the public in the Sarasota Herald Tribune on January 23, 2023; Florida Administrative Register, FFS webpage, as well as posted at the kiosks on MSF. The meetings were announced at the Sarasota County Board of County Commissioners meeting on January 10, 2023. He noted that the draft plan goes through various approvals before and after the MPAG meetings but that the FFS Director is granted final authority on changes to the draft plan. He described the day's two meetings: The first meeting is informational and provides opportunity for public comment; the 1:00 p.m. Workshop meeting provides opportunity for the MPAG members to discuss the public

input and to share their personal comments on the draft plan. The public is welcome to attend the Workshop, but participation is limited to MPAG members.

- Mr. Davis introduced Brian Camposano who explained the technical logistics and how to use the webinar tools to share comments.
- Mr. Davis then requested MPAG Member introductions and attendance was noted.
- Mr. Davis asked the advisory group to elect an MPAG chairperson. Duane Weis was elected to serve as chairperson at the impending workshop.
- Mr. Underhill asked if there would be a field evaluation component. Mr. Davis responded that it would not as the purpose of these meetings is to review the narrative of the plan and the exhibits.
- Mr. Davis reiterated the purpose of this meeting is to receive public input which would be discussed in the Workshop. He acknowledged the in-person location and asked the FFS administrators to apprise of any attendees. Patrick Mahoney stated that no attendees were present.
- Mr. Davis then introduced Forestry Resource Administrator Eric Strickland who presented the PowerPoint presentation of the 10-Year Plan.
- Mr. Davis then asked if there were any clarifying questions about the presentation.
- Mr. Underhill asked a question about how the invasive species acreages were calculated in the plan. Mr. Davis explained that this meeting was for the public to comment on the plan. But since there were no members of the public present, Mr. Davis asked if this would be OK to discuss at the second meeting for MPAG members. Mr. Underhill was agreeable to that plan.
- Mr. Davis asked again if there were any members of the public present at the in-person location. Mr. Mahoney responded there were none.
- Mr. Camposano then told Mr. Mahoney that he would likely have one MPAG member in-person at the afternoon meeting, Mr. Jeremy Waters, as he was unable to speak with us remotely during the first meeting.
- Mr. Davis then thanked everyone for participating and adjourned the public hearing portion of the meetings.

Public Meeting End Time: 11:09 A.M.

Management Plan Advisory Group Workshop Meeting

Myakka State Forest

10-Year Land Management Plan

February 2, 2023

1:00 P.M.

Meeting Minutes

MPAG Members Present:

- Duane Weis Deputy Chief of Field Operations, Region IV, Florida Forest Service (FFS)
- Hunter Folmar Florida Fish and Wildlife Conservation Commission (FWC; for Cason Pope)
- Todd Underhill Sarasota County Soil & Water District
- Kathy Worley Conservancy of Southwest Florida
- Jeremy Waters Local Property Manager
- Commissioner Ron Cutsinger Sarasota County Commissioner – District 5

MPAG Members Not Present:

- Cason Pope Florida Fish and Wildlife Conservation Commission
- Chris Reed Land Manager, Southwest Florida Water Management District (SWFWMD)
- Susanne Park Local Property Manager

FFS Staff:

- Alan Davis Land Planning Coordinator
- Brian Camposano Forest Management Assistant Bureau Chief
- Eric Strickland Myakka River District Forestry Resource Administrator
- Patrick Mahoney Myakka River District Mitigation Specialist

Guests:

- None

Workshop Meeting Start Time: 1:00 P.M.

- Land Planning Coordinator, Alan Davis introduced himself and opened the MSF MPAG Workshop by conducting an MPAG member sound check. He reminded the MPAG members of the Florida Sunshine law and that the purpose of the workshop is to review and discuss the draft and that any edits made to the draft would be presented to the FFS Director for approval. He noted that minutes will be emailed to the MPAG members and will be approved via negative response review. MPAG member appointment will terminate when the final draft is submitted to the Acquisition Restoration Council. He noted that the goal is place the draft plan on the June Acquisition and Restoration Council (ARC) for final approval. Forestry Resource Administrator Eric Strickland was available to make proposed changes to the draft during the page-by-page review.
- Mr. Davis stated that there were no comments from the public during the public hearing. Mr. Davis then asked if there were any members of the public at the in-person venue. No attendees were reported at the in-person venue.
- Mr. Davis stated that there were submitted comments that he would read before doing the page by page review. Comments were from the Southwest Florida Water Management District, since they were unable to attend. All three comments were complimentary in nature and will be appended to these minutes in the MSF plan.

- Mr. Davis asked if there were any questions or comments on the submitted comments by SWFWMD.
- Mr. Cutsinger had a question on pig removal. He asked for an update on hog hunts and what we do to control hogs. Mr. Weis responded that hunting hogs is allowed during all hunting seasons on MSF and seasons are managed by FWC. Mr. Weis also stated he could direct Mr. Cutsinger to more information on hunting seasons and hog control on MSF through the FWC website. Mr. Cutsinger also asked about deer hunting on the forest. Mr. Weis responded that deer hunting was not allowed due to the small resident population.
- Ms. Worley asked if dogs were allowed during hog hunting. Mr. Weis responded that there is no hunting with dogs allowed. Ms. Worley then agreed with one of the comments from SWFWMD on USDA hog control services. Mr. Camposano responded that FFS has looked into the USDA hog control program but have not been able to utilize their services to date, but will keep investigating. Mr. Camposano also stated that trapping is allowed by permit.
- Mr. Davis asked if there were any other questions or comments on the SWFWMD comments. Hearing none, Mr. Davis began the page by page review.
- Page 1 – Mr. Underhill had a question on the Archaeological/Historical portion of the Executive Summary, which state None Recorded. He pointed out that the plan stated there were 4 archaeological sites but the summary said none. Mr. Davis indicated we would fix the summary to include the 4 sites. Mr. Weis confirmed there were indeed 4 recorded sites.
- Page 1 – Mr. Cutsinger asked a question on the optimal management boundary. He wanted to know about any active efforts to acquire those parcels. Mr. Davis explained the acquisition process through Florida Forever and that the optimum management boundary is essentially a wish list. Private landowners must also be part of the Florida Forever program to sell property to the State. The FFS will reach out to property owners if we are made aware, but generally interested parties come to us with requests to buy their land and incorporate in the forest.
- Page 5 – Mr. Underhill asked a question on goals of the forest. Specifically he asked what our goals were in terms of forest species composition long term. Mr. Weis explained the forest was historically a mix of longleaf pine and south Florida slash pine and we try to mimic natural composition based on site characteristics. Mr. Underhill then asked about the proportion of longleaf pine on the property. Mr. Weis stated he believed about 20-30% of the forest was longleaf pine. Mr. Underhill stated that he thought it would be nice to see the volumes of tree species in future plans. Mr. Strickland stated that they are always looking for sites to re-establish longleaf pine. Mr. Camposano added that species volumes are dynamic and change throughout the 10 year period covered by this plan. He also stated that we can provide those numbers from our Forest Inventory and Sustainability System if there was additional curiosity.
- Ms. Worley made a comment that we should have a statement in the plan about being able to manage under adaptive and changing environmental conditions. Mr. Weis stated the purpose of the 10 year plan is to stay at a conceptual level. We have annual operating plans and mid-range 5-year plans which are updated annually. This allows for adaptive management more broadly under the 10 year plan. Mr. Camposano also mentioned that we can amend plans if any part of it becomes limiting during the 10 year period covered by the plan.
- Mr. Cutsinger had a question on recreation activities and public access. He wanted to know if we were planning to expand camping and other recreational activities. Mr. Weis mentioned that there were planned activities in the plan update which are expanding the recreational opportunities on the forest.
- Page 7 – Mr. Underhill asked about the non-native species management and control – specifically re-asking his question on calculating acreages of infestation. Mr. Camposano explained how the FFS calculated invasive acreage; basically the number of acres containing each specific species. Numbers are not additive on this list – meaning that if five species are found on any one acre, it will add one acre to each species on the list. Mr. Underhill asked a follow-up question on if there was a coyote issue on the forest. Mr. Weis stated that there was not really an issue with coyotes on the forest. Mr. Strickland confirmed this point of view. Mr. Underhill then made a comment on Goal 6 and stated his wishes for interpretive displays/signage about conservation practices for cultural and historical resource management. Mr. Camposano responded that he believed this would fit better under the recreation section of the plan, as it covers public education. He suggested putting a sentence in the recreation section later in the plan. Mr. Underhill then asked about apiary use. Mr. Weis explained that individuals are allowed to lease sites on the forest. Mr. Underhill stated he did not see that mentioned in the plan. Mr. Camposano indicated that under “revenue

producing activities” it is listed as an opportunity on the forest. He also mentioned we have to follow all the Best Management Practices for apiaries, and because of this, apiaries are by lease only to ensure those practices are followed.

- Ms. Worley asked a question on Goal 5 – non-native species control. Specifically if we had the funding sources available to keep up with treatments for plant and animal removal. Mr. Weis stated that MSF pursues every opportunity they can, which includes the FWC herbicide bank, FWC grants, and internal FFS funding. Mr. Camposano stated that there is legislatively appropriated funding that is designated for invasive treatments every year.
- Page 9 – Mr. Folmar asked us to add Orange Hammock WMA to the table. Mr. Weis agreed and it was added to the table.
- Page 11 – Ms. Worley asked about the revenue producing activities and suggested a plan change to add in that revenue producing activities would not adversely impact ecological integrity (as well as resource management). The group was in consensus and the suggested change was added.
- Page 12 – Mr. Folmar asked if we were currently allowing palmetto berry harvest or if it was just in the plan should we want to resume selling berries. Mr. Camposano stated that palmetto berry harvesting was not in place on any forest currently, but that we wanted to reserve the ability to be able to sell them again should conditions allow.
- Page 15 – Ms. Worley had a question on what we mean by “minimize” under Utility Corridors and Easements. Specifically what we mean by “minimize damage”. Mr. Camposano explained that we always will prefer disturbed habitat and to stay away from undisturbed areas or sensitive populations when faced with a linear easement request. He also explained we prefer to collocate utilities on the same corridor except where that corridor would become so large that maintaining a single large corridor is more detrimental than maintaining more than one corridor of smaller scales.
- Page 17 – Ms. Worley asked about a statement under “Past Uses” that indicated there are still roads visible today from uses prior to state acquisition. Specifically if there were any hydrological issues due to these roads. Mr. Weis responded that most roads are at grade and are not highly improved and therefore do not negatively impact hydrology.
- Page 20 – Ms. Worley asked about the statement that said some freshwater wetlands were ditched to improve drainage. Mr. Weis responded that it was a statement about what was done in the past and that we are trying to restore sites with ditches as opposed to adding new ditches. Ms. Worley then asked if we had an established baseline for water quality and suggested that if we do not, that we get one. It will allow FFS to refuse water with excessive nutrients and not act as a stormwater retention pond. Mr. Davis stated that we add the OFW language to the plan straight from FDEP, but we will look into the baseline for water quality. Ms. Worley asked if we had any regular water quality testing. Mr. Davis responded that we rely on the WMDs for water quality testing as our cooperator.
- Page 25 – Ms. Worley asked if FWC did monitoring for any of our listed species or game species or even invasive species. Mr. Weis responded that he was not aware of any monitoring going on by FWC. He also stated Sarasota County used to monitor scrub jays. Mr. Weis also stated that FWC is very receptive any time we ask them for help on surveys. Mr. Camposano then added that FWC always monitors game species populations. Further, Florida Natural Areas Inventory (FNAI) surveyed the forest for natural communities, threatened and endangered species, and invasive species. He also mentioned that researchers will ask to do studies on the forest and that for any studies we approve, the researchers must provide a report upon completion – which furthers our knowledge.
- Page 27 – Mr. Underhill asked a question about the Gopher Tortoise Recipient Site Feasibility Assessment, which appears to lack information. Mr. Camposano explained the statute change this year and that he still needed to insert language into this plan. He went on to explain that MSF was not likely to be offered as a recipient site due to wet soils across most of the forest. However, that final determination will be made before the plan goes to ARC.
- Mr. Weis asked Mr. Strickland to correct the acronym in the gopher tortoise placeholder – as it indicated a different forest.
- Mr. Folmar asked if FNAI did a rare plant survey with their natural community mapping on the forest. Mr. Camposano mentioned that while they are not doing transects for rare plants, they provide locations for any rare and/or threatened or endangered species encountered during their mapping of the forest.

- Page 29 – Mr. Cutsinger asked about recreation opportunities on the forest. Specifically he asked about what activities were currently available versus activities proposed during this 10 year period. Mr. Davis indicated that what was listed on the bottom of page 29 is what activities and amenities are currently available on the forest. Mr. Cutsinger then asked if there was any data on forest usage (e.g., number of visitors). Mr. Weis indicated we do have that data and suggested to Mr. Cutsinger that he set up a forest tour with Mr. Strickland to better put things in perspective. Mr. Strickland commented on the various activities he sees regularly on the forest.
- Ms. Worley asked about the carrying capacity of the forest – specifically if we knew that number or conducted a study to inform that number. Mr. Camposano stated that we do not have a study on the number of people the forest can hold at any one time. However, he also indicated that every time we add new recreational infrastructure to the forest, we look at how much traffic that may bring to the forest, as well as whether there will be positive, negative, or neutral impacts to resources. Mr. Camposano also briefly explained the FFS methods for tracking visitation and that the FFS does not believe we have met or exceeded the carrying capacity.
- Page 31 – Mr. Cutsinger asked about the RV camping on the forest and asked to expand on that. Mr. Weis explained that the RV camping area is being upgraded presently. The bathhouse site is almost complete in terms of site work, and the bathroom itself is currently being procured. The current 10 sites are planned to be upgraded to full facility after the bathhouse is complete.
- Mr. Underhill suggested adding cultural and historical education to the environmental education section. The group agreed and language was added to both the heading and the text following to combine environmental education along with cultural and historical education.
- Ms. Worley asked what we meant by a central septic dump station in the campground. Mr. Weis explained that the dump stations are parts of RV campgrounds. He further clarified that this is only a holding tank that must be pumped regularly and does not have an actual drain field.
- Page 36 – Mr. Underhill had a question why cattle grazing was listed under sustainable forestry and silviculture and if there was a prospect to do this on MSF. Mr. Weis explained that it has been considered but that there are not really any suitable sites on the forest and as we have planted pines in more pastures, available space for cattle grazing becomes less and less. Mr. Camposano added that cattle grazing is sometimes used during a timber stand's life cycle as there are times when the stand is not yet old enough to sell timber and allowing cattle grazing provides a revenue source and helps control the competing vegetation.
- Page 38 – Ms. Worley asked about the process to allow the mosquito control district to spray/treat on the forest. And Mr. Cutsinger also asked for clarification on requesting for treatment during times of high levels of mosquitos. Mr. Camposano explained the process for the mosquito control district to submit a treatment plan for approval by FDACS. He made a point to mention that aerial adulticiding is not a standard practice but would be permissible under executive order for a public health emergency.
- Page 40 – Ms. Worley asked about the statement at the top of page 40 defining restoration by soil type and suggested that basing on hydrology might be better. Mr. Camposano responded that this refers primarily to the pine species for reforestation. However, holistically, the FFS manages toward the species composition of the identified natural community.
- Page 44 – Mr. Cutsinger asked if there was a local Friends group for MSF to assist on invasive control. Mr. Weis responded that there were no forest specific Friends groups except the statewide Friends group. FFS otherwise deals with invasives through staffing, contracting, herbicide bank, grant, and internal funding. There are no formal groups that remove invasives on MSF, but volunteers would be permitted to help remove invasives should the desire arise.
- Mr. Davis asked if there were any questions or comments on the exhibits. Mr. Folmar asked to add Orange Hammock WMA to Exhibit F to be consistent with the plan.
- Ms. Worley asked for an explanation of the chart in Exhibit S (2018 LMR Results), specifically on page 4. Mr. Camposano explained how the LMR team anonymously ranks each item on the LMR checklist. At Ms. Worley's request, Mr. Camposano further explained the below-average ranking for the scrub jay on MSF and how the FFS has worked to address the concerns from the LMR.

- Mr. Davis then asked each MPAG member to comment on the draft plan. All present MPAG members commented positively.
- Mr. Davis thanked everyone for their time and participation and adjourned the meeting.

Workshop Meeting End Time: 2:54 P.M.

MYAKKA STATE FOREST Ten-Year Land Management Plan

Plan Review comments from Southwest Florida Water Management District (SWFWMD), February 1, 2023

Prescribed Fire: The Myakka State Forest's (MSF) fire management practices, such as firebreaks and firelines has been a consistent and positive aspect of the Florida Forest Service's (FFS) fire management program and application on the property. The applied fire return intervals for various observed vegetative communities is constant and shows relatively positive ecological results. This is a positive aspect of the property.

Non-Native Invasive Species Control: Overall the direction of and application of invasive plant management practices appear to be effective. Along the entire Myakka River system within Sarasota County, Brazilian pepper (*Schinus terebinthifolius*) is a consistent problem. FFS management staff has done a good job in this species control. Continual effort to maintain vegetative control of this species is increasing has increase urban activities upstream benefit this species proration. It is suggested that the entire Brazilian pepper occurrence areas be surveyed and treated every year.

Non-Native Invasive Species Control: Within the Plan, it is indicted that 1,029 feral hogs have been removed from the MSF. This has been accomplished through a mixed species control approach, using trapping and species harvesting during small game hunting. The only way to attempt to maintain a reasonable population occurrence on a property, due to the species' curvilinear reproductive characteristic, is apply a more aggressive feral hog control approach, using multiple harvest techniques. The FFS should give consideration to employing additional pig harvest methods provided by the USDA Wildlife Services. These services are currently being used in Sarasota county and on adjacent conservation lands and private agricultural properties at an economic and viable cost. The cost of feral hogs' natural system impairments and habitat ecological restoration greatly outweighs the cost of additional species harvest measures.

Exhibit V

MSF Summary Budget

	MYAKKA STATE FOREST MGT. ONLY 21-22 EXPENDITURES	Percentages Based on Total Dollar Amount of Expenditures	Assessed Needed Funding Based Upon LMUAC Resource Management
Resource Management	\$ 14,320	26.30%	\$ 42,507.17
Exotic Species Control	\$ 1,226	3.34%	\$ 5,400.07
Prescribed Burning	\$ 6,043	3.74%	\$ 6,043.36
Cultural Resources Management	\$ 49	0.13%	\$ 214.97
Timber Management	\$ 3,292	8.97%	\$ 14,503.09
Hydrological Management	\$ 258	0.70%	\$ 1,137.88
	\$ -		\$ -
OTHER RESOURCE MANAGEMENT	\$ 3,452	9.41%	\$ 15,207.80
Listed Species Management	\$ -		\$ -
Forest Pest and Disease	\$ -		\$ -
Plant Conservation Program	\$ -		\$ -
State Forest Research Projects	\$ -		\$ -
Boundary Surveys for State Forests	\$ -		\$ -
Other Activities Also Include:	\$ -		\$ -
Liaison Community Meetings / Boundary Line Maintenance / Forest Inventories and Various Other Activities / Wildfire Suppression on State Forests			
			\$ -
Administration	\$ 2,457	6.70%	\$ 10,826.00
Central Office Headquarters	\$ 2,457	6.70%	\$ 10,826.00
District/Regions	\$ -		\$ -
Units/Projects	\$ -		\$ -
	\$ -		\$ -
Support	\$ 12,441	33.91%	\$ 54,812.09
Land Management Planning	\$ 712	1.94%	\$ 3,135.63
Land Management Reviews	\$ 68	0.19%	\$ 300.63
Training/Staff Development	\$ 3,123	8.51%	\$ 13,759.59
Vehicle Purchase	\$ 147	0.40%	\$ 649.75
Vehicle Operations and Maintenance	\$ 6,234	16.99%	\$ 27,464.23
	\$ -		\$ -
OTHER SUPPORT	\$ 2,157	5.88%	\$ 9,502.25
State Forest Land Acquisition Support			\$ -
Other Support Activities Also Include:	\$ -		\$ -
Computer Maintenance / Radio Maintenance / Technical Support / Management of Apiary and Cattle Leases / State Forest Leases, Lease Amendments, Easements and Other Various Activities	\$ -		\$ -
			\$ -
Capital Improvements	\$ 7,555	20.59%	\$ 33,284.54
New Facility Construction	\$ 1,581	4.31%	\$ 6,964.65
Facility Maintenance	\$ 5,974	16.28%	\$ 26,319.89
			\$ -
Visitor Services/Recreation	\$ 4,586	12.50%	\$ 20,203.80
Information/Education	\$ 966	2.63%	\$ 4,257.34
Operations	\$ 3,619	9.87%	\$ 15,946.45
			\$ -
Law Enforcement	\$ -	0.00%	\$ -
Total	\$ 36,686.56	100.00%	\$161,630.38

Exhibit W

Arthropod Control Plan Sarasota County, Florida



Florida Department of Agriculture and Consumer Services
Division of Agricultural Environmental Services

ARTHROPOD MANAGEMENT PLAN - PUBLIC LANDS

NICOLE "NIKKI" FRIED
COMMISSIONER

Section 388.4111, F.S.
Telephone: (850) 617-7997

For use in documenting an Arthropod Control Plan for lands designated by the State of Florida or any political subdivision thereof as being environmentally sensitive and biologically highly productive therein. Fill this form out if control work is necessary or planned.

Name of Designated Land:

Myakka State Forest

Is Control Work Necessary: * Yes ☐ No

Location:

Sarasota County – 2000 S. River Rd, Englewood FL, 34223

Land Management Agency:

Florida Forest Service, Myakka River District

Are Arthropod Surveillance Activities Necessary? * Yes No
If "Yes", please explain:

The area is highly productive for several species of mosquitoes, particularly *Aedes taeniorhynchus*, *Mansonia dyari*, *Mansonia titillans*, *Culex nigripalpus*, and *Psorophora columbiae*. The arthropod surveillance will be conducted on citizen property adjacent to Myakka State Forest.

Which Surveillance Techniques Are Proposed?
Please Check All That Apply:

* Landing Rate Counts	* Light Traps	☐ Sentinel Chickens
* Citizen Complaints	Larval Dips	Other

If "Other", please explain:

These surveillance techniques would be conducted on citizens property adjacent to the state forest.

Arthropod Species for Which Control is Proposed:

The area is highly productive for several species of mosquitoes, particularly *Aedes taeniorhynchus*, *Mansonia dyari*, *Mansonia titillans*, *Culex nigripalpus*, and *Psorophora columbiae*.

Proposed Larval Control:

None on state forest land.

Proposed larval monitoring procedure:

Are post treatment counts being obtained: Yes ☐ No

Biological Control of Larvae:

Might predacious fish be stocked: ☐ Yes * No

Other biological controls that might be used:

Material to be Used for Larvaciding Applications:

(Please Check All That Apply:)

☐ Bti

☐ Bs

☐ Methoprene

☐ Non-Petroleum Surface Film

☐ Other, please specify:

Please specify the following for each larvacide:

Chemical or Common name: (Trade names:)

☐ Ground ☐ Aerial

Rate of application:

Method of application:

Proposed Adult Mosquito Control:

Aerial adulticiding *Yes ☐ No

Ground adulticiding ☐ Yes * No

Please specify the following for each adulticide: **N/A**

Chemical name: 10% Sumithrin and 10% Piperonyl Butoxide

Common name: **Anvil 10X10**

Rate of application: **0.62 fl. oz/ acre**

Method of application: **Fixed wing aerial application, ULV fan**

Please specify the following for each adulticide: **N/A**

Chemical: Naled

Common name: **Dibrom**

Rate of application: **0.6 fl. oz/ acre**

Method of application: **Fixed wing aerial application, ULV fan. Applications will only occur after sunset.**

Proposed Modifications for Public Health Emergency Control: Arthropod control agency may request special exception to this plan during a threat to public or animal health declared by State Health Officer or Commissioner of Agriculture.

Should a Mosquito-Borne Illness Advisory or Alert be issued by the Department of Health, aerial applications of the previously listed adulticides could be conducted. However, no expansion of adulticide applications will be made without first consulting with the relevant Land Management personnel.

Proposed Notification Procedure for Control Activities:

Any Control Activity on the State forest property will require approval from the relevant Land Management personnel. The Land Management personnel will respond to mosquito management request within 2 days due to the emergency nature of the request. Land manger contact information Eric Strickland, (941)-213-6983, Eric.Strickland@fdacs.gov or his referred contact.

Records:

Are records being kept in accordance with Chapter 388, F.S.:

* Yes ☐ No

Records Location:

Sarasota County Mosquito Control District, 5531 Pinkney Ave, Sarasota, FL 34233

How long are records maintained:

Minimum of 5 years

Vegetation Modification:

What trimming or altering of vegetation to conduct surveillance or treatment is proposed?

NONE

Proposed Land Modifications:

Is any land modification, i.e., rotary ditching, proposed:

NO

Include proposed operational schedules for water fluctuations:

N/A

List any periodic restrictions, as applicable, for example peak fish spawning times.

N/A

Proposed Modification of Aquatic Vegetation:

N/A

Land Manager Comments:

Arthropod Control Agency Comments:

This area of Sarasota county is a challenging area for mosquito management. It has some of the highest populations of mosquitoes in the county and a small area of private land where citizens reside between the Myakka river and Myakka State Forest. We do monitor the mosquito population and larvicide the private residence land to manage the mosquito population, but during the summer months larvicides alone can't manage the mosquito population and risk of mosquito viruses to humans. We would put a preference on use of Anvil for this area, a synthetic pyrethroid which mimics pyrethrums found in chrysanthemum flowers, should a Mosquito-Borne Illness Advisory or Alert be issued by the Department of Health. We would then use Dibrom only for an occasional rotation of pesticides to make sure we don't develop resistance to the preferred pesticide or if the mosquitoes at that location are found to be resistant to Anvil.


Signature of Lands Manager or Representative 9/23/2021
Date


Signature of Mosquito Control Director / Manager 9-23-21
Date

Exhibit X

Barrow Pit Restoration Project



Barrow Pit Restoration Project Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum

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Managed Area boundaries are courtesy of the Florida Natural Areas Inventory. Formally used as Defense Areas (DURDs) from the US Army Corps of Engineers.



LEGEND

 Myakka state Forest

 Barrow Pit



Map Month/Year: December 2020

Category	Visitors
People who visited the park	250
People who did not visit the park	125
People who visited the park and did not visit the park	125
People who did not visit the park and did not visit the park	0

Exhibit Y

Hydrologic Restoration Project

ENVIRONMENTAL ASSESSMENT

FOR

MYAKKA STATE FOREST WATER QUALITY AND BANK STABILIZATION PROJECT

Sarasota and Charlotte Counties, Florida



July 2017

1.0 INTRODUCTION

This REPORT is to assist the Southwest Florida Water Management District (DISTRICT) with the design, plans preparation and permitting of the Myakka State Forest Water Quality and Bank Stabilization (PROJECT) at the southeastern corner of DISTRICT'S Myakka State Forest property. The PROJECT consists of water quality and flood improvements on the north side of Foresman Boulevard, installation of a low water crossing on a trail road to protect and preserve an existing natural wetland, [surface water outfall improvements for the existing wetland upstream of the trail](#) and approximately 650 linear feet of stream/flow-way restoration, to prevent sedimentation into Newgate and Lafitte Waterways, which flows into Oyster Creek and to Lemon Bay.

The PROJECT will result in an environmental net benefit and will focus on recovering the functions of water storage and conveyance in an impacted stream and drainage swale, and recapturing the benefits of water quality and wildlife habitat formerly provided by the impacted system in its undisturbed state.

The property is currently managed as a recreational facility by the Department of Agriculture and Consumer Services Division of Forestry. The PROJECT is located in Section 36, Township 40 South, Range 20 East, Sarasota County, Florida. **Figure 1-1**

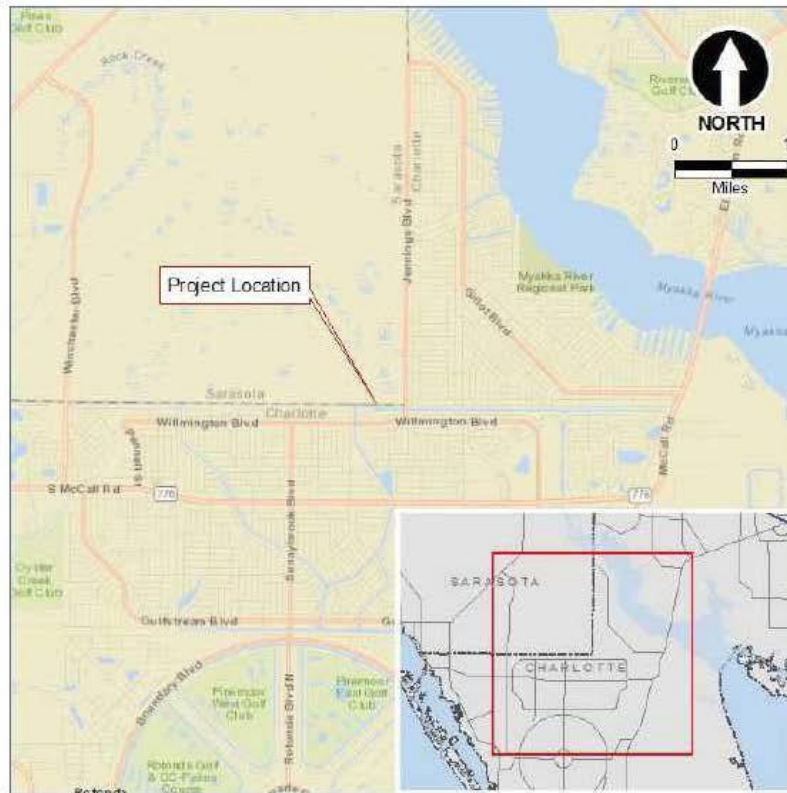


Figure 1-1

2.0 PRELIMINARY DATA COLLECTION

2.1 EXISTING AND HISTORICAL AERIALS

Historical aerial photographs were reviewed as part of the Scope to develop a history of the previous land uses and vegetative communities within the PROJECT and to identify any areas of potential restoration. Historic aerial photographs were obtained from the FDOT Aerial Photograph Look Up System (APLUS) for the years 1969, 1975, 1985, 1995, 2005, and 2014, which are provided in Appendix A.

2.1.1 1969 Aerial Photograph

Jennings Blvd. and a portion of Foresman Blvd. are visible to the east of the PROJECT. The location of the Sarasota/Charlotte County line appears to be delineated by a ditch or trail. The land appears predominately in its natural vegetative communities, freshwater marshes interconnected in a broad flat flow-ways fringed by hydric and upland forests.



Figure 2-1



Figure 2-2

2.1.2 1975 Aerial Photograph

Foresman Blvd. appears newly constructed within the PROJECT. The canal that parallels the Sarasota/Charlotte County line appears newly constructed. The trail extends north from Foresome Blvd is visible. Areas of disturbance are visible extending from the trail into the wetlands to either side. Broad areas of clearing also extend from Foresman and from the trail. The remainder of the project are appears undisturbed and undeveloped.

2.1.3 1985 Aerial Photograph

Little change appears from the 1975 photograph. Increased vegetation along the canal and previously disturbed areas. A residence is visible at the western end of Foresman Blvd. The remainder of the project are appears undisturbed and undeveloped.

2.1.4 1995 Aerial Photograph

Little change appears from the 1985 photograph. Increased vegetation along the canal and previously disturbed areas. A second residence is visible on Foresman Blvd. The remainder of the project are appears undisturbed and undeveloped.

2.1.5 2005 Aerial Photograph

Little change appears from the 1995 photograph. A third residence is visible on Foresman Blvd. A fence is visible along the Myakka State Forest boundaries. The remainder of the project are appears undisturbed and undeveloped.

2.1.6 2015 Aerial Photograph

The drainage "cut" is visible extending from the wetland northeast of the trail thru the wetland southwest.

2.2 LAND USE

Land use was reviewed for the project and areas adjacent to the project. Residential, low-density land is located east and south of the project. Within the project area, the predominate land use/land cover is wet prairie and pine flatwoods. **Figure 2-1** depicts the 2011 SWFWMD land use and land cover classifications within the proposed project's footprint. **Figure 2-2** depicts the 2014 NWI wetland classifications within the proposed project's footprint.

PFO4/SS3Ad-Freshwater Forested/Shrub Wetland

Palustrine, Forested, Needle-leaved evergreen/Scrub-shrub, Broad-leaved evergreen, Temporarily flooded, Partially drained/ditched Wetland

PEM1/SS1Cd-Freshwater Emergent/Shrub Wetland

Palustrine, Emergent, Persistent/Scrub-shrub, Broad-leaved deciduous, Seasonally flooded, Partially ditched/draind Wetland

PEM1Ad-Freshwater Emergent Wetland

Palustrine, Emergent, Persistent/Scrub-shrub, Broad-leaved deciduous, Temporarily flooded, Partially ditched/draind Wetland

PSS1Cd-Freshwater Emergent/Shrub Wetland

Palustrine, Scrub-shrub, Broad-leaved deciduous, Seasonally flooded, Partially ditched/draind Wetland

2.3 LISTED SPECIES

The Endangered Species Act (ESA) of 1973, as amended, federally protects endangered and threatened species throughout their range, and the ecosystems they rely on for survival. The U.S. Fish and Wildlife Service (USFWS) determines which species are in need of federal protection under the ESA. The Florida Fish and Wildlife Conservation Commission (FWC) maintains the state list of animals designated as Federally-designated Endangered or Threatened, State-designated Threatened or State-designated Species of Special Concern, in accordance with Rules 68A-27.003, and 68A27.005, respectively, Florida Administrative Code (FAC). The State lists of plants, which are designated Endangered, Threatened, and Commercially Exploited, are administered and maintained by the Florida Department of Agriculture and Consumer Services (DOACS) via Chapter 5B-40, FAC.

The project area was evaluated for potential occurrences of federal- and state-listed protected plant and animal species. The evaluation included literature review database searches, and field assessments of the project area to identify the potential occurrences of protected species and/or presence of federal-designated critical habitat.

Field evaluation of the project area was conducted by project biologist on July 6, 2017.

Based on the evaluation of the collected data and field reviews, the federal- and state-listed species discussed below were observed as having the potential to occur within or adjacent to the project area.

Federal Protected

4110 Pine Flatwoods



The pine flatwoods class is dominated by slash pine. The common flatwoods understory species include saw palmetto, wax myrtle, gallberry and a wide variety of herbs and brush.

6430 Wet Prairie



The wet prairie classification is composed predominately of grassy vegetation on hydric soils and is usually distinguished from marshes by having less water and shorter herbage. These communities will be predominated by one or more of the following species; sawgrass, maidencane, cordgrass, spike rushes, beach rushes, St. Johns wort, spiderlily, swamplily, yellow-eyed grass and whitetop sedge.

The **eastern indigo snake** (*Drymarchon corais couperi*) is listed as threatened by the USFWS. No eastern indigo snakes were observed during field surveys. However, because areas of suitable habitat for this species occur adjacent to the project area, eastern indigo snake presence in the project area is possible. The owner will commit to implementing the USFWS Standard Protection Measures for the Eastern Indigo Snake.

The **wood stork** (*Mycteria americana*) is listed as endangered by the USFWS. The project area is located within the core foraging area (CFA) of five wood stork colonies. No wood storks were observed during field reviews the project area. Wetland impacts will be mitigated on-site.

State Protected

The **gopher tortoise** (*Gopherus polyphemus*) is listed as threatened by the FWC. Several gopher tortoise burrows were observed during the field review, suitable habitat is limited to the areas of spoil located along the northern edge of the canal and Foresman Blvd.

The **bald eagle** (*Haliaeetus leucocephalus*) is listed as threatened by the FWC. No nests were observed within the project area. A documented nest is located approximately 2.5 miles north of the project.

The **Florida sandhill crane** (*Grus Canadensis pratensis*) is listed as threatened by the FWC. No nests were observed within the project area, however, suitable habitat for nesting and foraging is present within the project area.

The **limpkin** (*Aramus guarauna*), **little blue heron** (*Egretta caerulea*), **reddish egret** (*Egretta rufescens*), **snowy egret** (*Egretta thula*), **tricolored heron** (*Egretta tricolor*), **white ibis** (*Eudocimus albus*), and **roseate spoonbill** (*Platalea ajaia*) are listed as species of special concern by the FWC. No nests were observed within the project area, however, suitable habitat for nesting and foraging is present within the project area.

The **Florida scrub-jay** (*Aphelocoma coerulescens*), **black skimmer** (*Rynchops niger*), **brown pelican** (*Pelecanus occidentalis*), **burrowing owl** (*Athene cunicularia*), and **American oystercatcher** (*Haematopus palliatus*) are listed as species of special concern by the FWC. These species was not observed during field reviews and their preferred nesting habitat is not present within the project area.

3.0 PERMITTING

The Southwest Florida Water Management District (SWFWMD) and U.S. Army Corps of Engineers (USACE) regulate works or other activities in, on or over wetlands and/or other surface waters within the project study area and will issue permits for this project. Other agencies, including the U.S. Fish and Wildlife Service (USFWS), the Florida Department of Environmental Protection (FDEP), and the Florida Fish and Wildlife Conservation Commission (FWC) review and comment on wetland permitting and potential affects to listed wildlife species.

AIM will prepare permit applications and pursue approval for the proposed restoration improvements. An AIM scientist will assist in preparing certain specific permit applications for the proposed restoration PROJECT. AIM will prepare the required application forms and supporting documents to submit the following anticipated regulatory permit applications:

- Florida Department of Environmental Protection (FDEP) Environmental Resource Permit for Restoration
- U.S. Army Corps of Engineer (USACE) Nationwide 27 Permit
- Sarasota County approval for restoration work as an exemption for maintenance activity
- Charlotte County approval for restoration work as an exemption for maintenance activity

CONSULTANT will also perform Request for Additional Information (RAI) coordination, and prepare responses to the above regulatory agencies regarding items submitted in the Applications. An AIM scientist will assist in RAI coordination and prepare responses regarding items submitted in the applications with FDEP, USACE, and other commenting agencies.

3.1 EVALUATION OF DESIGN

TBD

3.2 WETLAND IMPACTS/MITIGATION

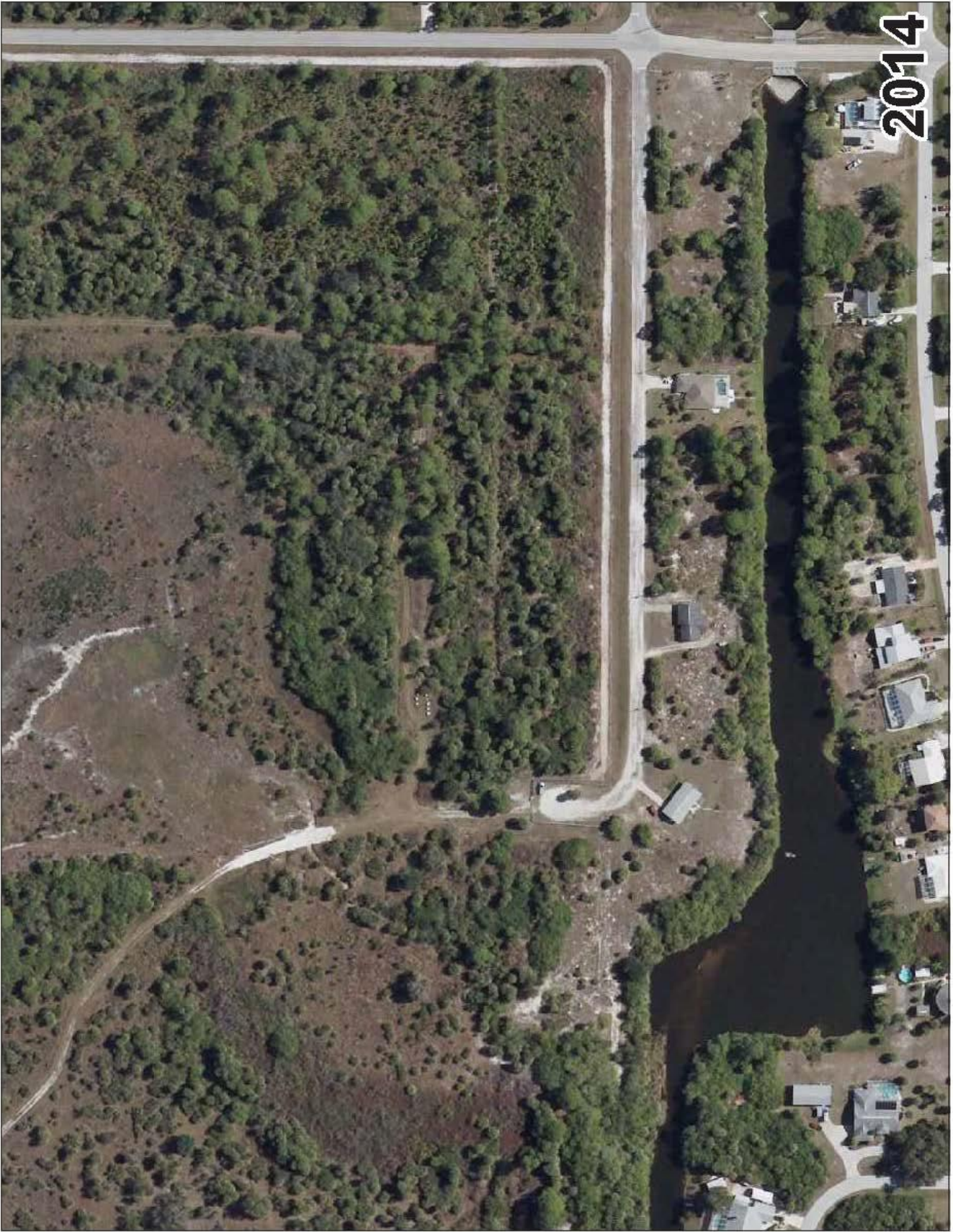
TBD

4.0 CONCLUSIONS, COMMITMENTS, AND RECOMMENDATIONS

TBD



2005



2014



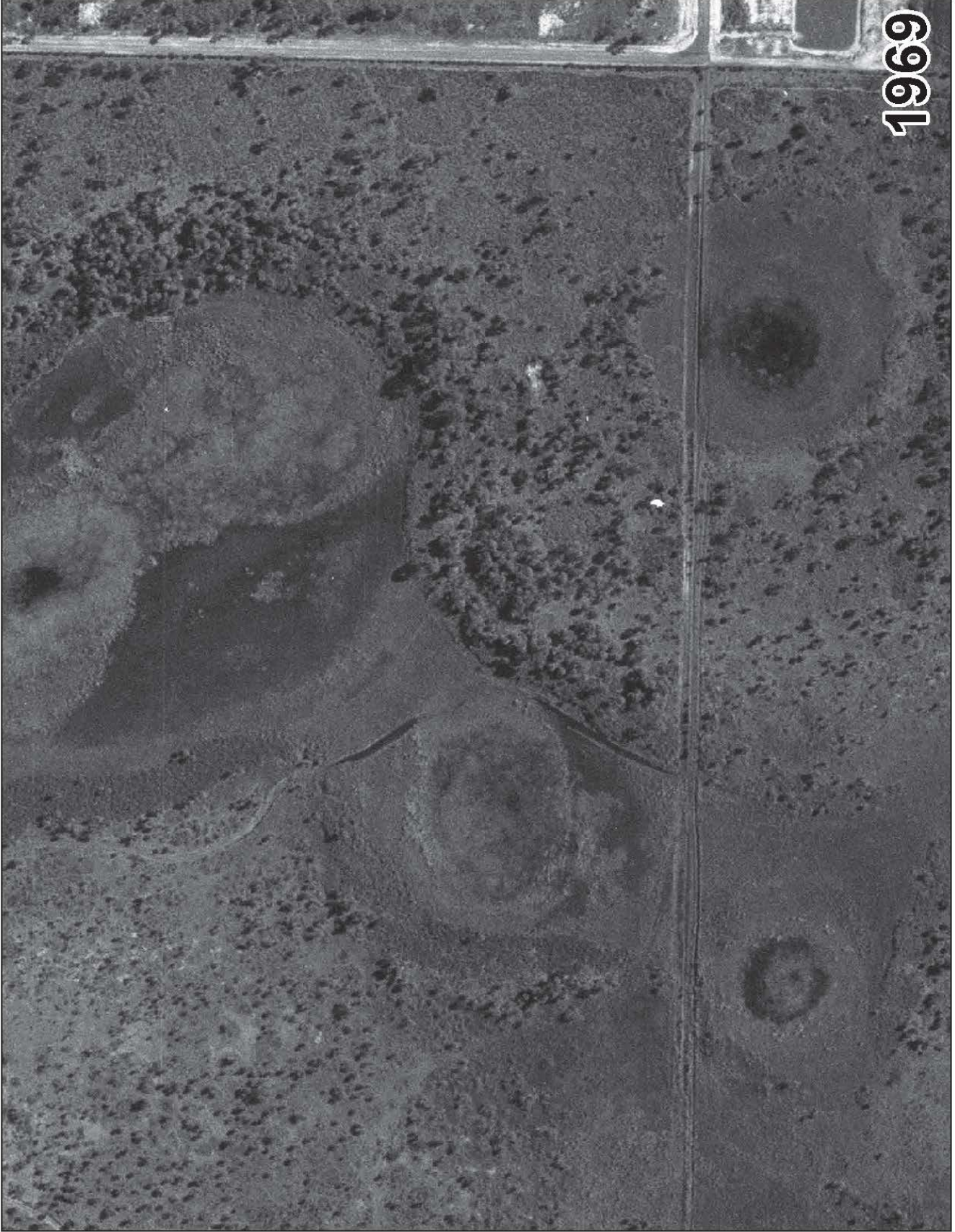
1995



1985



1975



1969



Photograph 1



Photograph 2



Photograph 3



Photograph 4



Photograph 5



Photograph 6



Photograph 7



Photograph 8



Photograph 9



Photograph 10



Photograph 11



Photograph 12



Photograph 13



Photograph 14



Photograph 15



Photograph 16



Photograph 17



Photograph 18



Photograph 19



Photograph 20



Photograph 21



Photograph 22



Photograph 23



Photograph 24



Exhibit Z

Myakka River Critical Wildlife Area Map



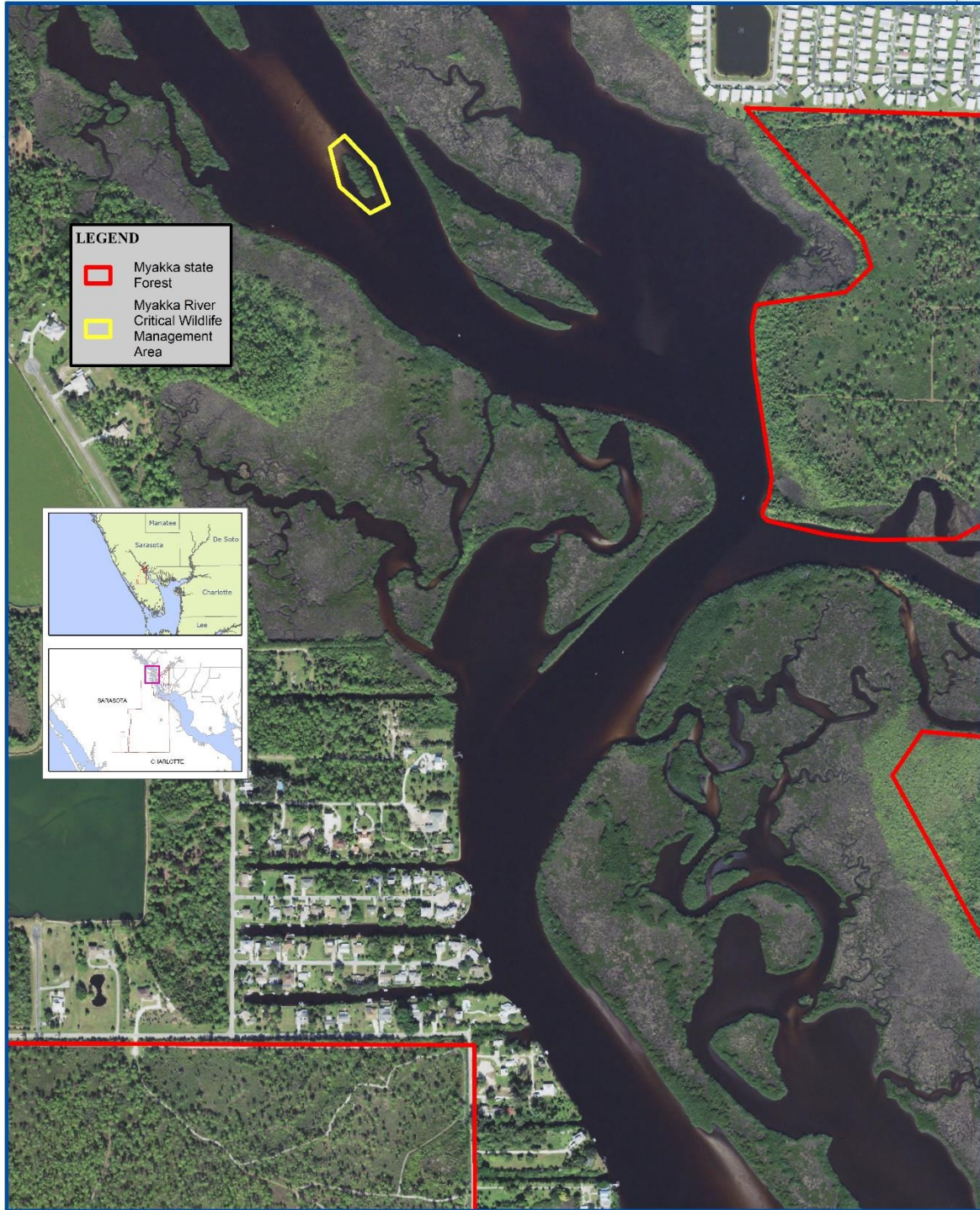
Florida Forest Service

Myakka State Forest

Myakka River Critical Wildlife Management Area Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum

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LEGEND

- Myakka state Forest
- Myakka River Critical Wildlife Management Area



Map Month/Year: January 2021

