



A Management Plan for the Orange Hammock Wildlife Management Area 2022 - 2032

Sarasota County, Florida



Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600



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and Wildlife
Conservation
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MEMORANDUM

TO: James Parker
Office of Environmental Services
Division of State Lands
Florida Department of Environmental Protection

FROM: Jackie Bucheck
Land Conservation and Planning
Division of Habitat and Species Conservation
Florida Fish and Wildlife Conservation Commission

SUBJECT: Orange Hammock Wildlife Management Area
Ten Year Management Plan Update
Acquisition and Restoration Council (ARC) Public Hearing

DATE:

Enclosed are the Orange Hammock Wildlife Management Area Management Plan and the Land Management Plan Compliance Checklist. This Plan is being submitted for the Division of State Lands compliance review and for review for the next available ARC meeting Agenda. Please contact Jackie Bucheck at Jacqueline.Bucheck@MyFWC.com if there are any questions related to this plan. Thank you for your assistance.

TH/DH

Enclosures

cc: Keith Singleton
Shauna Allen
Tom Houston

A Management Plan for the Orange Hammock Wildlife Management Area

Sarasota County, Florida

Owned by the Board of Trustees of the Internal Improvement Trust Fund

Managed by the Florida Fish and Wildlife Conservation Commission



October 2021

Approved Melissa Tucker Digitally signed by Melissa Tucker
Date: 2021.10.26 14:27:20 -04'00'

Melissa Tucker, Director
Division of Habitat and Species Conservation

LAND MANAGEMENT PLAN EXECUTIVE SUMMARY

Lead Agency: Florida Fish and Wildlife Conservation Commission (FWC)
Common Name of Property: Orange Hammock Wildlife Management Area
Location: Sarasota County, Florida
Acreage Total: 5,776 acres
Acreage Breakdown:

<u>Land Cover Classification</u>	<u>Acres</u>	<u>Percent of Total Area</u>
Artificial pond	8.27	0.14%
Basin marsh	472.34	8.18%
Canal/ditch	7.69	0.13%
Clearing	28.21	0.49%
Depression marsh	845.70	14.64%
Developed	2.82	0.05%
Dry prairie	451.78	7.82%
Mesic flatwoods	2,007.83	34.76%
Mesic hammock	942.73	16.32%
Pasture - improved	124.93	2.16%
Road	45.56	0.79%
Slough marsh	425.58	7.37%
Spoil area	29.11	0.50%
Successional hardwood forest	361.07	6.25%
Utility corridor	12.66	0.22%
Wet prairie	10.72	0.19%

*GIS-calculated acreage for land cover classification varies slightly from actual total acreage.

Lease/Management Agreement No.: 4850 (Appendix 10.1)

Use: Single _____ Management Responsibilities:
Multiple X Agency FWC Responsibilities
LEAD, LESSEE (Wildlife Management Area,
resource protection, law enforcement)

Designated Land Use: Wildlife Management Area

Sublease (s): None

Encumbrances: List: Toledo Blade Rd. access easement & Florida Power and Light powerline easement

Type Acquisition: Fish and Wildlife Habitat Program

Unique Features: Natural: Relatively undisturbed mesic flatwoods, wetlands, sloughs, and marshes.

Archaeological/Historical: None documented within the OHWMA.

Management Needs: Habitat restoration and improvement; public access and recreational opportunities;
hydrological preservation and restoration; non-native and invasive species maintenance and control;
imperiled species habitat maintenance, enhancement, and restoration.

Acquisition Needs/Acreage: 4,909 acres FWC Additions and Inholdings list; 30,573 acres remaining in
the Myakka Ranchlands Florida Forever Project (Figure 4).

Surplus Lands/Acreage: None

Public Involvement: Management Advisory Group consensus building meeting and Public Hearing
(Appendices 10.3.1 & 10.3.2)

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

ARC Approval Date _____ BTIITF Approval Date: _____
Comments: _____

Land Management Plan Compliance Checklist

Required for State-owned conservation lands over 160 acres

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	ii, 1
2	The land acquisition program, if any, under which the property was acquired.	18-2.018 & 18-2.021	5, 7
3	Degree of title interest held by the Board, including reservations and encumbrances such as leases.	18-2.021	7-8
4	The legal description and acreage of the property.	18-2.018 & 18-2.021	ii, 1-2, Appendix 10.1
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	2-3, 6, 72
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	46
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	Appendix 10.13
8	Identification of adjacent land uses that conflict with the planned use of the property, if any.	18-2.021	9-10
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(10)	5-7, 42-45
10	Proximity of property to other significant State, local or federal land or water resources.	18-2.021	8-9, 11

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	43-46
12	A description of past and existing uses, including any unauthorized uses of the property.	18-2.018 & 18-2.021	42-45
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	44-46
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	7, 64, 66
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	42, 62, 73
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	46-67, 80
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(10)	43-46
18	A finding regarding whether each planned use complies with the 1981 State Lands Management Plan, particularly whether such	18-2.021	43-46

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
	uses represent "balanced public utilization," specific agency statutory authority and any other legislative or executive directives that constrain the use of such property.		
19	Letter of compliance from the local government stating that the LMP is in compliance with the Local Government Comprehensive Plan.	BOT requirement	Appendix 10.15
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	10, 13-15, 39-42, 61, 46-74
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	44-46
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, FS.	18-021	61-62
23	A statement regarding incompatible use in reference to Ch. 253.034(10).	253.034(10)	45

*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
24	A statement concerning the extent of public involvement and local government participation in the development of the plan, if any.	18-2.021	10, Appendix 10.3
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(10)	Appendix 10.2
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(10)	10, Appendix 10.3
27	Summary of comments and concerns expressed by the advisory group for parcels over 160 acres	18-2.021	Appendix 10.3
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	253.034(5) & 259.032(10)	Appendix 10.2, Appendix 10.3

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
	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>		
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	N/A, 46-47
30	Summary of comments and concerns expressed by the management review team, if required by Section 259.036, FS.	18-2.021	N/A, 46-47
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	N/A, 46-47

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	13-15, Appendix 10.4
33	Insert FNAI based natural community maps when available.	ARC consensus	22-23
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	16-40
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	10-42
36	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding beaches and dunes.	18-2.021	42
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	42
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	34-39
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	38-39
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	16, 38-40, Appendix 10.5
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(10)	46-67
42	Habitat Restoration and Improvement	259.032(10) & 253.034(5)	
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.	↓	46-67
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.	↓	68-74

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
42-C.	The associated measurable objectives to achieve the goals.	↓	68-74
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>	↓	46-74, Appendix 10.9
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.	↓	77-80, Appendix 10.12
43	***Quantitative data description of the land regarding an inventory of forest and other natural resources and associated acreage. See <i>footnote</i> .	253.034(5)	16-34
44	Sustainable Forest Management, including implementation of prescribed fire management	18-2.021, 253.034(5) & 259.032(10) ↓	
44-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	61-62
44-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	↓	68-74
44-C.	Measurable objectives (see requirement for #42-C).	↓	68-74
44-D.	Related activities (see requirement for #42-D).	↓	68-77
44-E.	Budgets (see requirement for #42-E).		77-80, Appendix 10.12
45	Imperiled species, habitat maintenance, enhancement, restoration or population restoration	259.032(10) & 253.034(5)	
45-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	53-54
45-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	↓	68-74
45-C.	Measurable objectives (see requirement for #42-C).	↓	68-74
45-D.	Related activities (see requirement for #42-D).	↓	68-77
45-E.	Budgets (see requirement for #42-E).		77-80, Appendix 10.12
46	***Quantitative data description of the land regarding an inventory of invasive plants and associated acreage. See <i>footnote</i> .	253.034(5)	21, 55-58
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	Appendix 10.14
48	Invasive species maintenance and control	259.032(10) & 253.034(5)	
48-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	55-58
48-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	↓	68-74
48-C.	Measurable objectives (see requirement for #42-C).	↓	68-74
48-D.	Related activities (see requirement for #42-D).	↓	68-77
48-E.	Budgets (see requirement for #42-E).		77-80, Appendix 10.12

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</i>	18-2.018 & 18-2.021	39, 41

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
	<i>the appropriate managing agencies that have been notified of the proposed plan.</i>		
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	39, 41
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	39, 41
52	***Quantitative description of the land regarding an inventory of hydrological features and associated acreage. <i>See footnote.</i>	253.034(5)	39, 41
53	Hydrological Preservation and Restoration	259.032(10) & 253.034(5)	
53-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	61
53-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	↓	68-74
53-C.	Measurable objectives (see requirement for #42-C).	↓	68-74
53-D.	Related activities (see requirement for #42-D).	↓	68-77
53-E.	Budgets (see requirement for #42-E).		77-80, Appendix 10.12

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	42
55	***Quantitative data description of the land regarding an inventory of significant land, cultural or historical features and associated acreage.	253.034(5)	42
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	62
57	Cultural and Historical Resources	259.032(10) & 253.034(5)	
57-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	62
57-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	↓	68-74
57-C.	Measurable objectives (see requirement for #42-C).	↓	68-74
57-D.	Related activities (see requirement for #42-D).	↓	68-77
57-E.	Budgets (see requirement for #42-E).		77-80, Appendix 10.12

**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(5)	62
59	Capital Facilities and Infrastructure	259.032(10) & 253.034(5)	
59-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	62
59-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	↓	68-74
59-C.	Measurable objectives (see requirement for #42-C).	↓	68-74
59-D.	Related activities (see requirement for #42-D).	↓	68-77
59-E.	Budgets (see requirement for #42-E).		77-80, Appendix 10.12
60	*** Quantitative data description of the land regarding an inventory of recreational facilities and associated acreage.	253.034(5)	62
61	Public Access and Recreational Opportunities	259.032(10) & 253.034(5)	
61-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	58-61
61-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	↓	68-74
61-C.	Measurable objectives (see requirement for #42-C).	↓	68-74
61-D.	Related activities (see requirement for #42-D).	↓	68-77
61-E.	Budgets (see requirement for #42-E).		77-80, Appendix 10.12

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	iii-viii
63	Place the Executive Summary at the front of the LMP. Include a physical description of the land.	ARC and 253.034(5)	ii
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	N/A
65	Key management activities necessary to achieve the desired outcomes regarding other appropriate resource management.	259.032(10)	46-77
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(5)	77-80, Appendix 10.12
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(10)	77-80, Appendix 10.12
68	A statement of gross income generated, net income and expenses.	18-2.018	77-80, Appendix 10.12

*** = 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.

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Management Plan Acronym Key

ADA	Americans with Disabilities Act
ARC	Acquisition and Restoration Council
BEBR	Bureau of Economic and Business Research
CARL	Conservation and Recreation Lands Program
CLIP	Critical Lands and Waters Identification Project
DACS	Department of Agriculture and Consumer Services
DEP	Department of Environmental Protection
DHR	Florida Department of Historical Resources
DRP	Division of Recreation and Parks
DSL	Division of State Lands
FAC	Florida Administrative Code
FISC	Florida Invasive Species Council
FFS	Florida Forest Service
FLAM	Florida Landscape Assessment Model
FLUE	Florida Land Use Element
FNAI	Florida Natural Areas Inventory
FS	Florida Statute(s)
FWC	Florida Fish and Wildlife Conservation Commission
FWRI	Fish and Wildlife Research Institute
GIS	Geographic Information Systems
IMPP	Internal Management Policies and Procedures
IPCC	Intergovernmental Panel on Climate Change
LAP	Landowner Assistance Program
LMR	Land Management Review
NRCS	Natural Resources Conservation Service
OBVM	Objective Based Vegetation Management
OFW	Outstanding Florida Waters
ORV	Off Road Vehicle
PASO	Public Access Services Office
PUD	Planned Unit Development
SCHA	Strategic Habitat Conservation Areas
SWFWMD	Southwest Florida Water Management District
WCPR	Wildlife Conservation Prioritization and Recovery

1 Introduction and General Information



The Orange Hammock Wildlife Management Area (OHWMA) in Sarasota County consists of 5,776 acres in the Myakka Ranchlands. The OHWMA represents the largest undeveloped parcel of land in Sarasota County and the largest tract of land in the 7,564-acre Myakka Island Conservation Corridor. Over 90% of the area is composed of communities native to the landscape and in natural condition. The OHWMA's wetlands, sloughs, and natural floodplain provide crucial flood protection, which contributes significantly to the water retention/storage and aquifer recharge that are critical to the protection of the regional drinking water supply.

The OHWMA is part of a system of 121,000+ acres of state, county, and non-profit conservation areas that protect a matrix of environmentally sensitive lands between the Peace River, Myakka River, and Charlotte

Harbor Estuary. The OHWMA is located in the City of North Port just south of the Longino Ranch Conservation Area and Lewis Longino Preserve in Sarasota County and west of the 6,000-acre RV Griffin Reserve in DeSoto County. The OHWMA was a critical acquisition for the Myakka Ranchlands Florida Forever project, which spans across DeSoto, Manatee, and Sarasota Counties and provides wildlife habitat, drinking water, and outstanding opportunities for public recreation in the Southwest region of Florida. Furthermore, this regional landscape is a part of the United States Fish and Wildlife Service (USFWS) Panther Expansion Area; the acquisition of the OHWMA aided in expanding this landscape, which is now in the range of habitat necessary for Florida Panther (*Puma concolor coryi*) territory.

The OHWMA is owned by the Board of Trustees of the Internal Improvement Fund (Board of Trustees). The Florida Fish and Wildlife Conservation Commission (FWC) has lead management authority for all resources within the established boundary (Figures 1 and 2). The OHWMA is managed to conserve wildlife species, to restore natural communities, and to provide high-quality opportunities for hunting, fishing, wildlife viewing, and other fish and wildlife-based public outdoor recreation opportunities including horseback-riding, cycling, and hiking.



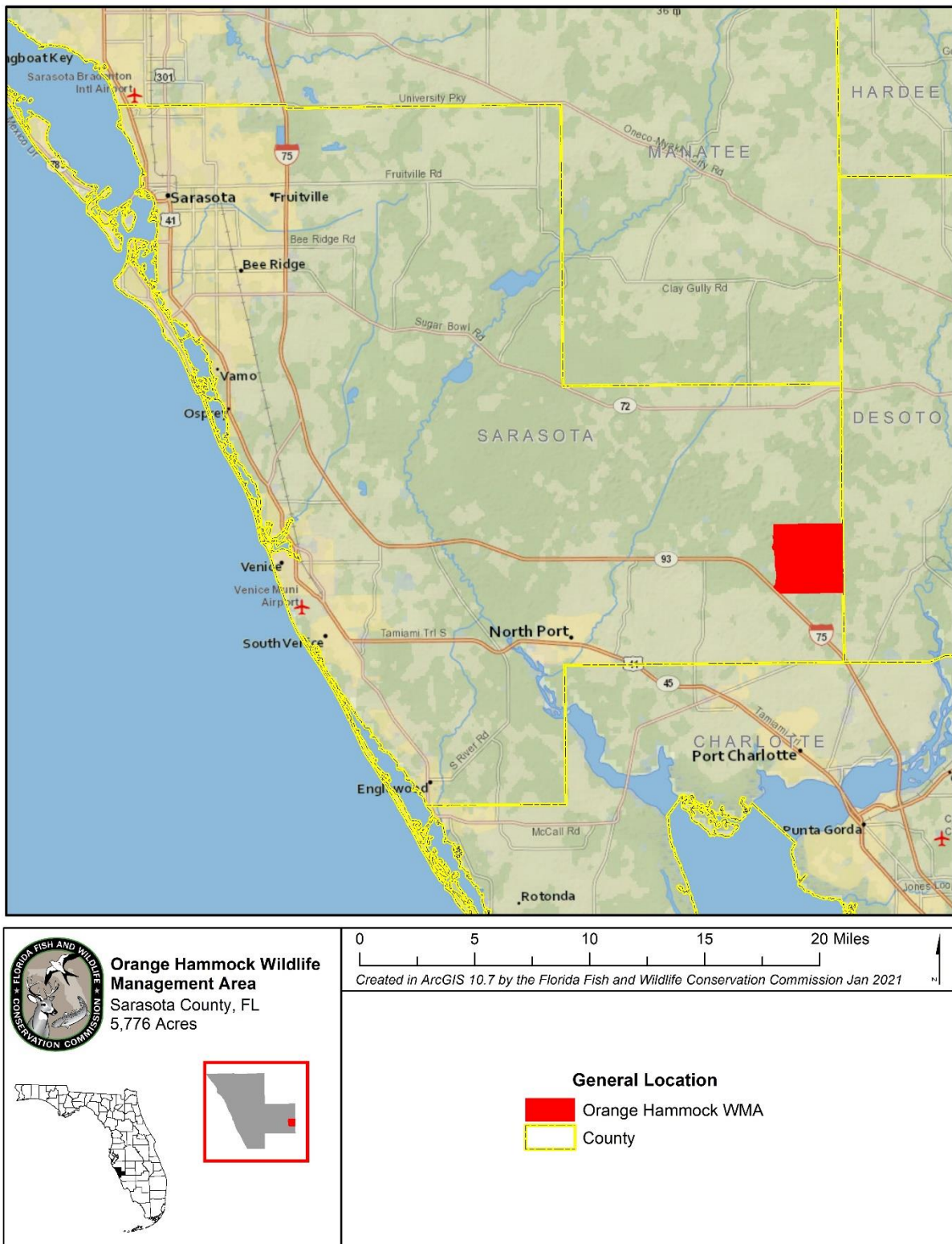


Figure 1: General Location Map for the OHWMA



Figure 2: Aerial Boundary for the OHWMA

1.1 Management Plan Purpose

This Management Plan serves as the basic statement of policy and direction for the management of the OHWMA. It provides information including the past usage, conservation acquisition history, and descriptions of the natural and cultural resources found on the OHWMA. Furthermore, it identifies FWC's future management intent, goals and associated short and long-term objectives, as well as identifying challenges and solutions. This Management Plan has been developed to guide each aspect of the OHWMA's resource and operational management for the next ten years.

This Management Plan is submitted for review to the Acquisition and Restoration Council (ARC) acting on behalf of the Board of Trustees of the State of Florida through the Florida Department of Environmental Protection's (DEP) Division of State Lands (DSL), in compliance with paragraph seven of Lease No. 4850 (Appendix 10.1) and pursuant to Chapters 253 and 259, Florida Statutes (FS), and Chapters 18-2 and 18-4, Florida Administrative Code (FAC). Format and content were drafted in accordance with ARC requirements for management plans and the model plan outline provided by the staff of the DSL. Terms (Appendix 10.8) used in this Management Plan describing management activities and associated measurable goals and objectives conform to those developed for the Land Management Uniform Accounting Council Biennial Land Management Operational Report.

1.1.1 FWC Planning Philosophy

The FWC's planning philosophy includes emphasizing management recommendation consensus-building among stakeholders and input from user groups and the general public at the beginning of the planning process. The FWC engages stakeholders by convening a Management Advisory Group and solicits additional input from user groups and the general public at a public hearing (Appendix 10.3). The FWC also engages area, district, and regional agency staff, as well as other FWC staff expertise, in developing this Management Plan, thereby facilitating area biologist and manager "ownership" of the Management Plan, and thus the development of meaningful management intent language, goals with associated measurable objectives, timelines for completion, and the identification of challenges and solution strategies for inclusion in the OHWMA Management Plan (Sections 5 – 7).



Further management planning input is received through Land Management Reviews (LMR) conducted every five years, which includes a review of the Management Plan, as well as a field review of the OHWMA. The LMR report provides FWC staff with important information and guidance provided by a diverse team of land management auditors and communicates the recommendations of the LMR team to the FWC so they may be adequately addressed in this Management Plan, and thus guide the implementation of the LMR team recommendations on the OHWMA.

Furthermore, the FWC maintains transparency and accountability throughout the development and implementation of the Management Plan by following a “living document” concept which links each plan with the previous by reporting on the objectives, management activities, and projects accomplished over the last planning timeframe.¹ This Management Plan serves as the guiding framework to implement an adaptive management process and content will be evaluated throughout the planning period to achieve comprehensive conservation goals (Section 5.2). As needed, amendments to this Management Plan will be presented to the DSL and ARC for review and consideration.

1.2 Location

As mentioned previously, the OHWMA consists of 5,776 acres located in the City of North Port within Sarasota County. It lies in Township 39 South, Range 22 East, and Sections 1-4, 9-12, and 13-15 (Figure 3). The OHWMA is approximately 20 miles east of the City of Venice, 16 miles southwest of the City of Arcadia, 13 miles north of the City of Punta Gorda, and 35 miles southeast of the City of Sarasota. The OHWMA is located on the north side of I-75; it shares its northern boundary with Longino Preserve, eastern boundary with RV Griffin Preserve, western boundary with Alderman Slough, and southern boundary with the Snover Waterway. The OHWMA serves as an integral part of a larger system of conservation lands within the Southwest region of Florida that provides important water quality protection, conserves vital wildlife habitat, and enhances the quality of life in the region and state.

1.3 Acquisition

1.3.1 Purpose for Acquisition of the Property

As part of the Myakka Ranchlands Florida Forever project, the OHWMA builds on a landscaped-sized protection area in the Myakka River watershed and upstream of the Charlotte Harbor Estuary. The OHWMA will serve to:

1. Conserve, protect, manage, or restore important ecosystems, landscapes, and forests to enhance or protect significant surface water, coastal, recreational, timber, and fish and wildlife resources;



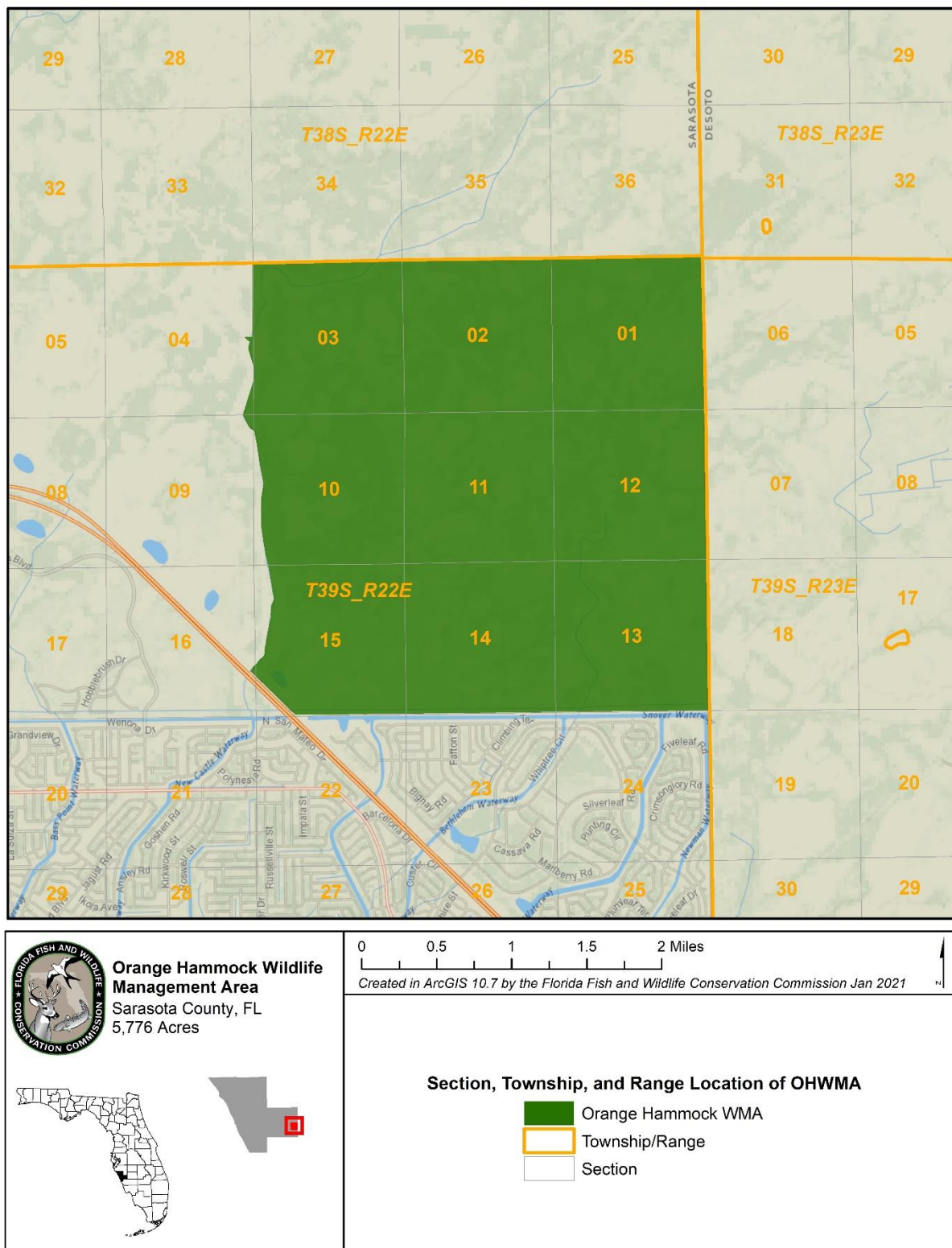


Figure 3: Township, Range, and Section for the OHWMA

2. Conserve and protect significant landscape-scale habitat and provide wildlife corridors for rare and imperiled species by increasing linkages and conservation corridors between public land and private conservation easements in the region;
3. Conserve, protect, manage, or restore habitat in Southwest Florida by providing surface and groundwater protection and protecting natural floodplain functions; and
4. Provide opportunities for fish and wildlife resource-based public outdoor recreation.

The FWC's land management objectives for the OHWMA are consistent with the acquisition purpose and management goals set forth under the Florida Forever Act, which establishes the purpose for lands the FWC has acquired and continues to manage. The purpose, goals, and objectives for all of the lands acquired and managed as the OHWMA are more comprehensively expressed in this Management Plan, which is reviewed and approved by ARC.

1.3.2 Acquisition History

The OHWMA is owned by the citizens of the State of Florida. The Title is held by the Board of Trustees. The acquisition of 5,776 acres of the OHWMA was made in May 2020 under the Florida Forever Program and through funding from the Conservation Foundation of the Gulf Coast. In January 2021, the FWC received a lease from the Board of Trustees through the DEP-DSL assigning the FWC as lead manager over the OHWMA.

1.4 Management Authority

The FWC is the designated lead managing agency for the OHWMA under the authority granted by Lease No. 4850 from the Board of Trustees agent, DSL. Further management authority derives from Article IV, Section 9 of the Florida Constitution as well as the guidance and directives of Chapters 253, 259, 327, 370, 373, 375, 378, 379, 403, 487, 597, and 870 of the FS. These constitutional provisions and laws provide the FWC the authority to protect, conserve, and manage the State's fish and wildlife resources.

1.5 Management Directives

The 50-year Board of Trustees' Lease Agreement No. 4850 with the FWC directs the FWC to "manage the leased premises only for the conservation and protection of natural and historical resources and resource-based, public outdoor recreation which is compatible with the conservation and protection of these public lands, as set forth in subsection 253.023(11), FS..." The lease agreement further directs the FWC to "implement applicable Best Management Practices for all activities under this lease in compliance with paragraph 18-2.018(2)(h), FAC, which have been selected, developed, or approved by lessor, lessee, or other land managing agencies for the protection and enhancement of the leased premises."

1.6 Title Interest and Encumbrances

As State-owned lands, title to the OHWMA is vested in the Board of Trustees (Governor and Cabinet). In January 2021, the DSL, as staff to the Board of Trustees, entered into Lease Agreement Number 4850, a 50-year lease agreement, granting the FWC management authority for the OHWMA. Currently, there are two easements on the area; one is a Florida Power and Light powerline easement that runs through the OHWMA in the southwestern portion of the

area, adjacent to I-75. The OHWMA is also accessed via a 100' access easement from Toledo Blade Blvd; the agreement for this access easement is currently in development. There are no other known encumbrances, outstanding mineral rights, or other interests within the established boundary.

1.7 Proximity to Other Public Conservation Lands

The OHWMA is located in the vicinity of a network of conservation lands, including lands managed by the Southwest Florida Water Management District (SWFWMD), the DEP-DSL, the DEP's Division of Recreation and Parks (DRP), the Florida Forest Service (FFS), the Peace River Audubon Society, EarthBalance, Sarasota County, and Charlotte County. Several Florida Forever projects (Figure 4) are also located in the vicinity of the area.

Tables 1 and 2 list the Florida Forever projects and conservation lands within a 10-mile radius of the OHWMA, including lands managed by public and private entities that conserve cultural and natural resources within this region of Florida.

Most of the conservation lands listed in Table 2 are owned in full-fee by a public entity. However, some of these areas fall within a less-than-fee ownership classification where the land is owned and being managed by a private landowner while a public agency or not-for-profit organization holds a conservation easement on the land.

Table 1. Florida Forever Projects within a 10-mile Vicinity

Project Name	GIS Acres
Charlotte Harbor Estuary	5,902
Myakka Ranchlands	30,573
Peace River Refuge	3,804

Table 2. Conservation Lands within a 10-mile Vicinity

State of Florida	Managing Agency
Candy Bar Ranch Agricultural and Conservation Easement	FFS
Charlotte Harbor Preserve State Park	DEP-DRP
Myakka River State Park	DEP-DRP
Myakka State Forest	FFS
Peace River State Forest	FFS
Reynolds Conservation Easement	DEP-DSL

Water Management District	Managing Agency
Deep Creek Preserve	SWFWMD
Deer Prairie Creek Preserve	SWFWMD
Lewis Longino Preserve	SWFWMD
Longino Ranch Conservation Easement	SWFWMD
Myakkahatchee Creek Conservation Easement	SWFWMD
Myakka Prairie Conservation Easements	SWFWMD

Myakka River	SWFWMD
Prairie/Shell Creek	SWFWMD
RV Griffin Reserve (GDC)	SWFWMD

County/City	Managing Agency
Biscayne Trust Conservation Easement	Charlotte County
Carlton Ranch, Inc.	Sarasota County
Deep Creek Properties	Charlotte County
Deer Prairie Creek/Churchill and Jordyn Parcels	Sarasota County
Myakkahatchee Creek Environmental Park	Sarasota County
Oaks Park	Sarasota County
Ollie's Pond Park	Charlotte County
Sunrise Park	Charlotte County
T. Mabry Carlton, Jr. Memorial Reserve	Sarasota County
Tippecanoe II Florida Scrub-jay Mitigation Area	Charlotte County
Tippecanoe Environmental Park	Charlotte County
Walton Ranch	Sarasota County
Warm Mineral Springs Creek	Sarasota County

Private/Public Conservation Organization	Managing Agency
Audubon-Pennington Nature Park	Peace River Audubon Society
Boran Ranch Mitigation Bank	EarthBalance
Horse Creek Mitigation Bank	EarthBalance
Myakka Mitigation Bank	EarthBalance

1.8 Adjacent Land Uses

The OHWMA is located in eastern Sarasota County in the City of North Port. It is directly adjacent to southwestern DeSoto County on its eastern border. The 2019 U.S. Census estimates that there are 426,275 people living in Sarasota County. The Department of Economic Affairs, Bureau of Economic and Business Research's (BEBR) medium-range population projection indicates that in the year 2030, the population will grow to 489,600 in Sarasota County. The BEBR population projections for the counties surrounding Sarasota County for the year 2030 are as follows: Charlotte County – 208,700; DeSoto County – 38,300; and Manatee County – 466,500.

The current Sarasota County zoning designation is Incorporated, however the City of North Port zoning designation for the OHWMA is No Zoning Designation (NZD). The City of North Port's 2040 future land use maps indicate that the OHWMA will be designated as approximately 75% Agricultural/Estates and 25% Recreation Open Space in the future. The Agricultural/Estates designation allows agricultural land use and very low-density residential development not to exceed 1 residential unit per 3 acres. The Recreation/Open Space designation allows either passive or active recreational uses and follows a chain of wetlands in the area.

Lands immediately adjacent to the OHWMA are classified as Open Use Agricultural/Rural to the north; Agricultural-10 (A-10) to the east, which includes the RV Griffin Reserve managed by SWFWMD; Residential Single Family-2, Residential Two Family, Commercial General S, and Government Use to the south; and Planned Community Development, Village, and NZD to the west. The adjacent zoning designations to the south and the west are located in the City of North Port and pose the most significant adjacent future land use challenges to the OHWMA.

1.9 Public Involvement

The FWC conducted a Management Advisory Group (MAG) meeting via the Microsoft Teams application on March 31st, 2021 to obtain input from both public and private stakeholders regarding management of the OHWMA. Results of this meeting were used by the FWC to develop management goals and objectives and to identify opportunities and strategies for inclusion in this Management Plan. A summary of issues and opportunities raised by the MAG, as well as a listing of participants, is included as Appendix 10.3.1. Further, a public hearing, as required by Chapter 259.032(10), FS, was held via the Adobe Connect application on May 4th, 2021, to solicit input and comment from the general public regarding this Management Plan. The report of that hearing is contained in Appendix 10.3.2. A website is also maintained for receipt of public input at <http://myfwc.com/conservation/terrestrial/management-plans/development/>. Further testimony and input are received at a public hearing held by ARC. Input received from all public involvement efforts has been considered in the development of this Management Plan.

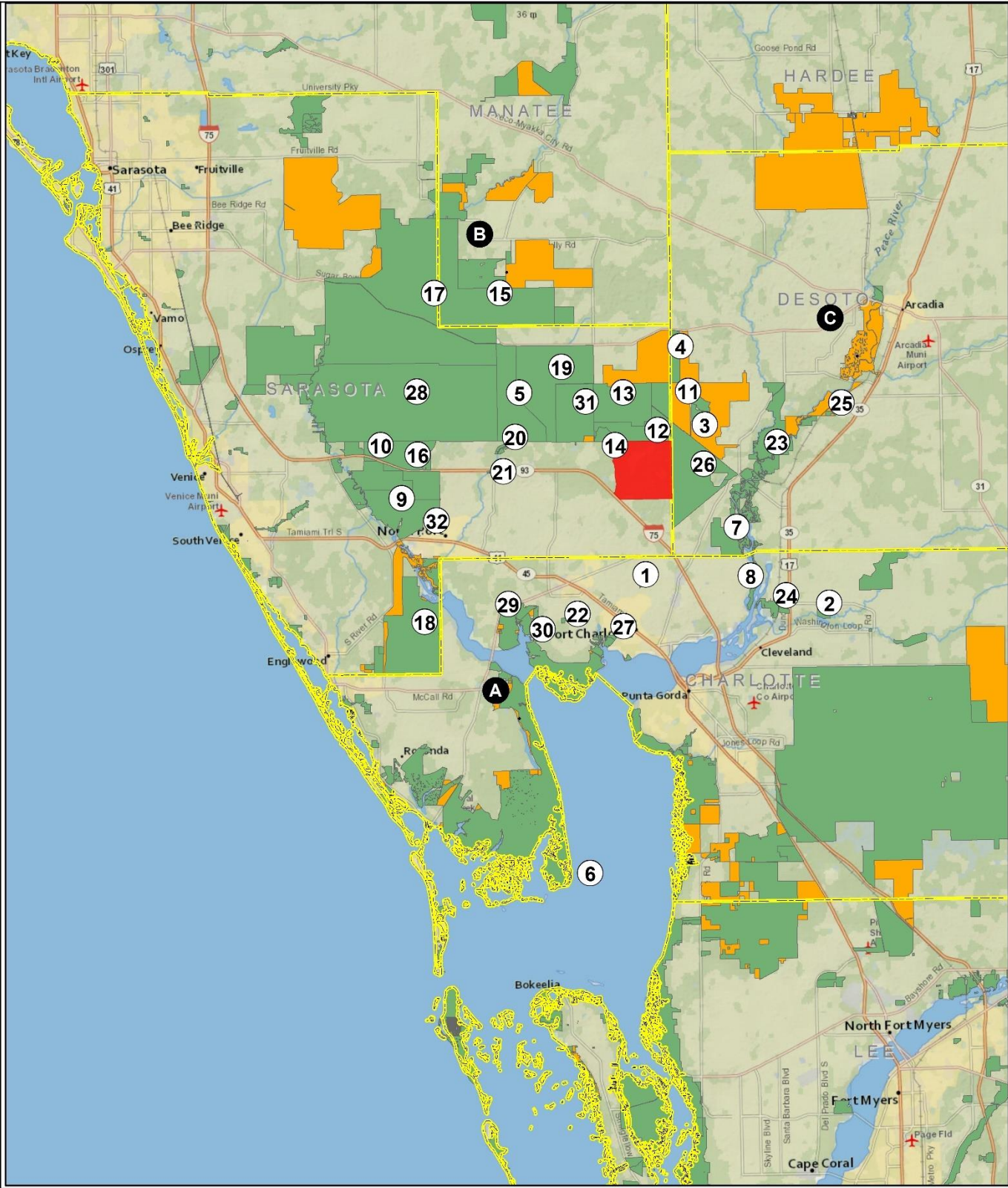
2 Natural and Cultural Resources

2.1 Physiography

2.1.1 Climate

Sarasota County is located in a warm, temperate region of Florida. Average temperatures range from 83 degrees Fahrenheit in the summer to 65 degrees Fahrenheit in the winter. Winter freezes are infrequent. Rainfall averages 47 inches annually with average monthly precipitation ranging from about 1.5 to 8.5 inches. The wet season normally occurs in the summer, while winter and early spring is the normal dry season.²





Conservation Lands within 10 miles of OHWMA

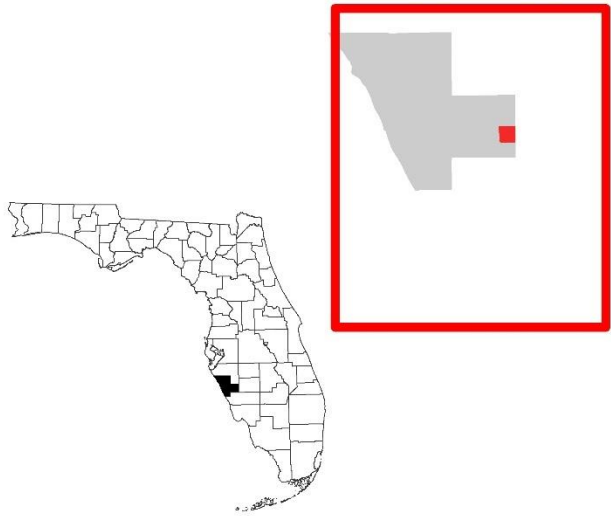
- 1 Audubon-Pennington Nature Park
- 2 Biscayne Trust Conservation Easement
- 3 Boran Ranch Mitigation Bank
- 4 Candy Bar Ranch Agricultural & Conservation Easement
- 5 Carlton Ranch, Inc.
- 6 Charlotte Harbor Preserve State Park
- 7 Deep Creek Preserve
- 8 Deep Creek Properties
- 9 Deer Prairie Creek Preserve
- 10 Deer Prairie Creek/Churchill and Jordyn Parcels
- 11 Horse Creek Mitigation Bank
- 12 Lewis Longino Preserve
- 13 Longino Ranch Conservation Easement
- 14 Myakka Mitigation Bank
- 15 Myakka Prairie Conservation Easements
- 16 Myakka River
- 17 Myakka River State Park
- 18 Myakka State Forest
- 19 Myakkahatchee Creek Conservation Easement
- 20 Myakkahatchee Creek Environmental Park
- 21 Oaks Park
- 22 Ollie's Pond Park
- 23 Peace River State Forest
- 24 Prairie/Shell Creek
- 25 Reynolds Conservation Easement
- 26 RV Griffin Reserve
- 27 Sunrise Park
- 28 T. Mabry Carlton, Jr. Memorial Reserve
- 29 Tippecanoe Environmental Park
- 30 Tippecanoe II Florida Scrub-jay Mitigation Area
- 31 Walton Ranch
- 32 Warm Mineral Springs Creek

Florida Forever Projects within 10 miles of OHWMA

- A Charlotte Harbor Estuary
- B Myakka Ranchlands
- C Peace River Refuge



Orange Hammock Wildlife Management Area
Sarasota County, Florida
5,776 Acres



Legend

- Orange Hammock WMA
- Conservation Lands
- Florida Forever Projects
- County



0 5 10 20 Miles

Created in ArcGIS 10.7 by the Florida Fish and Wildlife Conservation Commission August 2021

Figure 4: Conservation Lands and Florida Forever Projects Nearby the OHWMA

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2.1.2 Topography

The OHWMA is located within the Gulf Coastal Lowlands physiographic province. The Gulf Coastal Lowlands is a gently sloping marine plain that is characterized by karst flatlands with many swamps and sloughs. Topography of lands within the OHWMA are generally flat with elevations that range from 15 feet at lake level to 35 feet in the higher elevations. The Gulf Coastal Lowlands are mainly covered with unconsolidated sand that becomes clayey with depth; however, wetland areas typically have organic soils.

The OHWMA is located within the Myakka River Basin and less than a mile west of the boundary of the Peace River basin. There are extensive freshwater wetland communities on the OHWMA, which contains a series of marshes linked by shallow sloughs for relief of this poorly drained topography. The directly adjacent RV Griffin Reserve, which is managed cooperatively by the DEP, the SWFWMD, and Peace River Manasota Regional Water Supply Authority, contains two public supply water reservoirs and facilities.

2.1.3 Soils

The U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) data were used to identify the OHWMA soil series and soil depth to water table (Figures 5-6). The map units described in the soil survey of the OHWMA are distributed as shown in Figure 5. Analyses of depth to water table for map units occurring within the OHWMA are also provided in Figure 6. The NRCS defines a soil map unit as: “a collection of soil areas or non-soil areas (miscellaneous areas) delineated in a soil survey³.” Soil map units may contain multiple soil components, which are given names that are unique identifiers. Appendix 10.4 lists the names and official map unit descriptions of areas delineated on the detailed soil maps in a soil survey or by miscellaneous areas in the survey area as determined by the NRCS. Analysis of depth to water table for map units occurring within the OHWMA are also provided in Appendix 10.4.

Soils found within the OHWMA generally consist of EauGallie and Myakka fine sands, which make up approximately 37% of the area; Holopaw fine sand, which makes up nearly 20% of the area; and Pineda fine sand, which makes up about 18% of the area. Various other fine sands that each make up less than 10% of the area include Bradenton fine sand, Delray fine sand, Delray soil, Astor soil, Floridana soil, and Gator soil.

2.1.4 Geologic Conditions

As mentioned previously, the OHWMA is located within the Gulf Coastal Lowlands physiographic province, which is the largest province in Florida. The U.S. Geological Survey reports that Sarasota County is composed of four primary geologic units: shelly sediments of Plio-Pleistocene age (70%), the Peace River Formation (15%), undifferentiated sediments (11%), and the Arcadia Formation (4%). The mollusk-bearing sediments and shell beds from the Plio-Pleistocene age in this area comprise some of the most diverse and plentiful fossil faunas in the world, which have attracted international attention and renown due to the abundance and quality of the fossils.

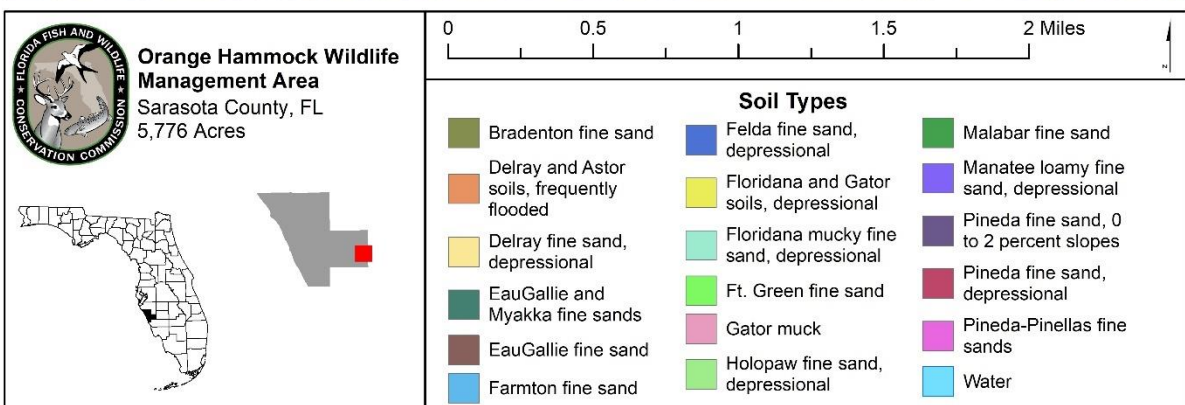
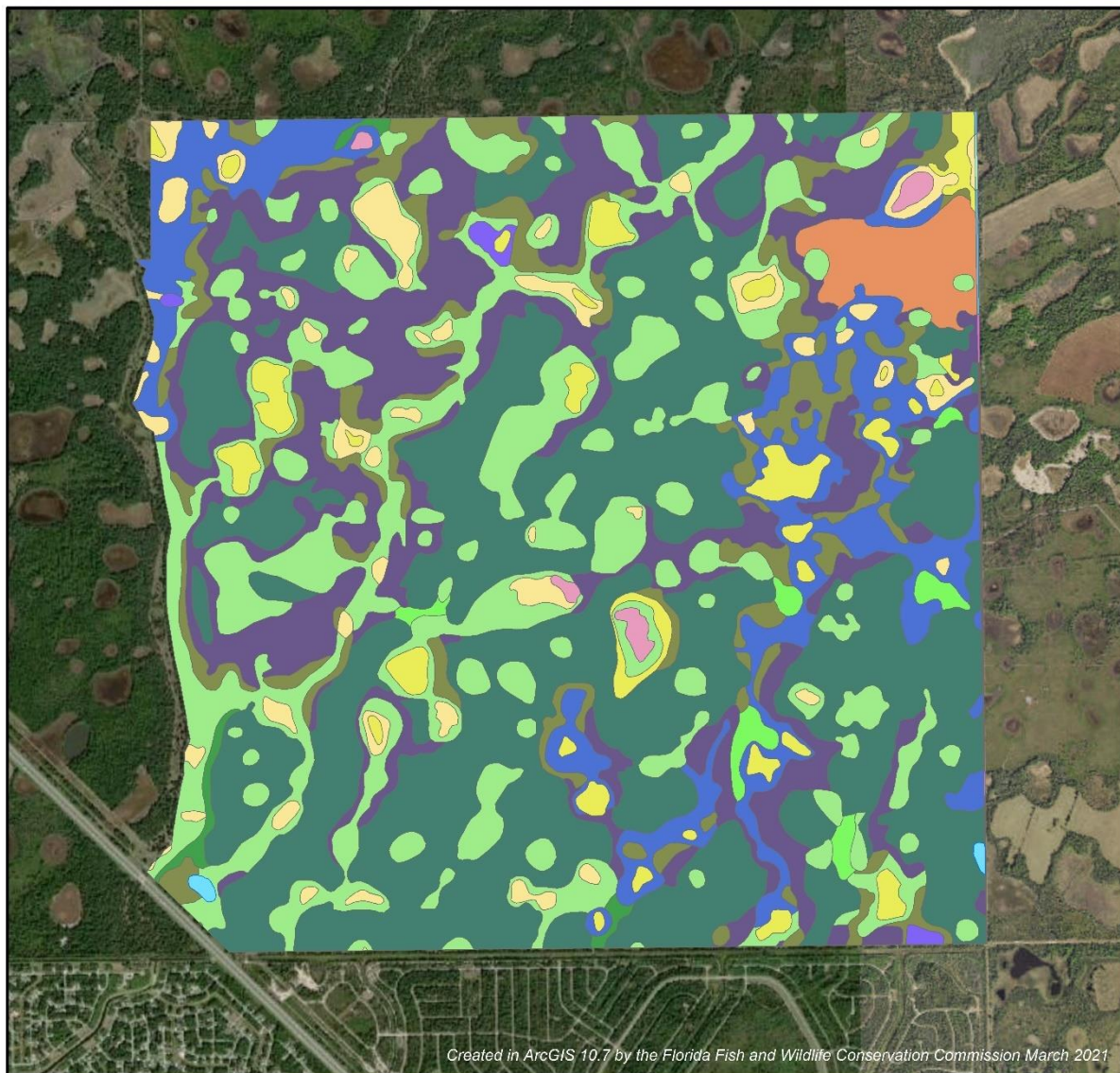


Figure 5: Soil Types on the OHWMA

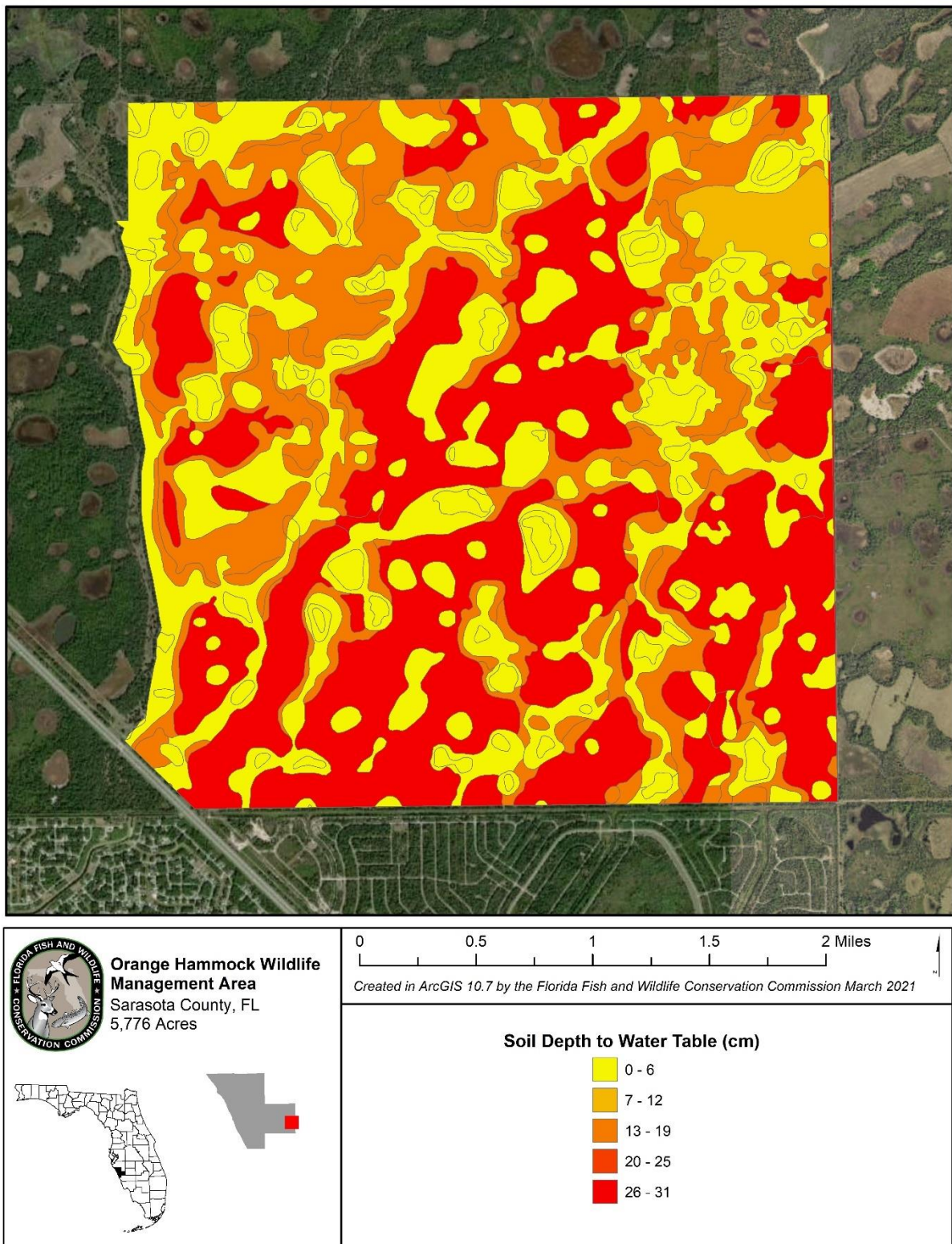


Figure 6: Soil Depth to Water Table on the OHWMA (cm)

2.2 Vegetation

Through the services of the Florida Natural Areas Inventory (FNAI), the FWC has mapped the current and historic natural and altered communities of the OHWMA, which describes 16 current natural and altered community types existing on the OHWMA (Table 3 and Figure 7-8). FWC biologists, along with contracted surveys through FNAI, have documented seven rare plant species (Table 5) and 18 non-native and invasive species (Table 6) as occurring on the OHWMA. The primary vegetative communities found within the OHWMA are mesic flatwoods, mesic hammock, and depression marsh.

Table 3. Natural and Altered Community Types on the OHWMA

Community Type	GIS Acres	Percentage
Artificial pond	8.27	0.14%
Basin marsh	472.34	8.18%
Canal/ditch	7.69	0.13%
Clearing	28.21	0.49%
Depression marsh	845.70	14.64%
Developed	2.82	0.05%
Dry prairie	451.78	7.82%
Mesic flatwoods	2,007.83	34.76%
Mesic hammock	942.73	16.32%
Pasture - improved	124.93	2.16%
Road	45.56	0.79%
Slough marsh	425.58	7.37%
Spoil area	29.11	0.50%
Successional hardwood forest	361.07	6.25%
Utility corridor	12.66	0.22%
Wet prairie	10.72	0.19%

Table 4. Native Plant Species Known to Occur at the OHWMA

Common Name	Scientific Name
Airplant	<i>Tillandsia</i> sp.
Alligator-flag	<i>Thalia geniculata</i>
American beautyberry	<i>Callicarpa americana</i>
American elm	<i>Ulmus americana</i>
Arrowhead	<i>Sagittaria</i> sp.
Aster	<i>Symphyotrichum</i> sp.
Atlantic St. John's wort	<i>Hypericum tenuifolium</i>
Baldwin's spikerush	<i>Eleocharis baldwinii</i>
Bartram's air-plant	<i>Tillandsia bartramii</i>
Beaked panicum	<i>Coleataenia anceps</i>

Common Name	Scientific Name
Beaksedge	<i>Rhynchospora</i> sp.
Big carpetgrass	<i>Axonopus furcatus</i>
Blackroot	<i>Pterocaulon pycnostachyum</i>
Bladderwort	<i>Utricularia</i> sp.
Blazing star	<i>Liatris</i> sp.
Blue maidencane	<i>Amphicarpum muehlenbergianum</i>
Bluestem	<i>Andropogon</i> sp.
Bottlebrush threeawn	<i>Aristida spiciformis</i>
Bristly greenbrier	<i>Smilax tamnoides</i>
Broadleaf cattail	<i>Typha latifolia</i>
Broomsedge bluestem	<i>Andropogon virginicus</i> var. <i>virginicus</i>
Bulltongue arrowhead	<i>Sagittaria lancifolia</i>
Bully	<i>Sideroxylon</i> sp.
Bushy bluestem	<i>Andropogon glomeratus</i>
Butterfly orchid	<i>Encyclia tampensis</i>
Butterwort	<i>Pinguicula</i> sp.
Cabbage palm	<i>Sabal palmetto</i>
Candyroot	<i>Polygala nana</i>
Carolina ponysfoot	<i>Dichondra carolinensis</i>
Chalky bluestem	<i>Andropogon virginicus</i> var. <i>glaucus</i>
Citrus	<i>Citrus</i> sp.
Climbing fern	<i>Lygodium</i> sp.
Clustered bushmint	<i>Hyptis alata</i>
Coastalplain chaffhead	<i>Carphephorus corymbosus</i>
Coastalplain staggerbush	<i>Lyonia fruticosa</i>
Coastalplain willow	<i>Salix caroliniana</i>
Common wild pine	<i>Tillandsia fasciculata</i>
Coral bean	<i>Erythrina herbacea</i>
Cordgrass	<i>Spartina</i> sp.
Creeping cucumber	<i>Melothria pendula</i>
Creeping little bluestem	<i>Schizachyrium stoloniferum</i>
Crimson bluestem	<i>Schizachyrium sanguineum</i>
Dahoon	<i>Ilex cassine</i> var. <i>cassine</i>
Dixie aster	<i>Sericocarpus tortifolius</i>
Dogfennel	<i>Eupatorium capillifolium</i>
Dwarf live oak	<i>Quercus minima</i>
Earleaf greenbrier	<i>Smilax auriculata</i>
Early whitetop fleabane	<i>Erigeron vernus</i>
Eastern magagrass	<i>Tripsacum dactyloides</i>

Common Name	Scientific Name
Eastern poison ivy	<i>Toxicodendron radicans</i>
Elliott's yellow-eyed grass	<i>Xyris elliotii</i>
Erectleaf witchgrass	<i>Dichanthelium erectifolium</i>
Fascicled beaksedge	<i>Rhynchospora fascicularis</i>
Fetterbush	<i>Lyonia lucida</i>
Fourpetal St. John's wort	<i>Hypericum tetrapetalum</i>
Fringed yellow stargrass	<i>Hypoxis juncea</i>
Gallberry	<i>Ilex glabra</i>
Giant airplant	<i>Tillandsia utriculata</i>
Golden polypody	<i>Phlebodium aureum</i>
Goldenrod	<i>Solidago sp.</i>
Guinea hen weed	<i>Petiveria alliacea</i>
Gulf coast spikerush	<i>Eleocharis cellulosa</i>
Hog plum	<i>Ximenia americana</i>
Iris	<i>Iris sp.</i>
Jamaica swamp sawgrass	<i>Cladium jamaicense</i>
Juba's bush	<i>Iresine diffusa</i>
Leafless swallowwort	<i>Orthosia scoparia</i>
Lemon bacopa	<i>Bacopa caroliniana</i>
Live oak	<i>Quercus virginiana</i>
Long strap fern	<i>Campyloneurum phyllitidis</i>
Longleaf pine	<i>Pinus palustris</i>
Longleaf threeawn	<i>Aristida palustris</i>
Lopsided Indiangrass	<i>Sorghastrum secundum</i>
Marsh pennywort	<i>Hydrocotyle sp.</i>
Mountain panic	<i>Panicum hemitomom</i>
Muscadine	<i>Vitis rotundifolia</i>
Myrsine	<i>Myrsine cubana</i>
Myrtleleaf St. John's wort	<i>Hypericum myrtifolium</i>
Narrowfruit horned beaksedge	<i>Rhynchospora inundata</i>
Narrowleaf silkgrass	<i>Pityopsis graminifolia</i>
Narrowleaf sunflower	<i>Helianthus angustifolius</i>
Netted nutrush	<i>Scleria reticularis</i>
Netted pawpaw	<i>Asimina reticulata</i>
Orange milkwort	<i>Polygala lutea</i>
Pale meadowbeauty	<i>Rhexia mariana</i>
Panic grass	<i>Panicum sp.</i>
Peelbark St. John's wort	<i>Hypericum fasciculatum</i>
Pickernelweed	<i>Pontederia cordata</i>

Common Name	Scientific Name
Piedmont pinweed	<i>Lechea torreyi</i>
Pinebarren aster	<i>Oclemena reticulata</i>
Pinebarren goldenrod	<i>Solidago fistulosa</i>
Pineland rayless goldenrod	<i>Bigelowia nudata</i> ssp. <i>nudata</i>
Pink sundew	<i>Drosera capillaris</i>
Plumed beaksedge	<i>Rhynchospora plumosa</i>
Poison ivy	<i>Toxicodendron radicans</i>
Privet wild sensitive plant	<i>Senna ligustrina</i>
Purple bluestem	<i>Andropogon glomeratus</i> var. <i>glaucopsis</i>
Rabbitbells	<i>Crotalaria rotundifolia</i>
Red maple	<i>Acer rubrum</i>
Red mulberry	<i>Morus rubra</i>
Resurrection fern	<i>Pleopeltis michauxiana</i>
Rice button aster	<i>Symphyotrichum dumosum</i>
Rosy camphorweed	<i>Pluchea baccharis</i>
Rough hedgehyssop	<i>Sophronanthe hispida</i>
Roundpod St. John's wort	<i>Hypericum cistifolium</i>
Royal fern	<i>Osmunda regalis</i> var. <i>spectabilis</i>
Runner oak	<i>Quercus pumila</i>
Rush	<i>Juncus</i> sp.
Rusty staggerbush	<i>Lyonia ferruginea</i>
Sabal palm	<i>Sabal palmetto</i>
Saltmarsh umbrellasedge	<i>Fuirena breviseta</i>
Sand cordgrass	<i>Spartina bakeri</i>
Sand live oak	<i>Quercus geminata</i>
Savannah yellow-eyed grass	<i>Xyris flabelliformis</i>
Saw greenbrier	<i>Smilax bona-nox</i>
Saw palmetto	<i>Serenoa repens</i>
Sawgrass	<i>Cladium jamaicense</i>
Scaleleaf aster	<i>Symphyotrichum adnatum</i>
Serenoa repens	<i>Saw palmetto</i>
Shaggy hedge-hyssop	<i>Sophronanthe pilosa</i>
Shiny blueberry	<i>Vaccinium myrsinites</i>
Shoestring fern	<i>Vittaria lineata</i>
Shortleaf gayfeather	<i>Liatris tenuifolia</i>
Shortleaf skeletongrass	<i>Gymnopogon brevifolius</i>
Shortleaf wild coffee	<i>Psychotria tenuifolia</i>
Shortleaf yellow-eyed grass	<i>Xyris brevifolia</i>
Silverling	<i>Baccharis glomeruliflora</i>

Common Name	Scientific Name
Slash pine	<i>Pinus elliotii</i>
Slender flattop goldenrod	<i>Euthamia caroliniana</i>
Small butterwort	<i>Pinguicula pumila</i>
Southeastern sneezeweed	<i>Helenium pinnatifidum</i>
Southern needleleaf	<i>Tillandsia setacea</i>
Southern umbrellasedge	<i>Fuirena scirpoidea</i>
Spadeleaf	<i>Centella asiatica</i>
Spanish moss	<i>Tillandsia usneoides</i>
Staggerbush	<i>Lyonia fruticosa</i>
St. John's wort	<i>Hypericum</i> sp.
Sugarberry	<i>Celtis laevigata</i>
Sugarcane plumegrass	<i>Saccharum giganteum</i>
Swamp bay	<i>Persea palustris</i>
Swamp laurel oak	<i>Quercus laurifolia</i>
Swamp smartweed	<i>Persicaria hydropiperoides</i>
Swamp tupelo	<i>Nyssa sylvatica</i> var. <i>biflora</i>
Sweetbay magnolia	<i>Magnolia virginiana</i>
Sweetscent	<i>Pluchea odorata</i>
Tall elephantsfoot	<i>Elephantopus elatus</i>
Tarflower	<i>Bejaria racemosa</i>
Tenangle pipewort	<i>Eriocaulon decangulare</i>
Threeawn	<i>Aristida</i> sp.
Toothpetal false rein orchid	<i>Habenaria floribunda</i>
Tracy's beaksedge	<i>Rhynchospora tracyi</i>
Turkey tangle fogfruit	<i>Phyla nodiflora</i>
Umbrellasedge	<i>Fuirena</i> sp.
Velvet-leafed wild coffee	<i>Psychotria tenuifolia</i>
Virginia chain fern	<i>Woodwardia virginica</i>
Virginia creeper	<i>Parthenocissus quinquefolia</i>
Viviparous spikerush	<i>Eleocharis vivipara</i>
Walter's viburnum	<i>Viburnum obovatum</i>
Wax myrtle	<i>Morella cerifera</i>
Whitehead bogbutton	<i>Lachnocaulon anceps</i>
Wild Boston fern	<i>Nephrolepis exaltata</i>
Wild coffee	<i>Psychotria nervosa</i>
Winged sumac	<i>Rhus copallinum</i>
Wiregrass	<i>Aristida stricta</i>
Witchgrass	<i>Dichanthelium</i> sp.
Yellow butterwort	<i>Pinguicula lutea</i>

Common Name	Scientific Name
Yellow hatpins	<i>Syngonanthus flavidulus</i>
Yellow milkwort	<i>Polygala rugelii</i>
Yellow-eyed grass	<i>Xyris</i> sp.
Zigzag bladderwort	<i>Utricularia subulata</i>

Table 5. Non-native and Invasive Plant Species Observed on the OHWMA

Common Name	Scientific Name	Florida Invasive Species Council Category
Bahiagrass	<i>Paspalum notatum</i>	-
Bermudagrass	<i>Cynodon dactylon</i>	-
Brazilian peppertree	<i>Schinus terebinthifolia</i>	I
Caesarweed	<i>Urena lobata</i>	I
Candlestick plant	<i>Senna alata</i>	-
Cogongrass	<i>Imperata cylindrica</i>	I
Devil's horsewhip	<i>Achyranthes aspera</i>	-
Guava	<i>Psidium guajava</i>	I
Lygodium	<i>Lygodium</i> sp.	-
Melaleuca	<i>Melaleuca quinquenervia</i>	I
Monk orchid	<i>Oeceoclades maculata</i>	-
Old world climbing fern	<i>Lygodium microphyllum</i>	I
Smutgrass	<i>Sporobolus indicus</i>	-
Torpedograss	<i>Panicum repens</i>	I
Tropical soda apple	<i>Solanum viarum</i>	I
Water hyacinth	<i>Eichhornia crassipes</i>	I
Water-lettuce	<i>Pistia stratiotes</i>	I
West Indian marsh grass	<i>Hymenachne amplexicaulis</i>	I
Wetland nightshade	<i>Solanum tampicense</i>	I

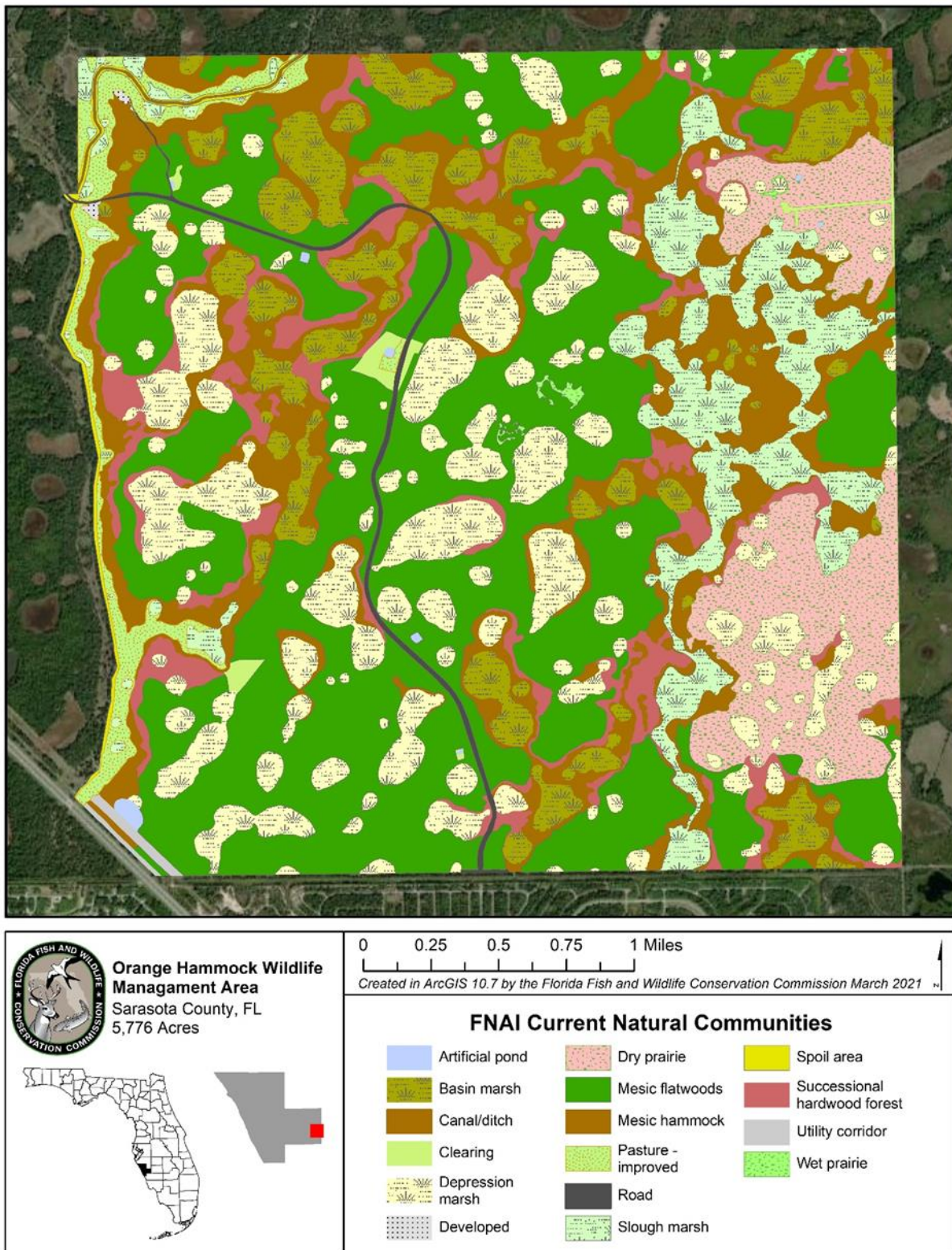


Figure 7: Natural and Altered Communities on the OHWMA

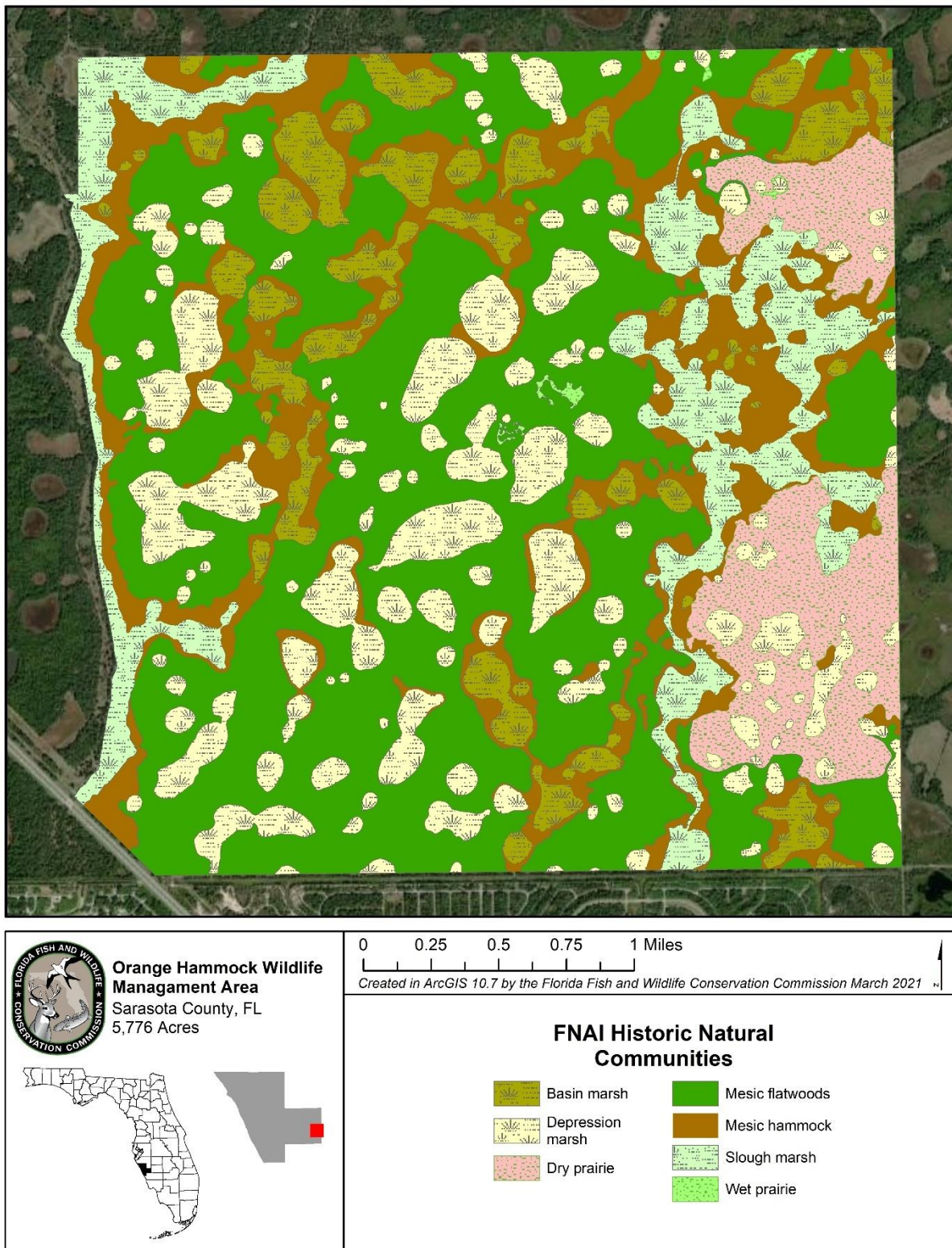


Figure 8: Historic Natural Communities on the OHWMA

2.2.1 FNAI Natural Community Descriptions

Basin Marsh (~472.3 acres)

Basin marshes are herbaceous or shrubby depression wetlands, generally protected from frequent fire by their large size or by their location within a non-pyrogenic landscape. The deepest areas within a basin marsh generally remain inundated year-round. Basin marshes contain zones of vegetation based on the water depth and/or the amount of peat accumulation.

Basin marshes on the OHWMA vary in size and occur within broadly linear stands of oak/palm mesic hammock, which shield the marshes from more frequent fire. The marshes are generally shallow and dominated by graminoids and herbs, but deeper portions often have a head of coastalplain willow that can provide valuable roosting sites for wading birds. The deepest zones are usually found in the center but may be found in pockets wherever peat has built up. These areas can contain stands of broadleaf emergent such as alligator-flag or bulltongue arrowhead. The majority of these marshes are dominated by a solid stand of sawgrass, although other common species include bluestem, spadeleaf, Gulf Coast spikerush, iris, narrowfruit horned beaksedge, sand cordgrass, and broadleaf cattail. The shallow edges where marshes transition to upland typically have a stand of peelbark St. John's wort and scattered southern bayberry, along with blue maidencane and clustered bushmint. The marshes are prone to invasion by the invasive West Indian marsh grass and torpedograss, which can form solid stands that replace the native vegetation. Several marshes on the property, particularly those near the sloughs, are infested with these species.

The land use history of the OHWMA for grazing has resulted in basin marshes being drained and bisected by canals and ditches. These disturbed marshes are more prone to infestation by invasive plants. The large population of wild hogs in the vicinity pose a threat to these marshes through frequent soil disturbance from rooting. Although the marshes are naturally more shielded from fire, they can and should burn occasionally with the surrounding landscape.

Depression Marsh (~845.70 acres)

Depression marshes are isolated wetlands embedded in a pyrogenic community. They are typically shallow, may dry out during drought, and because of their landscape position, they burn frequently with the surrounding community. The substrate is usually acid sand with deepening peat toward the center. Because water depth in depression marshes usually increases toward the center, vegetation often forms distinctive zones corresponding to depth.



The OHWMA has many depression marshes embedded in mesic flatwoods and dry prairie communities. The canopy layer in these marshes is generally absent or sparse and shrubs are predominantly confined to the edges. Typical species around the shallow edge include red

maple, slash pine, peelbark St. John's wort, myrtleleaf St. John's wort, southern bayberry, and cabbage palm. Many marshes have a deep-water center of broadleaf emergents such as alligator-flag, bulltongue arrowhead, or pickerelweed. A broad intermediate band surrounds the center with an abundance of sawgrass or maidencane, frequently with areas of dense narrowfruit horned beaksedge. The shallower edges of the marsh are more diverse and often dominated by longleaf threeawn or Tracy's beaksedge. Additional herbaceous species common to many of the marshes include blue maidencane, bluestem, lemon bacopa, erectleaf witchgrass, tenangle pipewort, southern umbrellasedge, sand cordgrass, bladderwort, Virginia chain fern, and Elliott's yellow-eyed grass.

West Indian marsh grass and torpedograss, two Category I invasive species, are present in many marshes. *Melaleuca* appears to be rare but was observed in a single marsh on the east side of the property. The large population of wild hogs in the vicinity pose a threat to these marshes through frequent soil disturbance from rooting. Depression marshes should be allowed to burn with the surrounding landscape.

Dry Prairie (~451.8 acres)

Dry prairies are flat, upland areas of dwarf shrubs and grasses with few or no pines and many of the same species in the shrub and herb layers as are found in a mesic flatwoods community. The treeless aspect of dry prairies is thought to be the result, at least in part, of a more frequent natural burn regime caused by an undissected landscape that allows fire to move unimpeded across large areas.

At the OHWMA, dry prairie can be found on the east side of the property. Some flatwoods on the southern boundary could also be classified as dry prairie or somewhat intermediate between the two communities. Prairies on the east side were likely more exposed to frequent fires, whereas the large hammock/marsh complexes that run roughly north to south through the WMA may have formed a natural firebreak, resulting in a somewhat longer burn interval in the central and western portions of the property.

The dry prairie is a broad expanse of stunted, ankle- to knee-high saw palmetto and shrubs with abundant wiregrass and other herbs. Dwarf live oak forms most of the non-herbaceous cover, with taller shrubs being infrequent to absent. Common species include netted pawpaw, roundpod St. John's wort, Atlantic St. John's wort, gallberry, fetterbush, coastalplain staggerbush, and southern bayberry. The herb layer is diverse and includes broomsedge bluestem, wiregrass, rabbitbells, witchgrass, Baldwin's spikerush, slender flattop goldenrod, whitetop aster, creeping little bluestem, lopsided indiagrass, and scaleleaf aster. Slash pines are few to absent in this community.

The land use history of grazing on the WMA has impacted the prairies with small vehicle trails, fencelines, and cattle ponds. One area of dry prairie in the northeast corner of the property may have been mowed to promote the growth of desirable forage. Areas of dry prairie that have not received sufficient prescribed fire have excessively tall shrubs and/or canopy pines. Prescribed fire on a one to three year interval will continue to maintain this community in good condition.

Mesic Flatwoods (~2,007.8 acres)

Mesic flatwoods are open, pine canopy forests with a diverse understory of short shrubs and herbs occurring on low, flat terrain. Fire is an important factor in maintaining high plant diversity and naturally occurred during the late spring/early summer lightning season.

On the OHWMA, mesic flatwoods are the most common upland habitat and form the matrix community. However, large areas of oak/palm mesic hammock surround these flatwoods and tend to invade with lengthening fire return intervals. The existing flatwoods generally have a sparse canopy of young slash pine, usually 10 or less square feet per acre basal area, although stands may be dense in a few areas. Where hammock may be starting to grow up in former flatwoods, young live oaks and cabbage palms can be found in the canopy and subcanopy layers. Shrubs are mostly short (less than one meter) and include a mix of saw palmetto, dwarf shrubs such as Atlantic St. John's wort, dwarf live oak, runner oak, and shiny blueberry. Other typical flatwoods species include tarflower, roundpod St. John's wort, fourpetal St. John's wort, gallberry, rusty staggerbush, coastalplain staggerbush, fetterbush, southern bayberry, and winged sumac. Taller, thicker shrub layers are often concentrated near hardwood forests and marsh edges, and are often composed of saw palmetto, gallberry, and/or southern bayberry.

The herbaceous groundcover is typically diverse and dominated by wiregrass, but with many other species common, including bluestems, coastalplain chaffhead, witchgrasses, pink sundew, Baldwin's spikerush, tall elephantsfoot, early whitetop fleabane, slender flattop goldenrod, shortleaf skeletongrass, narrowleaf sunflower, fringed yellow stargrass, whitehead bogbutton, Piedmont pinweed, shortleaf gayfeather, whitetop aster, bahiagrass, small butterwort, narrowleaf silkgrass, orange milkwort, blackroot, pale meadowbeauty, creeping little bluestem, pinebarren goldenrod, rough hedgehyssop, lopsided indiagrass, rice button aster, yellow hatpins, zigzag bladderwort, shortleaf yellow-eyed grass, and savannah yellow-eyed grass. Vines of greenbriers or muscadine are rare.

Although most pine flatwoods on the OHWMA are mesic, a few small areas of wet flatwoods occur in ecotones to depression marshes throughout the property. These tend to have less saw palmetto and more wetland-adapted species such as blue maidencane, spadeleaf, beaked panicum, peelbark St. John's wort, myrtleleaf St. John's wort, gallberry, southern bayberry, fascicled beaksedge, cabbage palm, Virginia chain fern, and Elliott's yellow-eyed grass.

Disturbances to mesic flatwoods on the OHWMA are primarily associated with past cattle grazing. There are numerous small vehicle trails throughout the property, cattle ponds, and areas that may represent incomplete pasture conversion where native flatwoods vegetation is still dominant, but big carpetgrass and bluestems now form much of the groundcover. The historic pine density in these flatwoods is difficult to determine, since the area was likely logged prior to the 1948 aerial photography. These photographs show scattered trees over a smooth open expanse of saw palmetto and other low groundcover. The current acreage of mesic flatwoods on the property has been reduced mostly by the invasion of hardwoods from adjacent mesic hammocks, resulting in large areas of successional hardwood forest. These may retain some pine tree canopy and saw palmetto understory, but the wiregrass and mixed herb groundcover is largely absent, unable to compete in the heavy shade of live oaks, swamp laurel

oak, and cabbage palms. Frequent fire on a 3 or less year interval is required to maintain existing flatwoods, but more intensive restoration efforts would be required to return successional hardwood forests to their historic condition.

Mesic Hammock (~942.7 acres)

Mesic hammock is a closed-canopy forest of temperate and tropical hardwood species often occurring in a mosaic of wetlands. Mesic hammocks occur throughout the OHWMA, generally associated with the marsh systems that run north to south across the property. These wet marshes act as a natural barrier to fire, providing shadows where less fire tolerant species could develop.



The closed canopy is typically dominated by live oak and cabbage palm, both covered in epiphytes that include golden polypody, resurrection fern, Bartram's air-plant, southern needleleaf, and shoestring fern. The state-listed endangered common wild-pine and commercially exploited butterfly orchid are occasional epiphytes on live oaks. Tall and short shrubs are common, but the hammocks are typically open enough to easily traverse. Species include silverling, American beautyberry, southern bayberry, myrsine, swamp bay,

wild coffee, shortleaf wild coffee, saw palmetto, bully, and Walter's viburnum. The herbaceous layer is highly disturbed from severe hog rooting in most of the hammocks. Species observed include witchgrass, Carolina ponysfoot, spadeleaf, cinnamon fern, and toothpetal false rein orchid. Vines are occasional throughout with greenbriers, eastern poison ivy, muscadine, and Virginia creeper being the most common species.

Although hammocks in the region often have a dense infestation of the Florida Invasive Species Council (FISC) Category I invasive caesarweed, this species is not particularly abundant at the OHWMA. This could be the result of the widespread hog rooting that restricts growth in the hammock understory. However, this species is present throughout the area and may become problematic in the future. Devil's horsewhip is weedy species found in a few hammocks on the area which is native to tropical Asia (but not on the FISC list of invasive species).

Some wetter areas adjacent to marshes are more similar to hydric hammock and have a larger component of swamp laurel oak in the canopy layers, as well as a few other species such as angle pod, dahoon, creeping cucumber, and leafless swallowwort. Hydric hammocks are a minor, usually ecotonal community on the OHWMA and are only mapped as inclusions within the larger mesic hammocks.

In recent decades, oak/palm vegetation has been creeping out from the established hammocks and colonizing adjacent areas of mesic flatwoods. Although similar in species composition,

these successional hardwood forests generally have a younger, shorter oak canopy and cabbage palms are mostly restricted to the tall shrub layers. Allowing prescribed burns to enter hammock edges will help to maintain flatwoods boundaries. Although hammocks do not require frequent fire, the palms and large oaks are capable of surviving occasional burning. Reduction of the large hog population and management of caesarweed will be the most important management actions for maintaining good quality hammocks.

Slough Marsh (~425.6 acres)

Slough marshes are broad, flat marshes with slow flowing water, permanently saturated and inundated for at least 180 days a year. Frequent fire limits woody encroachment and peat accumulation. They are generally dominated by emergent grasses, sedges, and herbs. Shrubs are usually infrequent but are sometimes quite abundant in limited areas.

A fairly well-defined slough marsh historically flowed south along the western boundary of the OHWMA. A canal was dug through the center, providing artificial drainage to allow pasture conversion on the former marsh. Today, marsh vegetation is restricted to the lowest depressions within the historic footprint of the slough, with the canal transporting water through heavily developed urban land to the south of the property. A second, less defined slough marsh runs south through the eastern third of the OHWMA. More a collection of large depressions than a proper slough, this system acts as a permanent drainage way. Ditching is less significant in this system, but on the southern boundary of the property, drainage structures are used to gather water into an east/west ditch that then disperses into several canals that run through the developed urban land to the south.

Both sloughs are fringed with mesic hammocks. The more intact marshes are largely herbaceous with dense maidencane, pickerelweed, narrowfruit horned beaksedge, sand cordgrass, and alligator-flag. Deeper areas may contain heads of coastalplain willow. However, slough marshes on the property tend to have the highest cover of the FISC Category I invasive West Indian marsh grass and torpedograss. Remaining depressions in the western slough are entirely dominated by these species, and the edges of the eastern slough are often monocultures of torpedograss.

Wet Prairie (~10.7 acres)

Wet prairie is a wetland herbaceous community characterized by a seasonally high water table and frequent fire, with dense stands of graminoids intermingled with other herbs. These communities have a shorter hydroperiod than marshes.

At the OHWMA wet prairie forms irregular patches within the matrix of mesic flatwoods or dry prairie. Most of these prairies are disturbed by hog rooting or past cattle grazing and can be difficult to distinguish from artificial clearings. Only a few areas are mapped, but the community is widespread on the WMA as small inclusions. The best examples have a dense cover of wiregrass, and a diversity of other herbs such as blue maidencane, pineland rayless goldenrod, witchgrass, Baldwin's spikerush, saltmarsh umbrellasedge, beaksedges, shaggy hedgehyssop, and Elliott's yellow-eyed grass. Shrubs are sparse, usually just peelbark St. John's wort and/or

myrtleleaf St. John's wort, and there are few pines. In areas with more soil disturbances, weedy bluestems, big carpetgrass, and slender flattop goldenrod often dominate the herb layer.

The greatest threat to the integrity of this community is soil and ground cover disturbance from wild hog rooting. The wild hog population needs to be dramatically reduced or preferably eradicated in order to assure the long-term health of the wet prairie and other wetlands and hammocks in the area.

Altered Community Descriptions

Artificial/Farm Pond (~8.3 acres)

Artificial pond is a created habitat meant for water retention, cattle ponds, etc. There are eight mapped ponds on the OHWMA, although additional smaller ones are likely present. Most are cattle ponds, but one acts as a retention pond along the utility corridor located on the southwest corner of the property. These marshes are likely to have edges dominated by the FISC Category I invasives West Indian marsh grass and/or torpedograss. Stands of broadleaf cattail are typical in the deeper areas.

Canal/ditch (~7.7 acres)

Canals and ditches are artificial linear drainage ways. Many of the marshes on the OHWMA are impacted to some extent by ditches that connect the depressions and increase drainage. Most are too small to map but are listed as inclusions. However, there is a large canal running the length of a former slough along the western edge of the property. The drainage from this canal has greatly altered the former marsh to allow for pasture conversion. Canal/ditch drainage ways typically have a berm of spoil along one or both sides. The FISC Category I invasive West Indian marsh grass and/or torpedograss are abundant in shallow ditches on the property, often in dense monospecific stands.

Clearing (~28.2 acres)

Clearing/regeneration areas are dove fields, wildlife food plots, old homesites, or recent or historic clearings that have significantly altered the groundcover and/or overstory of the original natural community.

Clearings on the OHWMA are associated with cattle grazing activities. These are located around artificial ponds, old fencelines, and in areas once used to gather livestock, such as around an old dip vat. There are many more small clearings throughout the property too small to map. Most clearings do have small trees of slash pine, live oak, and/or cabbage palm. The groundcover is open and weedy with bluestems, big carpetgrass, spadeleaf, witchgrass, dogfennel, southern bayberry, bahiagrass, saw palmetto, and smutgrass.

Developed (~2.8 acres)

Developed areas include check stations, off-road vehicle (ORV) use areas, parking lots, buildings, maintained lawns, botanical or ornamental gardens, campgrounds, recreational, industrial, and residential areas. There are two developed areas on the OHWMA, both located

in the northwest corner near the main entrance. These are former camps with a few derelict structures remaining. The sites are shaded by canopy trees but with an open understory.

Pasture – Improved (~124.9 acres)

Improved pastures are areas that have been stripped of most or all native vegetation and replanted in pasture grasses. At the OHWMA, this altered community occupies most of the former slough marsh that runs along the western boundary of the property. A canal provides drainage and has allowed for the establishment of pasture grasses in all but the wettest depressions. One other small area of pasture is located in the center of the property beside the main road. These pastures have planted bahiagrass and/or Bermudagrass, but a variety of weedy herbs and other species are common including bluestems, big carpetgrass, viviparous spikerush, umbrellasedge, marshpennywort, southern bayberry, turkey tangle fogfruit, sweetscent, netted nutrush, saw palmetto, and smutgrass. The FISC Category I invasives West Indian marsh grass and/or torpedograss are abundant in wetter areas of the former slough.

Road (~45.6 acres)

Roads are areas that are maintained by the FWC and used for vehicular traffic. This includes two-tracks used regularly by area staff to access and manage the WMA/WEA regardless of public accessibility. Only roads greater than 5 meters in width are delineated on the map.

The OHWMA has many small vehicle trails crisscrossing the mesic flatwoods areas, but only a few larger or hardened roads. The main road through the WMA includes a broad bahiagrass pasture edge on either side resulting in 30 meter wide path. The FISC Category I invasives Brazilian pepper and cogon grass tend to be concentrated along these roads.

Spoil Area (~29.1 acres)

Spoil areas are sites where dredge or spoil material is deposited. These areas may or may not be re-colonized by vegetation. Canals, ditches, and artificial ponds on the OHWMA typically have an associated spoil area. These may be colonized with weedy groundcover as well as young trees of slash pine, live oak, and cabbage palm. The FISC Category I invasive caesarweed is common on spoil berms.

Successional Hardwood Forest (~361.1 acres)

Successional hardwood forests are closed-canopied areas that may resemble natural upland hardwood forests or mesic hammocks. They are dominated by fast growing hardwoods such as laurel oak, water oak, and/or sweetgum, often with remnant pines. These forests are either invaded natural habitat (i.e., mesic flatwoods, sandhill, upland pine, and upland mixed woodland) due to lengthy fire-suppression or old fields that have succeeded to forest.

At the OHWMA, successional hardwood forests occur in areas of former mesic flatwoods where fire exclusion has allowed an oak and palm canopy to establish. These areas appear similar to the adjacent mesic hammocks but can usually be easily distinguished by their younger canopy. Live oak and cabbage palm are often dominant, but the oaks are smaller diameter, and the palms have not yet reached full canopy height.

Restoration of these forests includes mechanical tree removal and reintroduction of fire. Where characteristic herbaceous species (e.g., wiregrass) have been lost, reintroduction via seed or plants may be necessary to restore natural species composition and community function.

Utility Corridor (~12.7 acres)

Utility corridors are electric, gas, or telephone rights-of-way. The OHWMA has a small section of a double utility corridor on the southwest corner of the property for powerlines that flank Interstate 75. This corridor is maintained as an open, mowed area dominated by weedy species such as carpetgrass and dogfennel.

2.2.2 Imperiled Plants

For the purposes of this Management Plan, the term “imperiled species” as it relates to plants refers to plant species that the Department of Agricultural and Consumer Service (DACS) or the USFWS designated as endangered or threatened. This designation is commonly known as “listed species”, and all names and status determinations were derived from Florida’s Regulated Plant Index Rule (5B-40.0055 FAC) that is maintained by DACS.

The FWC manages the lands in the WMA system using a proactive natural community focused approach. As applied by the FWC, natural resource management starts by classifying lands into distinct natural communities. The FWC then conducts management activities to maintain or enhance each communities’ structure and function. Land management that has a positive influence on natural community conditions benefits the species occurring in these habitats.



While there has been no formal rare plant inventory on the OHWMA, there are four imperiled plant species known to occur on the area. Of these, two are state endangered and two are state threatened. None are federally endangered or threatened (Table 6). The protections afforded plants that occur on conservations lands, in conjunction with management actions that include invasive plant removal and prescribed fire, will continue to maintain and enhance habitat for these and other rare plants. As such, these species should persist under planned management on the OHWMA.

In addition to the imperiled plants, three plants State listed as commercially exploited are known to occur on the OHWMA (Table 6). The FWC will continue to monitor the known occurrences of these species and report any illegal collection to the appropriate authorities.

It is possible other imperiled species occur on the OHWMA, and, if encountered, staff will document these occurrences. Florida’s imperiled species are adapted to natural communities and should continue to benefit from the FWC's ongoing and planned management to maintain

and enhance natural community structure and function. Under the FWC's management, these have a higher probability of persistence than in the absence of this management.

Table 6. Imperiled Plant Species Observed at the OHWMA

Common Name	Scientific Name	Status
Angle pod	<i>Matelea gonocarpus</i>	ST
Butterfly orchid	<i>Encyclia tampensis</i>	CE
Cinnamon fern	<i>Osmunda cinnamomea</i>	CE
Common wild-pine	<i>Tillandsia fasciculata</i>	SE
Giant wild-pine	<i>Tillandsia utriculata</i>	SE
Royal fern	<i>Osmunda regalis</i>	CE
Yellow-flowered butterwort	<i>Pinguicula lutea</i>	ST

Acronym	Status
CE	Commercially Exploited
SE	State Endangered
ST	State Threatened

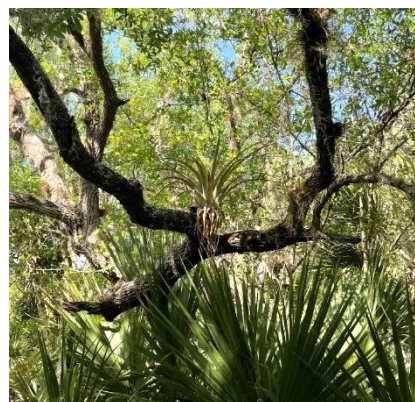
Angle Pod (*Matelea gonocarpus*) - Angle pod prefers moist well-drained, sunny, or semi-shaded areas in alluvial forests, basin swamps, baygalls, blackwater streams, bottomland forests, hydric hammocks, maritime hammocks, mesic hammocks, shell mounds, upland hardwood forests, and upland pine communities. This species may occur along wooded roadsides, and on the edges of sinkholes. Even though angle pod occurs in upland pine communities, which require frequent fire (2-3 year), it is sensitive to fire, surviving in fire shadows. Managers should vary the seasonality and severity of prescribed burns and allow prescribed fires from adjacent fire-maintained communities to naturally burn into and naturally extinguish in angle pod's preferred communities. Since *Matelea* species are difficult to distinguish without flowers or fruits, when flowering or fruiting is the best time for conducting surveys or verifying species identity. Angle pod flowers from June to August, and fruiting occurs from August to October. Staff may be able to distinguish this species from other *Matelea* species by its yellow or greenish-brown petals without a network of veins, and its lance shaped fruits that are smooth. Altered fire regimes, fire suppression, and hydrologic disturbances negatively affect this species; therefore, avoid constructing fire breaks in ecotones, restore ecotones by removing existing roads and fire breaks, and maintain and restore the natural hydrology.

Butterfly Orchid (*Encyclia tampensis*) - Butterfly orchid is epiphytic on many different trees, and prefers moist to wet areas in depression marshes, glades marshes, rockland hammocks, sloughs, strand swamps, tidal swamps, and wet flatwoods. It may also occur in dome swamps, floodplain swamps, hydric hammocks, and mesic hammocks. This species does not require fire, but staff should allow fire to naturally enter and extinguish within butterfly orchid's habitats when feasible. Illegal collecting negatively affects this species; therefore, protect known occurrences and make sure not to negatively influence areas with known occurrences. While

plants are identifiable all year by their well-developed pseudobulbs, surveys for flowers can occur during peak flowering, which occurs May to September, and surveys for fruits can occur throughout the year.

Cinnamon Fern (*Osmunda cinnamomea*) and Royal Fern (*O. regalis*) - These ferns, state commercially exploited, occur in many natural communities in Florida, both wet and dry. While these species grow in many communities that the FWC typically does not actively manage, if conducting management activities near known occurrences, make efforts to protect known occurrences from chemical and mechanical treatments. These species do not require fire. However, some of the natural communities in which these species occur are fire dependent, and these ferns resprout after fire. Illegal collecting and hydrological disturbances negatively affect these species; therefore, protect areas with known occurrences, and staff should maintain and restore the natural hydrology where practicable. As fronds are present year-round, these species can be identified throughout the year.

Common Wild-pine (*Tillandsia fasciculata*) and Giant Wild-pine (*T. utriculata*) - Airplants occur in many natural communities in Florida, both wet and dry. Most airplants are primarily epiphytes (plants that grow harmlessly upon another plant and derive their moisture and nutrients from the air, rain, and sometimes from debris accumulating around it) that grow on stumps, tree trunks, and branches. However, large individuals may fall to the ground and successfully continue to live. While many airplants grow in communities that the FWC typically does not actively manage, if conducting management activities near known



occurrences, make efforts to protect plants and host plants from fire, chemicals, and mechanical treatments. When plants occur in fire-maintained habitats, prior to conducting a prescribed fire, to the extent practicable, staff will take appropriate actions to protect known occurrences. Airplants are experiencing massive population losses due to the Mexican bromeliad weevil (*Metamasius callizona*), an invasive pest, making the protection and management of these plants from other threats all the more critical. Flowering, which occurs throughout the year (majority of flowering occurs from early spring to early fall), is the best time for conducting surveys or verifying species identity.

Yellow-Flowered Butterwort (*Pinguicula lutea*) - Yellow-flowered butterwort prefers open, moist to wet sandy-peaty soils of pine flatwoods, wet prairies, and seepage bogs. In addition, yellow-flowered butterwort may occupy moist ditches and roadsides and can tolerate drier habitat than other *Pinguicula* species. This species needs a fire regime that includes frequent (2-3 years) growing season fires that reduce the encroachment of woody species and creates open areas allowing sunlight to reach the ground. Soil and hydrologic disturbances negatively affect this species; therefore, maintain and restore the natural hydrology, and avoid using heavy machinery in wetlands. Staff should conduct surveys or verify species identity while the species is flowering, which occurs primarily from February to April.

2.2.3 Forest Resources

Approximately 2,008 acres of the OHWMA are comprised of mesic flatwoods, which represents the natural community with the most potential for forest resource (timber) production. At the OHWMA, the mesic flatwoods natural community typically contains a sparse canopy of slash pine or longleaf pine. These pine canopies are more sparse when adjacent to prairie communities and somewhat denser when grading down slope towards hammock communities.

2.3 Fish and Wildlife Resources

As described previously, the OHWMA has a variety of natural communities and habitat types that support a wide array of imperiled, rare, and more common wildlife species. Active wildlife management practices make the OHWMA an excellent place to view wildlife. The OHWMA's mesic flatwoods, marshes, dry prairies, and other natural communities provide critical habitat for resident and migratory wildlife.

The FWC maintains an inventory of fauna occurring on the OHWMA listed in the following tables, including mammals (Table 7), birds (Table 8), and reptiles (Table 9). Additionally, one invasive wildlife species, the wild hog (*Sus scrofa*), has been documented on the OHWMA.

Table 7. Mammal Species Observed at the OHWMA

Common Name	Scientific Name
Big brown bat	<i>Eptesicus fuscus</i>
Bobcat	<i>Lynx rufus</i>
Brazilian free-tailed bat	<i>Tadarida brasiliensis</i>
Cotton mouse	<i>Peromyscus gossypinus</i>
Coyote	<i>Canis latrans</i>
Eastern gray squirrel	<i>Sciurus carolinensis</i>
Eastern red bat	<i>Lasiurus borealis</i>
Evening bat	<i>Nycticeius humeralis</i>
Hispid cotton rat	<i>Sigmodon hispidus</i>
Nine-banded armadillo	<i>Dasypus novemcinctus</i>
Northern yellow bat	<i>Lasiurus intermedius</i>
Raccoon	<i>Procyon lotor</i>
Tricolored bat	<i>Perimyotis subflavus</i>
Virginia opossum	<i>Didelphis virginiana</i>
White-tailed deer	<i>Odocoileus virginianus</i>
Wild hog	<i>Sus scrofa</i>

Table 8. Bird Species Observed at the OHWMA

Common Name	Scientific Name
American bittern	<i>Botaurus lentiginosus</i>

American crow
American kestrel
American robin
Anhinga
Bachman's sparrow
Barred owl
Belted kingfisher
Black vulture
Black-crowned night-heron
Blue-gray gnatcatcher
Carolina wren
Cattle egret
Common gallinule
Common ground-dove
Common yellowthroat
Downy woodpecker
Eastern meadowlark
Eastern phoebe
Eastern towhee
Fish crow
Florida mottled duck
Florida sandhill crane
Gray catbird
Great blue heron
Great crested flycatcher
Great egret
Killdeer
Limpkin
Little blue heron
Loggerhead shrike
Mourning dove
Northern bobwhite
Northern cardinal
Northern harrier
Northern mockingbird
Pileated woodpecker
Pine warbler
Red-bellied woodpecker
Red-headed woodpecker
Red-shouldered hawk
Ruby-throated hummingbird
Short-tailed hawk

Corvus brachyrhynchos
Falco sparverius
Turdus migratorius
Anhinga
Peucaea aestivalis
Strix varia
Megasceryle alcyon
Coragyps atratus
Nycticorax nycticorax
Poliophtila caerulea
Thryothorus ludovicianus
Bubulcus ibis
Gallinula galeata
Columbina passerina
Geothlypis trichas
Dryobates pubescens
Sturnella magna
Sayornis phoebe
Pipilo erythrophthalmus
Corvus ossifragus
Anas fulvigula
Grus canadensis pratensis
Dumetella carolinensis
Ardea herodias
Myiarchus crinitus
Ardea alba
Charadrius vociferus
Aramus guarauna
Egretta caerulea
Lanius ludovicianus
Zenaida macroura
Colinus virginianus
Cardinalis cardinalis
Circus cyaneus
Mimus polyglottos
Dryocopus pileatus
Setophaga pinus
Melanerpes carolinus
Melanerpes erythrocephalus
Buteo lineatus
Archilochus colubris
Buteo brachyurus

Snowy egret	<i>Egretta thula</i>
Southern bald eagle	<i>Haliaeetus leucocephalus leucocephalus</i>
Swallow-tailed kite	<i>Elanoides forficatus</i>
Tree swallow	<i>Tachycineta bicolor</i>
Turkey vulture	<i>Cathartes aura</i>
White ibis	<i>Eudocimus albus</i>
White-eyed vireo	<i>Vireo griseus</i>
Wild turkey (Osceola)	<i>Meleagris gallopavo osceola</i>
Wilson's snipe	<i>Gallinago delicata</i>
Wood duck	<i>Aix sponsa</i>
Wood stork	<i>Mycteria americana</i>
Yellow-rumped warbler	<i>Setophaga coronata</i>

Table 9. Reptile Species Observed at the OHWMA

Common Name	Scientific Name
American alligator	<i>Alligator mississippiensis</i>
Black racer	<i>Coluber constrictor</i>
Eastern ratsnake	<i>Pantherophus allaghamiensis</i>
Gopher tortoise	<i>Gopherus polyphemus</i>
Green anole	<i>Anolis carolinensis</i>
Southeastern five-lined skink	<i>Plestiodon inexpectatus</i>

2.3.1 Florida Landscape Assessment Model

The FWC has developed the Florida Landscape Assessment Model (FLAM) as a Geographic Information Systems (GIS)-based assessment tool that incorporates a wide variety of landscape and wildlife species data. FLAM evaluates the Florida landscape based upon important natural resources and habitat needs of wildlife as a way to identify ecologically significant lands in the state, and to assess the potential impacts of management and land-use changes. FLAM was developed to provide technical assistance to various local, regional, state, and federal agencies, and entities interested in wildlife needs and conservation in order to: (1) determine ways to avoid or minimize project impacts by evaluating alternative placements, alignments, and transportation corridors during early planning stages, (2) assess direct, secondary, and cumulative impacts to habitat and wildlife resources, and (3) identify appropriate parcels for public land acquisition for wetland and upland habitat mitigation purposes. The FLAM ranks habitat from a 0-10; a rank of 10 being of greatest value. The FLAM (2021) indicates that the OHWMA has a very high mean wildlife value of 7.7 (Figure 9).

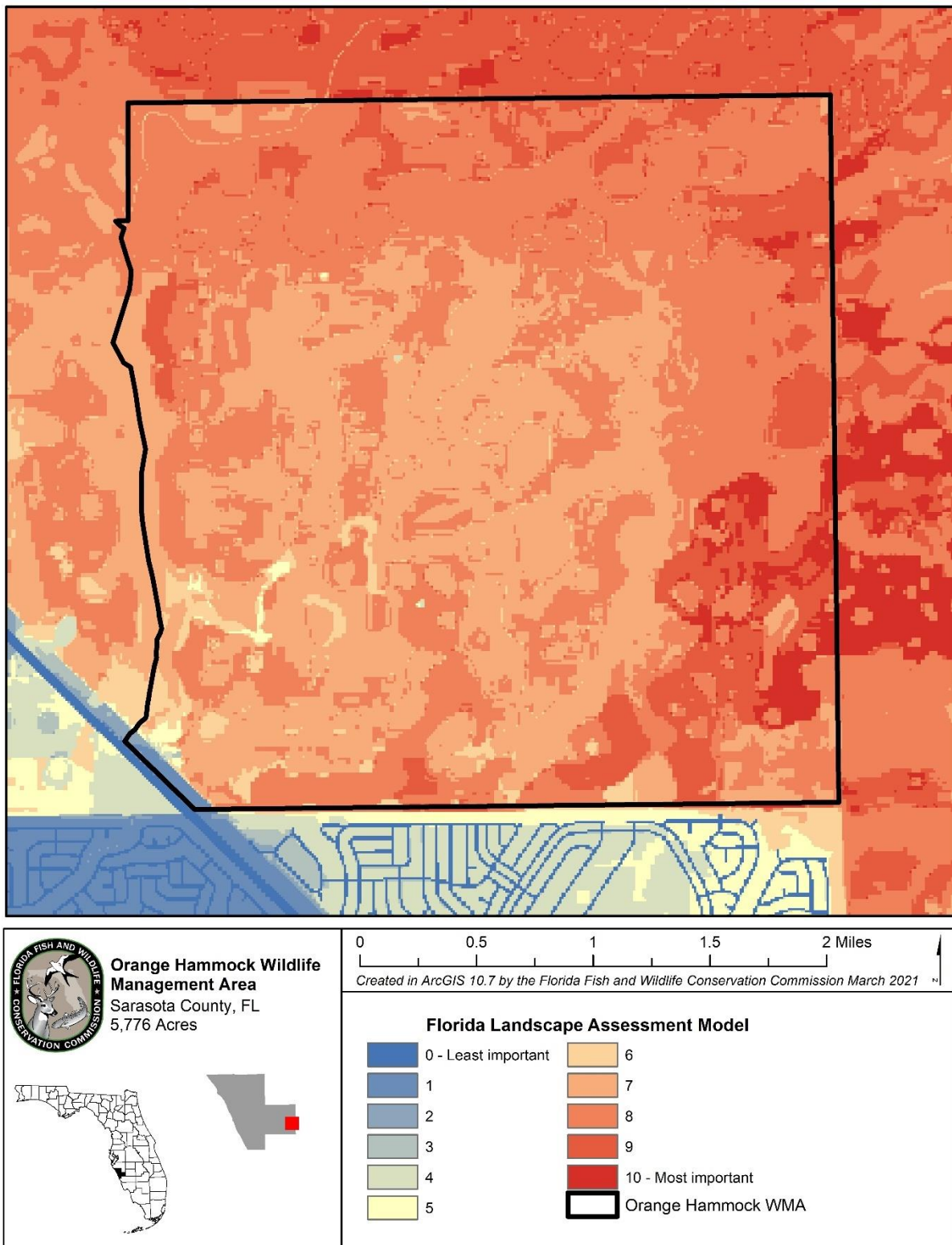


Figure 9: The Florida Landscape Assessment Model (FLAM) on the OHWMA

2.3.2 Imperiled Fish and Wildlife

A diversity of wildlife species is found on the OHWMA. Table 10 lists the four imperiled wildlife species that have been documented as occurring on the OHWMA.

Table 10. Imperiled Wildlife Species Occurring on the OHWMA

Common Name	Scientific Name	Status
Florida sandhill crane	<i>Antigone canadensis pratensis</i>	ST
Gopher tortoise	<i>Gopherus polyphemus</i>	ST
Little blue heron	<i>Egretta caerulea</i>	ST
Wood stork	<i>Mycteria americana</i>	FT

Acronym	Status
FT	Federally Threatened
ST	State Threatened

For the purposes of this Management Plan, the term “imperiled species” refers to plant and animal species that are designated as Endangered, Threatened, or a Species of Special Concern by the FWC, or that are designated as Endangered or Threatened by the U.S. Fish and Wildlife Service. This designation is also commonly known as “listed species.”

At its November 2016, Commission meeting, the FWC approved Florida’s Imperiled Species Management Plan (<http://myfwc.com/wildlifehabitats/imperiled/plan/>), which included changes to the listing status for many wildlife species. Subsequent rule changes (68A-27.003 and 68A-27.005 FAC) came into effect in February 2021. All federally listed species that occur in Florida are included in Florida’s Endangered and Threatened Species list (<https://myfwc.com/media/1945/threatened-endangered-species.pdf>) as federally-designated Endangered or federally-designated Threatened. Species that are not federally listed, but which have been identified by the FWC as being at some level of risk of extinction, are listed as state-designated Threatened. Additionally, the FWC maintains a separate Species of Special Concern category. This category was reviewed as part of Florida’s Imperiled Species Management Plan, with the majority of the species previously contained within the category either being removed from Florida’s Endangered and Threatened Species list due to conservation success, or having their status changed to state-designated Threatened.

2.3.3 FNAI Element Occurrences

A diversity of wildlife species is found on the OHWMA. The FNAI element occurrence records include ten occurrences in the vicinity of the OHWMA. As defined by FNAI, an “element” is any exemplary or rare component of the natural environment, such as a species, natural community, bird colony, spring, sinkhole, cave, or other ecological feature. An element occurrence is a single extant habitat which sustains or otherwise contributes to the survival of a population or a distinct, self-sustaining example of a particular element. FNAI assigns a rank to each “element” occurrence. This ranking system was developed by The Nature Conservancy and the Natural

Heritage Program Network based on the element's global rank (element's worldwide status) or state rank (status of element in Florida). The FNAI ranking system and definitions are located on the following website: https://www.fnai.org/FieldGuide/using_the_animal_field_guide.cfm.

Known locations of FNAI element occurrences from the most recent GIS databases are displayed in Figure 10. Appendix 10.5 contains a letter from FNAI authorizing the FWC to utilize their database for the purpose of displaying known plant and animal resources.

2.4 Water Resources

The OHWMA is located within the Myakka River Basin and less than a mile west of the boundary of the Peace River basin. There are extensive freshwater wetland communities on the OHWMA, which are comprised of a series of marshes linked by shallow sloughs that channel water on poorly drained topography. There are two sloughs on the OHWMA: Alderman Slough and Orange Hammock Slough. The directly adjacent RV Griffin Reserve, which is managed cooperatively by the DEP, the SWFWMD, and Peace River Manasota Regional Water Supply Authority, contains two public supply water reservoirs and facilities. The OHWMA's wetlands are critical to the protection of the local drinking water supply. A large volume of rainfall collects on the OHWMA and feeds the Snover Waterway, which is a critical source of North Port's clean drinking water. All surface waters of the State are classified by the DEP according to designated uses as described in Chapter 62-302.44 FAC. The surface waters of the OHWMA and the surrounding area are designated as Class III. Class III waters are classified for fish consumption; recreation; and propagation and maintenance of a healthy, well-balanced population of fish and wildlife. Additionally, it is the policy of the DEP to afford the highest protection to Outstanding Florida Waters (OFW) and Outstanding National Resource Waters (Chapter 62-302.700 FAC). No portions of the OHWMA are designated as OFW, however, the OHWMA is approximately 8 miles North of the Charlotte Harbor Aquatic Preserves and anywhere from 8-15 miles on its north, east, and southeast from three Myakka River segments designated as OFW. No degradation of water quality, other than that allowed in subsections Chapter 62-4.242(2) and (3) FAC, is permitted in these OFW, notwithstanding any other DEP rules that may allow water quality lowering.

In cooperation with the SWFWMD, natural water regimes will be re-established to the extent feasible and appropriate. This is consistent with the primary purpose for the acquisition of the OHWMA and relates directly to the water quantity and quality aspects of the ecosystem. The FWC will cooperate with the DEP and the SWFWMD to develop and implement any surface water quality and quantity monitoring protocols for the OHWMA. In this capacity, the FWC will primarily rely on the expertise of the SWFWMD and the DEP to facilitate these monitoring activities as needed. If necessary, the FWC may independently conduct or contract for water resource monitoring on the OHWMA, as guided by the DEP and the SWFWMD.

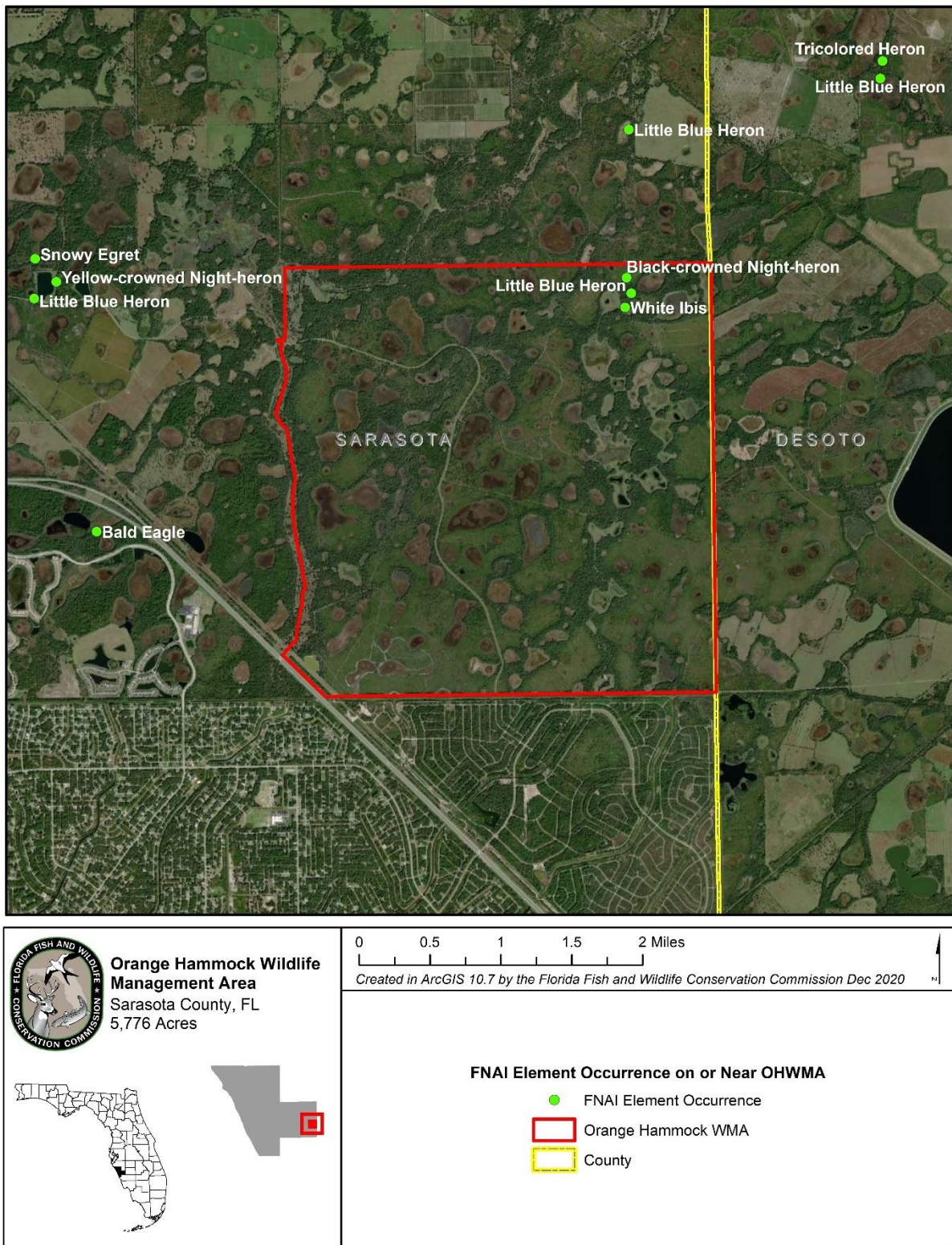


Figure 10: FNAI Element Occurrences on the OHWMA

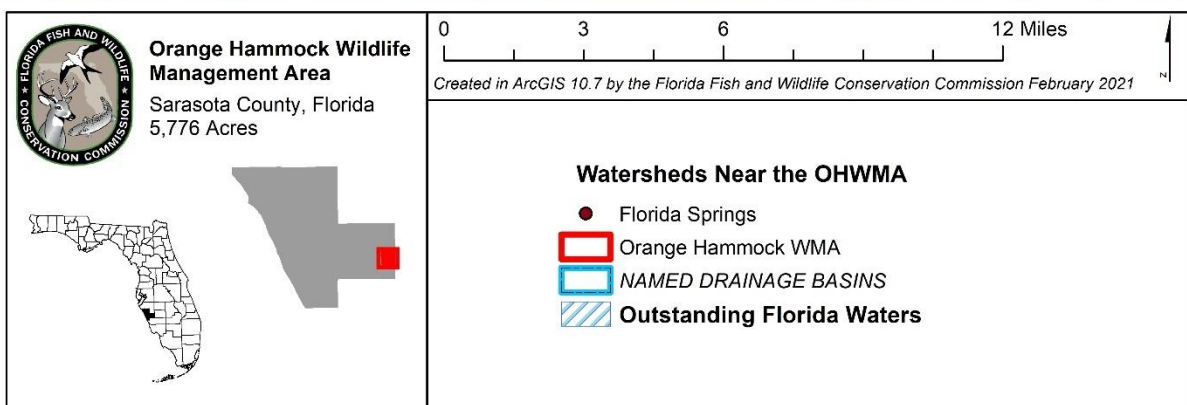


Figure 11: Water Resources on the OHWMA

2.5 Beaches and Dunes

There are no beaches or dunes located on the OHWMA.

2.6 Mineral Resources

There are no known mineral resources located on the OHWMA.

2.7 Cultural Resources

The Florida Master Site File (FMSF), maintained by the Florida Department of State's Division of Historical Resources (DHR), is the State of Florida's official inventory of cultural resources, archaeological and historical survey reports, and other manuscripts relevant to historic preservation in Florida. Categories of resources recorded at the FMSF include archaeological sites, historical structures, historical cemeteries, historical bridges, and historical resource groups (comprised of historic districts, landscapes, and linear features).

Currently, there are no cultural resources recorded on the OHWMA, however, there is a known cattle dipping vault on the area from the 1950's which has not yet been recorded in the FMSF. The FWC will consult with the DHR to determine the necessary actions for resource inventory and preservation if any potential resources are discovered. All identification, assessment, and preservation strategies will be developed in consultation with the DHR.

3 Uses of the Property

3.1 Previous Use and Development

The first Paleoindian inhabitants of Florida arrived at least 13,000 years ago. While these and subsequent native inhabitants of Florida were largely fisher-gatherer-hunters, subsequent cultures began to produce domesticated crops, such as maize, beans, squash, and other crops for a growing and increasingly sedentary population. For thousands of years before Europeans arrived, Native peoples thrived in South Florida by hunting, fishing, and gathering of wild plants and shellfish. The decimation of these cultures began shortly after the arrival of Europeans, either by the introduction of disease—to which the Native Americans had no resistance—or through outright conflict. In modern day Florida, the Seminole Tribe of Florida and the Miccosukee Tribe of Indians of Florida are federally recognized tribes, the Muscogee Nation of Florida is state recognized, and the Muscogee, along with several other tribes, have active petitions for federal recognition.

By the time Europeans arrived, the landscape of Florida had been shaped and modified by Native Americans. Along with novel agricultural practices, the Spanish, and later, the British and other settlers, brought cattle, hogs, horses, and other livestock to Florida. Social programs such as British agricultural land grants led to the proliferation of intensive agriculture throughout the state.

Agricultural practices such as rangeland cattle grazing quickly became crucial to the economy of the state, and Central Florida in particular, from the 16th through the 20th century. The influx of

settlers and resulting intensification of agricultural practices led to additional landscape alteration, continuing a trend that had been occurring for centuries. This alteration was quickly outpaced by Florida's boom-and-bust economies of the 19th and 20th centuries. The ensuing widespread environmental modification would permanently transform the cultural and ecological landscape of the state.

Throughout the previous century, the OHWMA was primarily used for cattle ranching and hunting. There is evidence of some logging activity, but no large scale logging or agricultural practices have taken place on the area.



3.2 Current Use of the Property

Currently, the OHWMA is managed for the conservation and protection of fish and wildlife habitat and fish- and wildlife-based public outdoor recreation. A wide range of operational and resource management actions are conducted on the OHWMA each year, including activities such as prescribed burning; wildlife habitat restoration and improvement; invasive species maintenance and control; road repairs and maintenance; imperiled species management, monitoring, and protection; facilities and infrastructure maintenance and repair; conservation acquisition and stewardship activities; cultural resources monitoring and protection; and research related activities.

The OHWMA is being managed as a multiple-use conservation land. Multiple-use management strategies incorporate uses related to wildlife, fisheries, forest management, and natural resource based public outdoor recreation. Current and anticipated resource uses of the property are diverse. Wildlife-based public outdoor educational and recreational opportunities are provided that are compatible with the original purposes for acquisition of the OHWMA. The area offers excellent opportunities for bird watching, especially for wading birds. The diversity of vegetation not only harbors a variety of bird species but also provides good opportunities for mammalian wildlife viewing. Uses offered on the OHWMA include hunting, fishing, wildlife viewing, bird watching, hiking, nature study, bicycling, picnicking, horseback riding, and geocaching (placement of caches are by permit only).

Due to the proximity of population centers in Sarasota County, public use can be expected to increase as public awareness of opportunities increases. The FWC administers hunts in the fall

and spring for various game species including deer, turkey, wild hogs, and various types of small game.

3.2.1 Visitation and Economic Benefits

Visitation and public use of the area for fish- and wildlife-based public outdoor recreational opportunities is the primary source of economic benefits from the OHWMA; this contributes to the overall economy for the Southwest region of Florida. The FWC economic analysis estimates indicate that the OHWMA has the potential to generate an estimated annual economic impact of \$14,334,787.35* for the State and the Southwest Florida region. This estimated annual economic impact will aid in the support or creation of an estimated 146 jobs*.

Further revenue generating potential of the OHWMA will depend upon future uses described in this Management Plan. Additional revenue from environmental lands such as the OHWMA might include sales of various permits and recreational user fees and ecotourism activities if such projects could be feasibly developed. The annual area regulations can be consulted to clarify the necessary and required permits, fees, and regulations. Additionally, the long-term value of ecosystem services, including the protection of air and water quality functions, are considered to be significant to local and regional land and water resources, as well as human health.

**The above figures are based on expenditure data from the 2006 National Survey of Fishing, Hunting and Wildlife-Associated Recreation (USFWS) and 2006 IMPLAN economic models assembled by Southwick Associates and the USFWS. The results were updated to 2010 based on hunting and fishing license trends and inflation. The results were combined and weighted based on the numbers of hunters, anglers, and wildlife viewers statewide. The results assume participants' expenditures and the results impacts are consistent throughout the state. Users applying these results to local situations should be aware that differences might exist between these statewide averages and the site in question and adjust if needed.*

3.3 Single- or Multiple-use Management

As mentioned previously, the OHWMA will be managed under the multiple-use concept as a WMA. The OHWMA will provide fish- and wildlife-based public outdoor recreation and educational opportunities, while protecting the natural and cultural resources found on the area. Any natural and cultural resources of the OHWMA will be managed under the guidance of ARC, the Conceptual State Lands Management Plan, and as outlined in the original purposes for acquisition.

3.3.1 Analysis of Multiple-use Potential

The following actions or activities have been considered under the multiple-use concept as possible uses to be allowed on the OHWMA. Uses classified as "Approved" are considered to be in accordance with the purposes for acquisition, as well as with the Conceptual State Lands Management Plan, and with the FWC agency mission, goals, and objectives as expressed in the Agency Strategic Plan (Appendix 10.6). Uses classified as "Conditional" indicate that the use may be acceptable but will be allowed only if approved through a process other than the management plan development and approval process (e.g., special-use permitting, managed-

area regulation, and rule development). Uses classified as “Rejected” are not considered to be in accordance with the original purpose of acquisition or one or more of the various forms of guidance available for planning and management:

	<u>Approved</u>	<u>Conditional</u>	<u>Rejected</u>
Apiaries		✓	
Astronomy		✓	
Bicycling	✓		
Cattle grazing		✓	
Citrus or other agriculture			✓
Ecosystem services and maintenance	✓		
Ecotourism		✓	
Environmental Education	✓		
First-responder training		✓	
Fishing		✓	
Geocaching		✓	
Hiking	✓		
Horseback riding	✓		
Hunting		✓	
Linear facilities			✓
Military training		✓	
Preservation of historical resources	✓		
Primitive camping			✓
Protection of imperiled species	✓		
Off-road vehicle use			✓
Shooting sports park			✓
Soil and water conservation	✓		
Timber harvest		✓	
Wildlife observation	✓		

3.3.2 Incompatible Uses and Linear Facilities

Consideration of incompatible uses and linear facilities on the OHWMA are made in accordance with the requirements of Section 253.034(10) FS, and other applicable Florida constitution, statute, rule, and policy requirements, as well as other provisions governing applications for proposed incompatible uses or linear facilities on state-owned conservation lands. Upon approval and implementation of this Management Plan, any proposed future uses that have been classified herein as Rejected, or other proposed future uses that are determined to be incompatible with the purposes of acquisition or other management authorizations and guidance, will be forwarded for review and approval consideration to the DEP-DSL, ARC, and the Board of Trustees prior to authorization.

3.3.3 Assessment of Impact of Planned Uses of the Property

To communicate the FWC's planned uses and activities, specific management intentions, long- and short-term goals and associated objectives, and potential challenge and solution strategies have been developed for the OHWMA (Sections 5 -7). A detailed assessment of the benefits and potential impacts of planned uses and activities on natural and cultural resources was an integral part of the development of the management activities and intent, goals, objectives, challenges, and strategies sections of this Management Plan.

3.4 Acreage Recommended for Potential Surplus Review

On conservation lands where the FWC is the lead manager, the FWC evaluates and identifies recommended areas for a potential surplus designation by the DSL, ARC, and the Board of Trustees. This evaluation consists of GIS modeling and analysis, aerial photography interpretation, analysis of fish and wildlife resources, a review of resource and operational management needs, and a review of public access and recreational use of the area. Also, the FWC considers recommendations for surplus lands as they relate to Florida's "No Net Loss of Hunting Lands" legislation (Ch. 379.3001 FS), as well as surplus restrictions for lands acquired through the Federal Aid in Wildlife Restoration Act (Pittman-Robertson) or through other federal grant programs.

The evaluation of the OHWMA by the FWC has determined that all portions of the area are being managed and operated for the original purposes of acquisition and remain integral to the continued conservation of important fish and wildlife resources and continue to provide good fish and wildlife resource based public outdoor recreational opportunities. Therefore, no portion of the OHWMA is recommended for potential surplus review.

4 Management Activities and Intent

The following section provides a description of agency plans to locate, identify, protect, preserve, or otherwise use fragile natural resources and nonrenewable cultural resources. In general, the FWC management intent for the OHWMA is to restore and maintain natural communities in a condition that sustains ecological processes and conserves biological diversity, especially fish and wildlife resources. In conjunction with this primary emphasis, it is FWC's intent to provide quality fish and wildlife resource based public outdoor recreational opportunities on the OHWMA. The FWC will utilize the best available data, guidelines, natural resource management practices, and recreational management practices to achieve these outcomes in accordance with the original purposes for acquisition. Furthermore, as noted earlier, the management activities described in this section are in compliance with those of the Conceptual State Lands Management Plan.

4.1 Land Management Review

On-site reviews of conservation and recreation lands that exceed 1,000 acres and are titled in the name of the Board of Trustees are required every five years by section 259.036, FS. These reviews determine whether the lands are being managed for the purposes for which they were acquired and whether they are being managed in accordance with their land management plan adopted pursuant to section 259.032, FS. According to statute, the 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.”

A land management review of the OHWMA will be conducted during this planning cycle. The results and recommendations of that review will be considered in the management of the OHWMA.

4.2 Adaptive Management

Adaptive management is "learning by doing";⁴ it is the adjustment or modification of conservation actions to achieve a desired conservation goal. In practice, adaptive management is a rigorous process that includes sound planning and experimental design with a systematic evaluation process that links monitoring to management.^{4, 5} Adaptive management requires flexibility for implementation, but should be fitted over a fundamentally sound, well-planned design.

An adaptive management process produces the strongest inference and most reliable results when experimental design components are incorporated into the monitoring process. Adaptive management is most rigorously applied in an active format when components of experimental design (i.e., controls, replication, and randomization) are included in the monitoring process.^{4, 5} Incorporating valid statistical analyses of results will further enhance the value of the adaptive management process. However, in some situations, rigorous experimental design procedures can be relaxed without invalidating monitoring results. In a passive format, adaptive management can involve applying a conservation action at a site, observing the results, and adjusting the action in the future if warranted.^{4, 5}

Proposed adaptive management, monitoring, and performance measures are developed through literature reviews and FWC staff meetings. Overall, a results-based approach is incorporated into this Management Plan, for which effective monitoring is an integral component. The FWC will monitor conservation actions, species, habitats, and major threats to the conservation of the natural and cultural resources of the OHWMA.

4.2.1 Monitoring

A well-developed monitoring protocol is one of the principal required criteria for the management of the OHWMA. Monitoring and performance measures are important, but often overlooked, elements of conservation planning. Monitoring provides the critical link between implementing conservation actions and revising management goals.

Monitoring is the systematic, repeated measurement of environmental characteristics to detect changes, and particularly trends, in those characteristics. Monitoring provides essential feedback – the data needed to understand the costs, benefits, and effectiveness of planned conservation actions and the management projects undertaken to address them.²

For natural communities, monitoring protocols are established through FWC's Objective-Based Vegetation Management (OBVM, Section 4.3.1) program, which monitors how specific vegetative attributes are responding to FWC management. For locally-important fish and wildlife species, monitoring protocols are established through the FWC's Wildlife Conservation Prioritization and Recovery (WCPR, Section 4.4.2) program. FWC staff may monitor additional fish and wildlife species when deemed appropriate. Invasive plant and animal species (Section 4.5) are also monitored as needed and appropriate. Recreational uses are monitored through the FWC's Public Access Services Office (PASO) program, and work in conjunction with the establishment and adjustment of public access carrying capacities (Section 4.6.3). Cultural resources (Section 4.9) are monitored with guidance from the DHR.

4.2.2 Performance Measures

Performance measures include qualitative or quantitative measures used to provide an estimate or index of the characteristic of interest, and to chart the overall progress of conservation actions towards specific goals. Successful monitoring programs and their associated performance measures provide natural resource professionals with valuable feedback on the effectiveness of conservation actions and make it possible to implement a more flexible adaptive management approach. An adaptive management approach ultimately will be more efficient and effective when it tracks inputs, incorporates an effective monitoring program that integrates performance measures, and evaluates results against desired goals.

4.2.3 Implementation

The OHWMA Management Plan serves as the guiding framework to implement this adaptive management process. It serves as the underpinning for the integration of management programs (OBVM, WCPR, PASO, Recreation Management Plans/Recreation Assessments, etc.) underway to accomplish needed conservation actions that are planned to manage the natural resources of the OHWMA and resolve conservation threats to fish and wildlife and the habitats they occupy. Based on evaluations of project results, the conservation actions are revised as necessary, and the adaptive management process is repeated.

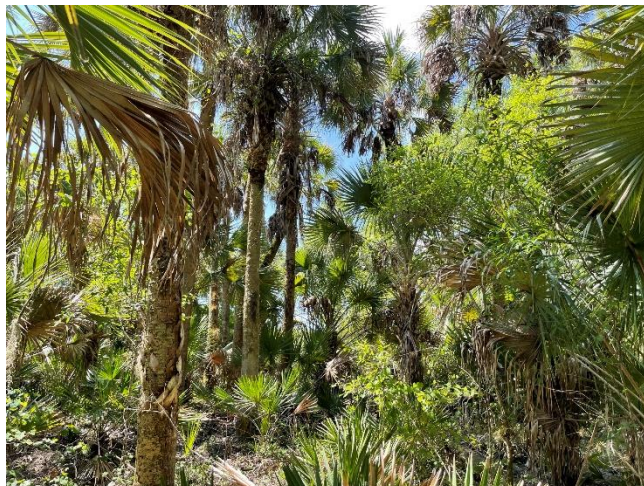
4.3 Habitat Restoration and Improvement

On the OHWMA, the FWC will focus on managing for native habitat diversity, emphasizing maintenance of natural communities and restoration of disturbed areas. The OHWMA has functioning natural communities including mesic flatwoods and hammocks; basin, depression, and slough marshes; and dry and wet prairies that the FWC will manage and protect. On any disturbed upland sites, the FWC intends to continue natural community restoration. Restoration may be achieved on disturbed areas by the re-introduction of fire, restoring historic hydrological conditions, and/or the use of mechanical or chemical forest management techniques as appropriate.

4.3.1 Objective Based Vegetation Management (OBVM)

The FWC uses a comprehensive resource management approach to improving FWC-managed areas. Restoring the form and function of Florida's natural communities is the foundation of the FWC's management philosophy. OBVM is a monitoring tool used by the FWC to monitor how

specific vegetative attributes are responding to management. The first OBVM monitoring of the OHWMA is scheduled to occur during the Fall of 2025, with the mesic flatwoods and dry prairie natural communities being evaluated.



The first step in implementing OBVM is to map the current, and in most cases the historic, natural communities on the managed area using the FNAI Natural Community Classification. A natural community, as defined by FNAI, is a distinct and recurring assemblage of populations of plants, animals, fungi, and microorganisms naturally associated with each other and their physical environment. The FWC contracts with FNAI to provide these mapping services and has natural community maps recertified for most areas on a five-year basis.

FNAI has conducted surveys and mapped the current and historic natural communities on the OHWMA. New acquisitions that may occur on the area during this planning period will be mapped for current natural and altered communities.

After natural communities have been mapped, FWC land managers will identify those natural communities that will influence and guide management decisions, known as the actively managed natural communities. Through OBVM monitoring, the FWC collects data on specific vegetation attributes that provide insight about natural community conditions. This information will be used to guide and prioritize management efforts on the area. Because the FWC is interested in the overall effect of management on the natural communities, OBVM data is analyzed area wide, at the natural community level, but not at the management unit level.



Vegetation monitoring samples the 12 OBVM core attributes, with the results being compared to the desired future conditions (DFCs). Measurable habitat management objectives, referred to as DFCs, have been established by FNAI for each actively managed natural community. DFCs are the acceptable range of values for quantifiable vegetation attributes, such as basal area, shrub height and cover, and ground cover. The FWC collaborated with FNAI to identify 'reference sites' for each actively managed natural community and

applied the OBVM monitoring methodology at these reference sites to determine what attribute values occur in a high-quality community (<http://www.fnai.org/reference-natural-communities.cfm>). FWC staff generally use reference site attribute values when setting DFCs for actively managed natural communities.

All monitoring performed under OBVM is completed using the program's Standard Operating Procedures. Consistent, long-term monitoring of managed natural communities will quantify changes in habitat conditions, provide information on the cumulative effects of management activities, and measure progress towards meeting management objectives for DFCs. Measured changes in vegetation conditions are intended to be used to inform future land management actions.

Overall, natural community mapping, OBVM structural sampling, and plant species lists provide FWC staff with baseline data indicating natural community structure, distribution, and condition on the area. Comparing the monitoring results to desired future conditions provides important information on the structural condition and composition of a natural community at a given point in time. OBVM sampling is repeated every five years and comparisons with past OBVM monitoring data allows changes over time to be detected. Using this information, managers can evaluate, adjust, and modify their management practices to better natural community condition. By comparing natural community mapping products through the years, managers can track progress in moving altered communities to functioning natural communities.

4.3.2 Prescribed Fire and Fire Management

Periodic spring and summer fires occurred in fire-adapted communities under natural conditions. Plant species composition reflects the frequency and intensity of these fires. In the absence of fire, natural communities dependent on frequent fire follow a successional pattern through mixed pine-hardwood forests to an exclusively hardwood community rather than to the original plant community. The plant species composition may differ slightly on poorer soils of the slash pine flatwoods, but the dominant role of fire in controlling hardwoods is equally important in either ecosystem.

Timber management practices and, to some extent, fire exclusion have altered the plant species composition of the OHWMA, resulting in a loss of fuel and complicating the return to the desired "natural" fire management regime. Site-specific combinations of prescribed fire and mechanical and/or chemical vegetation control are likely actions that will be needed to restore the area to historic natural communities.

The FWC will employ a fire management regime to maintain or increase both species and habitat diversity on the OHWMA in accordance with natural community management objectives. As fire moves across a landscape, some areas carry fire better than others. Areas with higher fine fuel loads typically burn more evenly and with greater intensity. Areas with lower fuel loads or wetland areas typically will not carry fire as evenly, and usually burn at a lower intensity. Employing a burning program with different fire frequencies, intensities, and seasonality (dormant season vs. growing season) of prescribed burns creates habitat diversity and a mosaic

of vegetation patterns. This mosaic landscape will have characteristics of both frequently and infrequently burned areas, benefitting the greatest suite of flora and fauna.

On some areas, prescribed burning is limited by the buildup of mid-story brush and a lack of pyrogenic groundcover fuels. When extensive, this condition creates unsuitable habitat for many wildlife species. Used in conjunction with prescribed fire, mechanical control of brush by roller chopping, mowing, shredding, or incidentally by equipment during timber thinning operations, can reduce shading and encourage the grasses and forbs that best sustain prescribed fire. Mowing and roller chopping can be a valuable management tool, enabling the use of prescribed fires in areas heavily impacted by dense woody vegetation. However, if used inappropriately, roller chopping may damage the herbaceous ground cover, especially wiregrass. Therefore, the FWC will work to limit its use to situations where burning can only be accomplished after a mechanical reduction of woody vegetation.

Whenever possible, existing firebreaks such as roads and trails, as well as natural breaks such as creeks and wetlands, will be used to define management units. Disk harrows, mowing, and foam lines will be used as necessary to minimize disturbance and damage created by fire plows.

The transitional areas between two adjacent but different natural community types are known as ecotones. With the exception of wildfire suppression, mechanical soil disturbance in wetland ecotones will be avoided in order to protect habitats for important rare species that often occur between upland and wetland margins. Creation of firebreaks will be avoided in wetland margins unless necessary to defend the boundary of a managed area. When safe, fires will be allowed to burn into the edges of marshes, swamps, and other wetlands in order to maintain these habitats. With some exceptions, most fire managed natural communities are best maintained, or improved, with fire returns of 2-3 years, preferably during the spring and early summer months when appropriate.

In addition to the general prescribed fire management guidelines described above, an area-specific Prescribed Fire Plan has been developed and implemented for the OHWMA. This plan includes, but is not limited to, delineation of burn management units, descriptions of prescribed fire methodology, safety guidelines, and smoke management guidelines (Appendix 10.9).

The FWC plans to conduct prescribed burning on the approximately 4,339 acres of fire-maintained natural communities on the OHWMA. All 4,339 acres will be maintained within the recommended fire intervals during this planning period. Implementation of prescribed fire will begin in the Fall and Winter of 2021-2022 during the dormant season.

Prescribed fire was implemented on the OHWMA prior to acquisition by the State. While it is difficult to know the exact return interval or predominant season of fire, the current state of many of the fire-maintained communities (e.g., mesic pine flatwoods) strongly suggests an interval longer than the recommended 2-3 years. Excessive height of re-sprouting brush species such as staggerbush, gallberry, and tarflower are present in many units, and encroachment of live oak and laurel oak have begun to spread from adjacent hammocks into mesic flatwoods.

Available aerial imagery from the last 20 years confirms that some of the property's burnable acreage has been treated with fire during that time. At least 1,200 and 150 acres were burned in early (dormant season) 2014 and 2016, respectively. Vegetation height and characteristics in other burn units suggest they were burned in the last five to ten years but were not captured in any imagery. The legacy of wildfires, namely the appearance of fire plow lines, are also evident from aerial imagery, suggesting that fragments of several units have burned when conditions were dry. The last documented fire on the OHWMA was a small 25-acre wildfire in June 2020 that was lightning-ignited and extinguished naturally.

Other challenges that continue to impact the implementation of prescribed fire on the area are described further in Section 6. The continuing benefits of prescribed fire on the area's wildlife habitats, along with other ongoing habitat restoration activities that are being implemented on the OHWMA, are discussed in more detail below.

4.3.3 Habitat Restoration and Improvement Activities

Significant habitat management activities will take place within many of the natural communities of the OHWMA over the course of this management period. As stated previously, all management units with fire-adapted natural communities will be placed under a regular fire management regime as established in the Prescribed Burn Plan. This will improve native ground cover and wildlife habitat throughout the OHWMA. In addition to prescribed burning, mechanical treatments will also occur on the area. The margins of burn units will be shredded, mowed, or roller-chopped as deemed necessary to facilitate safer, more manageable burns. Some mesic flatwoods areas will benefit from mowing or roller chopping to restructure excessive vegetation prior to burning.

Pine thinning activities will include at least 50 acres of densely timbered mesic flatwoods and possible lighter thinning in some areas as recommended in the Timber Management Plan that will be completed during this planning period. Further, oak encroachment is evident in several management units on the OHWMA that will benefit from selective removal of oak species to further improve habitat.

Habitat management activities on the OHWMA will focus on enhancing natural communities, maintaining recommended fire return intervals for fire adapted communities, treating and removing invasive plant species, and controlling vegetation through mowing and roller chopping as needed. Chemical and mechanical treatments may also be implemented in some natural or altered communities, as determined by the Timber Management Plan, in order to restore the area to an earlier successional condition. Invasive species control is more extensively discussed in Section 4.5. Further specific habitat management and improvement objectives planned for the OHWMA are described in Section 5.

4.4 Locally Important Species Habitat Maintenance, Enhancement, Restoration, or Population Restoration

4.4.1 Fish and Wildlife

Due to the variety of natural communities, a diversity of associated wildlife, including rare, imperiled, common game, and non-game species, can be found on the OHWMA. In managing for wildlife species, an emphasis will be placed on conservation, protection, and management of natural communities. As noted above, natural communities important to wildlife include mesic flatwoods, mesic hammock, and various marsh communities. Natural communities that are less represented on the OHWMA include dry and wet prairies.

The size and natural community diversity of the OHWMA creates a habitat mosaic for a wide variety of wildlife species. Resident wildlife will be managed for optimum richness, diversity, and abundance. In addition to resident wildlife, the OHWMA provides resources critical to many migratory birds including waterfowl, passerines, raptors, and others. Habitats important to migratory species will be protected, maintained, or enhanced.



The FWC intends to manage game populations on a sustained-yield basis to assure healthy game populations and a high-quality recreational experience. In general, game wildlife populations will be managed to provide continued recreational sport hunting and wildlife viewing opportunities. However, due to the limited size of the area, some of the hunting opportunities may be regulated through a limited entry hunt program to ensure the persistence of viable game species populations, as well as hunter safety and satisfaction. The potential for conflicts among recreational activities and user groups will also be considered and continually monitored.

Wildlife monitoring emphasis is placed on documenting the occurrence and abundance of rare and imperiled species on the property. The FWC will continue to update inventories for certain species, with emphasis on rare and imperiled fish and wildlife species. Monitoring of wildlife species will continue as an ongoing effort for the area.

Concurrent with ongoing species inventory and monitoring activities, management practices are designed to restore, enhance, or maintain rare and imperiled species and their habitats. This will be further augmented by following approved Federal and FWC species recovery plans, guidelines, and other scientific recommendations for these species. Guided by these recommendations, land management activities including prescribed burning and timber stand improvements will address rare and imperiled species requirements and habitat needs. Section 4.4.2 provides further information on the FWC's comprehensive species management strategy for rare and imperiled wildlife and their respective habitats.

4.4.2 Locally Important Species: Wildlife Conservation Prioritization and Recovery

The FWC has identified the need to: 1) demonstrate optimal wildlife habitat conservation on FWC-managed lands; 2) develop science-based performance measures to evaluate management; 3) recover imperiled species; and 4) prevent future imperilment of declining wildlife species. To help meet these needs, the FWC uses a comprehensive resource management approach to managing FWC-managed areas. Restoring the form and function of Florida's natural communities is the foundation of this management philosophy. The FWC uses OBVM to monitor how specific vegetative parameters are responding to the FWC management and uses the WCPR program to ensure management is having the desired effect on wildlife.

The goal of WCPR is to provide assessment, recovery, and planning support for the FWC-managed areas to enhance management of locally important species and the recovery of imperiled species. The WCPR program objectives include prioritizing locally important species on the FWC-managed areas; ensuring the actions taken on these areas are part of statewide conservation programs and priorities; and informing others about the work accomplished on lands the FWC manages.

The WCPR program helps the FWC take a proactive, science-based approach to species management on FWC-managed lands, and, in conjunction with input from species experts and local biologists, creates site-specific wildlife assessments for locally important species as the focus of the WCPR program. Staff combines these assessments with area-specific management considerations to develop a Species Management Strategy for the area. Each Strategy contains area-specific recommendations for managing priority species and their habitat, prescribes management actions to achieve these objectives, and identifies monitoring protocols to verify progress toward meeting the objectives. By providing FWC managers with information on actions they should undertake, the FWC intends for the Strategy to assure the presence and persistence of Florida's endangered and threatened fish and wildlife species (see <https://myfwc.com/media/1945/threatend-endangered-species.pdf>), as well as select habitat indicator species and other locally important species found on the area.

In summary, for FWC-managed areas, the WCPR program helps assess locally-important wildlife species' needs and opportunities, prioritize what the FWC does for locally-important species, prescribe management actions to aid in species recovery, prescribe monitoring protocols to allow evaluation of the species' response to management, and ensure the information is shared with others. Through the actions of this program, the FWC will facilitate fulfilling the needs of locally important species on the OHWMA. In the long-term, by implementing these strategies on FWC-managed lands and continuing to assess wildlife species' needs, the FWC will continue to play an integral role in aiding the recovery of imperiled species and preventing the future imperilment of declining wildlife species.

An FWC WCPR Strategy will be completed for the OHWMA during this planning cycle. OHWMA staff will implement the OHWMA WCPR Strategy. The FWC will also review and revise this document as appropriate.

4.5 Invasive and Non-native Species Maintenance and Control

With non-native and invasive species populations continuing to grow in Florida, the FWC takes a proactive and comprehensive approach to the monitoring and management of invasive and non-native plants and animals, as well as pests and pathogens, on FWC managed areas. Non-native species are those species that do not originate from Florida. These species are often introduced as a result of deliberate or accidental human activities and are closely monitored by the FWC for potential future impacts. If a non-native species is found to cause environmental or economic harm to humans, it is then classified as an invasive. On the OHWMA, the FWC has established a variety of control measures for the management of any found non-native or invasive plant and animal species.

4.5.1 Invasive Plant Species

The FWC will continue efforts to control the establishment and spread of Florida Invasive Species Council (FISC) Category I or II plants on the OHWMA while using the most current control technologies (CCT) which may include mechanical, herbicide, and biological control. Treatments utilizing herbicides will comply with instructions found on the herbicide label and employ the Best Management Practices and CCT for their application. More information regarding herbicides used on FWC's lead managed areas can be found here:

<https://edis.ifas.ufl.edu/pdf%5C5CWG%5CWG20900.pdf>

Invasive plant species known to occur on the OHWMA include: cogongrass, Brazilian pepper, caesarweed, torpedograss, West Indian marshgrass, and, more rarely, melaleuca (Table 5). Invasive plant species have been identified as occurring at varying densities on the OHWMA. Currently, approximately 75% of the OHWMA is considered to be in maintenance rotation, and an estimated 25% remains to be surveyed, monitored, and treated as appropriate, as guided by the FWC's Invasive Plant Management Section.

Maintenance rotation is defined as having a given area/acreage with invasive species infestations reduced to a level where no ecological harm will occur by skipping any treatment for a period of one to several years, depending on the species. Maintenance rotation is not necessarily synonymous with eradication, which is usually impractical to achieve. Maintenance rotation intervals for invasive plants varies greatly by species. Generally, woody species that form canopies will need a thorough initial treatment and a follow-up treatment the next growing season. Thereafter, the maintenance rotation treatment will need to follow seed germination and seedling/sapling regrowth patterns, with subsequent treatments being necessary every two- to ten-years, depending on initial infestation level, seed bank presence, and likely new dispersal into the area from neighboring populations of these species. Woody species that dominate the midstory will need a treatment regimen similar to those that form canopies, except the subsequent retreatment rotation would be every two- to five-years.

Herbaceous species that can affect the midstory and canopy, including vines, weak lianas, and climbing ferns need to be detected and treated as early as possible. These need to have an aggressive initial treatment, followed by yearly treatments, until the populations no longer affect

the midstory. At this point, a two- to three-year rotation, with treatment as necessary, will keep these infestations in maintenance rotation.

Herbaceous and weakly woody species that only dominate the groundcover can be particularly challenging. This group is diverse and includes species such as caesarweed and cogongrass. The rotation intervals can vary from treatments once every two- to three-years, to annual treatments, to as many as four treatments in a growing season depending on the species. For this reason, rotation intervals for these species should be developed in coordination with the FWC's Invasive Plant Management Section. Infestations requiring multiple treatments in a growing season should also be mapped individually, because their treatment plans may differ from the rest of the invasive plants in any given unit.

The FWC will continue to focus control and maintenance activities on areas identified as having invasive plant occurrences, as well as treating any new occurrences as they are identified through continued monitoring activities. Natural disasters such as tropical cyclones, flooding, wildfire, and drought can both negatively and positively impact maintenance rotation of an area and affected acreage should be re-surveyed following any of these events to reassess the maintenance state of the area.

The degree of maintenance effort for invasive plant occurrences often varies substantially by species, level of disturbance, environmental conditions, other land management activities such as timber harvesting, groundcover restoration, etc., and can also be affected by the status of ongoing eradication and control efforts. FWC staff will take special effort to treat invasive species in coordination with mechanical treatments and prescribed fire so optimal results are achieved. Treatment strategies for invasive plants will be adjusted over time as conditions change on the OHWMA area. Changes may include hydrological restoration, wildfire, and reintroduction of endangered plant/animal species.

Cogongrass occurs in small patches on the interior of management units, but large infestations are present along disturbed corridors such as the main grade and southern boundary. Brazilian pepper is a frequent sight along disturbed areas and is present in many mesic hammocks; however, infestations are rarely large and impenetrable, rather individual trees may be scattered in select hammocks at low densities. Caesarweed is frequently seen throughout mesic hammocks, but does not form massive monocultures, possibly due to consistent wild hog rooting.

Many depression marshes and basin marshes also appear to be in maintenance condition. West Indian marshgrass may be present in the deep center of marshes, and many have infestations of torpedograss if disturbed along margins. Melaleuca is rare and only present in a handful of marshes at very low densities. Though this is difficult to quantify, the infestation of depression marshes seems to be lower than that of basin marshes; this is likely due to the more frequent occurrence of fire in depression marshes.

The slough marshes on the OHWMA require the most intensive work to control invasive plants. The Orange Hammock Slough system on the east side of OHWMA has populations bordering

on monocultures of torpedograss along the margins of the individual marshes, which will require significant resources to manage. The Alderman Slough, a historic slough system on the western boundary of OHWMA that is now channelized, has nearly complete infestations of West Indian marshgrass and torpedograss in its depressions. For areas on the OHWMA that require treatments for aquatic based invasive species, FWC area staff will work closely with both FWC's Invasive Plant Management Section and FWC's Aquatic Habitat Conservation and Restoration for assistance and guidance on aquatic plant control.

Ongoing invasive plant species objectives and challenges for the OHWMA are further detailed in Sections 5 – 6. The FWC will continue to focus control and maintenance activities on areas identified as having invasive plant occurrences, as well as treating any new occurrences as they are identified through continued monitoring activities. FWC area staff will continue to work closely with FWC's Invasive Plant Management Section for guidance and assistance on treatments and management of invasive species on the area.

Additionally, the FWC will continue efforts to control the introduction of invasive species, as well as pests and pathogens, on the OHWMA by inspecting any equipment brought onto the area by contractors and requiring that they be free of vegetation and dirt. If equipment used by contractors is found to be contaminated, it will be referred to an appropriate location to clean the equipment prior to being allowed on the area. This requirement is included in every contract for contractors who are conducting any operational or resource management work on the area. In this way, the FWC implements a proactive approach to controlling the introduction of invasive pests and pathogens to the area.

4.5.2 Invasive and Non-native Fish and Wildlife Species

The FWC continues to work towards minimizing the adverse impacts of non-native and invasive fish and wildlife species in Florida. This is accomplished through prevention, early detection, rapid response, control and management, and education and outreach. Early detection and rapid response is a critical defense against the establishment of invasive fish and wildlife. The FWC monitors and removes non-native species, responds to new invasions, and continues to assess the risk of species not yet present in our state. Rule 68-5, FAC, Federal Lacey Act, and certain FS govern the importation, possession, and use of non-native fish and wildlife, as well as identify Conditional and Prohibited non-native species in Florida. More information on these guidelines can be found here: <https://www.fws.gov/injuriouswildlife/> and <https://www.flrules.org/gateway/chapterhome.asp?chapter=68-5>. Conditional species (formerly referred to as restricted species) and Prohibited species are considered to be dangerous to Florida's native species and habitats or could pose threats to health and welfare of the people of Florida. The FWC relies on monitoring efforts and current science including risk determination, supplemental documentation, and research to identify possible invasive species. In order to further assist the FWC's effort on invasive fish and wildlife identification and removal, the FWC encourages the public to utilize the FWC's Exotic Species Hotline at 888-Ive-Got1 (483-4681) or to visit www.IveGot1.org to report observations of non-native species. More information on these public reporting options and other components of the Wildlife Impact Management

Nonnative Fish and Wildlife Program can be found here:
<https://myfwc.com/wildlifehabitats/nonnatives/>.

To address the presence of non-native and invasive fish and wildlife on the OHWMA, FWC area staff will continue to work closely with FWC's Wildlife Impact Management Section for guidance and assistance. Control of invasive fish and wildlife on the OHWMA can also be accomplished through the assistance of private python removal contractors; more information on the private contractors utilized by the FWC can be found here: www.myfwc.com/python. The FWC also relies on public assistance and participation in the control of invasive fish and wildlife species. Executive order 17-11 authorizes the lethal take of non-native reptiles on 25 FWC-managed lands. Trappers and nuisance wildlife control operators can also apply for an eradication and control permit to assist in the capture of Prohibited non-native species on private and public lands including WMAs. More information on this permit process can be found here: <https://myfwc.com/wildlifehabitats/nonnatives/rule-development/trappers/>. Due to the growing concern related to the impacts of several non-native species, the FWC and partners take a proactive and coordinated approach towards the removal of non-native species.

An invasive animal species of concern throughout the state and on the OHWMA is the wild hog. These animals have high reproductive rates, and when populations reach high densities, wild hogs can significantly degrade natural communities through foraging activity (rooting). The FWC will consult with other regional natural resource managing agencies and private landowners to coordinate wild hog control measures as necessary. Wild hog populations are managed by hunts during the archery, small game, general gun, and muzzleloading gun seasons. Wild hog populations may also be managed by trapping, as necessary, to aid in minimizing the negative impacts caused by wild hog populations on the area.

4.6 Public Access and Recreational Opportunities

To facilitate recreational opportunities on the area, the FWC will establish and maintain a website, hiking trails, trail maps, welcome signage, kiosks, and interpretive panels on the OHWMA. Planned public access facility improvements for this planning period are detailed in Section 5. Potential and existing public access and recreational opportunity management challenges are addressed in Section 6. In addition, the FWC will continue to implement public



access, recreational, and educational opportunities on the area in accordance with the OHWMA Recreation Master Plan upon its development and approval.

4.6.1 Americans with Disabilities Act

When public facilities are developed on areas managed by the FWC, every effort is made to comply with the Americans with Disabilities Act (ADA) (Public Law 101-336). As new facilities are developed, the universal access requirements of this law are followed in all cases except where the law allows reasonable exceptions. Recreation facilities in semi-primitive or primitive zones will be planned to be universally accessible to the degree possible except as allowed by the ADA⁷ where:

1. Compliance will cause harm to cultural resources, or significant natural features and their characteristics.
2. Compliance will substantially alter the nature of the setting and therefore the purpose of the facility.
3. Compliance would not be feasible due to terrain or prevailing construction practices.
4. Compliance would require construction methods or materials prohibited by federal or state statutes, or local regulations.

4.6.2 Recreation Master Plan

The FWC has adopted a comprehensive approach to the planning and administration of fish and wildlife resource based public outdoor recreational opportunities for the OHWMA. To accomplish this, the FWC will work with recreational stakeholders and the general public to develop a Recreation Master Plan for the OHWMA that will be used to further design and develop appropriate infrastructure that will support the recreational use of the area by the general public. This Recreation Master Plan will include planning for parking, trail design, and area resource interpretation.

4.6.3 Public Access Carrying Capacity

Baseline carrying capacities for users on FWC-managed lands are established by conducting a site-specific sensitivity analysis using available data for the site. The intent of the carrying capacity analysis is to minimize wildlife and habitat disturbance and provide the experience of being “immersed in nature” that visitors to FWC-managed areas desire. Carrying capacities are just a first step; management of recreational use requires a means of monitoring visitor impacts. Responding to these impacts may require adjusting the carrying capacities as necessary. The carrying capacities generated through this process are used as a tool to help plan and develop public access, wildlife viewing, and fish- and wildlife-based public outdoor recreation opportunities. Based on an analysis of the overall approved uses and supported public access user opportunities, and the anticipated proportional visitation levels of the various user groups, the FWC has determined that the OHWMA can currently support 201 visitors per day. However, an objective to increase the public access carrying capacity to 222 visitors per day has been proposed in Section 5.5 of this Management Plan. It is important to note that public access carrying capacities are not developed to serve as a goal for expanding the public use of a particular area to match the established carrying capacity. Rather, they are developed to establish maximum thresholds for public use of the respective area in order to protect the

natural and cultural resources on the OHWMA and to ensure that visitors will have a high-quality visitor experience. The public access carrying capacity will be periodically reevaluated, and additional capacity may be contemplated as part of the Recreation Master Plan development and implementation process.

4.6.4 Wildlife Viewing

The OHWMA is home to a variety of resident wildlife found within its mesic flatwoods and hammocks, various marshes, and other natural communities. The OHWMA's size and variety of habitat types create outstanding wildlife viewing opportunities. Additionally, wildlife viewing opportunities are projected to increase upon the completion of planned improvements for public access and wildlife viewing outlined in Section 5.5 of this plan.

4.6.5 Hunting

Currently, hunting opportunities on the OHWMA include archery, muzzleloading gun, mobility-impaired general gun, general gun, small game, youth turkey, and spring turkey. The OHWMA will allow hunting of all legal game, turkey (gobbler or bearded turkey only), fish, frogs, and furbearers. Details regarding seasons and quotas can be found at the following FWC website: <https://myfwc.com/hunting/regulations/proposed-rules/>. A re-evaluation of the potential for hunting opportunities, including the need to control wild hogs, will be periodically performed by the FWC.

4.6.6 Fishing

Fishing is authorized year-round at the OHWMA.

4.6.7 Boating

There are no surface waters at the OHWMA suitable for boating. However, boating opportunities are provided at other nearby conservation lands.

4.6.8 Trails and Hiking

The FWC is developing ten miles of trails for establishment on the OHWMA, which will be marked for ease of use by 2023. The FWC will continue to periodically reevaluate the potential for additional trail opportunities and monitor trails for user impacts to natural communities. Hiking is permitted year-round on the OHWMA trail system. Designated trails and unpaved roads can be explored by hikers and those interested in nature study.

4.6.9 Bicycling

Cycling is permitted year-round on the OHWMA trail system.

4.6.10 Equestrian

Equestrians are permitted year-round on the OHWMA trail system. However, there is currently no equestrian-specific infrastructure on the OHWMA.

4.6.11 Camping

Currently, camping is not permitted on the OHWMA. However, camping opportunities are available on nearby public lands.

4.6.12 Geocaching

Geocaching, also known as Stash Hunt or Geo-stash, is a contemporary combination of orienteering and scavenger hunting generally utilizing a Geographic Positioning System receiver unit. Geocache websites routinely promote good stewardship. However, the potential exists for resource damage, user conflicts, or safety issues caused by inappropriately placed caches and/or links that do not provide adequate information about the area.

For these reasons, it is the policy of the FWC to allow placement of geocaches only in those locations that do not present the potential for resource damage, user conflicts, or threats to the safety of the activity participants. The placement of geocaches on FWC-managed lands is allowed only through issuance of an FWC permit that is governed by specific permitting guidelines. These guidelines may be found on the following FWC website:

<https://myfwc.com/license/public-land-use/geocaching/guidelines/>.

4.7 Hydrological Preservation and Restoration

In cooperation with the SWFWMD, the DEP, and other local partners, natural water regimes will be re-established to the extent feasible and appropriate. This is consistent with the primary purpose for the acquisition of the OHWMA and relates directly to the water quantity and quality aspects of the ecosystem. The FWC has conducted some preliminary restoration work, including the replacement of a drainage culvert, but will work to complete a full hydrological assessment on the OHWMA during this planning period.

4.8 Forest Resource Management

A Timber Assessment of the timber resources of the OHWMA will be conducted by the Florida Forest Service or a contracted professional forester. The management of timber resources will be considered in the context of the Timber Assessment and the overall land management goals and activities.

Approximately 2,008 acres of the OHWMA are comprised of mesic flatwoods and represent the natural community with the most potential for forest resource (timber) production. At the OHWMA, the mesic flatwoods natural community typically contains a sparse canopy of slash pine or longleaf pine. These pine canopies are more sparse when adjacent to prairie communities and somewhat denser when grading down slope towards hammock communities.



Thinning of the forest over-story, hydrological restoration, and reintroduction of prescribed burning are important factors in enhancing natural communities and improving wildlife habitats in these areas. Pine dominated upland communities planted with off-site pines should be

reforested over time with longleaf pine or other site appropriate species. Degraded or disturbed bottomland hardwood sites will be allowed to reforest naturally with native oaks, hardwoods, and other appropriate native species.

The FWC will continue to manage timber resources for wildlife benefits and natural community function. Management activities including the use of timber harvesting may be utilized. When safe, snags will be protected to benefit cavity-nesting species. The primary management technique for encouraging reforestation is protection of young trees and seedlings on these sites from damage. However, where natural regeneration is lacking, supplemental plantings of seedling pines should be used. Planting trees on these sites is used to better ensure successful reforestation.

4.9 Cultural Resources

A review of the FMSF indicates that no cultural resources have been recorded on the OHWMA. Furthermore, no cultural resource surveys have been conducted within the area at this time. The FWC will consult with the DHR to determine the procedures necessary to identify, assess, and preserve any unrecorded or unevaluated cultural resources that may be present within the OHWMA. In addition, the FWC will ensure area management staff has the latest DHR Archaeological Resource Management (ARM) training. The FWC will follow the DHR's Management Procedures for Archaeological and Historical Sites and Properties on State-Owned or Controlled Properties (Appendix 10.10), and, in accordance with Sections 267.061(2)(a,b), FS, the FWC will consult with and allow the DHR a reasonable opportunity to comment prior to any undertaking that may impact historic properties. Furthermore, should any previously unidentified resources be located on the OHWMA, the FWC will prepare and submit all necessary documentation to the FMSF.

4.10 Capital Facilities and Infrastructure

The FWC's land management philosophy is designed to conserve the maximum amount of wildlife habitat while providing the minimal number of capital facilities and infrastructure necessary to effectively conduct operational and resource management activities and provide ample opportunities for fish and wildlife resource based public outdoor recreation. For these reasons, planned capital facilities and infrastructure will focus on improving access, recreational potential, hydrology, or other resource and operational management objectives. As described in Section 4.6.1 of this Management Plan, for any public facilities that are developed on areas managed by the FWC, every effort is made to comply with the Americans with Disabilities Act (Public Law 101-336).

There are approximately five miles of publicly accessible roads on the OHWMA. In addition to publicly accessible roads, there are approximately five miles of roads that are used by FWC staff for maintenance purposes and are not accessible to the public. The FWC is currently developing and marking ten miles of trails on the OHWMA. Planned capital facilities and infrastructure improvements are listed in Section 5.8 of this management plan. However, some preliminary work, including the installation of boundary fencing along adjacent private properties, has already occurred on the OHWMA.

4.11 Land Conservation and Stewardship Partnerships

In compliance with the Chapter 18-2, FAC, the FWC develops an Additions and Inholdings Acquisition list for each FWC-managed area, which identifies lands within or immediately adjacent to each FWC-managed property that are essential to management of the property. Furthermore, cooperative land steward partnership efforts with private landowners play an integral role in this effort as does ongoing land conservation, either through fee-simple or less-than-fee conservation easements. Continued conservation of these lands may be aided by available voluntary landowner stewardship programs, conservation easements, and in some cases, voluntary conservation acquisitions. Participation in any FWC conservation effort is entirely voluntary and at the sole choice of willing landowners.

Private landowners seeking assistance with habitat management can find it through the FWC's Landowner Assistance Program (LAP). The FWC employs biologists who are available to provide wildlife-related assistance with land-use planning and habitat management. There are many forms of assistance that include technical, financial, educational, and various forms of recognition that seek to award landowners who manage their wildlife habitat responsibly. More information on FWC's LAP program and online habitat management tools are available online at: <http://myfwc.com/conservation/special-initiatives/lap/>.

4.11.1 FWC Florida Forever Additions and Inholdings Acquisition List

The FWC Additions and Inholdings Acquisition list identifies lands within or adjacent to FWC-managed areas that are important for the conservation of fish and wildlife, serve as a link or corridor to other publicly owned property, enhance the protection or management of the property, would create a more manageable boundary configuration, have a high resource value that would otherwise be unprotected, or that could be acquired at substantially less than fair market value (Figure 12 and Appendix 10.13). Parcels on the list have been ranked high, medium, or low priority based on a score generated by a GIS-based resource evaluation model, along with technical input from FWC staff.

The order of acquisition priority may be changed as necessary based on factors including available funding necessary to complete a particular acquisition project, changing development pressures, landowner willingness, funding partnerships, unique acquisition opportunities like bargain sales (less than 80% of appraised value), and donations.

The FWC Additions and Inholdings list is updated through time, thus staying up-to-date for land ownerships, County parcel records, land conservation opportunities, and evolving management challenges. The FWC continually analyzes, evaluates, and prioritizes its recommended conservation actions in a systematic, comprehensive, and consistent manner over time. Participation in any of these FWC acquisition efforts is entirely voluntary and at the sole choice of willing landowners.

Currently, the FWC has identified 4,851 acres of potential additions or privately held inholdings for the OHWMA. Furthermore, the OHWMA was acquired as a part of the Myakka Ranchlands Florida Forever project. The Myakka Ranchlands includes a total of 47,414 acres, in which

approximately 16,841 acres have been acquired, leaving 30,573 remaining acres to be acquired. Other nearby Florida Forever projects include Charlotte Harbor Estuary and Peace River Refuge (Figure 4). Charlotte Harbor Estuary includes a total of 47,197 acres, in which approximately 41,295 have been acquired, leaving 5,902 remaining acres to be acquired. Peace River Refuge includes a total of 3,878 acres, in which approximately 74 acres have been acquired, leaving 3,804 remaining acres to be acquired. Additions to the FWC Florida Forever Additions and Inholdings acquisition list may be recommended as needed and appropriate.

4.12 Research Opportunities

The FWC intends to cooperate with researchers, universities, and others as feasible and appropriate. For the OHWMA, the FWC will continue to assess and identify research and environmental education partnership opportunities as appropriate. Research proposals involving the use of the area are evaluated on an individual basis. All research activities on the OHWMA must have prior approval by the FWC.

4.13 Cooperative Management and Special Uses

4.13.1 Cooperative Management

The FWC is responsible for the overall management and operation of the OHWMA as set forth in the lease agreement with the Board of Trustees. In keeping with this lease agreement, and to conduct its management operations in the most effective and efficient manner, the FWC cooperates with other agencies to achieve management goals and objectives described in this management plan. These include cooperating with the DHR to ensure the requirements of the Management Procedures Guidelines - Management of Archaeological and Historical Resources document (Appendix 10.10) are followed with regard to any ground-disturbing activities. The FFS assists the FWC by providing technical assistance on forest resource management. In addition, the FWC cooperates and consults with the DEP and the SWFWMD for the monitoring and management of both ground and surface water resources of the OHWMA.

4.13.2 First Responder and Military Training

First-responder (public governmental police department or agency, fire, and emergency medical service personnel) training and military training are conditionally allowed on the OHWMA. Such activities are considered allowable uses only when undertaken intermittently for short periods of time, and in a manner that does not impede the management and public use of the OHWMA and causes no measurable long-term impact to the natural resources of the area. Additionally, FWC staff must be notified and approve the training through issuance of a permit prior to any such training taking place on the OHWMA. Any first-responder or military training that is not low-impact, intermittent, and occasional would require an amendment to this management plan, and therefore will be submitted by the FWC to the DSL and ARC for approval consideration prior to authorization.

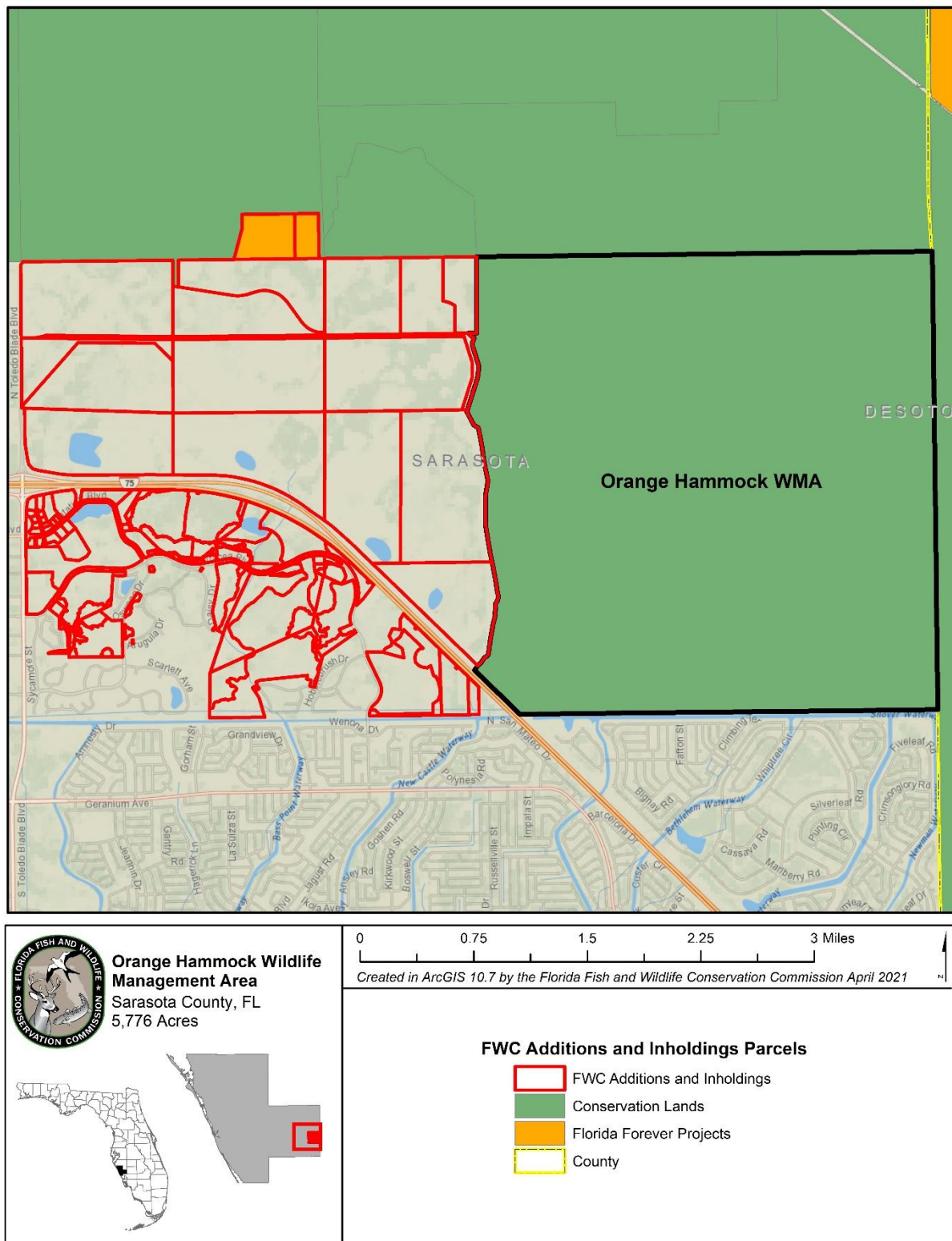


Figure 12: Proposed Additions and Inholdings for the OHWMA

Florida Fish and Wildlife Conservation Commission | Orange Hammock WMA Management Plan

4.13.3 Cattle Grazing

Although cattle grazing is a conditional use on the OHWMA, it is not currently practiced on the area.

4.13.4 Apiaries

Currently, there are no apiaries operating on the OHWMA. However, use of apiaries is conditionally approved for the OHWMA, is deemed to be consistent with purposes for acquisition, is in compliance with the Conceptual State Lands Management Plan, and is consistent with the FWC agency mission, goals, and objectives as expressed in the FWC Agency Strategic Plan and priorities document (Appendix 10.6). Location, management, and administration of apiaries on the OHWMA will be guided by the FWC Apiary Policy (Appendix 10.7). The FWC Apiary Policy will be followed with regards to site location, management, and administration of apiaries.

4.14 Climate Change

Florida's unique ecology and topography make impacts from climate change particularly acute and likely to affect multiple economic, agricultural, environmental, and health sectors across the state. The impact of climate change on wildlife and habitat is already occurring, from eroding shorelines and coral bleaching to increases in forest fires, severe weather events, and saltwater intrusion into inland freshwater wetlands.

The Intergovernmental Panel on Climate Change (IPCC), a multi-national scientific body, reports that climate change is proceeding at a rate where there will be unavoidable impacts to humans, wildlife, and habitat. Given current levels of heat-trapping greenhouse gas emissions, shifts in local, regional, and national climate patterns including changes in precipitation, temperature, increased frequency, and intensity of extreme weather events, rising sea levels, tidal fluctuations, and ocean acidification are projected to accelerate. The average global temperature has increased in recent decades, and continued greenhouse gas emissions may result in projected global average increases of 2 –11.5° F by the end of the century.

This apparent change in global climate is likely to disrupt natural processes; in some areas, climate change may cause significant degradation of ecosystems that provide services such as clean and abundant water, sustainable natural resources, protection from flooding, as well as hunting, fishing, and other recreational opportunities. Consequently, climate change is a challenge not only because of its direct effects, but also because of its potential to amplify the stress on ecosystems, habitats, and species from existing threats such as exponential increases in surface and ground water use, habitat loss due to increased urbanization, introduction of invasive species, and fire suppression.

Potential impacts that may be occurring as a result of climate change include: change in the timing of biological processes, such as flowering, breeding, hibernation, and migration;^{10,11,12} more frequent invasions and outbreaks of invasive species;¹³ and loss of habitat in coastal areas due to sea level rise.¹⁴ Some species are projected to adjust to these conditions through ecological or evolutionary adaptation, whereas others are projected to exhibit range shifts as

their distributions track changing climatic conditions. However, the highly developed Florida coastline and significant projected urban growth in the state in coming decades is likely to make it difficult or impossible for many species and habitats to shift their ranges in response to a changing climate. Those species that are unable to respond to changing climatic conditions are projected to go extinct. Some estimates suggest that as many as 20% - 30% of the species currently assessed by the IPCC are at risk of extinction within this century if global mean temperatures exceed increases of 2.7 – 4.5° F.¹⁵ A number of ecosystems are projected to be affected at temperature increases well below these levels.

At this time, the effects of climate change on Florida's conservation lands are just beginning to be studied and are not yet well understood. The FWC has a program in place to increase our understanding of the impacts of climate change on Florida's natural resources and to develop strategies to help wildlife and habitats adapt to changing conditions. While it may not be possible for natural resource managers to prevent or reverse the impacts of climate change, management actions can increase the resilience of natural systems. For example, the FWC follows a process that includes monitoring, evaluating, and determining what specific actions, if any, are recommended to ameliorate the projected impacts of climate change on fish and wildlife resources, native vegetation, and the possible spread of invasive species. Currently, the FWC is continuing its work on the development of future adaptation strategies. However, as noted above, the effects of climate change may become more frequent and severe within the time period covered by this Management Plan.

For these reasons, there is a continuing need for increased information and research to enable adaptive management to cope with potential long-term climate change impacts. The most immediate actions that the FWC can take are to work with partners to gather the best scientific data possible for understanding natural processes in their current state, model possible impacts and subsequent changes from climate change, develop adaptive management strategies to enhance the resiliency of natural communities to adapt to climate change, and formulate criteria and monitoring for potential impacts when direct intervention may be necessary to protect a species. The FWC has conducted multiple species and habitat vulnerability assessments in recent years, and these models are important tools to help managers assess the severity of climate change impacts. As impacts from climate change continue to accelerate, the FWC will consider the need for updating or conducting additional vulnerability assessments to model the potential effects of climate change, especially sea level rise and storm events, on imperiled species and their habitats on FWC managed land.

To address the potential impacts of climate change on the OHWMA, Goals and Objectives have been developed as a component of this Management Plan (Section 5.11). Depending on the recommendations of the adaptive management strategies described above, additional specific goals and objectives to mitigate potential climate change impacts may be developed for the OHWMA Management Plan in the future.

4.15 Soil and Water Conservation

Soil disturbing activities will be confined to areas that have the least likelihood of experiencing erosion challenges. On areas that have been disturbed prior to acquisition, an assessment will be made to determine if soil erosion is occurring, and, if so, appropriate measures will be implemented to stop or control the effects of this erosion.

5 Resource Management Goals and Objectives

The management goals described in this section are considered broad, enduring statements designed to guide the general direction of management actions to be conducted in order to achieve an overall desired future outcome for the OHWMA. The objectives listed within each management goal offer more specific management guidance and measures and are considered the necessary steps to be completed to accomplish the management goals. Many of the objectives listed have specific end-of-the-calendar-year target dates for completion and all of them are classified as having either short-term (2022-2024) or long-term (2022-2032) timelines for completion.

5.1 Habitat Restoration and Improvement

Goal: Improve extant habitat and restore disturbed areas.

Long-term (UP TO 10 YEARS)

- 5.1.1 Utilize OBVM monitoring to evaluate actively managed natural communities and adjust management efforts to meet desired future conditions.
- 5.1.2 Continue to implement prescribed burn plan.
- 5.1.3 Continue to conduct habitat/natural community improvement using management techniques such as roller-chopping, mowing, shredding, and prescribed fire.
- 5.1.4 Work with the NRCS or private consultant to explore the feasibility of cattle grazing on the area.
- 5.1.5 Continue to consult the Timber Assessment and Management Plan to conduct timber harvest for the purposes of habitat restoration as needed.

5.2 Imperiled Species Habitat Maintenance, Enhancement, Restoration, or Population Restoration

Goal: Monitor, maintain, improve, or restore imperiled species populations and habitats.

Long-term

- 5.2.1 Develop and implement a WCPR strategy by managing identified habitats and monitoring identified species.
- 5.2.2 Continue to collect and record opportunistic wildlife species occurrence data.
- 5.2.3 Conduct inventory-style surveys and monitoring efforts for various taxa groups as needed and appropriate.
- 5.2.4 Conduct a rare plant survey.

5.3 Other Wildlife (Game and Non-game) Habitat Maintenance, Enhancement, Restoration, or Population Restoration

Goal: Monitor, maintain, improve, or restore game and non-game species populations and habitats.

Long-term

- 5.3.1 Continue to monitor locally-important wildlife species as identified by WCPR strategies.
- 5.3.2 Continue to collect opportunistic wildlife occurrence data.

5.4 Invasive Species Maintenance and Control

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

Short-term

- 5.4.1 Conduct systematic treatment of invasive plant species through contractual services.

Long-term

- 5.4.2 Monitor the OHWMA for the level of infestation of FISC Category I and Category II invasive plant species and treat as needed and appropriate.
- 5.4.3 Continue to implement control measures on invasive and nuisance animal species, including wild hogs.
- 5.4.4 Conduct invasive species survey as part of the rare plant survey.

5.5 Public Access and Recreational Opportunities

Goal: Provide public access and recreational opportunities.

Short-term

- 5.5.1 Develop website and trail map.

Long-term

- 5.5.2 Develop a Recreation Master Plan.
- 5.5.3 Continue to implement the Recreation Master Plan and update if new acquisitions or other factors warrant.
- 5.5.4 Develop a kiosk, welcome signage, and interpretive products.
- 5.5.5 Develop and maintain public access and recreational opportunities resulting in a recreational carrying capacity of 201 visitors per day.
- 5.5.6 Evaluate additional public access and recreational opportunities resulting in a carrying capacity of 222 visitors per day.
- 5.5.7 Continue to provide website and trail map for interpretation and education.
- 5.5.8 Evaluate the need for a recreation guide.
- 5.5.9 Consult with the FWC's Division of Freshwater Fisheries Management on the fishing potential at borrow pits on the area.
- 5.5.10 Monitor fishing use and provide improvements such as fishing docks/platforms if warranted.
- 5.5.11 Continue to provide hunting opportunities for deer, turkey, small game, and wild hogs.
- 5.5.12 Cooperate with other agencies, County, stakeholders, and regional landowners to investigate regional recreational opportunities including linking hiking and multi-use trail systems between adjacent public areas.

5.6 Hydrological Preservation and Restoration

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

Long-term

- 5.6.1 Conduct or obtain a site hydrological assessment to identify potential hydrology restoration needs.
- 5.6.2 To enhance natural hydrological functions, continue to install and maintain low-water crossings and culverts as appropriate.
- 5.6.3 Implement hydrological restoration plan.
- 5.6.4 Continue to cooperate with the SWFWMD for the monitoring of surface and ground water quality and quantity.

5.7 Forest Resource Management

Goal: Manage timber resources to improve or restore natural communities for the benefit of wildlife.

Short-term

5.7.1 Cooperate with the FFS or a forestry consultant to complete a Timber Assessment.

Long-term

5.7.2 Prepare and implement a Timber Management Plan including reforestation, harvesting, and prescribed burning activities based on restoration and maintenance needs of the natural communities and other goals established for management of the OHWMA.

5.7.3 Continue to consult with the FFS or a professional forestry consultant regarding forest management activities as appropriate.

5.8 Capital Facilities and Infrastructure

Goal: Develop and maintain the capital facilities and infrastructure necessary to meet the goals and objectives of this management plan.

Short-term

5.8.1 Develop ten miles of trails.

Long-term

5.8.2 Monitor trails and infrastructure annually for visitor impacts.

5.8.3 Improve and maintain roads as necessary and appropriate.

5.8.4 Continue to maintain ten miles of trails existing on site.

5.8.5 Evaluate the potential for an additional one mile of trail related to restoration efforts and construct if feasible.

5.8.6 Explore the feasibility of constructing office and equipment storage facilities.

5.8.7 Evaluate the need for a vault toilet on the area.

5.8.8 Explore the feasibility of a camper pad with utilities for staff.

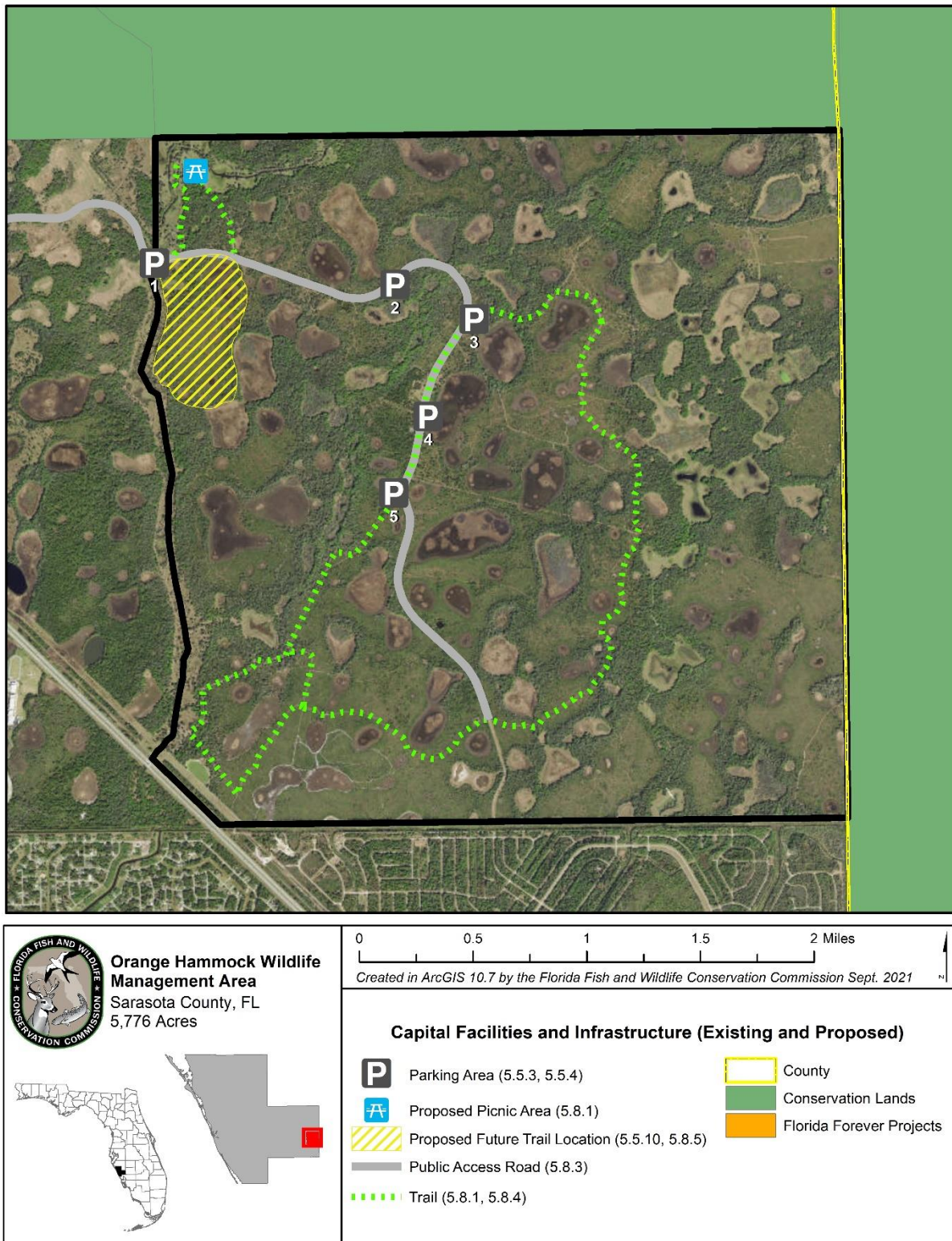


Figure 13: Capital Facilities and Infrastructure on the OHWMA

5.9 Cultural Resources

Goal: Monitor, protect, preserve, and maintain the cultural resources of the OHWMA.

Long-term

- 5.9.1 Coordinate with the DHR to schedule a cultural resource survey.
- 5.9.2 Cooperate with DHR in designing site plans for development of infrastructure.
- 5.9.3 Continue to follow the DHR's *Management Procedures for Archaeological and Historical Sites and Properties on State-Owned or Controlled Properties* for the management of cultural and historic resources.
- 5.9.4 Continue to monitor, protect, and preserve as necessary any identified sites.
- 5.9.5 Ensure any newly identified sites are reported to the DHR for inclusion in the FMSF.
- 5.9.6 According to results of the future cultural resource survey, annually monitor, protect, preserve, and report any changes on any recorded site(s) on the OHWMA.
- 5.9.7 Coordinate with the DHR to ensure that staff have received updated Archaeological Resource Management training.

5.10 Land Conservation and Stewardship Partnerships

Goal: Enhance wildlife conservation, resource management, and operational management through development of an optimal boundary.

Long-term

- 5.10.1 Continue to identify and evaluate potential important wildlife habitat, landscape-scale linkages, wildlife corridors, and operational management needs.
- 5.10.2 Continue to contact and inform adjoining private landowners about the FWC LAP and coordinate with public entities to pursue conservation stewardship partnerships.
- 5.10.3 Continue to evaluate and identify FWC inholdings and additions priority parcels for potential conservation acquisition and pursue acquisitions as funding allows.
- 5.10.4 Continue to maintain a GIS shapefile and other necessary data to facilitate nominations within the FWC Additions and Inholdings list, for the FWC landowner assistance, and other conservation acquisition programs.
- 5.10.5 Continue to identify potential non-governmental land stewardship organization partnerships and grant program opportunities.
- 5.10.6 Determine the efficacy of conducting a landowner assistance/conservation stewardship partnership workshop(s) and pursue as necessary and appropriate.

- 5.10.7 Continue to evaluate and determine if any portions of the OHWMA are no longer needed for conservation purposes, and therefore may be designated as surplus lands.

5.11 Climate Change Adaptation

Goal: Develop appropriate adaptation strategies in response to projected climate change effects and their potential impacts on fish and wildlife conservation, resources, and operational management of the OHWMA.

Long-term

- 5.11.1 Coordinate with the FWC Fish and Wildlife Research Institute (FWRI) Climate Change Adaptation Initiative to identify potential impacts of projected climate change on fish and wildlife resources and operational management of the OHWMA.
- 5.11.2 As appropriate, update the OHWMA Prescribed Fire Plan, WCPR Strategy, and Recreation Master Plan to incorporate new scientific information regarding projected climate change.
- 5.11.3 As science, technology, and climate policy evolve, educate natural resource management partners and the public about the agency's policies, programs, and efforts to study, document, and address potential climate change impacts.

5.12 Cooperative Management, Special Uses, and Research opportunities

Goal: Provide access and use of the OHWMA to current cooperative managers and continue collaborative management efforts.

Long-term

- 5.12.1 Explore cooperative research opportunities through universities, FWRI, and other environmental education partnership opportunities as appropriate.
- 5.12.2 Explore partnership opportunities for hydrologic restoration on the area.
- 5.12.3 Coordinate and cooperate with Department of Defense (DOD) military branches to allow for training opportunities for military personnel and other initiatives as appropriate and compatible with the conservation of the OHWMA.

6 Resource Management Challenges and Strategies

The following section identifies and describes further management needs and challenges associated with the OHWMA and provides solution strategies that will address these challenges. These specific challenges may not be fully addressed in the broader goals and objectives section above and are thereby provided here.

6.1 Challenge 1: Currently, the FWC aims to meet FWC law enforcement and management staff standards and needs.

- 6.1.1 Strategy: Agency staff levels will continue to be evaluated to determine if increased staffing or other alternatives can improve management needs.
- 6.1.2 Strategy: Pursue funding for increased law enforcement, management staffing, and additional private sector contract services as appropriate.
- 6.1.3 Strategy: Explore potential volunteer resources for assisting with management.

6.2 Challenge 2: While currently at minimal levels, unauthorized access, illegal dumping, vandalism, poaching, and unauthorized ORV use may pose an increased threat in the future.

- 6.2.1 Strategy: Continue to provide area-wide security through FWC law enforcement patrols

6.3 Challenge 3: Potential future development on adjacent lands can result in incompatible land uses, thereby increasing management challenges for the area.

- 6.3.1 Strategy: Cooperate and work with the City of North Port and Sarasota County to ensure land use and zoning designations adjacent to the OHWMA will continue to be compatible with the management of the area.
- 6.3.2 Strategy: Communicate with adjacent landowners to ensure understanding of FWC's management practices.

6.4 Challenge 4: The OHWMA's proximity to major roadways and residential areas presents significant smoke management challenges during prescribed burning.

- 6.4.1 Strategy: Use available tools and resources to minimize smoke impact and increase outreach for areas of potential impact.
- 6.4.2 Strategy: Focus on growing-season fires to take advantage of southerly winds; impact areas are to the south and west of the property.

6.5 Challenge 5: Invasive plant infestations are an ongoing challenge on the area.

- 6.5.1 Strategy: Establish a treatment rotation and continue funding projects for contract spraying.
- 6.5.2 Strategy: Explore the feasibility of utilizing contractual services for appropriate activities.
- 6.5.3 Strategy: Cooperate with other nearby FWC staff to assist when needed.

6.6 Challenge 6: The OHWMA is not a widely known recreational destination.

- 6.6.1 Strategy: Continue to coordinate and communicate with existing and future partnerships to promote the OHWMA.
- 6.6.2 Strategy: Cross promote the OHWMA with other regional conservation lands.

6.7 Challenge 7: Access to the property is limited to a single easement road that bisects multiple private property holdings.

- 6.7.1 Strategy: Install and maintain electric gates at the OHWMA access points to limit illegal access during non-approved hours
- 6.7.2 Strategy: Ensure fencing and gates are installed along easement road at appropriate areas to discourage trespassing on private lands.

6.8 Challenge 8: The OHWMA contains important, high-quality wetland communities throughout the area which are essential to the water supply of neighboring communities.

- 6.8.1 Strategy: Limit disturbance to existing wetland communities.
- 6.8.2 Strategy: Restore hydrology to original condition as feasible and recommended by the hydrological assessment.

6.9 Challenge 9: High water levels during the rainy season will impede staff access and will require improvements to low water crossing and existing trails.

- 6.9.1 Strategy: Work to improve low water crossing and existing trails on the area.
- 6.9.2 Strategy: Explore grading or raising roads where feasible and appropriate.

6.10 Challenge 10: There is current damage on the OHWMA due to previous uses on the area.

6.10.1 Strategy: Continue to restrict illegal ORV use on the area.

6.10.2 Strategy: Allow natural regeneration to occur on the damaged communities.

6.10.3 Strategy: Apply restoration efforts as needed and appropriate.

7 Cost Estimates and Funding Sources

The following represents the actual and unmet budgetary needs for managing the lands and resources of the OHWMA. This cost estimate was developed using data developed by the FWC and other cooperating entities and is based on actual costs for land management activities, equipment purchase and maintenance, and for development of fixed capital facilities. Funds needed to protect and manage the property and to fully implement the recommended program are derived primarily from the Land Acquisition Trust Fund and from State Legislative appropriations. However, private conservation organizations may be cooperators with the agency for funding of specific projects. Alternative funding sources, such as monies available through grants and potential project-specific mitigation, may be sought to supplement existing funding as needed.

The cost estimate below, although exceeding what the FWC typically receives through the appropriations process, is estimated to be what is necessary for optimal management and is consistent with the current and planned resource management and operation of the OHWMA. Cost estimate categories are those currently recognized by the FWC and the Land Management Uniform Accounting Council (Appendix 10.11). More information on these categories, as well as the Fiscal Year 2020-2021 operational plan showing detailed cost estimates by activity and categories of expenditures, may be found in Appendix 10.12.

OHWMA Management Plan Cost Estimate

Maximum expected one-year expenditure

<u>Resource Management</u>	<u>Expenditure</u>
Invasive Species Control	\$37,052
Prescribed Burning	\$34,347
Cultural Resource Management	\$296
Timber Management	\$2,905
Hydrological Management	\$169,871
Vegetation Monitoring/Management	\$21,567
Wildlife Monitoring/Management	\$15,166
Subtotal	\$281,203
 <u>Administration</u>	
General administration	\$5,392
 <u>Support</u>	
Land Management Planning	\$24,381
Management Reviews	\$0
Training/Staff Development	\$4,260
Vehicle Purchase	\$505,662
Vehicle Operation and Maintenance	\$20,435
Other (Technical Reports, Data Management, etc.)	\$1,478
Internal Program Review	\$1,738
Technology and Data Management	\$3,016
Subtotal	\$1,286,574
 <u>Capital Improvements</u>	
New Facility Construction	\$3,018
Facility Maintenance	\$80,628
Subtotal	\$83,645
 <u>Visitor Services/Recreation</u>	
Info./Education/Operations	\$18,528
 <u>Law Enforcement</u>	
Resource protection	\$15,618
 Total	\$1,690,962

* Based on the characteristics and requirements of this area, two FTE positions would be optimal to fully manage this area. All land management funding is dependent upon annual legislative appropriations.

OHWMA Management Plan Cost Estimate

Ten-year
projection

			Priority schedule:
<u>Resource Management</u>	<u>Expenditure</u>	<u>Priority</u>	
Invasive Species Control	\$325,542	(1)	(1) Immediate (annual)
Prescribed Burning	\$301,775	(1)	(2) Intermediate (3-4 years)
Cultural Resource Management	\$2,596	(1)	(3) Other (5+ years)
Timber Management	\$25,524	(1)	
Hydrological Management	\$1,492,501	(1)	
Vegetation Monitoring/Management	\$189,493	(1)	
Wildlife Monitoring/Management	\$133,252	(1)	
Subtotal	\$2,470,684		
 <u>Administration</u>			
General administration	\$47,373	(1)	
 <u>Support</u>			
Land Management Planning	\$214,214	(1)	
Management Reviews	\$8,449	(3)	
Training/Staff Development	\$37,427	(1)	
Vehicle Purchase	\$2,553,431	(2)	
Vehicle Operation and Maintenance	\$179,547	(1)	
Other (Technical Reports, Data Management, etc.)	\$12,982	(1)	
Internal Program Review	\$15,274	(1)	
Technology and Data Management	\$26,503	(1)	
Subtotal	\$3,047,853		
 <u>Capital Improvements</u>			
New Facility Construction	\$10,214,044	(2)	
Facility Maintenance	\$708,404	(1)	
Subtotal	\$10,922,448		
 <u>Visitor Services/Recreation</u>			
Info./Education/Operations	\$162,793	(1)	
 <u>Law Enforcement</u>			
Resource protection	\$137,223	(1)	
 Total	\$16,788,373 *		

* Based on the characteristics and requirements of this area, two FTE positions would be optimal to fully manage this area. All land management funding is dependent upon annual legislative appropriations.

8 Analysis of Potential for Contracting Private Vendors for Restoration and Management Activities

The following management and restoration activities have been considered for outsourcing to private entities. It has been determined that items selected as “approved” below are those that the FWC either does not have in-house expertise to accomplish or which can be done at less cost by an outside provider of services. Those items selected as “conditional” items are those that could be done either by an outside provider or by the agency at virtually the same cost or with the same level of competence. Items selected as “rejected” represent those for which the FWC has in-house expertise and/or which the agency has found it can accomplish at less expense than through contracting with outside sources:

	<u>Approved</u>	<u>Conditional</u>	<u>Rejected</u>
Dike and levee maintenance			✓
Invasive species control		✓	
Mechanical vegetation treatment		✓	
Public contact & educational facilities development		✓	
Prescribed burning		✓	
Timber harvest activities	✓		
Vegetation inventories		✓	

9 Compliance with Federal, State, and Local Governmental Requirements

The operational functions of the FWC personnel are governed by the agency’s Internal Management Policies and Procedures (IMPP) Manual. The IMPP Manual provides internal guidance regarding many subjects affecting the responsibilities of agency personnel including personnel management, safety issues, uniforms and personal appearance, training, as well as accounting, purchasing, and budgetary procedures.

When public facilities are developed on areas managed by the FWC, 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).

Uses planned for the OHWMA are in compliance with the Conceptual State Lands Management Plan and its requirement for “balanced public utilization,” and are in compliance with the mission of the FWC as described in its Agency Strategic Plan (Appendix 10.6). Such uses also comply with the authorities of the FWC as derived from Article IV, Section 9 of the Florida Constitution as well as the guidance and directives of Chapters 253, 259, 327, 370, 373, 375, 378, 379, 403, 487, 597, and 870 FS.

The FWC has developed and utilizes an Arthropod Control Plan for the OHWMA in compliance with Chapter 388.4111 FS (Appendix 10.14). This plan was developed in cooperation with the local Sarasota County arthropod control agency. This plan is also in conformance with the Local Government Comprehensive Plan as approved and adopted for Sarasota County, Florida, (Appendix 10.15).

10 Appendices

10.1 Lease Agreement

This Instrument was prepared by:
Christopher Crenshaw
Bureau of Public Land Administration
Division of State Lands
Department of Environmental Protection, MS 130
3900 Commonwealth Boulevard,
Tallahassee, Florida 32399-3000
AID# 42782

SAL2
[5776.34 +/- acres]

**BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT
TRUST FUND OF THE STATE OF FLORIDA**

LEASE AGREEMENT

Lease Number 4850

This lease is made and entered into this 12th day of JANUARY, 2021, between the **BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA**, hereinafter referred to as "LESSOR", and the **FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION**, hereinafter referred to as "LESSEE".

WITNESSETH:

WHEREAS, LESSOR holds title to certain lands and property being utilized by the State of Florida for public purposes, and

WHEREAS, LESSOR is authorized in Section 253.03, Florida Statutes, to enter into leases for the use, benefit and possession of public lands by state agencies that may properly use and possess them for the benefit of the people of the State of Florida.

NOW, THEREFORE, for and in consideration of the mutual covenants and agreements hereinafter contained, LESSOR leases the below described premises to LESSEE subject to the following terms and conditions:

1. **DELEGATIONS OF AUTHORITY**: LESSOR'S responsibilities and obligations herein shall be exercised by the Division of State Lands, State of Florida Department of Environmental Protection.
2. **DESCRIPTION OF PREMISES**: The property subject to this lease is situated in the County of **Sarasota**, State of Florida and is more particularly described in Exhibit "A" attached hereto and hereinafter called the "leased premises".

3. **TERM:** The term of this lease shall be for a period of 50 years commencing on JANUARY 12, 2021 and ending on JANUARY 11, 2071, unless sooner terminated pursuant to the provisions of this lease.
4. **PURPOSE:** LESSEE shall manage the leased premises only for the conservation and protection of natural and historical resources and resource based public outdoor recreation which is compatible with the conservation and protection of these public lands, as set forth in subsection 259.032(9), Florida Statutes, along with other related uses necessary for the accomplishment of this purpose as designated in the Management Plan required by paragraph 7 of this lease.
5. **QUIET ENJOYMENT AND RIGHT OF USE:** LESSEE shall have the right of ingress and egress to, from and upon the leased premises for all purposes necessary to the full quiet enjoyment by said LESSEE of the rights conveyed herein.
6. **UNAUTHORIZED USE:** LESSEE shall, through its agents and employees, prevent the unauthorized use of the leased premises or any use thereof not in conformance with this lease.
7. **MANAGEMENT PLAN:** LESSEE shall prepare and submit a Management Plan for the leased premises in accordance with Section 253.034, Florida Statutes, within twelve months of the effective date of this lease. The Management Plan shall be submitted for approval to the State of Florida Department of Environmental Protection, Division of State Lands, Office of Environmental Services, Mail Station 140, 3800 Commonwealth Boulevard, Tallahassee, Florida 32399-3000. The leased premises shall not be developed or physically altered in any way other than what is necessary for security and maintenance of the leased premises without the prior written approval of LESSOR until the Management Plan is approved. The Management Plan shall emphasize the original management concept as approved by LESSOR at the time of acquisition, which established the primary public purpose for which the leased premises were acquired. The approved Management Plan shall provide the basic guidance for all management activities and shall be reviewed jointly by LESSEE and LESSOR. LESSEE shall not use or alter the leased premises except as provided for in the approved Management Plan without the prior written approval of LESSOR. The Management Plan prepared under this lease shall identify management strategies for exotic species, if present. The introduction of exotic species is prohibited, except when specifically authorized by the approved Management Plan.
8. **RIGHT OF INSPECTION:** LESSOR or its duly authorized agents shall have the right at any and all times to inspect the leased premises and the works and operations thereon of LESSEE, in any matter pertaining to this lease.
9. **INSURANCE REQUIREMENTS:** LESSEE shall procure and maintain fire and extended risk insurance coverage, in accordance with Chapter 284, F.S., for any buildings and improvements located on the leased premises by preparing and

delivering to the Division of Risk Management, State of Florida Department of Insurance, a completed Florida Fire Insurance Trust Fund Coverage Request Form and a copy of this lease immediately upon erection of any structures as allowed by paragraph 4 of this lease. A copy of said form and immediate notification in writing of any erection or removal of structures or other improvements on the leased premises and any changes affecting the value of the improvements shall be submitted to the following: Bureau of Public Land Administration, Division of State Lands, State of Florida Department of Environmental Protection, Mail Station 130, 3800 Commonwealth Boulevard, Tallahassee, Florida 32399-3000.

10. **LIABILITY:** LESSEE shall assist in the investigation of injury or damage claims either for or against LESSOR or the State of Florida pertaining to LESSEE'S respective areas of responsibility under this lease or arising out of LESSEE'S respective management programs or activities and shall contact LESSOR regarding the legal action deemed appropriate to remedy such damage or claims. LESSEE is responsible for all personal injury and property damage attributable to the negligent acts or omissions of LESSEE, and its officers, employees, and agents. Nothing herein shall be construed as an indemnity or a waiver of sovereign immunity enjoyed by any party hereto, as provided in Section 768.28, Florida Statutes, as amended from time to time, or any other law providing limitations on claims.

11. **ARCHAEOLOGICAL AND HISTORIC SITES:** Execution of this lease in no way affects any of the parties' obligations pursuant to Chapter 267, Florida Statutes. The collection of artifacts or the disturbance of archaeological and historic sites on state-owned lands is prohibited unless prior authorization has been obtained from the State of Florida Department of State, Division of Historical Resources. The Management Plan prepared pursuant to Section 253.034, Florida Statutes, shall be reviewed by the Division of Historical Resources to insure that adequate measures have been planned to locate, identify, protect and preserve the archaeological and historic sites and properties on the leased premises.

12. **EASEMENTS:** All easements of any nature including, but not limited to, utility easements are required to be granted by LESSOR. LESSEE is not authorized to grant any easements of any nature and any easement granted by LESSEE shall be void and without legal effect.

13. **SUBLEASES:** This lease is for the purposes specified herein and subleases of any nature are prohibited, without the prior written approval of LESSOR. Any sublease not approved in writing by LESSOR shall be void and without legal effect.

14. **POST CLOSING RESPONSIBILITIES:** In an effort to define responsibilities of LESSOR and LESSEE with regard to resolving post closing management issues, the parties agree to the following:

- a. After consultation with LESSEE, LESSOR agrees to provide the LESSEE with the title, survey and environmental products procured by LESSOR, prior to closing.
 - b. LESSOR will initiate surveying services to locate and mark boundary lines of specific parcels when necessary for immediate agency management and will provide a boundary survey of the entire acquisition project at the conclusion of all acquisitions within the project boundary. Provided, however, LESSEE may request individual parcel boundary surveys, if necessary, prior to the conclusion of acquisition activities within the project boundaries.
 - c. Unless otherwise agreed to by LESSEE, LESSOR shall at its sole cost and expense, make a diligent effort to resolve all issues pertaining to all title defects, survey matters or environmental contamination associated with the leased premises, including but not limited to trash and debris, which were either known or should have been reasonably known by LESSOR at the time LESSOR acquired the leased premises. Notwithstanding the foregoing, LESSOR will not be responsible for any of LESSEE'S attorney's fees, costs, or liability or damages incurred by LESSEE in resolving any issue in which LESSEE is named as a party in any litigation or other legal or administrative proceeding.
 - d. With regard to all title defects, survey matters, or environmental contamination associated with the leased premises which were not known or could not have been reasonably known by LESSOR at the time LESSOR acquired the leased premises, LESSOR and LESSEE agree to cooperate in developing an appropriate strategy for jointly resolving these matters. LESSOR acknowledges and understands that LESSEE is unable to commit any substantial amount of their routine operating funds for the resolution of any title defect, survey matter, or environmental contamination associated with the lease premises. Notwithstanding the foregoing, LESSOR will not be responsible for any of LESSEE'S attorney's fees, costs, or liability or damages incurred by LESSEE in resolving any issue in which LESSEE is named as a party in any litigation or other legal or administrative proceeding.
15. **SURRENDER OF PREMISES:** Upon termination or expiration of this lease LESSEE shall surrender the leased premises to LESSOR. In the event no further use of the leased premises or any part thereof is needed, written notification shall be made to the Bureau of Public Land Administration, Division of State Lands, State of Florida Department of Environmental Protection, Mail Station 130, 3800 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, at least six months prior to the release of all or any part of the leased premises. Notification shall include a legal description, this lease number and an explanation of the release. The release shall only be valid if approved by LESSOR through execution of a release of lease instrument with the same formality as this lease. Upon release of all or any part of the leased premises or upon expiration

or termination of this lease, all permanent improvements, including both physical structures and modifications to the leased premises, shall become the property of LESSOR, unless LESSOR gives written notice to LESSEE to remove any or all such improvements at the expense of LESSEE. The decision to retain any improvements upon termination of this lease shall be at LESSOR'S sole discretion. Prior to surrender of all or any part of the leased premises, a representative of the Division of State Lands shall perform an on-site inspection and the keys to any buildings on the leased premises shall be turned over to the Division. If the leased premises and improvements located thereon do not meet all conditions set forth in paragraphs 18 and 21 herein, LESSEE shall pay all costs necessary to meet the prescribed conditions.

16. **BEST MANAGEMENT PRACTICES:** LESSEE shall implement applicable Best Management Practices for all activities conducted under this lease in compliance with paragraph 18-2.018(2)(h), Florida Administrative Code, which have been selected, developed, or approved by LESSOR, LESSEE or other land managing agencies for the protection and enhancement of the leased premises.

17. **PUBLIC LANDS ARTHROPOD CONTROL PLAN:** LESSEE shall identify and subsequently designate to the respective arthropod control district or districts within one year of the effective date of this lease all of the environmentally sensitive and biologically highly productive lands contained within the leased premises, in accordance with Section 388.4111, Florida Statutes and Chapter 5E-13, Florida Administrative Code, for the purpose of obtaining a public lands arthropod control plan for such lands.

18. **UTILITY FEES:** LESSEE shall be responsible for the payment of all charges for the furnishing of gas, electricity, water and other public utilities to the leased premises and for having all utilities turned off when the leased premises are surrendered.

19. **ASSIGNMENT:** This lease shall not be assigned in whole or in part without the prior written consent of LESSOR. Any assignment made either in whole or in part without the prior written consent of LESSOR shall be void and without legal effect.

20. **PLACEMENT AND REMOVAL OF IMPROVEMENTS:** All buildings, structures, improvements, and signs shall be constructed at the expense of LESSEE in accordance with plans prepared by professional designers and shall require the prior written approval of LESSOR as to purpose location, and design. Further, no trees, other than non-native species, shall be removed or major land alterations done without the prior written approval of LESSOR. Removable equipment placed on

the leased premises by LESSEE which do not become a permanent part of the leased premises will remain the property of LESSEE and may be removed by LESSEE upon termination of this lease.

21. **MAINTENANCE OF IMPROVEMENTS:** LESSEE shall maintain the real property contained within the leased premises and any improvements located thereon, in a state of good condition, working order and repair including, but not limited to, removing all trash or litter, maintaining all planned improvements as set forth in the approved Management Plan, meeting all building and safety codes. LESSEE shall maintain any and all existing roads, canal, ditches, culverts, risers and the like in as good condition as the same may be on the effective date of this lease.

22. **ENTIRE UNDERSTANDING:** This lease sets forth the entire understanding between the parties and shall only be amended with the prior written approval of LESSOR.

23. **BREACH OF COVENANTS, TERMS, OR CONDITIONS:** Should LESSEE breach any of the covenants, terms, or conditions of this lease, LESSOR shall give written notice to LESSEE to remedy such breach within sixty days of such notice. In the event LESSEE fails to remedy the breach to the satisfaction of LESSOR within sixty days of receipt of written notice, LESSOR may either terminate this lease and recover from LESSEE all damages LESSOR may incur by reason of the breach including, but not limited to, the cost of recovering the leased premises or maintain this lease in full force and effect and exercise all rights and remedies herein conferred upon LESSOR.

24. **NO WAIVER OF BREACH:** The failure of LESSOR to insist in any one or more instances upon strict performance of any one or more of the covenants, terms and conditions of this lease shall not be construed as a waiver of such covenants, terms and conditions, but the same shall continue in full force and effect, and no waiver of LESSOR of any one of the provisions hereof shall in any event be deemed to have been made unless the waiver is set forth in writing, signed by LESSOR.

25. **PROHIBITIONS AGAINST LIENS OR OTHER ENCUMBRANCES:** Fee title to the leased premises is held by LESSOR. LESSEE shall not do or permit anything which purports to create a lien or encumbrance of any nature against the real property contained in the leased premises including, but not limited to, mortgages or construction liens against the leased premises or against any interest of LESSOR therein.

26. **CONDITIONS AND COVENANTS:** All of the provisions of this lease shall be deemed covenants running with the land included in the leased premises, and construed to be "conditions" as well as "covenants" as though the words specifically expressing or imparting covenants and conditions were used in each separate provision.

27. **NOTICES:** All notices given under this lease shall be in writing and shall be served by certified mail including, but not limited to, notice of any violation served pursuant to Section 253.04, Florida Statutes, to the last address of the party to whom notice is to be given, as designated by such party in writing. LESSOR and LESSEE hereby designate their address as follows:

LESSOR: State of Florida Department of
Environmental Protection
Division of State Lands
Bureau of Public Land Administration, MS 130
3800 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

LESSEE: Florida Fish and Wildlife Conservation Commission
Division of Habitat and Species Conservation
620 S Meridian Street
Tallahassee, FL.32399

28. **DAMAGE TO THE PREMISES:** (a) LESSEE shall not do, or suffer to be done, in, on or upon the leased premises or as affecting said leased premises or adjacent properties, any act which may result in damage or depreciation of value to the leased premises or adjacent properties, or any part thereof. (b) LESSEE shall not generate, store, produce, place, treat, release or discharge any contaminants, pollutants or pollution, including, but not limited to, hazardous or toxic substances, chemicals or other agents on, into, or from the leased premises or any adjacent lands or waters in any manner not permitted by law. For the purposes of this lease, "hazardous substances" shall mean and include those elements or compounds defined in 42 USC Section 9601 or which are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency (EPA) and the list of toxic pollutants designated by the United States Congress or the EPA or defined by any other federal, state or local statute, law, ordinance, code, rule, regulation, order or decree regulating, relating to, or imposing liability or standards of conduct concerning any hazardous, toxic or dangerous waste, substance, material, pollutant or contaminant. "Pollutants" and "pollution" shall mean those products or substances defined in Chapters 376 and 403, Florida Statutes, and the rules promulgated thereunder, all as amended or updated from time to time. In the event of LESSEE'S failure to comply with this paragraph, LESSEE shall, at its sole cost and expense, promptly commence and diligently pursue any legally required closure, investigation, assessment, cleanup, decontamination, remediation, restoration and monitoring of (1) the leased premises, and (2) all off-site ground and surface waters and lands affected by LESSEE'S such failure to comply, as may be necessary to bring the leased premises and affected off-site waters and lands into full compliance with all applicable federal, state or local statutes, laws, ordinances, codes, rules, regulations, orders and decrees, and to restore the damaged property to the condition existing immediately prior to the occurrence which caused the damage. LESSEE'S obligations set forth in this

paragraph shall survive the termination or expiration of this lease. Nothing herein shall relieve LESSEE of any responsibility or liability prescribed by law for fines, penalties and damages levied by governmental agencies, and the cost of cleaning up any contamination caused directly or indirectly by LESSEE'S activities or facilities. Upon discovery of a release of a hazardous substance or pollutant, or any other violation of local, state or federal law, ordinance, code, rule, regulation, order or decree relating to the generation, storage, production, placement, treatment, release or discharge of any contaminant, LESSEE shall report such violation to all applicable governmental agencies having jurisdiction, and to LESSOR, all within the reporting periods of the applicable governmental agencies.

29. **PAYMENT OF TAXES AND ASSESSMENTS:** LESSEE shall assume full responsibility for and shall pay all liabilities that accrue to the leased premises or to the improvements thereon, including any and all drainage and special assessments or taxes of every kind and all mechanic's or materialman's liens which may be hereafter lawfully assessed and levied against the leased premises.

30. **RIGHT OF AUDIT:** LESSEE shall make available to LESSOR all financial and other records relating to this lease and LESSOR shall have the right to audit such records at any reasonable time. This right shall be continuous until this lease expires or is terminated. This lease may be terminated by LESSOR should LESSEE fail to allow public access to all documents, papers, letters or other materials made or received in conjunction with this lease, pursuant to Chapter 119, Florida Statutes.

31. **NON-DISCRIMINATION:** LESSEE shall not discriminate against any individual because of that individual's race, color, religion, sex, national origin, age, handicap, or marital status with respect to any activity occurring within the leased premises or upon lands adjacent to and used as an adjunct of the leased premises.

32. **COMPLIANCE WITH LAWS:** LESSEE agrees that this lease is contingent upon and subject to LESSEE obtaining all applicable permits and complying with all applicable permits, regulations, ordinances, rules, and laws of the State of Florida or the United States or of any political subdivision or agency of either.

33. **TIME:** Time is expressly declared to be of the essence of this lease.

34. **GOVERNING LAW:** This lease shall be governed by and interpreted according to the laws of the State of Florida.

35. **SECTION CAPTIONS:** Articles, subsections and other captions contained in this lease are for reference purposes only and are in no way intended to describe, interpret, define or limit the scope, extent or intent of this lease or any provisions thereof.

36. **ADMINISTRATIVE FEE:** LESSEE shall pay LESSOR an annual administrative fee of \$300 pursuant to subsection 18-2.020(8), Florida Administrative Code. The initial annual administrative fee shall be payable within thirty days from the date of execution of this lease agreement and shall be prorated based on the number of months or fraction thereof remaining in the fiscal year of execution. For purposes of this lease agreement, the fiscal year shall be the period extending from July 1 to June 30. Each annual payment thereafter shall be due and payable on July 1 of each subsequent year.

37. **RIGHT OF TERMINATION:** Anything contained in this lease to the contrary notwithstanding, LESSOR shall have the right and option to terminate this lease, at will, for any reason whatsoever, by giving the LESSEE written notice of such election to terminate at least six (6) months prior to the effective date of such termination. LESSEE shall continue to honor its obligations under the lease until the effective date of the termination, including LESSEE's obligations concerning surrender of the leased premises.

[Remainder of page intentionally left blank; Signature page follows]

IN WITNESS WHEREOF, the parties have caused this lease to be executed on the day and year first above written.

WITNESSES:

David Lee Fewell
Original Signature

DAVE FEWELL
Print/Type Name of Witness

Michelle Stevens
Original Signature

Michelle Stevens
Print/Type Name of Witness

BOARD OF TRUSTEES OF THE INTERNAL
IMPROVEMENT TRUST FUND OF THE STATE
OF FLORIDA

BY: [Signature] (SEAL)
Brad Richardson, Chief, Bureau of Public Land Administration,
Division of State Lands, State of Florida Department of
Environmental Protection, as agent for and on behalf of the
Board of Trustees of the Internal Improvement Trust Fund
of the State of Florida

"LESSOR"

STATE OF FLORIDA
COUNTY OF LEON

12th The foregoing instrument was acknowledged before me by means of physical presence or online notarization this
day of January, 2021, by Brad Richardson, Chief, Bureau of Public Land Administration, Division of State
Lands, State of Florida Department of Environmental Protection, as agent for and on behalf of the Board of Trustees of the Internal
Improvement Trust Fund of the State of Florida. He is personally known to me.

APPROVED SUBJECT TO PROPER EXECUTION:

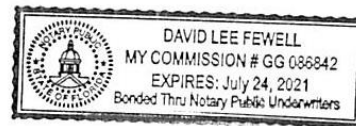
[Signature]
DEP Attorney Date 11-22-2020

David Lee Fewell
Notary Public, State of Florida

Printed, Typed or Stamped Name

My Commission Expires: _____

Commission/Serial No. _____



WITNESSES:

Jill Canfield
Original Signature

JILL CANFIELD
Print/Type Name of Witness

[Signature]
Original Signature

CHRISTINA ROARK
Print/Type Name of Witness

FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION

(SEAL)

BY: Jennifer L. Fitzwater for
Eric Sutton
Executive Director

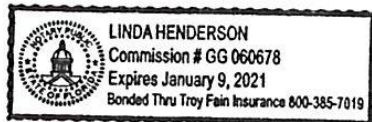
"LESSEE"

STATE OF Florida
COUNTY OF Leon

The foregoing instrument was acknowledged before me by means of physical presence or online notarization this 7th day of January, 2021, by Eric Sutton, as Executive Director for and on behalf of the Florida Fish and Wildlife Conservation Commission. He is personally known to me or has produced as identification.

She

Jennifer Fitzwater as Chief of Staff



Linda Henderson
Notary Public, State of Florida

Linda Henderson
Printed, Typed or Stamped Name

My Commission Expires: 1/9/21

Commission/Serial No. GG 060678

Approved as to form and legality

Anthony

Pinzino

Commission Attorney

Digitally signed by Anthony
Pinzino
Date: 2020.12.30 16:05:37
-05'00'

Exhibit "A"

All of Sections 1, 2, 11, 12, 13, 14 and a portion of Sections 3, 4, 9, 10, 15 and 16, Township 39 South, Range 22 East, Sarasota County, Florida, being more particularly described as follows:

Beginning at the Northeast corner of Section 9, Township 39 South, Range 22 East also being the Northwest corner of Section 10; thence N.89°56'00"W., (grid bearing, Florida Transverse Mercator, West Zone) along the North line of said Section 9, a distance of 324.51 feet to a point in the Alderman Slough; thence following said Alderman Slough in a southerly direction, the following courses: S.18°25'53"W., through Section 9 a distance of 85.39 feet; thence S.27°12'16"E., a distance of 517.18 feet; thence S.57°39'41"E., a distance of 124.04 feet to a point on the West line of Section 10, bearing S.00°58'09"W., a distance of 607.04 feet from the Northwest corner of said Section 10; thence S.57°39'41"E., through Section 10 a distance of 63.21 feet; thence S.10°12'48"E., a distance of 555.38 feet; thence S.07°21'16"E., a distance of 672.34 feet; thence S.10°44'03"E., a distance of 651.24 feet; thence S.10°36'13"W., a distance of 530.75 feet; thence S.01°14'47"W., a distance of 820.24 feet; thence S.03°22'21"E., a distance of 253.99 feet; thence S.08°05'01"E., a distance of 925.01 feet; thence S.12°02'12"E., a distance of 324.12 feet to a point on the North line of Section 15, bearing S.89°40'03"E., a distance of 536.06 feet from the Northwest corner of said Section 15; thence through Section 15, S.12°02'12"E., a distance of 127.44 feet; thence S.09°19'36"E., a distance of 688.88 feet; thence S.04°17'39"E., a distance of 145.23 feet; thence S.11°04'54"E., a distance of 278.80 feet; thence S.18°24'37"W., a distance of 118.03 feet; thence S.27°30'33"W., a distance of 170.26 feet; thence S.05°11'15"E., a distance of 86.33 feet; thence S.07°05'59"W., a distance of 206.26 feet; thence S.03°47'11"E., a distance of 108.15 feet; thence S.15°38'29"W., a distance of 229.08 feet; thence S.11°11'29"W., a distance of 651.33 feet; thence S.04°17'53"W., a distance of 74.25 feet; thence S.16°13'07"W., a distance of 79.94 feet; thence S.06°56'07"W., a distance of 292.06 feet; thence S.19°33'24"W., a distance of 62.42 feet; thence S.51°48'15"W., a distance of 177.50 feet; thence S.35°17'02"W., a distance of 182.82 feet; thence S.51°44'00"W., a distance of 129.18 feet to a point on the East line of Section 16, bearing N.00°16'13"E., a distance of 1734.15 feet from the Southeast corner of said Section 16; thence S.51°44'00"W., through Section 16, a distance of 18.84 feet; thence S.35°17'35"W., a distance of 203.28 feet to a point on the Northerly limited access right-of-way line for Interstate Highway #75; thence S.44°57'25"E., along said right-of-way line a distance of 186.37 feet to a point on the West line of Section 15, bearing N.00°06'13"E., a distance of 1424.68 feet from the Southwest corner of said Section 15, thence S.44°57'25"E. along said right-of-way line a distance of 2023.63 feet to an intersection with the South line of Section 15, bearing S.89°42'25"E., a distance of 1432.44 feet from the Southwest corner of said Section 15; thence S.89°42'25"E., along the South line of said Section 15 a distance of 3869.24 feet to the Southwest corner of Section 14; thence S.89°42'24"E., along the South line of said Section 14 a distance of 5321.72 feet to the Southwest corner of Section 13; thence S.89°42'24"E., along the South line of said Section 13 a distance of 5413.63 feet to the Southeast corner of said Section 13 and the East Range line of said Township 39 South, Range 22 East; thence N.00°14'50"E., along the East line of said Section 13 a distance of 5325.52 feet to the Southeast corner of Section 12; thence N.00°14'45"E., along the East line of said Section 12 a distance of 5324.68 feet to the Southeast corner of Section 1; thence N.00°14'30"E., along the East line of said Section 1 a distance of 5324.24 feet to the Northeast corner of said Section 1 and the Northeast corner of Township 39 South, Range 22 East; thence N.89°44'59"W., along the North line of the Northeast Quarter of said Section 1 a distance of 2655.22 feet to the Northeast corner of the Northwest Quarter of said Section 1; thence N.89°44'46"W., along the North line of said Northwest Quarter a distance of 2655.22 feet to the Northeast corner of Section 2; thence N.89°44'34"W., along the North line of the Northeast Quarter of said Section 2 a distance of 2655.22 feet to the Northeast corner of the Northwest Quarter of said Section 2; thence N.89°44'21"W., along the North line of said Northwest Quarter a distance of 2655.22 feet to the Northwest corner of Section 2; which is the Northeast corner of Section 3; thence N.89°43'55"W. along the North line of the Northeast Quarter of said Section 3 a distance of 2655.22 feet to the Northeast corner of the Northwest Quarter of said Section 3; thence N.89°43'42"W. along the North line of the Northwest Quarter of Section 3 a distance of 2655.22 feet to the Northwest corner of Section 3; thence S.04°47'59"W. along the West line of the North Half of Section 3 a distance of 2663.2 feet to the Southwest corner of the North Half of said Section 3 and the Southeast corner of the North Half of Section 4; thence N.89°49'42"W. along the South line of the North Half of Section 4 a distance of 32.18 feet to a point in the Alderman Slough; thence following said Alderman Slough in a southerly direction, the following courses:

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S.19°46'12"W. a distance of 384.63 feet; thence S.06°17'38"E., a distance of 74.84 feet; thence S.16°26'43"E., a distance of 499.12 feet to a point on the West line of said Section 3 bearing N.00°47'59"E. a distance of 1748.17 feet from the Southwest corner of said Section 3; thence S.16°26'43"E. through Section 3 a distance of 211.62 feet; thence S.03°07'54"W. a distance of 225.97 feet; thence S.07°53'10"W. a distance of 216.17 feet; thence S.18°35'25"W. a distance of 87.96 feet to a point on the East line of Section 4 bearing N.00°47'59"E. a distance of 1022.0 feet from the Southeast corner of said Section 4; thence S.18°20'50"W. a distance of 1076.23 feet to a point on the South line of said Section 4; thence S.89°56'00"E. a distance of 324.51 feet to the Southwest corner of Section 3 and the Northeast corner of Section 9 and the Point of Beginning.

TOGETHER WITH a 100-foot wide easement for ingress, egress and utilities over, across and through a portion of the North 1/2 of Section 4, the North 1/2 of Section 5, and the North 1/2 of Section 6, Township 39 South, Range 22 East, Sarasota County, Florida, said easement lying 50 feet on each side and continuous with the following described centerline:

Commence at the Northwest corner of said Section 6; thence South 00°30'07" West along the West line of Section 6 a distance of 2498.43 feet to the Point of Beginning of said centerline; thence South 88°26'46" East a distance of 871.74 feet; thence North 72°30'11" East a distance of 92.72 feet to the point of curvature of a curve to the left having a radius of 500.00 feet, a central angle of 17°04'05", the chord of which bears North 63°58'09" East and a chord distance of 148.40 feet; thence along the arc of said curve a distance of 148.95 feet to the point of tangency; thence North 55°26'07" East a distance of 155.43 feet to the point of curvature of a curve to the left having a radius of 1000.00 feet, a central angle of 8°58'01", the chord of which bears North 50°57'06" East and a chord distance of 156.34 feet; thence along the arc of said curve a distance of 156.50 feet to the point of tangency; thence North 46°28'06" East a distance of 132.96 feet to the point of curvature of a curve to the left having a radius of 1000.00 feet, a central angle of 15°18'27", the chord of which bears North 38°48'52" East and a chord distance of 266.37 feet; thence along the arc of said curve a distance of 267.17 feet to the point of tangency; thence North 31°09'39" East a distance of 916.90 feet to the point of curvature of a curve to the right having a radius of 1000.00 feet, a central angle of 44°22'31", the chord of which bears North 53°20'55" East and a chord distance of 755.28 feet; thence along the arc of said curve a distance of 774.50 feet to the point of compound curvature of a curve to the right having a radius of 600.00 feet, a central angle of 46°54'13", the chord of which bears South 81°00'43" East and a chord distance of 477.57 feet; thence along the arc of said curve a distance of 491.17 feet to the point of tangency; thence South 57°33'36" East a distance of 294.45 feet to the point of curvature of a curve to the left having a radius of 1000.00 feet, a central angle of 49°39'20", the chord of which bears South 82°23'16" East and a chord distance of 839.78 feet; thence along the arc of said curve a distance of 866.65 feet to the point of tangency; thence North 72°47'04" East a distance of 187.48 feet to the point of curvature of a curve to the right having a radius of 2000.00 feet, a central angle of 27°00'27", the chord of which bears North 86°17'18" East and a chord distance of 934.04 feet; thence along the arc of said curve a distance of 942.74 feet to the point of tangency; thence South 80°12'29" East a distance of 2116.26 feet to the point of curvature of a curve to the left having a radius of 1000.00 feet, a central angle of 25°59'20", the chord of which bears North 86°47'52" East and a chord distance of 449.71 feet; thence along the arc of said curve a distance of 453.59 feet to the point of tangency; thence North 73°48'12" East a distance of 348.80 feet to the point of curvature of a curve to the right having a radius of 1000.00 feet, a central angle of 71°05'17", the chord of which bears South 70°39'10" East and a chord distance of 1162.66 feet; thence along the arc of said curve a distance of 1240.72 feet to the point of tangency; thence South 35°06'31" East a distance of 852.30 feet to the point of curvature of a curve to the left having a radius of 900.00 feet, a central angle of 54°11'59", the chord of which bears South 62°12'31" East and a chord distance of 819.98 feet; thence along the arc of said curve a distance of 851.37 feet to the point of tangency; thence South 89°18'31" East a distance of 425.08 feet to the point of curvature of a curve to the left having a radius of 1000.00 feet, a central angle of 46°52'46", the chord of which bears North 67°15'06" East and a chord distance of 795.57 feet; thence along the arc of said curve a distance of 818.20 feet to the point of reverse curvature of a curve to the right having a radius of 1500.00 feet, a central angle of 49°42'34", the chord of which bears North 68°40'00" East and a chord distance of 1260.96 feet; thence along the arc of said curve a distance of 1301.39 feet to the point of tangency; thence South 86°28'43" East a distance of 659.10 feet to the point of curvature of a curve to the left having a radius of 700.00 feet, a central angle of 40°39'47", the chord of which bears North 73°11'24" East and a chord distance of 486.43 feet; thence along the arc of said curve a distance of 496.79 feet to the point of tangency; thence North 52°51'30" East a distance of 87.36 feet to the point of curvature of a curve to the right having a radius of 700.00 feet, a central angle of

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42°43'39", the chord of which bears North 74°13'20" East and a chord distance of 510.00 feet; thence along the arc of said curve a distance of 522.02 feet to the point of tangency; thence South 84°24'50" East a distance of 175.45 feet to the point of curvature of a curve to the right having a radius of 900.00 feet, a central angle of 66°42'46", the chord of which bears South 51°03'27" East and a chord distance of 989.72 feet; thence along the arc of said curve a distance of 1047.92 feet to the point of tangency; thence South 17°42'04" East a distance of 364.70 feet to the point of curvature of a curve to the left having a radius of 500.00 feet, a central angle of 15°18'05", the chord of which bears South 25°21'07" East and a chord distance of 133.13 feet; thence along the arc of said curve a distance of 133.53 feet to the point of tangency; thence South 89°49'42" East a distance of 254.91 feet to the East line of the aforesaid Section 4 and the point of termination of said centerline.

The side lines of said 100-foot wide easement shall lengthen or shorten as required to terminate on the same boundaries as the centerline.

A portion of Section 4, Township 39 South, Range 22 East, Sarasota County, Florida, being more particularly described as follows:

Commence at the Southeast corner of the North Half of said Section 4; thence North 88°49'42" West along the South line of said North Half a distance of 32.18 feet to the Point of Beginning; thence South 19°46'12" West a distance of 173.97 feet to an intersection with a non-tangent curve concave to the North having a radius of 550.00 feet; thence Northwesterly along said curve to the right through a central angle of 26°22'34", an arc distance of 253.19 feet (chord=250.96 feet bearing=North 49°03'24" West) to the intersection with the aforesaid South line of the North Half; thence South 89°49'42" East along said South line a distance of 248.41 feet to the Point of Beginning.

Also conveyed herewith is a non-exclusive perpetual easement over, across and through the following-described property for the purposes of ingress, egress and utilities:

A portion of Section 6, Township 39 South, Range 22 East, Sarasota County, Florida, being more particularly described as follows:

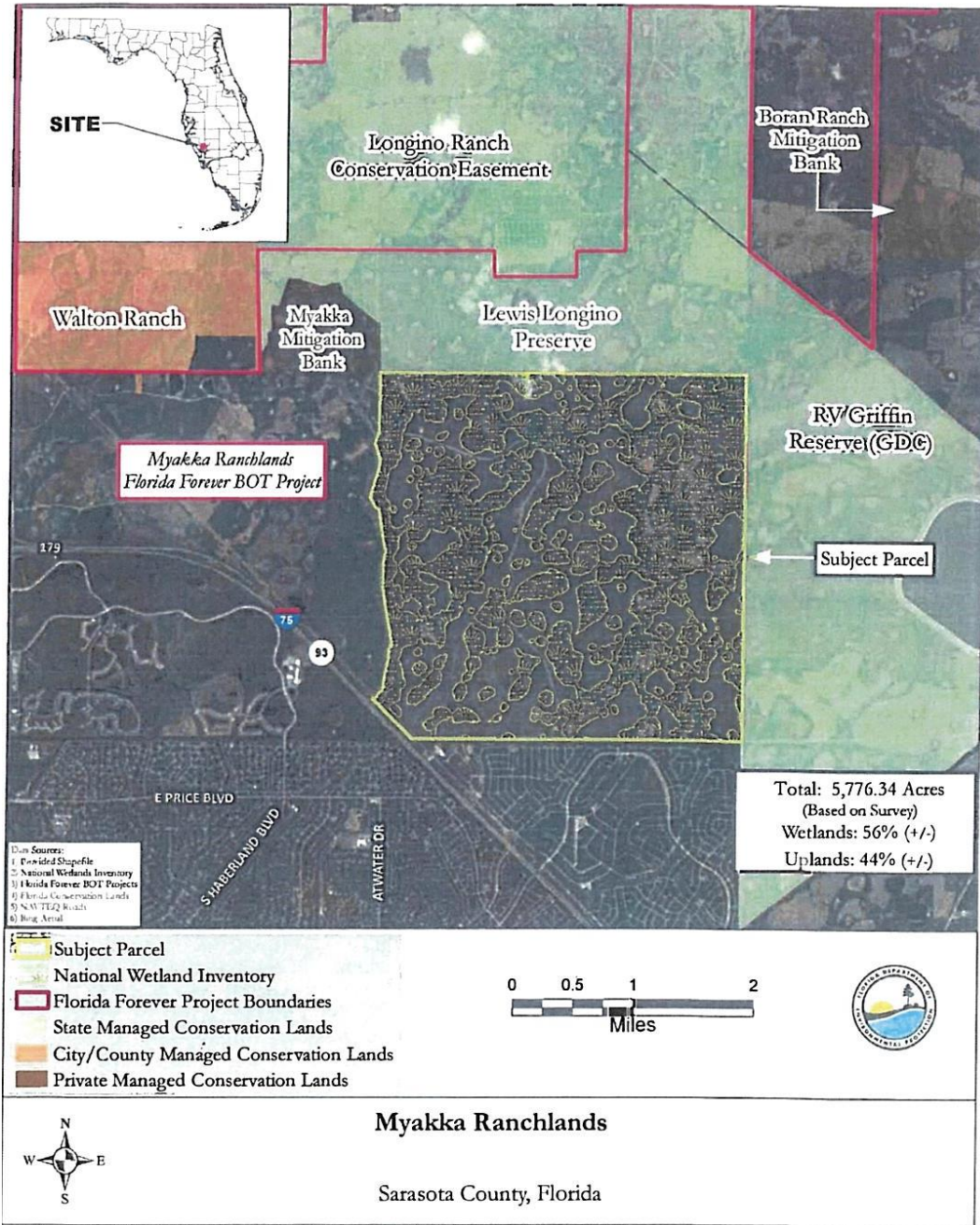
Commence at the Northwest corner of said Section 6; thence South 00°30'07" West along the West line of Section 6 a distance of 2548.44 feet to the Southwest corner of the North Half of said Section 6 and the Point of Beginning; thence South 88°26'46" East, along the South line of said North Half a distance of 877.49 feet to an intersection with a non-tangent curve concave to the North having a radius of 1630.00 feet; thence Southwesterly along said curve to the right through a central angle of 20°33'29", an arc distance of 584.85 feet (chord=581.72 feet bearing South 81°16'29" West) to the end of said curve and a point of the line lying 103.82 feet South of and parallel with said South line of the North Half; thence North 88°26'46" West along said parallel line a distance of 303.20 feet to the aforesaid West line of Section 6; thence North 00°30'07" East along said West line a distance of 103.82 feet to the Point of Beginning.

BSM
BY sk
Date: 1.06.2020

As recorded in Official Records Instrument # 2020071100, Public Records of Sarasota County, Florida.

Exhibit "A"
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Lease No. 4850

THIS PAGE AND ANY FOLLOWING PAGES ARE ATTACHED ONLY FOR STATE OF FLORIDA TRACKING PURPOSES AND FORM NO PART OF THE INSTRUMENT AND ARE NOT TO BE RELIED ON BY ANY PARTY.



1

RECORDED IN OFFICIAL RECORDS
INSTRUMENT # 2020071100 7 PG(S)
June 02, 2020 12:09:13 PM
KAREN E. RUSHING
CLERK OF THE CIRCUIT COURT
SARASOTA COUNTY, FL

Prepared by and return to:
Joseph R. Boyd, Esq.
Attorney at Law
Tallahassee Title Group, LLC
1407 Piedmont Drive East
Tallahassee, FL 32308
850-580-2222
File Number: BOT.OHR
Will Call No.:

Doc Stamp-Deed: \$147,000.00



Text a ✓

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Special Warranty Deed

This Special Warranty Deed made this 29th day of May, 2020 between B BECKER PARTNERS, LTD., a Florida limited partnership; TCC PARTNERS, L.P., a Georgia limited partnership; and MICHAEL E. GEORGE, as Trustee of the THOMAS L. CORR 2000 FAMILY TRUST DATED JULY 25, 2000, whose post office address is 582 Beachland Blvd, Suite 300, Vero Beach, FL 32963, grantor, and BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA whose post office address is c/o Florida Department of Environmental Protection, Division of State Lands, 3900 Commonwealth Blvd, MS 115, Tallahassee, FL 32399, grantee:

(Whenever used herein the terms grantor and grantee include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, trusts and trustees)

Witnesseth, that said grantor, for and in consideration of the sum TEN AND NO/100 DOLLARS (\$10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in Sarasota County, Florida, to-wit:

See Exhibit "A" attached hereto and made a part hereof as if fully set forth herein.

Parcel Identification Number: 1081001000, 1083001000, 1085001000, 1088002010, 1099001000, 110001000, 1103001000, 1105001000, 1107001000, and 1109001000

The land described herein is not the homestead of the grantor(s), and neither the grantor(s) nor the grantor(s) spouse, nor anyone for whose support the grantor(s) is responsible, resides on or adjacent to said land.

Together with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby warrants the title to said land and will defend the same against the lawful claims of all persons claiming by, through or under grantors and/or Orange Hammock Ranch, LLC, a dissolved Florida limited liability company.

In Witness Whereof, grantor has hereunto set grantor's hand and seal the day and year first above written.

DoubleTime®

Signed, sealed and delivered in our presence:

B BECKER PARTNERS, LTD., a Florida limited partnership

By: B BECKER MANAGEMENT, LLC, a Florida limited liability company, as General Partner

A-1 (1) S1
Witness Name: Andrew R. Taylor

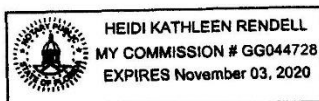
By: [Signature]
Richard W. Becker, as Manager

[Signature]
Witness Name: Jessica R. Willmot

State of Florida
County of Indian River

The foregoing instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization, this 26th day of May, 2020 by Richard W. Becker, as Manager of B BECKER MANAGEMENT, LLC, a Florida limited liability company, the General Partner of B BECKER PARTNERS, LTD., a Florida limited partnership on behalf of B BECKER PARTNERS, LTD., a Florida limited partnership. He/she ☒ is personally known to me or ☐ has produced a driver's license as identification.

[Notary Seal]



Heidi Kathleen Rendell
Notary Public

Printed Name: Heidi Kathleen Rendell

My Commission Expires: Nov. 3, 2020

TCC PARTNERS, L.P., a Georgia limited partnership
By: TCC MANAGEMENT COMPANY, LLC, a
Georgia limited liability company, as General Partner

Michael R. Burr
Witness Name: Michael Burr

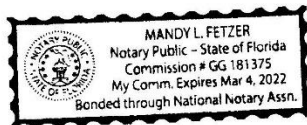
By: Thomas L. Corr
Thomas L. Corr, as Chief Executive Officer

Tonya J. Purcell
Witness Name: Tonya J. Purcell

State of Florida
County of Indian River

The foregoing instrument was acknowledged before me by means of [X] physical presence or [] online notarization, this 27th day of May, 2020 by Thomas L. Corr, as Chief Executive Officer of TCC MANAGEMENT COMPANY, LLC, a Georgia limited liability company, the General Partner of TCC PARTNERS, L.P., a Georgia limited partnership on behalf of TCC PARTNERS, L.P., a Georgia limited partnership. He/she [] is personally known to me or [X] has produced a driver's license as identification.

[Notary Seal]



Mandy L. Fetzer
Notary Public

Printed Name: Mandy L. Fetzer

My Commission Expires: 3/4/22

Michael Barbosa
Witness Name: Michael Barbosa

By: [Signature]
MICHAEL E. GEORGE, as Trustee of the THOMAS L. CORR 2000 FAMILY TRUST DATED JULY 25, 2000

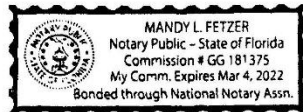
Tonya J. Purcell
Witness Name: Tonya J. Purcell

State of Florida
County of Indian River

The foregoing instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization, this 29th day of May, 2020 by **MICHAEL E. GEORGE, as Trustee of the THOMAS L. CORR 2000 FAMILY TRUST DATED JULY 25, 2000** on behalf of the **THOMAS L. CORR 2000 FAMILY TRUST DATED JULY 25, 2000**. He/she ☒ is personally known to me or ☐ has produced a driver's license as identification.

[Notary Seal]

Mandy L. Fetzer
Notary Public



Printed Name: Mandy L. Fetzer
My Commission Expires: 3/4/22

Exhibit "A"

All of Sections 1, 2, 11, 12, 13, 14 and a portion of Sections 3, 4, 9, 10, 15 and 16, Township 39 South, Range 22 East, Sarasota County, Florida, being more particularly described as follows:

Beginning at the Northeast corner of Section 9, Township 39 South, Range 22 East also being the Northwest corner of Section 10; thence N.89°56'00"W., (grid bearing, Florida Transverse Mercator, West Zone) along the North line of said Section 9, a distance of 324.51 feet to a point in the Alderman Slough; thence following said Alderman Slough in a southerly direction, the following courses: S.18°25'53"W., through Section 9 a distance of 85.39 feet; thence S.27°12'16"E., a distance of 517.18 feet; thence S.57°39'41"E., a distance of 124.04 feet to a point on the West line of Section 10, bearing S.00°58'09"W., a distance of 607.04 feet from the Northwest corner of said Section 10; thence S.57°39'41"E., through Section 10 a distance of 63.21 feet; thence S.10°12'48"E., a distance of 555.38 feet; thence S.07°21'16"E., a distance of 672.34 feet; thence S.10°44'03"E., a distance of 651.24 feet; thence S.10°36'13"W., a distance of 530.75 feet; thence S.01°14'47"W., a distance of 820.24 feet; thence S.03°22'21"E., a distance of 253.99 feet; thence S.08°05'01"E., a distance of 925.01 feet; thence S.12°02'12"E., a distance of 324.12 feet to a point on the North line of Section 15, bearing S.89°40'03"E., a distance of 536.06 feet from the Northwest corner of said Section 15; thence through Section 15, S.12°02'12"E., a distance of 127.44 feet; thence S.09°19'36"E., a distance of 688.88 feet; thence S.04°17'39"E., a distance of 145.23 feet; thence S.11°04'54"E., a distance of 278.80 feet; thence S.18°24'37"W., a distance of 118.03 feet; thence S.27°30'33"W., a distance of 170.26 feet; thence S.05°11'15"E., a distance of 86.33 feet; thence S.07°05'59"W., a distance of 206.26 feet; thence S.03°47'11"E., a distance of 108.15 feet; thence S.15°38'29"W., a distance of 229.08 feet; thence S.11°11'29"W., a distance of 651.33 feet; thence S.04°17'53"W., a distance of 74.25 feet; thence S.16°13'07"W., a distance of 79.94 feet; thence S.06°56'07"W., a distance of 292.06 feet; thence S.19°33'24"W., a distance of 62.42 feet; thence S.51°48'15"W., a distance of 177.50 feet; thence S.35°17'02"W., a distance of 182.82 feet; thence S.51°44'00"W., a distance of 129.18 feet to a point on the East line of Section 16, bearing N.00°16'13"E., a distance of 1734.15 feet from the Southeast corner of said Section 16; thence S.51°44'00"W., through Section 16, a distance of 18.84 feet; thence S.35°17'35"W., a distance of 203.28 feet to a point on the Northerly limited access right-of-way line for Interstate Highway #75; thence S.44°57'25"E., along said right-of-way line a distance of 186.37 feet to a point on the West line of Section 15, bearing N.00°06'13"E., a distance of 1424.68 feet from the Southwest corner of said Section 15, thence S.44°57'25"E. along said right-of-way line a distance of 2023.63 feet to an intersection with the South line of Section 15, bearing S.89°42'25"E., a distance of 1432.44 feet from the Southwest corner of said Section 15; thence S.89°42'25"E., along the South line of said Section 15 a distance of 3869.24 feet to the Southwest corner of Section 14; thence S.89°42'24"E., along the South line of said Section 14 a distance of 5321.72 feet to the Southwest corner of Section 13; thence S.89°42'24"E., along the South line of said Section 13 a distance of 5413.63 feet to the Southeast corner of said Section 13 and the East Range line of said Township 39 South, Range 22 East; thence N.00°14'50"E., along the East line of said Section 13 a distance of 5325.52 feet to the Southeast corner of Section 12; thence N.00°14'45"E., along the East line of said Section 12 a distance of 5324.68 feet to the Southeast corner of Section 1; thence N.00°14'30"E., along the East line of said Section 1 a distance of 5324.24 feet to the Northeast corner of said Section 1 and the Northeast corner of Township 39 South, Range 22 East; thence N.89°44'59"W., along the North line of the Northeast Quarter of said Section 1 a distance of 2655.22 feet to the Northeast corner of the Northwest Quarter of said Section 1; thence N.89°44'46"W., along the North line of said Northwest Quarter a distance of 2655.22 feet to the Northeast corner of Section 2; thence N.89°44'34"W., along the North line of the Northeast Quarter of said Section 2 a distance of 2655.22 feet to the Northeast corner of the Northwest Quarter of said Section 2; thence N.89°44'21"W., along the North line of said Northwest Quarter a distance of 2655.22 feet to the Northwest corner of Section 2; which is the Northeast corner of Section 3; thence N.89°43'55"W. along the North line of the Northeast Quarter of said Section 3 a distance of 2655.22 feet to the Northeast corner of the Northwest Quarter of said Section 3; thence N.89°43'42"W. along the North line of the Northwest Quarter of Section 3 a distance of 2655.22 feet to the Northwest corner of Section 3; thence S.0°47'59"W. along the West line of the North Half of Section 3 a distance of 2663.2 feet to the Southwest corner of the North Half of said Section 3 and the Southeast corner of the North Half of Section 4; thence N.89°49'42"W. along the South line of the North Half of Section 4 a distance of 32.18 feet to a point in the Alderman Slough; thence following said Alderman Slough in a southerly direction, the following courses:

S.19°46'12"W. a distance of 384.63 feet; thence S.06°17'38"E., a distance of 74.84 feet; thence S.16°26'43"E., a distance of 499.12 feet to a point on the West line of said Section 3 bearing N.00°47'59"E. a distance of 1748.17 feet from the Southwest corner of said Section 3; thence S.16°26'43"E. through Section 3 a distance of 211.62 feet; thence S.03°07'54"W. a distance of 225.97 feet; thence S.07°53'10"W. a distance of 216.17 feet; thence S.18°35'25"W. a distance of 87.96 feet to a point on the East line of Section 4 bearing N.00°47'59"E. a distance of 1022.0 feet from the Southeast corner of said Section 4; thence S.18°20'50"W. a distance of 1076.23 feet to a point on the South line of said Section 4; thence S.89°56'00"E. a distance of 324.51 feet to the Southwest corner of Section 3 and the Northeast corner of Section 9 and the Point of Beginning.

TOGETHER WITH a 100-foot wide easement for ingress, egress and utilities over, across and through a portion of the North 1/2 of Section 4, the North 1/2 of Section 5, and the North 1/2 of Section 6, Township 39 South, Range 22 East, Sarasota County, Florida, said easement lying 50 feet on each side and continuous with the following described centerline:

Commence at the Northwest corner of said Section 6; thence South 00°30'07" West along the West line of Section 6 a distance of 2498.43 feet to the Point of Beginning of said centerline; thence South 88°26'46" East a distance of 871.74 feet; thence North 72°30'11" East a distance of 92.72 feet to the point of curvature of a curve to the left having a radius of 500.00 feet, a central angle of 17°04'05", the chord of which bears North 63°58'09" East and a chord distance of 148.40 feet; thence along the arc of said curve a distance of 148.95 feet to the point of tangency; thence North 55°26'07" East a distance of 155.43 feet to the point of curvature of a curve to the left having a radius of 1000.00 feet, a central angle of 8°58'01", the chord of which bears North 50°57'06" East and a chord distance of 156.34 feet; thence along the arc of said curve a distance of 156.50 feet to the point of tangency; thence North 46°28'06" East a distance of 132.96 feet to the point of curvature of a curve to the left having a radius of 1000.00 feet, a central angle of 15°18'27", the chord of which bears North 38°48'52" East and a chord distance of 266.37 feet; thence along the arc of said curve a distance of 267.17 feet to the point of tangency; thence North 31°09'39" East a distance of 916.90 feet to the point of curvature of a curve to the right having a radius of 1000.00 feet, a central angle of 44°22'31", the chord of which bears North 53°20'55" East and a chord distance of 755.28 feet; thence along the arc of said curve a distance of 774.50 feet to the point of compound curvature of a curve to the right having a radius of 600.00 feet, a central angle of 46°54'13", the chord of which bears South 81°00'43" East and a chord distance of 477.57 feet; thence along the arc of said curve a distance of 491.17 feet to the point of tangency; thence South 57°33'36" East a distance of 294.45 feet to the point of curvature of a curve to the left having a radius of 1000.00 feet, a central angle of 49°39'20", the chord of which bears South 82°23'16" East and a chord distance of 839.78 feet; thence along the arc of said curve a distance of 866.65 feet to the point of tangency; thence North 72°47'04" East a distance of 187.48 feet to the point of curvature of a curve to the right having a radius of 2000.00 feet, a central angle of 27°00'27", the chord of which bears North 86°17'18" East and a chord distance of 934.04 feet; thence along the arc of said curve a distance of 942.74 feet to the point of tangency; thence South 80°12'29" East a distance of 2116.26 feet to the point of curvature of a curve to the left having a radius of 1000.00 feet, a central angle of 25°59'20", the chord of which bears North 86°47'52" East and a chord distance of 449.71 feet; thence along the arc of said curve a distance of 453.59 feet to the point of tangency; thence North 73°48'12" East a distance of 348.80 feet to the point of curvature of a curve to the right having a radius of 1000.00 feet, a central angle of 71°05'17", the chord of which bears South 70°39'10" East and a chord distance of 1162.66 feet; thence along the arc of said curve a distance of 1240.72 feet to the point of tangency; thence South 35°06'31" East a distance of 852.30 feet to the point of curvature of a curve to the left having a radius of 900.00 feet, a central angle of 54°11'59", the chord of which bears South 62°12'31" East and a chord distance of 819.98 feet; thence along the arc of said curve a distance of 851.37 feet to the point of tangency; thence South 89°18'31" East a distance of 425.08 feet to the point of curvature of a curve to the left having a radius of 1000.00 feet, a central angle of 46°52'46", the chord of which bears North 67°15'06" East and a chord distance of 795.57 feet; thence along the arc of said curve a distance of 818.20 feet to the point of reverse curvature of a curve to the right having a radius of 1500.00 feet, a central angle of 49°42'34", the chord of which bears North 68°40'00" East and a chord distance of 1260.96 feet; thence along the arc of said curve a distance of 1301.39 feet to the point of tangency; thence South 86°28'43" East a distance of 659.10 feet to the point of curvature of a curve to the left having a radius of 700.00 feet, a central angle of 40°39'47", the chord of which bears North 73°11'24" East and a chord distance of 486.43 feet; thence along the arc of said curve a distance of 496.79 feet to the point of tangency; thence North 52°51'30" East a distance of 87.36 feet to the point of curvature of a curve to the right having a radius of 700.00 feet, a central angle of

42°43'39", the chord of which bears North 74°13'20" East and a chord distance of 510.00 feet; thence along the arc of said curve a distance of 522.02 feet to the point of tangency; thence South 84°24'50" East a distance of 175.45 feet to the point of curvature of a curve to the right having a radius of 900.00 feet, a central angle of 66°42'46", the chord of which bears South 51°03'27" East and a chord distance of 989.72 feet; thence along the arc of said curve a distance of 1047.92 feet to the point of tangency; thence South 17°42'04" East a distance of 364.70 feet to the point of curvature of a curve to the left having a radius of 500.00 feet, a central angle of 15°18'05", the chord of which bears South 25°21'07" East and a chord distance of 133.13 feet; thence along the arc of said curve a distance of 133.53 feet to the point of tangency; thence South 89°49'42" East a distance of 254.91 feet to the East line of the aforesaid Section 4 and the point of termination of said centerline.

The side lines of said 100-foot wide easement shall lengthen or shorten as required to terminate on the same boundaries as the centerline.

A portion of Section 4, Township 39 South, Range 22 East, Sarasota County, Florida, being more particularly described as follows:

Commence at the Southeast corner of the North Half of said Section 4; thence North 88°49'42" West along the South line of said North Half a distance of 32.18 feet to the Point of Beginning; thence South 19°46'12" West a distance of 173.97 feet to an intersection with a non-tangent curve concave to the North having a radius of 550.00 feet; thence Northwesterly along said curve to the right through a central angle of 26°22'34", an arc distance of 253.19 feet (chord=250.96 feet bearing=North 49°03'24" West) to the intersection with the aforesaid South line of the North Half; thence South 89°49'42" East along said South line a distance of 248.41 feet to the Point of Beginning.

Also conveyed herewith is a non-exclusive perpetual easement over, across and through the following-described property for the purposes of ingress, egress and utilities:

A portion of Section 6, Township 39 South, Range 22 East, Sarasota County, Florida, being more particularly described as follows:

Commence at the Northwest corner of said Section 6; thence South 00°30'07" West along the West line of Section 6 a distance of 2548.44 feet to the Southwest corner of the North Half of said Section 6 and the Point of Beginning; thence South 88°26'46" East, along the South line of said North Half a distance of 877.49 feet to an intersection with a non-tangent curve concave to the North having a radius of 1630.00 feet; thence Southwesterly along said curve to the right through a central angle of 20°33'29", an arc distance of 584.85 feet (chord=581.72 feet bearing South 81°16'29" West) to the end of said curve and a point of the line lying 103.82 feet South of and parallel with said South line of the North Half; thence North 88°26'46" West along said parallel line a distance of 303.20 feet to the aforesaid West line of Section 6; thence North 00°30'07" East along said West line a distance of 103.82 feet to the Point of Beginning.

BSM
BY SK
Date: 1.06.2020

10.2 Public Hearing Notice, Advertisements, and Press Release

10.2.1 Public Hearing Notice

NOTICE

The Florida Fish and Wildlife Conservation Commission (FWC)
Announces a virtual

PUBLIC HEARING

for the

Orange Hammock Wildlife Management Area Management Plan

Sarasota County, Florida

7:00 P.M. Thursday, May 4th, 2021

Connect to the meeting by going to

<http://fwc.adobeconnect.com/ohwmapublichearing/>

PURPOSE: To receive public comment regarding considerations for the FWC ten-year Land Management Plan for the Orange Hammock Wildlife Management Area (WMA). This hearing is being held EXCLUSIVELY for discussion of the DRAFT Orange Hammock WMA Management Plan. This meeting is not being held to discuss area hunting or fishing regulations. For more information on the process for FWC rule and regulation development go online to:

<http://myfwc.com/about/rules-regulations/>

A Management Prospectus for the Orange Hammock WMA is available upon request. For a copy please contact Jackie Bucheck by email at Jackie.Bucheck@MyFWC.com or by phone at (850) 487-9588. Additional information can be found by visiting our public hearing website: <https://myfwc.com/conservation/management-plans/upcoming/>

10.2.2 Newspaper Publication and Affidavit

The Florida Fish and Wildlife Conservation Commission (FWC) announces a virtual PUBLIC HEARING for the FWC Lead Managed Orange Hammock Wildlife Management Area (WMA) in Sarasota County, Florida.

FWC is conducting public hearings online to protect our communities due to COVID-19 (Coronavirus) social distancing guidelines. The public can watch and participate in these meetings for free using Adobe Connect, an online communication tool.

The meeting will start at **7:00 P.M. Tuesday, May 4th, 2021. Connect to the meeting by going to <http://fwc.adobeconnect.com/ohwmapublichearing/>.** Please sign in as a guest and make sure your speakers are turned on.

PURPOSE: To receive public comment regarding considerations for FWC's 10-year Management Plan for the FWC Lead Managed Orange Hammock WMA. This hearing is being held **EXCLUSIVELY** for discussion of the **DRAFT** Orange Hammock WMA Management Plan. This meeting is not being held to discuss area hunting or fishing regulations. For more information on the process for FWC rule and regulation development visit <https://myfwc.com/about/rules-regulations/proposed-rule-changes/>.

A Management Prospectus for Orange Hammock WMA and copy of the agenda is available upon request from:

Jackie Bucheck
Florida Fish and Wildlife Conservation
Commission,
Land Conservation and Planning Group
620 South Meridian Street
Tallahassee, Florida 32399-1600
Telephone: (850) 487-9588
Email: Jackie.Bucheck@MyFWC.com

Date of pub: April 24, 2021

AFFIDAVIT OF PUBLICATION

SARASOTA HERALD-TRIBUNE
PUBLISHED DAILY
SARASOTA, SARASOTA COUNTY, FLORIDA

STATE OF FLORIDA
COUNTY OF SARASOTA

BEFORE THE UNDERSIGNED AUTHORITY PERSONALLY APPEARED JM MITCHELL, WHO ON OATH SAID SHE IS VICE PRESIDENT OF SALES, WEST FL, FOR THE SARASOTA HERALD-TRIBUNE, A DAILY NEWSPAPER PUBLISHED AT SARASOTA, IN SARASOTA COUNTY FLORIDA; AND CIRCULATED IN SARASOTA COUNTY DAILY; THAT THE ATTACHED COPY OF ADVERTISEMENT BEING A NOTICE IN THE MATTER OF:

Legal description documented below:

IN THE COURT WAS PUBLISHED IN THE SARASOTA EDITION OF SAID NEWSPAPER IN THE ISSUES OF:

4/24 1x

AFFIANT FURTHER SAYS THAT THE SAID SARASOTA HERALD-TRIBUNE IS A NEWSPAPER PUBLISHED AT SARASOTA, IN SAID SARASOTA COUNTY, FLORIDA, AND THAT THE SAID NEWSPAPER HAS THERETOFORE BEEN CONTINUOUSLY PUBLISHED IN SAID SARASOTA COUNTY, FLORIDA, EACH DAY, AND HAS BEEN ENTERED AS SECOND CLASS MAIL MATTER AT THE POST OFFICE IN SARASOTA, IN SAID SARASOTA COUNTY, FLORIDA, FOR A PERIOD OF ONE YEAR NEXT PRECEDING THE FIRST PUBLICATION OF THE ATTACHED COPY OF ADVERTISEMENT; AND AFFIANT FURTHER SAYS THAT SHE HAS NEITHER PAID NOR PROMISED ANY PERSON, FIRM OR CORPORATION ANY DISCOUNT, REBATE, COMMISSION OR REFUND FOR THE PURPOSE OF SECURING THIS ADVERTISEMENT FOR PUBLICATION IN THE SAID NEWSPAPER.

SIGNED JM Mitchell

SWORN OR AFFIRMED TO, AND SUBSCRIBED BEFORE ME THIS 11 DAY OF May, A.D., 2021
BY JM MITCHELL WHO IS PERSONALLY KNOWN TO ME.

[Signature]
Notary Public



10.2.3 Florida Administrative Register

Notice of Meeting/Workshop Hearing

FISH AND WILDLIFE CONSERVATION COMMISSION

Freshwater Fish and Wildlife

The Florida Fish and Wildlife Conservation Commission announces a public meeting to which all persons are invited.

DATE AND TIME: Tuesday, May 4, 2021, 7:00 p.m.

PLACE: <http://fwc.adobeconnect.com/ohwmapublichearing/>

GENERAL SUBJECT MATTER TO BE CONSIDERED: To receive public comment regarding considerations for FWC's 10-year Management Plan for the FWC Lead Managed Orange Hammock WMA.

This hearing is being held EXCLUSIVELY for discussion of the DRAFT Orange Hammock WMA Management Plan. This meeting is not being held to discuss area hunting or fishing regulations. For more information on the process for FWC rule and regulation development visit <https://myfwc.com/about/rules-regulations/proposed-rule-changes/>.

A copy of the agenda may be obtained by contacting: Jackie Bucheck, Florida Fish and Wildlife Conservation Commission, Land Conservation and Planning Group, 620 South Meridian Street, Tallahassee, Florida 32399-1600, Telephone: (850)487-9588, Email: Jackie.Bucheck@MyFWC.com.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 10 days before the workshop/meeting by contacting: Jackie Bucheck, Florida Fish and Wildlife Conservation Commission, Land Conservation and Planning Group 620 South Meridian Street, Tallahassee, Florida 32399-1600, Telephone: (850)487-9588, Email: Jackie.Bucheck@MyFWC.com. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

For more information, you may contact: Jackie Bucheck, Florida Fish and Wildlife Conservation Commission, Land Conservation and Planning Group, 620 South Meridian Street, Tallahassee, Florida 32399-1600, Telephone: (850)487-9588, Email: Jackie.Bucheck@MyFWC.com.

10.3 Public Input

10.3.1 Management Advisory Group Meeting Results

Orange Hammock Wildlife Management Area (OHWMA) Management Advisory Group (MAG) Consensus Meeting Report

March 31, 2021 Remote Meeting

The intent of convening a consensus meeting is to involve a diverse group of stakeholders in assisting the Florida Fish and Wildlife Conservation Commission (FWC) in development of a rational management concept for lands within the agency's managed area system. The FWC does this by asking spokespersons for these stakeholder group to participate in a half-day meeting to provide ideas about how FWC-managed lands should be protected and managed.

The MAG consensus meeting was held on the morning of *March 31, 2021* virtually through Microsoft Teams. The ideas found below were provided by stakeholders for consideration in the 2021 – 2031 Management Plan (MP). These ideas represent a valuable source of information to be used by biologists, planners, administrators, and others during the development of the MP. Upon approval by the FWC, the Acquisition and Restoration Council (ARC), and the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees), the MP will guide the activities of FWC personnel over the ten-year duration of the management plan and will help meet agency, state, and federal planning requirements.

The below bold-faced statements are stakeholders' succinct summaries of their contributed ideas. Statements following the bold-faced ideas are the clarifying discussion of ideas as transcribed and interpreted by the FWC recorder at the meeting. If there are no further statements following the bold-faced ideas, the stakeholder indicated that their idea did not require clarification. The ideas are presented below in the order they were received:

Idea

1. **Explore hydrological restoration opportunities.** The Southwest Florida Water Management District (SWFWMD) has a history of hydrological restoration in the region. There is a recommendation to explore any site-specific evaluation of potential opportunities with SWFWMD and Peace River mitigation efforts.
2. **Enhance wildlife habitat.**

Idea

3. **Protect significant wildlife and native habitat.** The habitats to the south of the OHWMA have been destroyed. We should use whatever means possible to restore the OHWMA wildlife for public enjoyment, including hydrologic restoration of ditches.
4. **Complete timber assessment.** The Florida Statutes require any state-owned lands of 1,000 acres or more to have a timber assessment done by a professional forester. That is something that the Florida Forest Service (FFS) can provide. There are possible timber resources, areas ready for thinnings, and areas that need planting. Timber assessments are used by the FWC as a management device or tool and are not used for seeking out opportunities for commercial timber. However, the FWC could use timber thinning/harvesting as a management tool if it is appropriate.
5. **Repair and restore native habitat damaged by previous uses.** Potential trail locations in the northwest part of the OHWMA look damaged from a review of the Google Earth images. The damage appears to be from pre-existing Utility Terrain Vehicle (UTV) trails. These patches need to be restored for safety during fires and protection from invasive species, which can more easily establish themselves in areas like this.
6. **Control exotic plant and animal species.**
7. **Restore wetlands.**
8. **Educate general public on outdoor resources.**
9. **Consider 300-foot safety buffer on western and northern boundaries for hunting.** *Stakeholder left before clarification.*
10. **Control feral hogs.** The OHWMA is unfortunately an ideal habitat for feral hogs. Currently, they are not being controlled effectively. There is a federal program that has been patrolling other nearby areas for a few years and removing feral hogs. This could help with the challenge of feral hogs on this property. Hunting can also help, but may not have a significant enough impact. Concerned about their destruction to the property.

Idea

12. **Work with adjacent developers on connectivity and establishing a buffer on their side of the fence.** There is no precedent for prohibiting hunting via buffers on Wildlife Management Area (WMA) properties at the request of neighboring landowners. We do want to make sure everyone is safe, but if there is a possibility of having a buffer, what distance that would be is up for discussion, as well as what that buffer consists of. For example, perhaps it may mean limiting treestand placement along fencelines. Tree stands on fencelines isn't something anyone wants to see. There needs to be some discussion around rules between properties. A "No-Hunting" zone has negative connotations. Hunting is a safe activity, just as safe as riding a bike along a roadway. Mitigating hunting is not a necessary conservation tool. It would make more sense to work with adjacent land owners and developers to establish ecological connectivity between neighboring lands and then if neighboring landowners would like to buffer their property from the WMA, it should be done on their property.
13. **Implement growing season burns.** Although it can be difficult to burn during the growing season due to limitations regarding proper burn conditions, growing season burns are what Florida animals have adapted to.
14. **Monitor recreational opportunities to be compatible with native and imperiled wildlife.** As the public is beginning to use the area, it's the job of law enforcement (LE) to make sure everyone is abiding by the rules and regulations. Also, biologists need to monitor wildlife and make sure that it is not impacted negatively by permitted uses. If there are additional opportunities to be offered to hunters, we can entertain that as well. We want to work hand-in-hand with property owners as well to ensure a quality experience.
15. **Develop and implement a prescribed fire plan.** This is of the utmost importance for the OHWMA. The plan will include growing season burns.
16. **Protect water resources.** Protect water resources using silvicultural Best Management Practices (BMPs) as they relate to infrastructure and firelines.
17. **Consider a mitigation bank for gopher tortoises.** It is such a large area, it could be a candidate for mitigation purposes. Encourage staff to explore the possibility.

Idea

18. **Cooperate with the FFS on prescribed burns and wildfire control.** As I-75 and urban development are right near the OHWMA property lines, the FFS can be a resource for FWC staff. The FFS and the FWC have a history of coordinating for these purposes. The FFS can help with urban interface burning projects, as well as assist with fireline installation or mechanical fuel management.
19. **Secure boundaries including fencing the area.** Boundaries need to be posted well so LE can enforce any trespassers or UTVs that enter the property.
20. **Organize citizen science activities, such as a BioBlitz.** The nearby Marie Selby Gardens is sponsoring something similar. They get a lot of input from public visiting area and photographing plants. Audubon, butterfly, and wildlife associations hosting a BioBlitz could give a more in depth survey of the flora and fauna in the area and may help to identify areas where extra protection is needed for imperiled species.
21. **Ensure illegal UTV access is restricted.** This is primarily a concern on southern border where several lots are being developed. The City of North Port may be able to assist with new or ongoing efforts to ensure UTV access is restricted.
22. **Encourage compatible uses of the land.** We want to see our public using the OHWMA as much as possible in a clean, helpful, and non-detrimental manner.
23. **Recommend primary public access occur on the south boundary.**
Stakeholder left before clarification.
24. **Further efforts for specific exotic plant species.** Cogon-grass, brazilian pepper, and marsh grass are the three worst offenders in this area of Florida. There is an annual plan in surrounding areas to combat them. Nearby lands would likely welcome collaboration on mitigating these species.
25. **Balance hunting and hiking recreational opportunities.**

Idea

26. **Educate and coordinate with adjacent developers and landowners on the importance of prescribed fire.** Florida is a fire-dependent habitat and ecosystem. One of the big issues fire managers have is the multitude of private landowners and developers developing adjacent lands; these groups often complain about smoke and ash. It would be beneficial to require some kind of language about the necessity of prescribed burns for first points of contact (i.e. realtors or developers) for purchasing lands adjacent to areas in need of prescribed burns. The Florida Department of Environmental Protection (DEP) has a Notice of Proximity they would be willing to share. If it was a requirement to educate nearby landowners regarding the fact that prescribed fire improves safety in surrounding areas, fire managers can do their jobs more effectively and efficiently.
27. **Utilize mechanical treatments for safer burns and enhancing wildlife habitat.** Boundary improvements, mostly done through mechanical needs, would provide improved buffers for safer and easier burns. At this stage, mechanical treatments are needed to restore and enhance natural wildlife.
28. **Develop upland restoration plan.** Recommendation to consider and evaluate upland restoration and outline an area specific restoration plan on the OHWMA.
29. **Emphasize passive recreational opportunities.** There is interest for including primitive camping as a recreational opportunity on the OHWMA.
31. **Utilize local resources and other opportunities for prescribed fire.** The FWC should capitalize on local resources to assist with burning, especially as fuels management may be difficult for the first few burns. Additionally, pre-COVID, Sarasota County was hosting a Fire Fest to show the value and need for prescribed burning (i.e. biodiversity, safety, etc.). It may be of help to share invitations to similar events with nearby residents.
32. **Ensure trails and firebreaks are outside of ecotones and sensitive areas.**
33. **Balance uses between hunting and other recreational opportunities.**

Idea

34. **Cattle grazing should remain a use on the OHWMA to assist in landscape management.** There are a couple of ranches that the State worked with to maintain cattle grazing for land management, including Archibald Ranch, which uses cattle as a land management tool. Recommended that the FWC consult available science on this land management technique. There is no shortage of literature showing that cattle can be an effective tool on similar landscapes. For a century, at least, cattle have been on the OHWMA. It is a necessary part of the landscape. It has been incorporated historically and could continue to mitigate the use of mechanical treatments.
35. **Cattle be restricted on the area.** Recommended new cattle not be used on the area, but historic uses can be respected.
36. **Develop and implement a comprehensive Wildlife Conservation and Prioritization Strategy (WCPR) strategy.**
37. **Look at all public access points to the area and coordinate with the City of North Port.** Accessing the OHWMA via Toledo Blade Road is recommended; the road does flood, but it will eventually be improved. The roads to the south are in horrible shape. In the Metropolitan Planning Organization as well as Florida Department of Transportation's plans, they are planning for an I-75 interchange nearby the platted properties to the south of the OHWMA. Also recommended anything we do with access should be coordinated with the city.
38. **Ensure adequate staff and funding for ongoing management activities.**
39. **Assess current state of natural communities.** The FWC needs to determine what the future desired conditions are for natural communities existing on the OHWMA. In order to move toward that future goal, we need to assess current conditions.
40. **Explore trail connectivity to nearby areas.** Explore possible other access points and collaborations with local trails. Sarasota County has a river-to-river trail and there are various other opportunities for collaboration in the area, including with adjacent lands owned by the City of North Port.
41. **Connect to adjacent lands to increase public access.** Connect to other public lands via trail systems and increase public access.

Idea

42. **Ensure proper management and conservation through the North American Model of Conservation (NAMoC).** NAMoC has 7 pillars that should be encouraged in conservation land management. This model discusses the need for hunting as a land management tool – in Florida, nationally, and internationally. Emphasis on this model can help to affect public views, which often portray hunting with a negative connotation. When you start to take pieces out of a puzzle, it falls apart; in terms of conserving land, hunting is one of those pieces. It is imperative to educate the public about the importance and relevance of hunting so they can embrace instead of harboring disdain for it.
43. **Incorporate science and historical uses on the area to ensure cattle are used as a land management tool.**
44. **Explore primitive camping opportunities.**
45. **Work with Sarasota County on arthropod control.**
46. **Develop an infrastructure plan to accommodate increased visitor use on the area.** As more development occurs around the OHWMA, conservation areas will continue to grow in popularity, especially in the time of COVID where social distancing is much more practical outdoors. With the addition of development and more frequent use, we should plan ahead for facilities to handle a potential influx of people, i.e. bathrooms and other facilities.
47. **Maintain and improve existing roads.** There is a history of flooding on the easement road currently used to access the property. This needs to be thoroughly documented this wet season to ensure that access is as safe and easy as possible.

Orange Hammock Wildlife Management Area MAG Meeting Participants

Name

Affiliation

Active Participants

Hunter Folmar	FWC Area Biologist
Lieutenant Jonathan Ruggiero	FWC Law Enforcement
Allen Milligan	Southwest Florida Water Management District
Brett Harrington	Sarasota County Planning Department
Mike Edwards	Florida Forest Service
Chris Becker	Department of Environmental Protection
Erica Timmerman	Florida Native Plant Society
Christine Johnson	Conservation Foundation of the Gulf Coast
Chris Banting	Sarasota County Off Road Riders
Bill Robertson	Adjacent Landowner
Ron York	Adjacent Landowner
John Minton	Adjacent Landowner
Karen Willey	Audubon Society
Mike Elfenbein	Foundation for Balanced Environmental Stewardship

Supportive Participants

Tina Hannon	FWC Habitat and Species Conservation (HSC), Wildlife Habitat Management, Assistant Section Leader
Josh Agee	FWC HSC, Regional Biologist
Cully Lord	FWC HSC, Asst. Regional Biologist
Mike Kemmerer	FWC HSC, District Biologist
Ethan Noel	FWC HSC, Regional Conservation Biologist
Katherine Burke	FWC PASO
Tom M. Matthews	FWC PASO
Rachel Penrod	FWC PASO
Cade Cresap	FWC PASO
Mark Schulz	FWC Hunting and Game Management (HGM), Regional Contact
Keaton Fish	FWC Florida Youth Conservation Centers Network (FYCCN), Southwest Region A Contact
Eric Johnson	FWC Division of Freshwater Fisheries Management
Captain Guy Carpenter	FWC Law Enforcement

Invited but Unable to Attend

Jason O'Donoghue	Division of Historical Resources
Ron Cutsinger	Sarasota County Commissioner
Israel Vega-Marrero	Natural Resources Conservation Service
Wes Calhoun	Florida Trail Association – Suncoast Chapter

Dan Hipes
Susan Augello-Vaisey
Bill Currie
Billy Currie
Chris Bryson

Florida Natural Areas Inventory
Equestrian Stakeholder
Adjacent Landowner
Adjacent Landowner
Adjacent Landowner

FWC Planning Personnel

Dylan Haase
Jackie Bucheck
Hannah Klein
Matthew Stana

Senior Land Conservation Planner, Facilitator
Lead Conservation Planner, Facilitator
Recorder
Recorder

10.3.2 Public Hearing Report

PUBLIC HEARING REPORT
FOR
ORANGE HAMMOCK WILDLIFE MANAGEMENT AREA
MANAGEMENT PLAN
HELD BY THE
ORANGE HAMMOCK WILDLIFE MANAGEMENT AREA
MANAGEMENT ADVISORY GROUP
AND THE
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
MAY 4, 2021 – HELD VIRTUALLY VIA ADOBE CONNECT

The following report documents the public input that was received at the Orange Hammock Wildlife Management Area's (OHWMA) Management Advisory Group's (MAG) public hearing for the Management Plan for the OHWMA that was held virtually at 7:00-9:00 PM, on May 4, 2021 via the Adobe Connect application.

OHWMA Management Advisory Group Introduction:

The meeting was introduced by Mr. Mike Elfenbein, a MAG participant, who represented the OHWMA MAG. Mr. Elfenbein indicated that he was one of 14 stakeholders that attended the Florida Fish and Wildlife Conservation Commission (FWC)-facilitated OHWMA MAG meeting held on March 31, 2021. Mr. Elfenbein stated that the Draft Management Plan was being presented tonight by FWC staff, and that hardcopies of the Draft Management Plan and the OHWMA MAG meeting report were available for download through the Adobe Connect platform for the public's review. Mr. Elfenbein thanked everyone for attending and then introduced Ms. Jackie Bucheck, Land Conservation Planner, FWC, to facilitate and coordinate the presentation of an overview of the OHWMA, FWC's planning process, and the draft components of the Draft Management Plan.

Presentation on the Overview of the OHWMA and the FWC Planning Process:

FWC member Ms. Bucheck welcomed everyone and thanked the public for their attendance. Ms. Bucheck then went over an orientation of the material and explained that the purpose of the public hearing was to solicit public input regarding the Draft Management Plan for the OHWMA, and not hunting and fishing regulations, indicating there is a separate public input process for

FWC rule and regulation development. Ms. Bucheck then described the materials that were available for public download and review, including the Draft Management Plan, the MAG Meeting Report, and the Management Prospectus. Ms. Bucheck then presented the agenda for the public hearing and facilitated the introduction of all FWC staff in attendance to the audience. Ms. Bucheck then presented an overview and orientation of the OHWMA, including a description of the natural communities, data about visitation, revenue and economic benefits generated for the state and region by the area, wildlife species, recreational opportunities found on the area, surrounding conservation lands, surrounding Florida Forever Program Land Acquisition Projects, acquisition history, etc. She also explained the FWC's planning process for the management of the public conservation lands and asked if there were any questions regarding that process.

Questions, Answers, and Discussion on the OHWMA Overview and FWC's Planning Process:

Ms. Bucheck facilitated an informal question and answers session where members of the public in attendance, without necessarily identifying themselves, could ask questions of the FWC staff, and discuss the answers. Ms. Bucheck again emphasized that the exclusive purpose for the public hearing was to collect public input regarding the Draft Management Plan for the OHWMA, as opposed to area hunting, fishing, and use regulations; Ms. Bucheck noted earlier that the FWC has a separate process for input on hunting and fishing regulations.

No questions or comments were received at this stage of the OHWMA public hearing.

Presentation of the OHWMA Draft Management Plan:

At this point, Ms. Bucheck began, completed, and concluded the presentation of the OHWMA Draft Management Plan.

Questions and Comments on the OHWMA Draft Management Plan Presentation:

Ms. Bucheck asked if there were any comments or questions from the public regarding the Draft Management Plan and encouraged everyone to unmute, use the Adobe Connect chat box, or use the "Raise Your Hand" tool for questions, comments, or public testimony. She informed them that all comments, questions, and public testimony will be considered equally by the FWC.

Public Question #1: An unidentified member of the audience provided the following question:

Do you anticipate reforestation to include plantings of pine trees?

FWC Response: Mr. Hunter Folmar, Area Manager, responded:

I don't think we'll be planting any pine trees, there's enough natural regeneration in the area. I think we will be able to get a new crop just with what we have.

Public Question #2: An unidentified member of the audience provided the following question:

Is there a timeline for developing and implementing a plan for prescribed burning?

FWC Response: Mrs. Dylan Haase, Senior Conservation Planner, responded:

We plan on having the Prescribed Burn Plan completed before the Management Plan is finalized, so it will be included as an appendix in the final Management Plan.

Public Question #3: An unidentified member of the audience provided the following question:

Will there be cattle, honeybee, or other public/private lease opportunities?

FWC Response: Mrs. Dylan Haase, Senior Conservation Planner, responded:

As Jackie mentioned earlier, we will be exploring the feasibility of a cattle lease. We will be cooperating with NRCS to see if that is a possibility on the area. Regarding apiaries or other private leases, we usually assess those on a case-by-case basis to see if it is feasible for the area.

Public Question #4: An unidentified member of the audience provided the following question:

Have any indigenous historical sites been identified for excavation?

FWC Response: Mrs. Dylan Haase, Senior Conservation Planner, responded:

I know we have not yet had a historical resources survey done, so nothing official has been documented. Area staff, can you speak to any other findings?

FWC Response: Mr. Josh Agee, Southwest Regional Biologist, responded:

You are correct, there have not yet been any areas identified, so as far as I know there are no historical sites. But we will have a survey done eventually to verify that.

FWC Response: Mr. Hunter Folmar, Area Manager, responded:

There is a cattle dipping vat that was from the 1950s on site, but other than that we are not aware of anything else that meets the criteria. However, again, we still have not had the survey done so we will know more once that happens.

Public Question #5: An unidentified member of the audience provided the following question:

Will opportunities for camping be considered in the future?

FWC Response: Mr. Josh Agee, Southwest Regional Biologist, responded:

At this time we are not proposing camping opportunities. There are several camping opportunities in the vicinity so we don't look to have them on this area, but it is something we may consider later on.

Public Question #6: An unidentified member of the audience provided the following question:

Are we going to review the Management Prospectus?

FWC Response: Mrs. Dylan Haase, Senior Conservation Planner, responded:

Our Management Prospectus is available for download in the bottom left-hand corner of your screen. Our Management Prospectus is more dense information and has many species lists, natural community data, etc. – it is more quantitative in that way. Our Overview was a brief outline of the Prospectus that Jackie went over earlier in the meeting. Tonight's meeting purpose is mainly the Draft Plan, which addresses Challenges, Strategies, and Management Goals and Objectives.

FWC Response: Ms. Jackie Bucheck, Land Conservation Planner, responded:

However, if you have any questions or comments about the Management Prospectus, please feel free to ask.

Public Question #7: An unidentified member of the audience provided the following question:

As far as identifying wildlife species, are they going to allow trail cams or is it up to FWC staff to determine what species are on the area?

FWC Response: Mrs. Dylan Haase, Senior Conservation Planner, responded:

It is FWC staff that will be identifying and recording the species. That is currently the process we have in place for our official species list. I do think currently there are a couple of cameras on the area and maybe our Area Manager can speak to that. In terms of receiving public species information, I am sure that our area staff will accept it, but they will have to verify it in order for it to be incorporated in the Management Plan. Hunter, do you have anything to add to that?

FWC Response: Mr. Hunter Folmar, Area Manager, responded:

Yes, we have five camera traps we have been running for three or four weeks and we have documented most of the mammal species we would expect to see at the OHWMA.

Public Question #8: An unidentified member of the audience provided the following question:

In the Management Plan, there is a mention of nine miles of equestrian trails. Are there any plans for an equestrian facility?

FWC Response: Mrs. Dylan Haase, Senior Conservation Planner, responded:

Currently we do not have a plan in place for an equestrian facility, but as Jackie covered earlier in the presentation, we will be developing a Recreation Master Plan as part of our objectives for this area. In that plan we will explore the needs and feasibility of further facilities such as that.

Public Question #9: An unidentified member of the audience provided the following question:

What is envisioned in the \$10 million of capital improvement?

FWC Response: Mrs. Dylan Haase, Senior Conservation Planner, responded:

When Jackie spoke earlier about capital improvements, the things she outlined were: possible fishing opportunities, expansion of trails, feasibility of a camper pad, and other items mentioned on the Capital Improvements slide of this presentation. The \$10 million will be spread throughout the life of the plan and the items that we have outlined and mentioned do add up. I would be happy to give you more detailed information on this after this hearing.

Public Question #10: An unidentified member of the audience provided the following comments:

I just want to be sure that when the FWC writes the hunting program, they have a meeting where the advocates of the hunting program can speak. There's a difference between full migratory bird seasons being in the hunting program as opposed to just duck season. This is very important to the stakeholders. All I am asking is that FWC speak with these stakeholders as they write regulations. Thank you.

FWC Response: Mrs. Dylan Haase, Senior Conservation Planner, responded:

Thank you, we appreciate that comment. There is a separate process for hunting regulations, and I'll be happy to share that link in just a moment in the chat box if you'd like to look further into that process as well.

No further questions or comments were received at this stage of the OHWMA public hearing meeting.

Public Testimony on the OHWMA Draft Management Plan:

Six member(s) of the public audience used the chat box and/or Raise Your Hand virtual tool indicating their intention to provide formal public testimony. Ms. Bucheck again emphasized that the public hearing was for taking input regarding the OHWMA Draft Management Plan and called on the first speaker to give testimony.

Public Testimony #1: Mike Elfenbein provided the following public testimony:

I just wanted to say that I have really enjoyed being a part of this process and appreciate the amount of time and effort that you all have put into this and hearing the different perspectives from all of the different stakeholders and to know that so many people care about this place. So I just wanted to say, "Thank You" and I look forward to continuing to work with staff and others to continue to make this place the best that it can be. I am very proud of the hard work that you guys do for the agency and for all the stakeholders – especially Hunter's.

Public Testimony #2: Daniel Watson provided the following public testimony:

I just wanted to thank everybody for all the hard work and Jackie for tying it all together. It's been a very smooth process. It seems we've all gotten very good at virtual meetings. I look forward to seeing what happens with this wildlife area. I got the link for the rules and regulations on FWC. It's a bit tough to navigate as far as putting in input for some stakeholders that might be interested in hunting on the area. But I am thrilled to see that we are looking into all the recreational opportunities here. Any time that we can make a new area so that you don't end up with a bunch of development or houses and actually keep it natural Florida it's very exciting and I like seeing all the plans that we have. I know it's a lot of work, so I want to thank the staff, and everyone involved, including the sportsmen, for bringing this as far as it has gotten so far. Thank you.

Public Testimony #3: Richard provided the following public testimony:

Thank you and thank staff for hosting this at 7 o'clock at night. I really appreciate that and being able to attend after work. I just wanted to give public testimony that this place looks like a gem. I hope it stays that way. I hope the invasive plant removal, the prescribed burning, etc. takes utmost importance as you guys move forward and keep this place as natural and as Florida as it can be.

Public Testimony #4: Chuck Echenique provided the following public testimony:

I just want to thank staff, and all involved in bringing this project to fruition. This region of Florida has been sorely needing more hunting and outdoor recreation opportunities, and this is sure to be a treasured area in the region.

Public Testimony #5: Travis Thompson provided the following public testimony:

I agree with Mike wholeheartedly. Excellent job on this plan and looking forward to seeing this unfold.

Public Testimony #6: Scott provided the following public testimony:

*Appreciate all the hard work and saving this place from development. Important to keep all stakeholders involved in the use of these lands and appropriate funds to invasive species!
Thank You!*

Adjournment:

Ms. Bucheck asked if there were any other members of the public that wished to give public testimony.

No other speakers offered further comments.

Ms. Bucheck declared the public hearing adjourned.

10.4 Soil Series Descriptions

Map Unit Description

De Soto County, Florida

[Minor map unit components are excluded from this report]

Map unit: 13 - EauGallie fine sand

Component: EauGallie (85%)

The EauGallie 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 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. Organic matter content in the surface horizon is about 5 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.

Map unit: 14 - Farmton fine sand

Component: Farmton (85%)

The Farmton 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 low. Available water to a depth of 60 inches 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. 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.

Map unit: 17 - Felda fine sand, depressional

Component: Felda, depressional (85%)

The Felda, depressional 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 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 January, February, 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.

Map unit: 18 - Floridana mucky fine sand, depressional

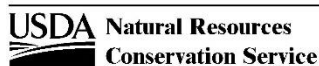
Component: Floridana (85%)

The Floridana 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 low. Available water to a depth of 60 inches 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 January, February, June, July, August, September, October, November, December. 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.

Map unit: 28 - Pineda fine sand, depressional

Component: Pineda, depressional (85%)

The Pineda, depressional 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



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Map Unit Description

De Soto County, Florida

Map unit: 28 - Pineda fine sand, depressional

Component: Pineda, depressional (85%)

layer is moderately low. Available water to a depth of 60 inches 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 January, February, 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.

Map unit: 29 - Pineda-Pinellas fine sands

Component: Pineda (45%)

The Pineda component makes up 45 percent of the map unit. Slopes are 0 to 1 percent. This component is on drainageways 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 low. Available water to a depth of 60 inches 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 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 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: Pinellas (35%)

The Pinellas component makes up 35 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 moderately high. Available water to a depth of 60 inches 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. The calcium carbonate equivalent within 40 inches, typically, does not exceed 15 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.

Map Unit Description

Sarasota County, Florida

Map unit: 4 - Bradenton fine sand

Component: Bradenton (85%)

The Bradenton 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, rises 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 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 August, September. Organic matter content in the surface horizon is about 2 percent. This component is in the R155XY003FL South Florida Flatwoods ecological site. 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: 8 - Delray fine sand, depressional

Component: Delray, depressional (80%)

The Delray, depressional component makes up 80 percent of the map unit. Slopes are 0 to 2 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 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 June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 5 percent. This component is in the R155XY010FL Freshwater Marshes And Ponds 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: Gator, depressional (5%)

The Gator, depressional component makes up 5 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of herbaceous organic material over loamy and 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 moderately low. Available water to a depth of 60 inches 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, February, March, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 70 percent. This component is in the R155XY010FL Freshwater Marshes And Ponds 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.

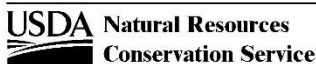
Map unit: 9 - Delray and Astor soils, frequently flooded

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 moderately high. Available water to a depth of 60 inches is moderate. 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 June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 7 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: 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 is moderate. 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 June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 14 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.



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Map Unit Description

Sarasota County, Florida

Map unit: 10 - EauGallie and Myakka fine sands

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 low. Available water to a depth of 60 inches 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. Organic matter content in the surface horizon is about 4 percent. This component is in the R155XY003FL South Florida Flatwoods ecological site. 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 moderately high. Available water to a depth of 60 inches 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. Organic matter content in the surface horizon is about 4 percent. This component is in the R155XY003FL South Florida Flatwoods ecological site. 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.

Map unit: 12 - Felda fine sand, depressional

Component: Felda (85%)

The Felda component makes up 85 percent of the map unit. Slopes are 0 to 2 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 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 June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 4 percent. This component is in the R155XY010FL Freshwater Marshes And Ponds 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.

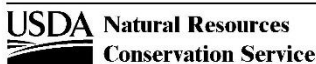
Map unit: 15 - Floridana and Gator soils, depressional

Component: Floridana, depressional (75%)

The Floridana, depressional component makes up 75 percent of the map unit. Slopes are 0 to 2 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 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 June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 13 percent. This component is in the R155XY010FL Freshwater Marshes And Ponds 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: Gator, depressional (25%)

The Gator, depressional component makes up 25 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of herbaceous organic material over loamy and 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 moderately low. Available water to a depth of 60 inches 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, February, March, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 70 percent. This component is in the R155XY010FL Freshwater Marshes And Ponds 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.



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Map Unit Description

Sarasota County, Florida

Map unit: 17 - Gator muck

Component: Gator (45%)

The Gator component makes up 45 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 loamy and 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 moderately low. Available water to a depth of 60 inches 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, February, March, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 85 percent. Nonirrigated land capability classification is 7v. 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, drained (40%)

The Gator, drained component makes up 40 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 loamy and 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 moderately low. Available water to a depth of 60 inches 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 18 inches during January, February, March, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 85 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: 21 - Ft. Green fine sand

Component: Ft. Green (85%)

The Ft. Green 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 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 low. Available water to a depth of 60 inches 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. Organic matter content in the surface horizon is about 5 percent. This component is in the R155XY003FL South Florida Flatwoods ecological site. 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.

Map unit: 22 - Holopaw fine sand, depressional

Component: Holopaw (85%)

The Holopaw component makes up 85 percent of the map unit. Slopes are 0 to 2 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 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 June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 3 percent. This component is in the R155XY010FL Freshwater Marshes And Ponds 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.

Map unit: 25 - Malabar fine sand

Component: Malabar (85%)

The Malabar component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on drainageways on marine terraces on coastal plains, 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 low. Available water to a depth of 60 inches 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 June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 percent. This component is in the R155XY005FL Cabbage Palm Flatwoods ecological



Survey Area Version: 9
Survey Area Version Date: 12/19/2013

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Map Unit Description

Sarasota County, Florida

Map unit: 25 - Malabar fine sand

Component: Malabar (85%)

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.

Map unit: 26 - Manatee loamy fine sand, depressional

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 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 June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 6 percent. This component is in the R155XY010FL Freshwater Marshes And Ponds 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.

Map unit: 31 - Pineda fine sand, 0 to 2 percent slopes

Component: Pineda (93%)

The Pineda component makes up 93 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces. 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 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 June, July, August, September, October, November. 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 3w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a slightly sodic horizon within 30 inches of the soil surface.

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 Description

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, can be used to determine the composition and properties of a unit.

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.

10.5 FNAI Element Occurrence Data Usage Letter



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

April 11, 2014

David Alden
Land Conservation & Planning
Florida Fish and Wildlife Conservation Commission
Tallahassee, FL

Dear David,

By virtue of this letter we are updating and continuing our agreement that it is unnecessary for your office to request FNAI element occurrence data for each land management plan you prepare, under the following conditions:

- FNAI will continue to provide our Florida Element Occurrence GIS database to FWC on a quarterly update basis;
- The FNAI GIS data will be available to FWC staff for reference and incorporation as required in management plan review and preparation.

Our database manager, Frank Price, currently provides this update via ftp to FWC staff on a quarterly basis. Current FWC contacts for the quarterly update are Beth Stys and Ted Hoehn. We are pleased to continue this beneficial collaboration with the Florida Fish and Wildlife Conservation Commission.

Sincerely,

Gary Knight
Director
Florida Natural Areas Inventory



Florida Resources
and Environmental
Analysis Center

Institute of Science
and Public Affairs

The Florida State University

Tracking Florida's Biodiversity

10.6 FWC Agency Strategic Plan

The Florida Fish and Wildlife Commission

Strategic Plan

2020-2024



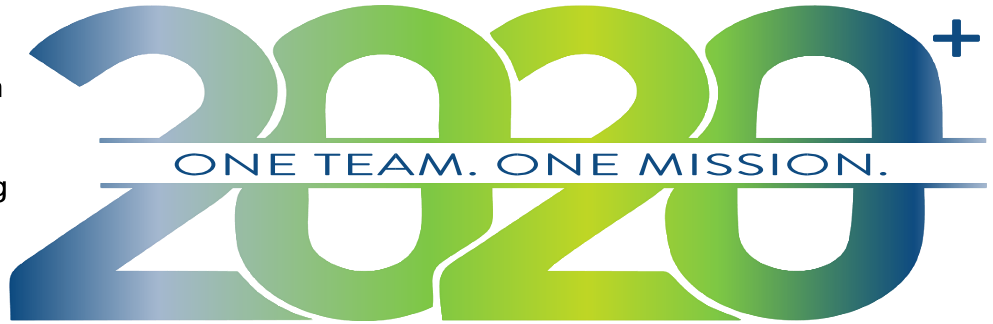
May 6, 2020

This plan was written by the FWC 2020+ Strategic Plan Development Team for the dedicated staff of the FWC, specifically designed with leaders and supervisors in mind with the intention of fostering and reinforcing our agency culture, core operations, and strategic approach to our conservation mission.

From the Executive Director

Balancing the needs of Florida's fish and wildlife resources with a diverse, growing population of people can be complicated and challenging. It is our honor to be the agency that is entrusted to take care of these resources on behalf of all Florida residents and visitors. The FWC team strives every day to uphold this public trust.

An important element of effective management and administration is focusing on strategic priorities that are vital in accomplishing our overall mission and adjusting resources accordingly. This reallocation must be done while continuing to attend to day-day functions. It is



critical to accurately identify these developing issues and set forth a strategy to address them. This formula is the basis for a strategic plan. As with any plan, it works best if it is a collaborative effort, with everyone having the opportunity to provide input in the planning process and identify emerging issues that require strategic solutions. We have put together diverse teams to develop the FWC's strategic plan, to encompass the major issues affecting our agency as a whole.

I also firmly believe that strategic plans are less about a printed document, and more about the process and collaboration necessary to achieve such a plan. The benefits of this process are seen and continued far beyond printing the final draft.

The success of this effort – of our mission – rests upon the shoulders of each and every one of us. Whether you work in the field or in an office, whether you're a scientist, technician, accountant, law enforcement officer, administrative assistant, or programmer, your unique skills and expertise are necessary to continue the good work of conservation that we do every day as well as the strategic work we will be taking up over these next five years. As you read through this plan, I challenge you to look for ways that you can help make a difference. I also ask that you challenge your co-workers to leverage their skills and talents for the good of our mission as well. The future of Florida's fish and wildlife conservation depends on our collective and diverse perspectives, backgrounds, contributions, creativity, and energy.

Respectfully yours,
Eric Sutton

Vision & Values

The mission of the FWC is to manage fish and wildlife resources for their long term well-being and the benefit of people. Every organization has an identity that is forged not only by what it does, but by how it conducts itself. The values embedded in our mission and expressed in the vision of FWC leadership are to make quality decisions by being dynamic, science-based, efficient, ethical, collaborative, competent, and committed to the vitality of the state and its environment.

We work diligently to conserve fish and wildlife in a manner that honors the public trust that has been vested in us through Florida's constitution. This is based in long-standing law and traditions commonly referred to as the "Public Trust Doctrine." This doctrine is steeped in the principle that fish and wildlife should be managed for the public, and reflects the belief that certain resources are an intergenerational inheritance, held in trust by government for the benefit of all current and future residents and visitors.

We envision...

a Florida where fish and wildlife are abundant and thriving in healthy and connected natural landscapes with vital working lands and waterways; where natural resources are valued and safely enjoyed by all; and wherein natural systems support vibrant human communities and a strong economy.

Consistent with this tradition, we strive to reinforce an inclusive culture that provides for public access, public input, technical assistance groups, stakeholder and public outreach, open communication, work teams, and shared decision making. The FWC encourages scientific inquiry and diversity of thought, and actively promotes these values with our public engagement efforts. The core concepts of these values are derived from a set of nationally accepted Wildlife Governance Principles that have been developed over time and focus efforts on conservation.

Additionally, we strive to make proactive resource decisions based on the best available science, balanced with social, economic and political interests, to create durable solutions with enforcement and managerial practicality. We empower staff to act locally on behalf of the agency to ensure decision making is as close to the issues as possible. We must cultivate a diverse and inclusive culture that

cares and includes values of integrity, professionalism, dedication, and adaptability, and create an environment that is inclusive and supports diverse opinions and voices in decision making at all levels.

Wildlife Governance Principles

Wildlife governance will:

- ◆ Be adaptable and responsive to citizens' current needs and interests, while also being forward-looking to conserve options of future generations.
- ◆ Seek and incorporate multiple and diverse perspectives.
- ◆ Apply social and ecological science, citizens' knowledge, and trust administrators' judgment.
- ◆ Produce multiple, sustainable benefits for all beneficiaries.
- ◆ Ensure that trust administrators are responsible for maintaining trust resources and allocating benefits from the trust.
- ◆ Be publicly accessible and transparent.
- ◆ Ensure that trust administrators are publicly accountable.
- ◆ Include means for citizens to become informed and engaged in decision making.
- ◆ Include opportunities for trust administrators to meet their obligations in partnerships with non-governmental entities.
- ◆ Facilitate collaboration and coordination across ecological, jurisdictional, and ownership boundaries.



Our Core Values

Resource Stewardship We are passionate about Florida's natural resources and use our expertise to manage and conserve fish and wildlife

Service Excellence We are solution-oriented and committed to achieving wildlife and fisheries conservation results, and efficiently meeting the needs of the public and stakeholders

Teamwork and Collaboration We communicate openly and work together effectively to achieve our common goals. We appreciate the value of diverse backgrounds, expertise, and ideas, and incorporate multiple perspectives into decision making

Professional Integrity We operate honestly and ethically, and apply our processes, rules, and regulations in a consistent manner that engenders a climate of trust and fairness

Scientific and Technical Excellence We use our science-based expert knowledge, technology, and other available resources to achieve high-quality work

Accountability We set challenging goals for our achievement and hold ourselves accountable for the results

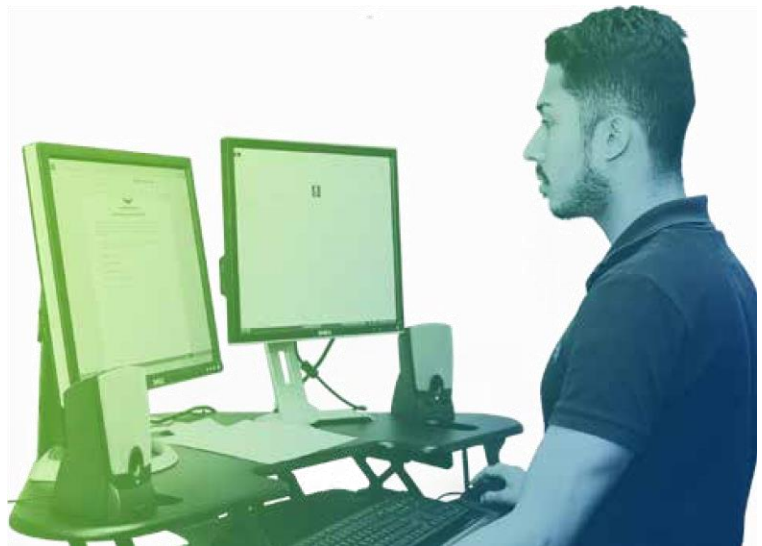


Business Practices

In addition to our core values, we also strive to follow a core business model that addresses how best to deliver our vision, strategy, and mission through key practices. These include:

- ◆ Thinking proactively and strategically to anticipate challenges and opportunities while taking actions that contribute to the achievement of long-term interests.
- ◆ Coordinating science, resource management, enforcement, and research.
- ◆ Providing a safe and healthy environment where the public can enjoy Florida's resources and waterways.
- ◆ Providing an excellent experience for our customers.
- ◆ Creating and maximizing the use of integrated work and issue teams.
- ◆ Continually striving to improve processes and efficiency for the benefit of residents and visitors.
- ◆ Leveraging technology.
- ◆ Integrating leadership development.
- ◆ Optimizing fiscal management.
- ◆ Adapting to new and emerging needs for communication.

These core values and business practices are further defined in, and serve as, the foundation of our internal communications programs, hiring practices, and annual employee evaluation process, embedding these principles into the fabric of our organization and making them meaningful to employees in their daily activities.



Overview of Strategic Planning

We have been developing strategic and operational plans since the FWC's inception in 1999. Our first planning effort focused on developing the structure and culture of a newly-formed agency. Subsequent plans similarly focused on norms and values, including development of a collaborative and team based culture. The strategic planning effort that resulted in the "FWC Agency Strategic Plan 2014-2019" was the first time we incorporated a large-scale, highly collaborative process to determine how to focus the strength of the agency on the most essential conservation challenges while ensuring safe and enjoyable public access to Florida's fish and wildlife resources. The 2014-2019 strategic plan identified agency Themes, Goals, and Strategies to define the conservation work required to achieve our mission. Hundreds of staff from across the agency at multiple levels worked in teams to create 109 measurable objectives across each of the five Themes, which were then prioritized by each Regional Leadership Team before being presented to our Commissioners. Executive leadership used that guidance, along with elements from other planning efforts, to develop seven Strategic Initiatives. These initiatives emphasized areas where we wanted to focus attention, discipline, and resources to make significant

2014-2019 Strategic Initiatives

Boating as a Gateway to Conservation and the Outdoors: Strengthen and promote the conservation connections of boating while protecting people and natural resources, and improving boating related opportunities.

Conflict Wildlife: Maintain the support and appreciation of fish and wildlife through sustainable coexistence by reducing human wildlife conflict.

Conservation through Innovation – Marine Fisheries Management: Enhance marine fisheries through the expansion of progressive and collaborative management techniques.

Conservation through Innovation – Private Lands: Partner with private landowners as a key to enhanced conservation.

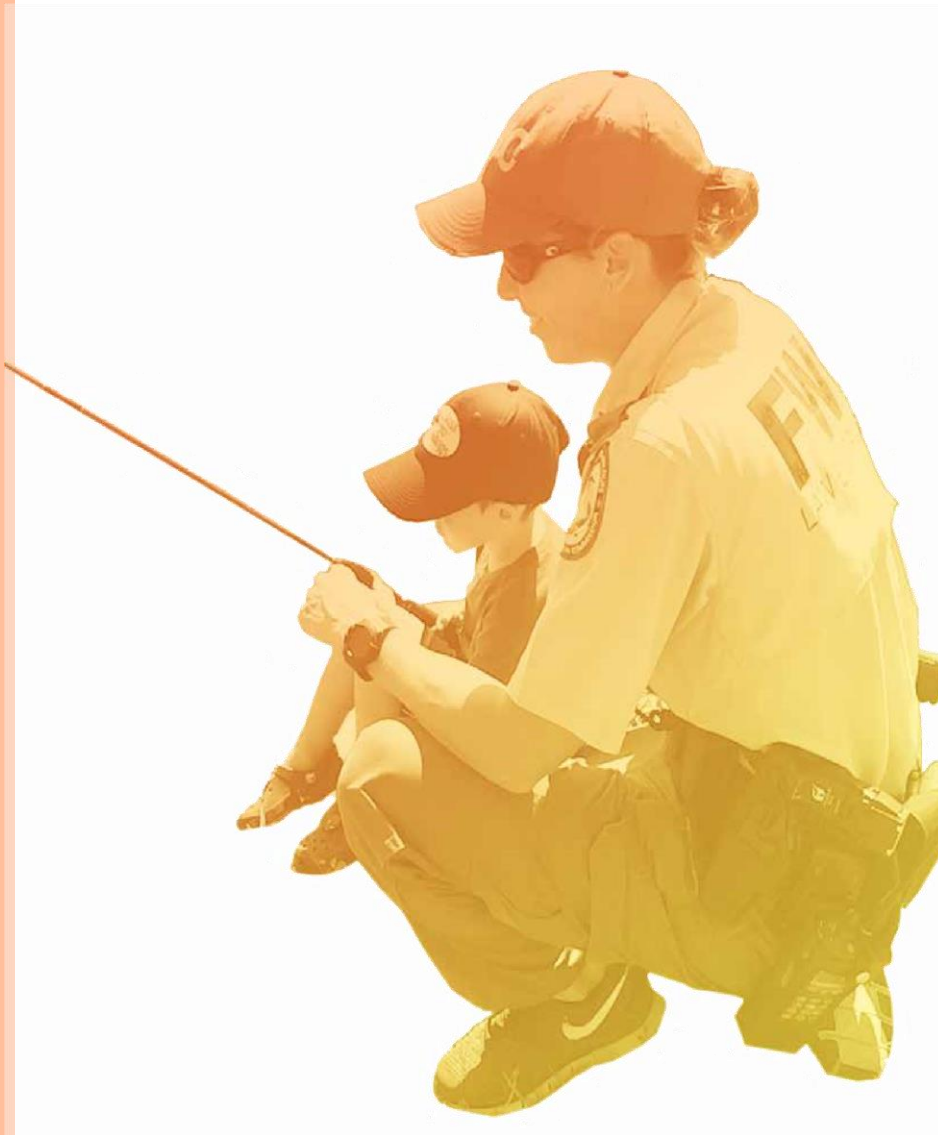
Expanding Participation in Conservation: Expand partnerships and FWC programs to encourage diverse youth and families to be more involved in the future of conservation.

Imperiled Species Management Plan: Improve the status of imperiled species to effectively reduce the risk of extinction.

Running the Business: Establish an internal infrastructure that identifies the areas of business operations and practices that represent high risk, prioritize them, and modify them to address risks.

planning and developmental investment to accomplish. Cross-divisional teams worked together to further define the SIs, develop implementation plans, and operationalize key portions of the initiatives. The work that was accomplished on these seven SIs created a foundation for furthering more effective strategic thinking, planning, and implementation of meaningful and long-lasting conservation efforts for Florida's fish and wildlife resources. The 2014-2019 SIs are now becoming part of the broader conservation work that we do and will continue to influence operational planning moving forward.

The current strategic plan builds upon the knowledge gained and lessons learned from all our prior strategic planning efforts. The purpose of our agency strategic planning is to leverage our values and behaviors as an agency with our operational workforce to produce significant conservation outcomes that align with an ever-changing world to better position ourselves in the future



We must be strategic in identifying our emerging issues and opportunities to put our agency in the best position to achieve our mission. We must adapt to take advantage of changing technology, seize opportunities to improve our fiscal and operational resources, increase efficiencies, and align priorities across the agency. In order to adapt to a changing environmental, economic, and socio-political landscape, we must first understand and define the environment in which we work. This plan is focused on aligning our agency resources to address our strategic opportunities. The issues, challenges, and risks we face will be addressed in division operational plans and priorities.

Challenges we must address:

- ◆ Static revenue streams.
- ◆ Increasing program costs and infrastructure improvement needs.
- ◆ Loss of institutional knowledge with an unprecedented rate of upcoming retirements.
- ◆ Recruiting and retaining qualified employees.
- ◆ Leveraging legislative support for agency operations.
- ◆ Maintaining an adequate level of research, monitoring programs, and population assessments for fish and wildlife resource management.
- ◆ Balancing state and federal regulatory authorities and reducing unneeded regulatory burdens while ensuring sustainable species populations and protecting habitat.
- ◆ Securing habitat for fish and wildlife in the face of increasing development pressure.

Issues We Face

- ◆ Maintaining the significance of natural resources as pillars of the community and economy.
- ◆ Habitat loss and degradation.
- ◆ Climate change impacts.
- ◆ Water quality and water quantity issues.
- ◆ Changes in public views of wildlife and conservation.
- ◆ Impacts from exotic and invasive species on natural systems.
- ◆ Natural disasters and disease outbreaks.

- ◆ Managing aquatic systems and resources without control over water quality, quantity, timing, and distribution
- ◆ Gaining public support for conservation and management
- ◆ Shifts in demographics, changing attitudes toward conservation, and declining percentages of hunters and anglers, which all impact our relevancy to the public

Meeting the Challenges

We have a broad scope of core work that keeps us focused on our mission. This core work is the foundation of our agency and provides the basis for building a culture of strategic planning and doing. To address the identified challenges through strategic and operational planning, we must invest in the people, programs, and technology that best advance our highest priorities, which requires that we sunset low-priority activities, programs, or services. We must foster an agency culture and capacity to accept, understand, engage, and serve people with different interests and uses of fish, wildlife, and habitats. We must demonstrate fairness, honesty, and compassion; practice dedication and adaptability; and include diverse opinions throughout our decision-making processes.



As demographics change across the state, it becomes increasingly important to develop practices and processes that are responsive to the changing nature-based values of the public. We must focus on providing a safe environment for people to enjoy Florida's natural resources and the outdoors; adapt to the impacts of social media on communication; increase focus, capacity, and use of social sciences into agency conservation and management decisions and public engagement strategies; and foster cultural acceptance of hunting and fishing .

As we maintain a high level of core work and increase strategic planning and doing as part of our foundation, we will have a greater workload than the available resources can address. This will require a priority-based approach, meaning some work will not be completed. We will need to increase efficient use of our existing resources through realignments and decrease work on lower priority activities. We will need to work with our legislative team to secure the resources necessary for agency operations and priority issues, and leverage stakeholder relationships and partnerships to increase capacity for conservation work. We will integrate research, management, and law enforcement to focus on emerging threats, landscape conservation, and a holistic approach to watershed management. This will be accomplished through partnerships, leveraging funding sources, implementing existing plans, and fostering locally-led conservation. Achieving our conservation goals will require us to think strategically across the agency and prioritize our operations to meet the challenges that lie ahead.



Our Organization

The core work of the FWC is broad and forms the basis from which strategic effort springs. Maintaining our core competencies and work is critical to our success and this section contains an overview of the core work areas within the FWC. This is by no means an all-encompassing description of the multifaceted work conducted throughout the agency. Additional information on each of the divisions, offices, and the institute can be found within the “Programs of the FWC” annual report as well as within each division’s operational plans. This agency strategic plan focuses on a small portion of our overall work with the intent of identifying areas of strategic focus, using our existing work as the foundation.

Moreover, it is important to note that our agency’s structure is intentionally organized into inter-dependent parts that must work together to achieve our mission. Divisions serve as the main operational elements, while offices provide critical support functions across the entire agency. Regions then serve to ensure geographic continuity of policy and programs across the state. This structure necessitates strong collaboration and teaming amongst all parts of the FWC. We then carry this heavy focus on working together outside of the agency and actively engage partners, stakeholders, and the public in our decision making and implementation.

Florida Fish and Wildlife Conservation Commission

FWC

Mission: Managing fish and wildlife resources for their long-term well-being and the benefit of people.

The FWC consists of more than 3,000 employees, including 848 sworn law enforcement officers. All personnel work together to protect and manage more than 575 species of wildlife, 200 species of freshwater fish, and 500 species of saltwater fish. The FWC works to balance the needs of these fish and wildlife species and the habitats that support them with the needs of Florida’s growing population of more than 21 million residents and record numbers of visitors coming to the state – well over 100 million annually.



The Commissioners

The FWC's seven Commissioners are appointed by the Governor and confirmed by the Florida Senate to five-year terms. Their constitutional duty is to exercise the "...regulatory and executive powers of the state with respect to wild animal life and fresh water aquatic life and shall also exercise regulatory and executive powers of the state with respect to marine life, except that all license fees and penalties for violating regulations shall be as provided by law ."

Office of the Executive Director

OED

The Office of the Executive Director provides coordination, oversight, and support for FWC operations. It provides policy guidance, fosters accountability, and promotes continual improvement among the agency's divisions and offices. To address important conservation issues, OED coordinates and supports strong engagement of Commissioners and facilitates effective interaction with agency customers; stakeholders; federal, state, and local elected officials; federal and state agencies; and FWC staff. Further responsibilities include maintaining facilities and infrastructure and leading efforts to strategically focus agency staff and resources on conservation priorities. OED staff work closely with the agency's Senior Leadership Team to ensure effective integration of agency activities and programs across all divisions and offices.

There are multiple functions within OED, with some primary functions including media relations and informing residents and visitors about fish and wildlife resources; quickly and efficiently issuing licenses and permits for recreational fishing and hunting and for commercial saltwater and freshwater fishing; providing oversight for the agency's administrative functions such as disbursements, financial management, procurement, leasing, and property; managing an automated information technology environment that is reliable, secure, cost-effective, and responsive; and working closely with division, regional, and office directors to identify and coordinate programs with boundary-spanning implications that will benefit the FWC.



FWRI

Fish and Wildlife Research Institute

The Fish and Wildlife Research Institute provides timely information and guidance to protect, conserve, and manage Florida's fish and wildlife resources through effective research and technical knowledge.

The work done by the Fish and Wildlife Research Institute reaches far beyond the confines of the FWC. Research conducted on habitats, freshwater and marine fisheries, harvested and imperiled species, and other important plant and wildlife communities in Florida is used by federal, state, and local governments; universities; recreational and commercial fishing interests; recreational hunting and boating interests; nongovernmental organizations; and the public . FWRI integrates its research activities with management efforts of other FWC divisions.

Primary work areas within FWRI include conducting monitoring, assessments, mapping, and research to support development of management practices to protect and improve the quality of habitat and diversity of wildlife on state managed lands; maintaining an extensive collection of fish and invertebrate specimens and providing data management services and scientific library services; integrating research on predicted or emerging threats to fish and wildlife conservation, such as climate change; and acquiring and distributing biological and ecological information critical for the science based management, conservation, restoration, and wise use of Florida's fish and wildlife resources .



FFM

Freshwater Fisheries Management

The Division of Freshwater Fisheries Management manages, enhances, and conserves Florida's freshwater aquatic life for public benefit.

The Division of Freshwater Fisheries Management is responsible for directing the management and identifying the research needs of freshwater fisheries within public lakes, rivers, streams, and canals, with efforts focused on improving the fish populations and their habitats to benefit anglers and other stakeholders . This is accomplished through strategies revolving around improving aquatic habitat; increasing access; improving freshwater sport and commercial fisheries; stocking sportfish; regulations; developing management plans; increasing aquatic stewardship; and building partnerships with state,

county, and city governments, industry leaders, and freshwater stakeholders . FFM has developed a private-public partnership through the TrophyCatch conservation and marketing program, which uses citizen science to provide valuable information that contributes to the management of Florida’s trophy bass fisheries. Special projects, such as the high school fishing program and kids' fishing clinics, encourage responsible fishing practices and help bolster future generations’ understanding of and personal investment in the conservation of fish and wildlife resources.

Primary work areas include evaluating freshwater resources through surveys and inventories of fish populations and angler use; maintaining Fish Management Areas that provide access and promote fishing; developing aquatic habitat enhancement/restoration projects; producing fingerling and subadult fish for stocking in public waters to enhance fisheries, provide new opportunities, supplement urban pond populations, and for youth events; and work with communities surrounding major freshwater resources so they appreciate the intrinsic value and economic importance of the resource and the fishery .



Habitat and Species Conservation

HSC

The Division of Habitat and Species Conservation ensures healthy populations of all native wildlife and their habitats on a statewide basis.

The Division of Habitat and Species Conservation integrates scientific data with applied habitat and species management to maintain stable or increasing populations of fish and wildlife. Conservation integration efforts focus on the ecosystem or landscape scale to provide the greatest benefits to the widest possible array of fish and wildlife species. Accomplishing this mission requires extensive collaboration and partnering with local, state, and federal agencies to maintain diverse and healthy fish and wildlife populations for the benefit of all Floridians and visitors, which provides direct ecological, economic, aesthetic, scientific, and recreational benefits.

Primary work areas include managing, maintaining, enhancing, and restoring native natural habitats on 1.4 million acres, assisting cooperators with wildlife management on another 4.5 million acres, and working with partners to connect and expand public conservation lands; providing technical assistance to private landowners to implement wildlife conservation strategies; restoring, enhancing, and managing publicly-owned aquatic resources to improve the ecological health of freshwater, estuarine, and marine habitats; directing, coordinating, and funding control of invasive upland plants on public conservation lands and invasive aquatic plants in public waterways; developing and implementing high-priority conservation activities to improve conditions for native and imperiled wildlife; addressing human wildlife interactions and managing the impact of native and nonnative fish and wildlife species; reviewing growth management and regulated land and water use project proposals that have potential to impact Florida's fish, wildlife, and habitat resources; and promoting, facilitating, and expanding nature-based tourism, recreational opportunities, and public participation in conservation .



Hunting and Game Management

HGM

The Division of Hunting and Game Management manages and conserves game wildlife for the future, while fostering safe and responsible hunting.

The Division of Hunting and Game Management uses scientifically proven game-management strategies and professional expertise to conserve game wildlife and perpetuate sustainable hunting opportunities on public and private lands statewide. The Division also manages public shooting sports facilities throughout the state and offers hunter safety programs to foster safe, responsible hunting.



Primary work areas include managing Florida's wild game populations using science, leadership, and key partnerships; providing opportunities for responsible and sustainable hunting on public and private lands; working with stakeholders and partners to coordinate support for hunting-related activities; providing hunter safety courses and special events to ensure Florida hunters are well prepared to be safe,

responsible, and conservation minded; and constructing and managing public shooting ranges located throughout the state.

Law Enforcement

LE

The Division of Law Enforcement protects Florida's natural resources and people through proactive and responsive law enforcement services.

The FWC Division of Law Enforcement, comprised of 1,043 members including 848 sworn law enforcement officers, operates in six regions throughout the state. FWC officers are responsible for uniformed patrol and investigative law enforcement services on more than 8,400 miles of coastline, more than 13,000 square miles of offshore waters, and more than 34 million acres of land encompassing a variety of habitats including private lands, wildlife management areas, state parks, and forests.

Primary duties include protecting Florida's fish and wildlife and their habitats, and providing law enforcement services that protect public safety throughout the state of Florida. The division also provides support for state Emergency Operations Center activities and readiness for natural disasters and mutual aid requests. Personnel also engage in targeting illegal black markets and trafficking in fish and wildlife, conduct federal fisheries enforcement patrols, help to regulate the Florida seafood industry, and enforce rules related to captive wildlife.



Some internal programs undertaken by the division include professional recruitment efforts of new officers; providing world-class training and recruit instruction; conducting progressive advanced training; implementing the division career development programs; and providing intelligence information to officers in the field. The DLE enhances boating safety and waterway experiences through maintenance and repair of approximately 244 boat ramps, construction of new boat ramps, and placement and maintenance of waterway markers.

Marine Fisheries Management

MFM

The Division of Marine Fisheries Management manages Florida's marine fisheries for their long-term sustainability, their economic benefits, and for the enjoyment of the public.

The Division of Marine Fisheries Management works with stakeholders, federal agencies, other states, and regional councils to manage and provide outreach on more than 500 marine fish and invertebrates. The division also provides expertise, monitoring, and grant funding for the deployment of artificial reefs; recovers lost or abandoned lobster and crab traps; conducts wholesale-dealer audits; provides agency comments on proposed development projects that may affect marine resources; and issues special activity licenses for harvest of species for research and educational purposes . This division additionally provides outreach and education to introduce people to the sport of fishing, instill ethical angling values, and ensure comprehension of marine fisheries regulations.

Primary work areas include compiling fishery data, coordinating with other government agencies and research institutions, and soliciting information from the public regarding fishery management strategies for state saltwater fisheries regulations; serving as liaison between the FWC Commissioners, interstate fisheries commissions, and federal fishery management councils that manage marine fish species such as snapper and grouper in federal and interstate waters; promoting responsible recreational and commercial fishing activities; and administering the statewide artificial reef programs.



Approach to the Future

Strategic Framework

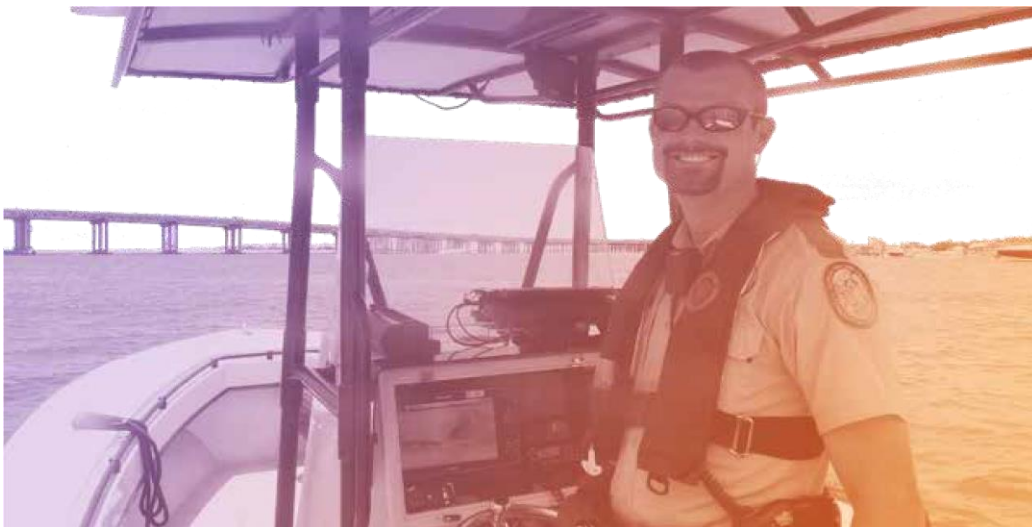
Maintaining the FWC's core work is foundational to achieving our mission and continuing our success of achieving conservation. Enforcement and education, public engagement, species and habitat management, comprehensive research, freshwater and marine fisheries enhancement, sustaining game wildlife as a public resource, and operating within responsible business practices are all components of the exceptional work we do every day. These central functions comprise the majority of our time and effort, and continuing to excel in this work is key to successfully conserving Florida's fish and wildlife and their habitats into the future.

Currently, considerable effort is spent responding to urgent challenges. Much of this work is reactive in nature, rapidly consumes resources, and ultimately pulls focus from identified priorities. A refined approach to the future – one that results in a more agile and focused organization – is necessary to minimize time spent reacting and increase time spent making progress toward our strategic priorities. By increasing the portion of work we do that is strategic, focused, and proactive, we can better adapt to our changing environment, integrate strategic solutions into our operations to address specific issues, and position ourselves to successfully conserve fish and wildlife into the future (Figure 1) .

The strategic approach presented here is a framework for infusing strategy into our operations and ultimately positioning the FWC to proactively address known challenges, capitalize on opportunities, and continue to successfully fulfill our mission. Investing time in strategic priorities is necessary to sustain the model for fish and wildlife conservation that the FWC has built. The conservation gains realized through focused planning and dedicated action are both worthwhile and essential. When strategic initiatives become fully integrated into the core components of the work we do, we achieve long-term, sustainable success.



Figure 1 Currently, a significant portion of our effort is spent reacting to urgent issues. With a shift to a more proactive, forward-focused approach, through time we can reduce the overall amount of reactive efforts by using approaches that address future challenges



Establishing Dynamic Strategic Initiatives

Identifying strategic priorities at the agency, division, and section/ program level is an important component of a future-focused approach. Strategic initiatives are intended to leverage areas of strategic importance and strengthen conservation efforts. SIs are distinguished as proactive, timely, and important topics requiring increased focus and a shift in resources. SIs are not a response to urgent, reactive challenges, nor are they a shift in course due to opportunities to address topics of lower priority. They are those critically important conservation efforts that focus on future opportunity or alignment, require dedicated attention, challenge us to work across organizational lines, and for which a shift in resources or change in operational structure may be required.

Initiatives will be selected through an ongoing process that includes environmental scanning and staff input. Strategic planning will include feedback and ongoing discussion with each division to clarify emerging issues and priorities. A cross-divisional strategic planning team will compile input, identify common themes across the agency, and evaluate

Strategic initiatives:

- ◆ Realize significant benefits for conservation that otherwise would not occur.
- ◆ Are forward-focused instead of reactive.
- ◆ Need directed increase in agency focus.
- ◆ Span section or division boundaries.
- ◆ Require resource reallocation.
- ◆ May necessitate realignment or organizational transformation.

potential initiatives. This team will produce recommendations on strategic areas of focus for agency and division-level initiatives to be discussed with each division leadership team and by the FWC's Executive Leadership Team. Collectively, the ELT will determine which issues become agency-level initiatives. Then, with support from the agency's strategic planning team, initiative sponsors will coordinate cross-divisional work to further describe the initiative and develop clear objectives and timelines.

To ensure available resources are fully focused on priorities, no more than three agency SIs will be active at any given time. Limiting the number of topics we are addressing through a strategic shift in resources is intended to yield more progress in each initiative more quickly than when resources are divided among numerous initiatives. Initiatives will develop clearly defined objectives from the onset and will be evaluated annually. Many topics identified through consideration of influences, challenges, and opportunities may be urgent in nature and require cross-divisional coordination at an operational level. While only a subset of these topics will be active as an SI at any given time, we will continue to design our core work to sustainably address urgent needs by working across organizational boundaries. As this intentionally necessitates an adaptive approach, we will reassess this process after another five-year period to improve our development of strategic initiatives moving forward.

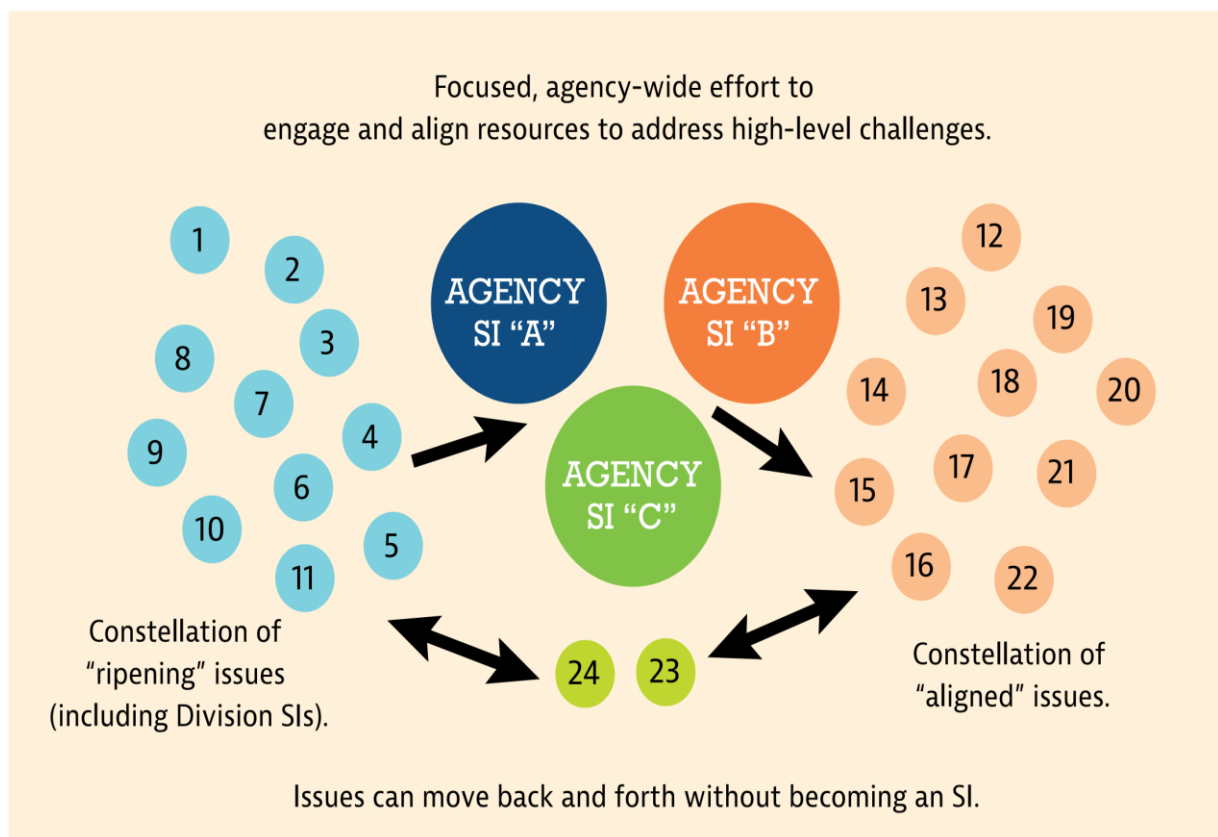


Figure 2. Dynamic Strategic Initiatives for 2020-2024

There will be no more than three agency strategic initiatives at any one time with no more than three strategic initiatives per division. Initiatives can change when special emphasis is no longer needed and they will be tracked as part of the strategic plan framework.

Integrative Work Planning

To help weave strategic thinking into the fabric of the FWC, we will identify initiatives at multiple levels of the agency (e.g., division, section, and program initiatives) to both support agency initiatives and integrate the strategic framework into the structure of our core work. While key issues will be addressed through agency initiatives, division initiatives are also critical to addressing important topics. Sections and programs may also identify initiatives by shifting focus to a refined set of topics. Divisions, sections, and programs are encouraged to apply a framework similar to the one presented here to identify priorities requiring a strategic approach and develop timely initiatives to address them. Like agency-level initiatives, these will have a refined focus, so no more than three initiatives will be active for a division at any given time. Divisions with a significant role in an agency initiative will assume the agency initiative as one of up to three initiatives on which to focus as a division. This framework is founded on each division, section, and program initiating proactive strategies in addition to maintaining operational priorities. To achieve this, divisions may need to identify operational activities that no longer warrant agency focus and evaluate where capacity can be created to refocus on proactive topics. With strategic efforts active at the agency, division, and potentially section and program levels, we will strive to align vertically to leverage resources and coordinate efforts (Figure 3).

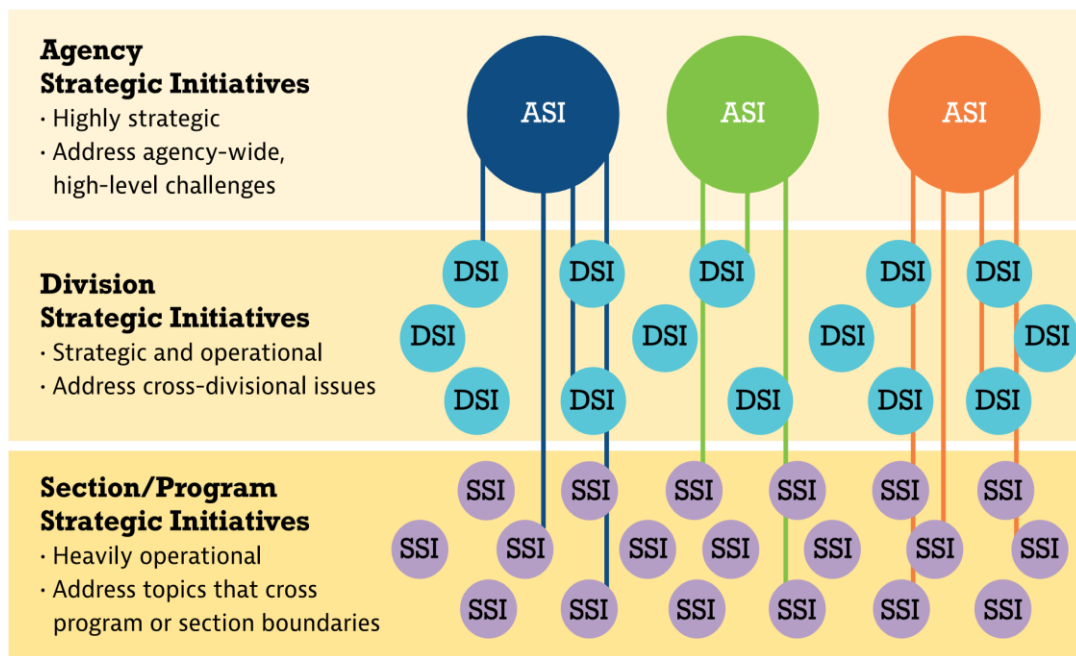


Figure 3. Strategic initiatives at the agency, division, and section or program levels. Vertical alignment of effort and coordination supports progress toward initiatives at multiple levels within the agency.

Future-focused Conservation

FWC's 2020-2024 strategic plan is built upon the idea that we must be intentional in our work to conserve Florida's fish and wildlife resources so they are available for current and future generations. Our success in this arena directly depends on our individual and collective action, and accountability for achieving our mission. Guided by this strategic approach, shaped by our values and fueled by our passion, we will work together to build the Florida we envision: a Florida where fish and wildlife are abundant and thriving in healthy and connected natural landscapes with vital working lands and waterways; where natural resources are valued and safely enjoyed by all; and wherein natural systems support vibrant human communities and a strong economy.



Strategic Initiatives: 2020

Agency Initiatives

From October 2019 through March 2020, the agency strategic planning team worked with division leadership teams to determine the next round of SIs (this process is outlined in [Appendix 1](#)). The ELT collectively affirmed the initial three agency SIs and discussed initiative alignment under the new strategic approach. Moving forward, initiative sponsors will coordinate cross-divisional work to establish clear milestones and time frames for achieving objectives under the following areas of strategic focus:

Invest Inward

A strong foundation to maintain our core functions is critical to sustaining the important work we do and achieving our mission. **Investing Inward** means focusing on key challenges within our agency that, when addressed, position us to better accomplish sustainable conservation into the future. These challenges include: 1) staff retention, recruitment, capacity, and distribution; 2) infrastructure improvements, facilities, technology, and equipment; and 3) cultivating a culture that cares through investing in morale, professional development, diversity, and inclusion.

Landscape Conservation

The **Landscape Conservation** initiative will define a unified conservation vision to be implemented at the local level and fit within a broadly agreed-upon conservation target. This conservation vision should be one that can be shared with and implemented by internal and external, public and private partners to achieve broad-scaled, long-lasting conservation outcomes. Conservation delivery at the local level will require that we develop a network of local, state, federal, and private partners to provide technical and financial resources (data, information, assistance, funding opportunities) and a stable communication network.

Relevancy, Engagement, and Support

Recognizing the need to adapt to Florida's changing demographics and values by improving agency engagement and service to broader constituencies, **Relevancy, Engagement, and Support** focuses on the need to enhance conservation through broader engagement, identify available capacity for and challenges to reaching and servicing more constituents, and establish logical steps to helping the public understand the impact that fish and wildlife conservation has on their quality of life and mental and physical well-being. This includes increasing both social and financial support for conservation.

Division Initiatives

The input provided by division leadership to determine agency strategic initiatives was also used to determine division initiatives. As outlined in the strategic framework section, divisions with a significant role in an agency strategic initiative will assume the agency initiative as one of their three division initiatives. The initiatives in Figure 4 were identified as the most timely to address at the agency and division levels. Division initiatives were also affirmed by the ELT. Each initiative will be further described by divisions as part of their workplans.

Many division initiatives align with the broader agency initiatives but will address discrete challenges relevant to the core work of those divisions. This alignment increases the focus and shift of resources towards these topics through both strategic and operational approaches and unifies work across the agency. Some divisions also have initiatives that do not directly align with agency initiatives but do represent important, timely topics that divisions, programs, and sections will strategically address. The constellation of initiatives at the agency and division levels illustrates the alignment of strategic work proposed in Figure 3.

Strategic Alignment

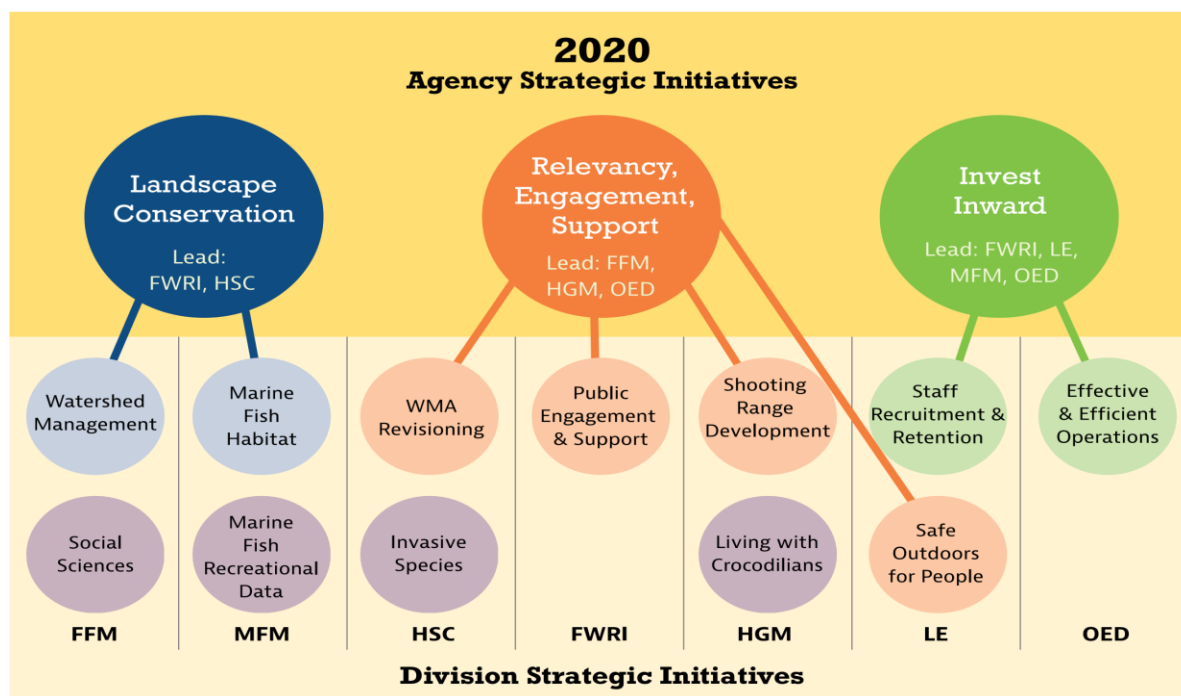


Figure 4. Vertical alignment between the agency and division initiatives shows multiple tiers of support for the broad initiative topics.

APPENDIX 1

2020 Strategic Initiative Selection Process

Division leadership teams provided input on timely initiatives to the agency strategic planning team throughout the selection process. A number of challenges and opportunities were identified through a questionnaire and follow-up discussions. Common themes emerged among the initiatives proposed by each division, and alignment was strong in several themes. These themes may affect each division in unique ways, but they represent agency-wide challenges that require a directed focus to fully address.

Table 1 on the following page is a process illustration of preliminary initiatives from the first round of data analysis. Development of agency and division initiatives went through several iterations of division-level review through the ELT as concepts evolved and solidified, eventually becoming the 2020 Strategic Initiatives outlined in Figure 4.



Table 1. Common themes were identified from the initiatives, influences, and challenges put forward by each division. This crosswalk represents proposed initiatives and alignment among agency-wide challenges. This information guided the initiative selection process for 2020.

Proposed Initiatives

	Agency Initiatives	Division Initiatives
FFM	- Wildlife conflict - Watershed management - Social sciences	- Lake management plans - Chipola and shoal bass - Largemouth bass
FWRI	- Relevancy - Landscape conservation - Diversify and modernize revenue - K-12 and new resident education	- Staff recruitment and retention - Integrative research on events - Integrative research on events - Integrate research and management
HGM	- Landscape conservation - Expand participation in conservation construction - Wildlife conflict	- Implement R3 plan - Shooting range - Living with crocodilians campaign
HSC	- Infrastructure improvement - Landscape conservation - Relevancy - Invasive species	- WMA re-visioning (relevancy) - HSC's role in landscape conservation
LE	- Invest inward - Public service - Science and conservation	- Reinforce culture that cares - Recruit and retain quality staff - Safe environment for people
MFMM	- Invasives - Wildlife trafficking - Corals - Invest inward	- Maximize productivity, capacity - Marine fish habitat - Marine fish recreation - data collection
OED	- Internal focus/invest inward - Human dimensions and social science - Connectivity with other D/Os - Effective, efficient operation	

Common Themes

Invest Inward

- ◆ Staff: recruitment, retention, pay, capacity, distribution
- ◆ Infrastructure: facilities, technology
- ◆ Funding: stable sources
- ◆ Culture that cares: training, morale, professional development, diversity

Landscape Conservation

- ◆ Watershed management
- ◆ Integrate science with management
- ◆ WMA re-visioning
- ◆ Landscape conservation prioritization
- ◆ Marine and freshwater habitat

Relevancy, Engagement, and Support

- ◆ For fish and wildlife conservation
- ◆ For FWC as an agency
- ◆ Safe environment for people
- ◆ EPIC, R3, K-12 education
- ◆ Public service (good work)

Social Science and Human Dimensions

- ◆ Apply to management decisions
- ◆ Increase capacity to gather social science
- ◆ Increase value in FWC
- ◆ Use to influence behaviors
- ◆ Maintain focus on relevancy

Wildlife Conflict and Invasives

- ◆ Native species conflict
- ◆ Nonnative wildlife
- ◆ Invasive plants
- ◆ Aquaculture
- ◆ Trafficking and trade
- ◆ Living with crocodilians

Operational: Proactive Research and Development/Other

- ◆ Climate change
- ◆ Marine fish recreational data
- ◆ Largemouth bass
- ◆ Corals
- ◆ Shooting Range Construction

10.7 FWC Apiary Policy

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

Apiary Policy

Division of Habitat and Species Conservation

Issued by:
Terrestrial Habitat Conservation and Restoration Section
9/1/2010

Enclosed is the HSC/THCR Apiary Policy for all Florida Fish and Wildlife Conservation Commission's Wildlife Management Areas and Wildlife and Environmental Areas.

DIVISION OF HABITAT AND SPECIES CONSERVATION POLICY

Issued September 2010

**SUBJECT: APIARY SITES ON FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
WILDLIFE MANAGEMENT AREAS AND WILDLIFE AND ENVIRONMENTAL AREAS**

STATEMENT OF PURPOSE: It is the intent of this policy to determine which Florida Fish and Wildlife Conservation Commission (FWC) Wildlife Management Areas or Wildlife and Environmental Areas (WMA/WEA) may have apiary sites, and provides direction on site location, management and administration of said apiaries.

Definitions

Apiary – A place where bees and beehives are kept, especially a place where bees are raised for their honey.

Apiary Site – An area set aside on a WMA/WEA for the purpose of allowing a beekeeper to locate beehives in exchange for a fee as established by contract between the beekeeper and FWC.

Apiary Wait List – An apiary wait list will be maintained by the Terrestrial Habitat Conservation and Restoration (THCR) Section Leader's Office based on applications received from interested beekeepers. Only qualified apiarists will be added to the list. To become qualified the new apiarist must submit an application form and meet the criteria below under the section titled "Apiary Wait List and Apiary Application."

Beekeeper/Apiarist – A person who keeps honey bees for the purposes of securing commodities such as honey, beeswax, pollen; pollinating fruits and vegetables; raising queens and bees for sale to other farmers and/or for purposes satisfying natural scientific curiosity.

Best Management Practices – The Florida Department of Agriculture & Consumer Services (FDACS; Division of Plant Industry (DPI), Apiary Inspection Section, P.O. Box 147100, Gainesville, FL 332614-1416) provides Best Management Practices (BMP) for maintaining European Honey Bee colonies and FWC expects apiarists to follow the BMP.

Hive/Colony – Means any Langstroth-type structure with movable frames intended for the housing of a bee colony. A hive typically consists of a high body hive box with cover, honey frames, brood chambers and a bottom board and may have smaller super hive boxes stacked on top for the excess honey storage. A hive/colony includes one queen, bees, combs, honey, pollen and brood and may have additional supers stacked on top of a high body hive box.

Establishment of Apiary Sites on WMA/WEA

During the development of an individual WMA/WEA Management Plan, apiaries will be considered under the multiple-use concept as a possible use to be allowed on the area. “Approved” uses are deemed to be in concert with the purposes for state acquisition, with the Conceptual State Lands Management Plan, and with the FWC agency mission, goals, and objectives as expressed in the agency strategic plan and priorities documents. Items to consider when making this determination can also include:

- Were apiaries present on the area prior to acquisition?
- Are there suitable available sites on the WMA/WEA?
- Will the apiary assist in pollination of an onsite FWC or offsite (adjacent landowner) citrus grove or other agricultural operation?

For those WMA/WEAs that have not considered apiaries in their Management Plan, upon approval of this policy Regional Staff will work with the Conservation Acquisition and Planning (CAP) staff and THCR Section leadership to determine if apiaries are an approved use on the area. If apiaries are considered an approved use then a request will be made to the Division of State Lands to allow this use as part of an amended Management Plan. This request will be made through the THCR’s Section Leader’s office and coordinated by the CAP.

Determination of apiary site locations on WMA/WEAs should be done using the following guidelines:

- Apiary sites should be situated so as to be at least one-half mile from WMA/WEA property boundary lines, and at least one mile from any other known apiary site. Exceptions to this requirement must be reviewed by the Area Biologist and presented to the THCR Section Leader for approval.
- Site should be relatively level, fairly dry, and not be prone to flooding when bees would normally be present.
- Site should be accessible by roads which allow reasonable transfer of hives to the site by vehicle.
- If a site is to be located near human activity, such as, an agricultural field, food plot, wildlife opening, campsites, etc., or if the site may be manipulated by machinery at a time when bees would be present, then the apiary site should be located at a minimum of 150 to 200 yards from the edge of that activity. This will ensure minimal disturbance to the bees and minimize incidents with anyone working in the area.

- It is preferable to have apiary sites located adjacent to or off roads whenever possible. If traditional apiary sites were located on roads and the Area Biologist determines that the site will not impact use of the road by visitors then it will be allowed.
- FWC Area Biologist shall select apiary site(s) and the site(s) selected should not require excessive vegetation clearing (numerous large trees, dense shrubs) or ground disturbance (including fill).

WMA/WEA Staff Responsibilities

Area Biologist on WMAs/WEAs with approved apiary sites will forward a GIS shapefile depicting all the apiary site polygon(s), including a name or number with coordinates for each apiary site, to the THCR Contract Manager.

Area Biologist will monitor each apiary site no less than once a year to determine if the beekeeper is abiding by the contract requirements. If violations are noted, staff should bring them to the attention of the beekeeper for correction. If violations continue staff should notify the THCR Contract Manager who will determine if or what additional action is warranted.

Area Biologist will establish and maintain firelines around the apiary site to ensure the apiary site is ready when a planned burn is scheduled.

Area Biologist will advise the beekeeper of burn plans, road work, gate closures, or other site conditions and management activities that may affect the beekeeper's ability to manage or access the apiary site.

Area Biologist is not responsible to ensure access roads are in condition suitable for beekeepers to access their hives with anything other than a four wheeled drive vehicle. (The site of the apiary may be high and dry, but the roads accessing them may be difficult to impossible to get a two wheeled drive vehicle into during extreme weather, e.g., heavy rainfall events.)

Apiary Wait List and Apiary Application

An electronic waiting list for apiary sites will be maintained by the THCR's Contract Manager for each WMA/WEA. To be placed on the waiting list an interested beekeeper must submit an apiary application form to the contract manager (See Enclosed Application Form). Each applicant will be considered based on the following criteria:

- Proof of a valid registration with the FDACS/DPI.
- Proof of payment of outstanding special inspection fees for existing sites.

- A validated history of being an apiary manager.
- Three references that can attest to the applicant's beekeeping experience.

If an apiary site becomes available on a WMA/WEA and there are beekeepers on the waiting list interested in that particular area, those individuals meeting the criteria above will be given preference. If there is more than one beekeeper meeting the criteria with their name on the list then a random drawing will be held by the THCR Contract Manager to determine who will receive the site. Beekeepers on the waiting list will be notified in writing of the random drawing's date/location and will be invited to attend. The individual's name selected during this drawing will be awarded the contract.

Apiary agreements are non-transferable. Each agreement serves as a contract between a specific individual or company and FWC, and the rights and responsibilities covered by an individual agreement cannot be transferred.

Contracts

Apiary contracts are for five (5) years and renewals are contingent upon a satisfactory performance evaluation by Area Biologist and concurrence of the THCR Section Leader. Approval is based on apiarist performance, adherence to rules and regulations and general cooperation. If an Area Biologist decides an apiarist whose contract is expiring is unacceptable he may recommend not approving the new contract. If this transpires then the wait list process using random selection will be used. If there is no apiarist on a current wait list then the apiarists who are in good standing with existing contracts will be notified to see if any want to be put on the wait list for the drawing. If none are interested then the site will be put on hold pending a valid request.

Pricing of Apiary Site(s)

Cost of each apiary site will be \$40 annually which will include up to 50 beehives. Additional beehives will be charged at the rate of \$40 per 50 beehives.

Pricing examples:

- A beekeeper is leasing 2 apiary sites with up to 100 beehives - the fee per year is \$80.
- A beekeeper is leasing 3 apiary sites with up to 200 beehives - the fee per year is \$160.

Note: The maximum number of hives/colonies allowed on an apiary site will be at the discretion of the apiarist. However, the apiarist is strongly recommended to follow the BMP as recommended by the FDACS/DPI. In addition to providing the BMP, FDACS/DPI's management has recommended 50 hives per site in pineland communities and no more than 100 hives per

site in areas with bountiful resources. However, FWC will not dictate the number of hives on a site unless they create land management issues.

Bear Depredation Control at Apiary Site(s)

Beekeepers are required to consult with the WMA/WEA Area Biologist to see if electric fencing is required for their apiary sites. If the Area Biologist requires electric fencing then the Beekeeper shall construct and maintain electric fences for each apiary site. Numerous electric fence designs have been used to varying success and FWC as a courtesy provides an electric fence technical information bulletin with each Agreement. This bulletin is attached in order to assist the Beekeeper and/or provide a design that has been proven to be reasonable effective.

SUBJECT MATTER REFERENCES

Apiary Inspection Law - Chapter 586, Florida Statutes (see <http://www.leg.state.fl.us/Statutes/>), Rule Chapter 5B-54, Florida Administrative Code (see www.flrules.org).

The Board of Trustees of the Internal Improvement Trust Fund – Recommended Apiary Agreement Guidelines For Apiaries & Revisions to an Agreement for Apiary Activities on State Lands on September 23, 1986

S:\HSC\THCR\APIARY.BACKUP.POLICY\dlissupport@dos.state.fl.us 20100903 111446.pdf

Senate Resolution 580, September 21, 2006: http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=109_cong_bills&docid=f:sr580ats.txt.pdf

Attachments

Sample Apiary Agreement W/Attachments (Map Placeholder & Electric Fence Bulletin)

Sample Apiary Site Application Form W/Mission Statement

Best Management Practices for Maintaining European Honey Bee Colonies

Sample of Random Selection Process Procedure

APPROVED:

Division Director or Designee

DATE: _____

APIARY AGREEMENT

AGREEMENT FOR APIARY ACTIVITIES ON STATE LANDS

THIS AGREEMENT is made by and between the Florida Fish and Wildlife Conservation Commission, 620 South Meridian Street, Tallahassee, FL 32399-1600, hereinafter known as “the COMMISSION,” and (Insert Name and Address of Apiarist Here), telephone number (Insert Phone Number of Apiarist Here), hereinafter known as “the USER.”

WITNESSETH

In consideration of the mutual promises to be kept by each and the payments to be made by the USER, the parties agree as follows:

1. TERM: This Agreement will begin (Insert date here) or the date signed by both parties, whichever is later, and will end five (5) years from the date of execution. Issuance of a new five (5) year Agreement is contingent upon satisfactory performance evaluation by the Area Biologist and approval of the THCR Section Leader.
2. The COMMISSION Agrees:
 - a. To provide apiary sites on state lands, which will be identified by the COMMISSION staff and located on the property identified in (4)(f) below.
 - b. To provide technical assistance for bear-proofing, if required by Area Biologist, of sites made available under this Agreement.
 - c. To allow the USER to place a total number of (insert number of hive boxes here) hive boxes on the COMMISSION-managed property at the apiary site(s).
3. The USER Agrees:
 - a. To pay (Insert Total Dollars Here) on or before the execution date of this Agreement and each year thereafter on or before anniversary date of the original contract execution date, with check or money order payable to the Florida Fish and Wildlife Conservation Commission. All payments shall be remitted to The Florida Fish and Wildlife Conservation Commission, Finance and Budgeting, Accounting Section, PO Box 6150, Tallahassee, FL 32399-6150, and a copy of the check to The Florida Fish and Wildlife Conservation Commission, Terrestrial Habit Conservation and Restoration Section, Attn: Section Leader, 620 South Meridian Street, Tallahassee, Florida 32399-1600.
 - b. To have no more than (Insert Number of Hive boxes here) hive boxes on the property at one time.
 - c. To comply with the Florida Honey Certification and Honeybee Law, Chapter 586, Florida Fish and Wildlife Conservation Commission | Orange Hammock WMA Management Plan

Florida Statutes, and Rule 5B-54, Florida Administrative Code, and all other applicable federal, state, or local laws, rules or ordinances.

- d. To not damage, cut or remove any trees in the course of preparing for or conducting operations under this Agreement.
- e. To repair within 30 days of occurrence any damage to roads, trails, fences, bridges, ditches, or other public property caused by USER'S operations under this Agreement based on discretion of the COMMISSION to ensure the WMA/WEA management goals are met. All repairs will be coordinated with the Area Biologist to ensure management goals are met. If USER does not comply within the 30 day requirement, then the COMMISSION may use a third party to perform the repairs and charge the USER accordingly.
- f. To report any forest fires observed and to prevent forest fires during the course of operations under this Agreement.
- g. To abide by all WMA/WEA rules and regulations in addition to items in this Agreement.
- h. To notify the Area Biologist within 24 hours when a bear depredation event occurs.
- i. To post their name in an agreed upon location at each site covered by this Agreement or otherwise use an identifying system that is approved by the Area Biologist.
- j. To furnish proof of general liability insurance prior to starting apiary activities on state property or within 30 days of execution of this Agreement, whichever is earlier, and proof of annual renewal of the general liability insurance policy prior to or upon expiration date of the policy. The USER shall maintain continuous general liability insurance throughout the term of this Agreement for no less than \$300,000 for bodily injury and \$100,000 for property damage for each occurrence. Such a policy shall name the COMMISSION as the Certificate Holder. The USER's current certificate of insurance shall contain a provision that the insurance will not be canceled for any reason during the term of this Agreement except after thirty (30) days written notice to the COMMISSION.
- k. To be liable for all damage to persons or property resulting from operations under this Agreement, and to release, acquit, indemnify, save and hold harmless the COMMISSION, its officers, agents, employees and representatives from any and all claims, losses, damages, injuries and liabilities whatsoever, whether for personal injury or otherwise, resulting from, arising out of or in any way connected with activities under this Agreement or activities occurring from any other source not under this Agreement and the USER further agrees to assume

all risks of loss and liabilities incidental to any natural or artificial condition occurring on state lands cover by this Agreement.

- l. To construct and maintain electric fences, if required by the Area Biologist at the Area Biologist's discretion, to provide protection of apiaries from black bear depredation consistent with the technical information bulletin attached to this agreement, and, if so required, to maintain an open buffer around the fencing of five (5) feet or more. (See Attachment 1)
 - m. To remove all personal property from the site within thirty (30) days of termination or expiration of this Agreement. The USER understands that after this time, all the USER'S personal property remaining on the WMA/WEA shall be deemed abandoned and become the property of the COMMISSION, which will be utilized or disposed of at the sole discretion of the COMMISSION, and that reasonable storage and/or disposal fees and/or costs may be charged to the USER.
4. The parties mutually agree:
- a. This Agreement is not transferable.
 - b. The USER's failure to submit payment by the due date established herein may result in cancellation of the Agreement by the COMMISSION.
 - c. The USER's failure to submit proof of general liability insurance or proof of annual renewal in compliance with (3) (j) above may result in cancellation of this Agreement by the COMMISSION.
 - d. This Agreement shall be in effect for a period of five (5) years and issuance of a new agreement will be contingent upon a satisfactory performance evaluation and approval of the Area Biologist and THCR Section Leader.
 - e. Each apiary site shall be situated so as to be at least one-half (1/2) mile inward from state property lines and there shall be at least one (1) mile separation between sites. Exceptions to this rule must be reviewed by Area Biologist presented to and approved by the Terrestrial Habitat Conservation and Restoration Section Leader.
 - f. The property covered by this Agreement is described as follows: That the property sites (Insert Area Name) Wildlife Management Area are represented by Attachment 2.
 - g. In accordance with Section 287.134, Florida Statutes, an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid, proposal or reply on a contract to provide goods or services to any public entity; may not submit a bid, proposal or reply on a contract with a public entity for the

construction or repair of a public building or public work; may not submit bids, proposals or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant with any public entity; and may not transact business with a public entity.

- h. As part of the consideration of this Agreement, the parties hereby waive trial by jury in action brought by either party pertaining to any matter whatsoever arising out of or in any way connected with this Agreement. Exclusive venue for all judicial actions pertaining to this Agreement is in Leon County, Florida.
- i. This Agreement may be terminated by the COMMISSION upon thirty (30) days written notice to the USER in the event the continuation of the apiary activities are found to be incompatible with the COMMISSION’S management plans or for any other reason at the sole discretion of the COMMISSION.

This Area Intentionally Left Blank

IN WITNESS WHEREOF, the parties have executed this Agreement on the day and year last below written.

USER SIGNATURE

Date: _____

Witness

Witness

FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION

Mike Brooks, Section Leader
Terrestrial Habitat Conservation and
Restoration

Date: _____

Approved as to form and legality

Commission Attorney

Date: _____

AGREEMENT

ATTACHMENT 1

Use of Electric Fencing to Exclude Bears And Prevent Property Damage

Florida Fish and Wildlife Conservation Commission
Technical Information Bulletin (2001)

Electric fencing has proven effective in deterring bears from entering landfills, apiaries (beehives), livestock pens, gardens, orchards, and other high-value properties. Numerous electrical fence designs have been used with varying degrees of success. Design, quality of construction, and proper maintenance determine the effectiveness of an electric fence. The purpose of this technical bulletin is to assist the property owner in understanding and implementing electrical fencing as a tool to exclude and prevent damage caused by black bears.

Understanding Electric Fencing

Electric fencing provides an electrical shock when an animal comes into contact with the electrically charged wires of the fence. People unfamiliar with electric fencing often are afraid that it will injure, permanently damage, or kill an individual or pet that contacts the fence. **This is not true!** A properly constructed electric fence is safe to people, pets, and bears.

Components of Electric Fencing

An electric fence is composed of four main elements: a charger, fence posts, wire, and the ground rod.

Fence Charger. On a small scale electric fence (like that typically needed for bear exclusion), the largest cost is normally the fence charger. A fence charger's job is to send an electrical pulse into the wire of the fence. Contrary to popular belief, there is not a continuous charge of electricity running through the fence. Instead the charger emits a short pulse or burst of electricity through the fence. The intensity and duration of the electrical pulse varies with the type of charger or controller unit. Chargers with a high-voltage, short duration burst capacity are the best because they are harder to ground out by tall grass and weeds. These types are also the safest, because, even though the voltage is high (5 kilovolts) the duration of the burst is very short (2/10,000 of a second) (FitzGerald, 1984).

Two basic energy sources for chargers are batteries (12-volt automotive type) and household current (110 volt). Battery-type chargers are typically cheaper to purchase but require more maintenance because of the necessity of charging the battery. The advantage of a battery powered charger is that it can be used in a remote location where 110-volt current is not available. Most units that are powered by a fully charged 12-volt deep-cycle batteries can last three weeks before needing a charge. Addition of a solar trickle charger will help prolong the duration of effective charge in 12-volt batteries.

Fence Posts. On small scale fences, the posts are normally the second largest expense involved in construction. Therefore, when planning an electric fence it is a good idea to utilize existing fencing in order to save money. If no existing fence is available, posts will need to be placed around the area needing protection. Posts may be wood, metal, plastic, or fiberglass. Wood and metal posts will need to have plastic insulators attached to them which prevent the electric wire from touching the post causing it to ground out. Plastic and fiberglass posts do not need insulators, the wire may be affixed directly to these posts. Wood and metal posts are typically more expensive and require the added expense of insulators, however, they are more durable and generally require less maintenance.

Wire. Fourteen to seventeen gauge wire is the most common size range used in electric fencing. Heavier wire (a lower gauge number) is more expensive but carries current with less resistance and is more durable (FitzGerald, 1984).

The two most common types of wire are galvanized and aluminum. Galvanized wire is simply a steel wire with a zinc coating to prevent rust, which makes the wire last longer. Some wire is more galvanized than others. The degree or amount of zinc coating that is around the core steel wire is measured in three classes. A class I galvanization means the wire has a thinner coating of zinc than a class II galvanization. Class III galvanized wire has the heaviest zinc coating and will last longer than the class I and class II wire (FitzGerald, 1984). In general, the cost of galvanized wire increases as the class or amount of galvanization increases.

Aluminum wire is typically more expensive than the galvanized wire. Some advantages of aluminum wire are: it will not rust, it conducts electricity four times better, and it weighs one-third less than steel wire.

The Ground Rod. The ground is an often overlooked, but critical part of an electric fence. Without a good ground, electricity will not flow through the wire. When an animal touches a charged wire, the body of the animal completes the electrical circuit and the animal feels the “shock”. The current must travel from the charger through the

wire to the animal and then back through the ground to the charger if the animal is to feel the shock. The soil acts as the return “wire” (ground) in the circuit. However, if a bird was to land on a charged wire without touching the soil the bird would not complete the circuit and would be unaffected (FitzGerald, 1984). Some fence configurations use actual grounded wires within the fence to enhance the grounding system.

The ground may be a commercial ground rod or a copper tube or pipe driven six to eight feet in moist soil. Copper is expensive, so a copper coated steel pipe or any other good conducting metal pipe will work also. Very dry soil can effect the ability to create a good ground and has sometimes been a problem during drought conditions. Pipe may be a better choice than a solid rod during drought conditions, because water may be poured down the ground pipe to improve the ground. Some fence configurations use wires as the grounding system, rather than relying solely on the soil as a ground.

Recommended Electric Fence to Deter Black Bears

Conditions at fence sites will vary and will determine what the most effective fence configuration will be. Commission biologists welcome the opportunity to visit sites and provide custom tailored advice on constructing an effective electric fence. The following recommendation will cover most situations with low to moderate pressure from black bears. Use a five strand aluminum wire fence that is 40 inches high with wire spacing every eight inches apart using the previously mentioned wired grounding system (see Figure 1). The wire closest to the ground level (the lowest wire) should be a charged or “hot” wire. The second wire should be grounded. The third wire should be hot. The fourth wire should be grounded and the fifth wire should be hot. If using metal or wood posts, insulators must be used to keep the hot wires from grounding out. The cost of this type of electric fence utilizing fiberglass posts and a 110 volt fence charger is approximately \$200 for a 40' x 40' area (160 linear feet of fence).

Materials:

- 1 - 1, 312 foot roll (1/4 mile) 14 gauge aluminum electric fence wire
- 1 - 50 foot roll 12 gauge insulated wire
- 20 - 5 foot 5/8 inch dia fiberglass fence posts
- 5 - plastic gate handles
- 1 - 110 volt fence charger
- 1 - 10 foot ground pipe
- 4 - plastic electric fence signs

Installation. These instructions are for a square shape fence exclusion, but the process would be very similar for other applications. Drive 4 corner posts 1-foot deep into ground and stake with guy wires. Clip, rake, and keep clear any vegetation in a 15-inch wide strip under the fence and apply herbicide. Attach and stretch the aluminum wire at 8-inch increments starting 8 inches from ground level. A loop of wire

should be left on each wire at the first corner post. Once the wire has been stretched around the outside of all the corner posts back to the first post a plastic gate handle should be attached to each wire and the gate handles should be attached to each corresponding loop on the first corner post. Drive in the remaining 16 posts to the same depth at 8-foot intervals between corner posts. Secure each of the five wires to each of the posts with additional wire. Attach four plastic electric fence signs (one on each side) to the top wire of the fence. Attach a 12-gauge strand of insulated wire to the positive terminal of the fence charger and attach it to the first, third, and fifth wires of the fence. Attach another 12 gauge insulated wire to the negative terminal of the charger and attach this wire to the ground pipe which has been driven into the ground 6 to 8-feet deep. Attach another 12 gauge insulated wire from the negative terminal of the charger to the second and fourth wires on the fence. Plug the charger into a 110 volt power supply and the fence is in operation.

Tips to improve the effectiveness of your electric fence to deter black bears:

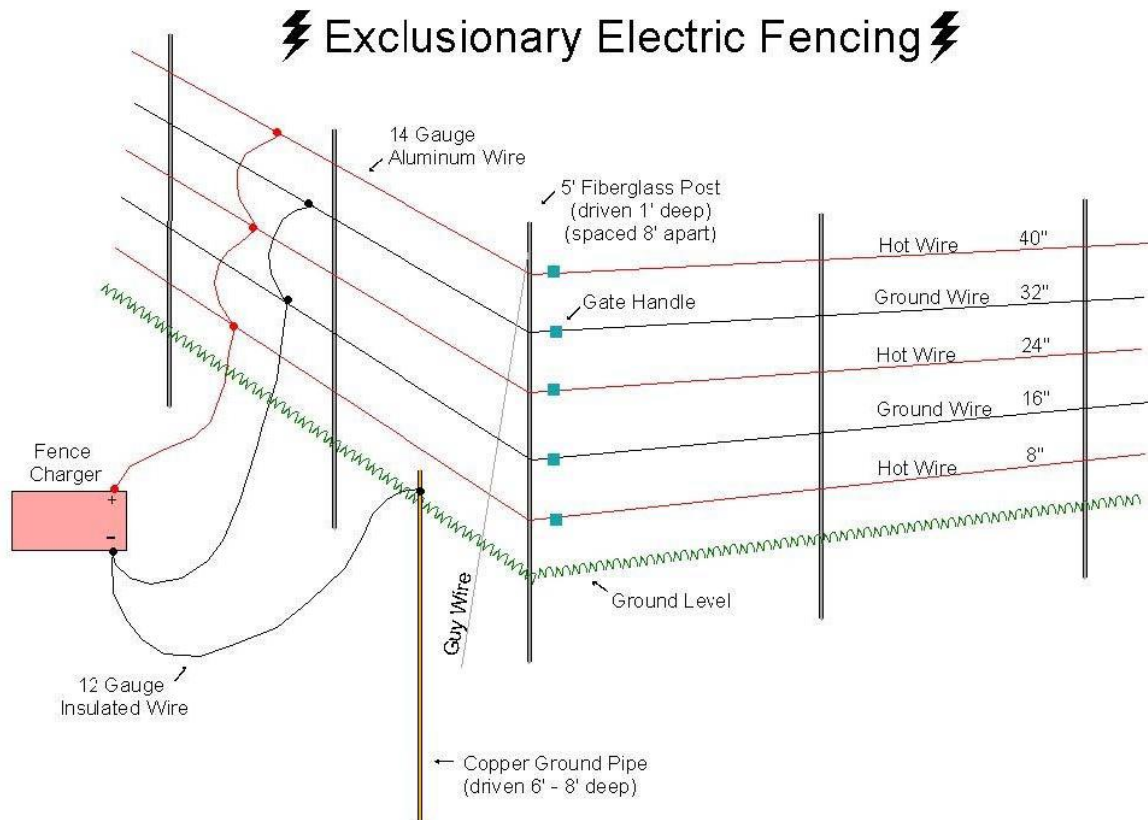
1. If using a 12-volt fence charger, ensure that the battery is charged; check every two weeks.
2. Make sure terminals on the charger and battery are free of corrosion.
3. Make sure hot wires are not being grounded out by tall weeds, fallen tree branches, broken insulators, etc.
4. If fence wires have been broken and repaired, make sure wires are corrosion free where they have been spliced together. Also, tighten the fence at each corner post as wires that have been spliced and are loose make poor connections.
5. Be sure to rake vegetation from under and around the outside of the fence as this may act as an insulator.
6. To improve the ground around the perimeter of the fence add a piece of 24 inch chicken wire laying on the ground around the outside of the fence. This should be connected to ground.
7. During periods of drought pour water down the ground pipe and around the ground pipe to improve the ground. Digging a 6 inch deep 6 inch diameter hole around the ground pipe and back filling with rock salt will also improve the ground. Additional ground pipes may also be added to portions of the fence farthest from the charger.
8. To ensure that the bear solidly contacts the charged portion of the fence, a bait like bacon strips, a can of sardines, or tin foil with peanut butter may be attached to one of the top hot wires. Make sure these do not contact the ground, thus shorting out the fence.
9. When protecting a specific structure (like a shed or rabbit hutch), the fence should be placed 3 to 5 feet away from the structure (rather than on it) so that the bear encounters the fence before reaching the attractant.
10. Protect the fence charger from the elements by covering it with a plastic bucket

or a wooden box.

11. Place plastic electric fence signs around the perimeter of your fence to improve visibility and to warn other people.

LITERATURE CITED

FitzGerald, James (1984), *The Best Fences*. Storey Publishing Bulletin A-92, Pownal, Vermont. p. 14-16.



AGREEMENT
ATTACHMENT 2

Place Holder for Map

Of

Apiary Locations

At

WMA/WEA

APIARY SITE APPLICATION FORM

Florida Fish and Wildlife Conservation Commission

RETURN TO: The Florida Fish and Wildlife Conservation Commission, 620 South Meridian Street, Tallahassee, FL 32399-1600. Please print or type all information. Attach additional sheets if necessary.

Name _____ Telephone Number _____

Mailing Address _____

City or Town _____ County _____ Zip Code _____

Physical Address (If Different from Mailing Address) _____

Company Name: _____

Email Address _____

Requested Wildlife Management or Wildlife and Environmental Area(s)(see attached list of WMA/WEAs with apiary sites):

WMA/WEA _____ County _____ # of Sites _____

WMA/WEA _____ County _____ # of Sites _____

WMA /WEA _____ County _____ # of Sites _____

WMA /WEA _____ County _____ # of Sites _____

Planned Number of Hives Per Site: _____ Permanent: _____ Seasonal: _____

Member of Beekeepers Association: Yes _____ No _____

Number of Years a Member _____

Name of Beekeepers Association: _____

Are you registered with Florida Department of Agriculture and Consumer Services/Division of Plant Industry (FDACS/DPI): _____ Yes _____ No _____ N/A If yes, please provide proof.

Are you current with any and all special inspection fees: _____ Yes _____ No _____ N/A. If yes, please provide proof.

Do you follow all recommended Best Management Practices from FDACS/DPI?: _____ Yes _____ No

If no, then please explain on a separate piece of paper.

Please provide below a chronological history of your beekeeping experience. If you need more space, please provide additional sheets.

References: If a new apiary contractor, please provide on a separate piece of paper at least 3 references who can verify your apiary experience. Provide each reference's name, address, phone number and email address (if applicable). Please attach reference sheet to this document and submit.

MISSION STATEMENT

Management of Florida Fish and Wildlife Conservation Commission's

Wildlife Management Areas And Wildlife and Environmental Areas

The mission of the Florida Fish and Wildlife Conservation Commission (FWC) is to manage fish and wildlife resources for their long-term well-being and the benefit of the people. To aid in accomplishing this mission, one of FWC's management goals is to manage fire-adapted natural communities on our Wildlife Management and Environmental Areas (WMA/WEA) to support healthy populations of the plants and animal's characteristic of each natural community. In order to achieve this goal various habitat management techniques are used. These include prescribed burning, applications of herbicides and mechanical treatment of vegetation. These management efforts will take place at various times and locations on each of the FWC's WMA/WEAs. Staff on each WMA/WEA will work with and make users aware of these activities when necessary. Users must be aware and accept that these activities are necessary for the proper management of the area.

Note: This document is included as an attachment with each Application and executed Contract.

FDACS/DPI's BMP

Florida Department of Agriculture & Consumer Services

BEST MANAGEMENT PRACTICES FOR MAINTAINING EUROPEAN HONEY BEE COLONIES

1. Beekeepers will maintain a valid registration with the Florida Department of Agriculture and Consumer Services/Division of Plant Industry (FDACS/DPI), and be current with any and all special inspection fees.
2. A Florida apiary may be deemed as European Honey Bee with a minimum 10% random survey of colonies using the FABIS (Fast African Bee Identification System) and/or the computer-assisted morphometric procedure (i.e., Universal system for the detection of Africanized Honey Bees (AHB) (USDA-ID) or other approved methods by FDACS on a yearly basis or as requested.
3. Honey bee colony divisions or splits should be queened with production queens or queen cells from EHB breeder queens following Florida's Best Management Practices.
4. Florida beekeepers are discouraged from collecting swarms that cannot be immediately re-queened from EHB queen producers.
5. Florida Beekeepers should practice good swarm-prevention techniques to prevent an abundance of virgin queens and their ready mating with available AHB drones that carry the defensive trait.
6. Maintain all EHB colonies in a strong, healthy, populous condition to discourage usurpation (take over) swarms of AHB.
7. Do not allow any weak or empty colonies to exist in an Apiary, as they may be attractive to AHB swarms.
8. Recommend re-queening with European stock every six months unless using marked or clipped queens and having in possession a bill of sale from an EHB Queen Producer.
9. Immediately re-queen with a European Queen if previously installed clipped or marked queen is found missing.
10. Maintain one European drone source colony (250 square inches of drone comb) for every 10 colonies in order to reduce supercedure queens mating with AHB drones.
11. To protect public safety and reduce beekeeping liability, do not site apiaries in proximity of tethered or confined animals, students, the elderly, general public, drivers on public roadways, or visitors where this may have a higher likelihood of occurring.
12. Treat all honey bees with respect.

RANDOM
SELECTION PROCESS
FOR VACANT APIARY SITE

When an apiary site becomes available the following procedure is used to randomly select the next apiarist (beekeeper) for an available apiary site on a WMA or WEA. Only those who have been evaluated and deemed qualified to be an apiarist on a WMA/WEA through the Apiary Application process will be eligible for this selection process. The steps below will be followed by the THCR Contract Manager when a site becomes available to be filled by a qualified apiarist:

1. The THCR Contract Manager will maintain an “Apiary Wait List Folder” on the THCR SharePoint for each WMA/WEA with apiary sites.
2. A wait list is either created or updated when an Apiary Application(s) is received by the THCR Contract Manager from a qualified apiarist.
3. Upon receipt of an apiary site application, the THCR Contract Manager will review the WMA/WEA folder to see if there is an “Apiary Wait List”.
4. If a list exists then the qualified applicant will be added to the list.
5. When an apiary site becomes available if there are more than one qualified apiarist then these apiarists will be contacted by certified letter to determine their interest.
6. The letter will request a response within 10 working days to make them eligible for the random drawing.
7. If there is no response or is negative then that apiarist will not be included in the random drawing and the name will be removed from the waiting list*.
8. If only one apiarist responds positively to the certified letter then the available site will be awarded to that interested apiarist.
9. If there are no apiarists on a wait list or all responses are negative then apiarists who currently have site(s) under Agreement and where not on the waiting list will be contacted to see if any have interest in the available site. If more than one responds then the random drawing process will be used to determine who will be awarded the site.
10. Steps to be performed by the THCR Contract Manager to execute the random selection

for an available apiary site are listed below:

- a. The names of each interested apiarist will be noted on a 1" X 2" piece of paper and folded in half.
- b. The pieces of paper will be inserted into a "black film canister" which has a snap top and placed into a container and stirred up prior to the selection.
- c. A non-biased person will be selected to reach into the bowl (which will be held above the selection person's eyesight) and randomly select one of the canisters.
- d. The canister will be opened by the person performing the selection and the name is read aloud for those in attendance. Everyone in attendance will sign a witness sheet.
- e. The apiarist whose name is selected will be awarded the available site.
- f. A new Agreement will be developed by the THCR Contract Manager.

*A new apiary application must be submitted once requestor's name is removed from a waiting list.

10.8 Management Plan Terms

Management Plan Goals and Objectives

Terms and Definitions

Assessment: Assessment—when a cultural resource professional determines the possible effects—positive or negative—that an action or inaction may have on a cultural resource (e.g., site, building, object, or structures) by analyzing its current condition and documenting any modifications and changes to its original state as well as identifying any potential human or natural threats to its existence.

Capital Improvement: “Capital improvement” or “capital project expenditure” means those activities relating to the acquisition, restoration, public access, and recreational uses of such lands, water areas, and related resources deemed necessary to accomplish the purposes of this chapter. Eligible activities include, but are not limited to: the initial removal of invasive plants; the construction, improvement, enlargement, or extension of facilities' signs, firelanes, access roads, and trails; or any other activities that serve to restore, conserve, protect, or provide public access, recreational opportunities, or necessary services for land or water areas. Such activities shall be identified prior to the acquisition of a parcel or the approval of a project. The continued expenditures necessary for a capital improvement approved under this subsection shall not be eligible for funding provided in this chapter.

Desired Future Condition: Desired Future Condition (DFC) is a description of the land or resource conditions that are believed necessary if management goals and objectives are fully achieved. DFCs varies by specific habitat and ecosystem. It can also vary based upon a specific agency's management goals.

Evaluation: Review by a professional in archaeology, history, or architecture as to the integrity and significance of the site, building, or structure. The criteria of the National Register of Historic Places will be applied.

Facility: All developed structures and improvements provided for a specific purpose or contained within a clearly defined area.

Fire management plan: An element of the land management plan or an independent document that outlines the goals and objectives of a fire management program (prescribed and wildfire) for a predetermined period of time.

Historic: An object, site, or structure that is 50 years or older.

Hydrological assessment: A documented, systematic evaluation by a qualified professional of the existing and historical quantity, quality, movement, and function of water resources (e.g., computer modeling).

Imperiled species: A species or subspecies that is listed by the U.S. Fish and Wildlife Service as Endangered or Threatened; Florida Fish and Wildlife Conservation Commission (FWC) as Endangered, Threatened, or Special Concern; Florida Department of Agriculture and Consumer Services (FDACS) as Endangered or Threatened; or is tracked by Florida Natural Areas Inventory (FNAI) as globally or state Critically Imperiled or Imperiled. Imperiled Species does NOT refer to species that are on the FDACS list of commercially exploited plants that are not Endangered or Threatened.

Improve: The enhancement or expansion of facilities, roads, and trails.

Maintenance: The daily or regular work of keeping facilities, roads, and trails in proper condition.

Monitoring: Periodic examination of the site, building, or structure to determine the current condition and threats such as erosion, structural deterioration, vegetation intrusion, poaching, or vandalism. An updated Florida Master Site File form is used to complete this assessment.

Natural community/habitat/ecological improvement: Similar to restoration but on a smaller less intense scale. Typically includes small scale vegetation management activities, spot treatments of invasive plants, or minor habitat manipulations. Any habitat alteration that increases the diversity of a habitat or increases the population of a particular species.

Natural community/habitat/ecological restoration: The process of assisting the recovery and natural functioning of degraded natural communities to desired future condition, including the re-establishment of biodiversity, ecological processes, vegetation structure, and physical characters. Activities may include vegetative treatments (e.g., hardwood removal, mechanical treatment, pine tree thinning, etc.), groundcover establishment, non-commercial tree plantings, erosion control, hydrological manipulation (filling ditches), and beach management.

Not in maintenance condition: Species composition and/or structure is outside the targeted range. The natural community is in need of more frequent or recurring management treatments that are beyond maintenance activities. Examples include natural communities with invasive plant or animal infestations that are at levels requiring significant treatment, natural communities that have exceeded maximum targeted fire return intervals, and natural communities in need of restoration treatments.

Poor, fair, good condition: Evaluating the condition of cultural resources is accomplished using a three-part evaluative scale, expressed as good, fair, and poor. These terms describe the present condition, rather than comparing what exists against the ideal. "Good" describes a condition of structural stability and physical wholeness,

where no obvious deterioration other than normal occurs. “Fair” describes a condition in which there is a discernible decline in condition between inspections, and the wholeness or physical integrity is and continues to be threatened by factors other than normal wear. A “fair” assessment is cause for concern. “Poor” describes an unstable condition where there is palpable, accelerating decline, and physical integrity is being compromised quickly. A resource in poor condition suffers obvious declines in physical integrity from year to year. A poor condition suggests immediate action is needed to reestablish physical stability.

Population survey: Using broadly accepted methodologies to detect changes in population trends over time.

Public access: Access by the general public to state lands and water, including vessel access made possible by boat ramps, docks, and associated support facilities, where compatible with conservation and recreation objectives.

Recorded: A Florida Master Site File form has been completed and filed with the Florida Department of State, Division of Historical Resources.

Recreational/visitor opportunity: Measure of potential number of users based on existing resource conditions and developed facilities.

Repair (major): The restoration of facilities, roads, and trails to proper condition after damage or failure.

Restoration underway: Restoration planning/design, executing, evaluating, and reporting.

Restored/Maintenance condition: Refers to a natural community (NC) within the range of target species composition and structure such that no significant, non-recurring alterations to structure or species composition are needed for ecological restoration. Invasive plants or animals are absent or at levels requiring minimal recurring treatments, and prescribed fire rotations are within target intervals. Includes NCs that meet DFC, and NCs that have received restoration action (such as thinning, clear-cut, and native species planting) and only require time and recurring maintenance actions such as prescribed fire, maintenance level invasives control, or sustainable forestry practices if applicable.

Road: A paved or unpaved motor vehicle route unless identified and managed as a trail.

Significant: Listed in or determined eligible for listing in the National Register of Historic Places as an individual property, element of a multiple listing, or in an historic district. Cultural resource professionals are able to make the determination, but final determination rests with the Director of the Division of Historical Resources.

Sustainable forestry: The stewardship and harvest of forest products in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality, and potential to fulfill, now and in the future, relevant ecological, economic, and social functions at local, national, and global levels, and that does not cause damage to other ecosystems.

Systematic survey: A sampling protocol designed to assess the occurrence or population status of a species or a suite of species (e.g., presence/absence, mark and recapture, transect survey, etc.).

Trail: A linear route or path which has been specifically prepared or designed for one or more recreational functions such as hiking, biking, horseback riding, or multiple use. In many cases, unimproved service roads are also designated as trails.

Treatment: A mechanical, herbicide, biological, or manual action that changes the structure or composition of an area in order to facilitate restoration or improvement.

Visitor carrying capacity: An estimate of the number of users a recreation resource or facility can accommodate and still provide a high quality recreational experience and preserve the natural values of the site.

Wildlife activities: Wildlife-associated recreation such as birdwatching, fishing, hunting, etc.

10.9 Prescribed Burn Plan

Orange Hammock Wildlife Management Area Prescribed Burning Plan

INTRODUCTION

Fires, naturally occurring or man-induced, are an integral part of the ecology of the southern pine (*Pinus* spp.) region (Miller 1963) and have maintained fire-dependent plant communities in the southeast for millennia. Exclusion of fire reduces nutrient cycling and changes the vegetative community from an open canopy system to a closed one. The growth of dense brush shades out plants that require sunlight, including listed species, and has an adverse effect on wildlife that are adapted to and require frequent fire, such as the gopher tortoise. Fire exclusion allows plant community successional stages to progress to a climax hardwood community. These fire excluded areas become covered by dense brush, lose much of their value for wildlife and result in heavy fuel accumulations which increases wildfire hazard.

Prescribed burning is used extensively in forestry and wildlife management for fuel reduction, brush control, disease and insect control, site preparation, and wildlife habitat improvement and maintenance. It is a recommended tool for management of such game animals as white-tailed deer (*Odocoileus virginianus*), northern bobwhite quail (*Colinus virginianus*), mourning dove (*Zenaida macroura*), and wild turkey (*Meleagris gallopavo*) (U.S. Forest Service 1969, Stoddard 1971). The value of prescribed fire to these and other animals, such as raptors and some songbirds, is well documented (Givens 1962, Miller 1963, Stoddard 1963). Prescribed fire benefits wildlife by reducing underbrush density and improving access, promoting the growth of succulent vegetation, and lowering browse to the feeding height of deer. Additionally, it benefits aesthetic values and enhances growth and fruiting of important wildlife food plants, such as dewberries (*Rubus* spp.) and blueberries (*Vaccinium* spp.) (Halls 1977).

BURN OBJECTIVES

The Florida Fish and Wildlife Conservation Commission (FWC) will use prescribed fire on the Orange Hammock Wildlife Management Area (OHWMA) as a habitat management tool exclusively, or in conjunction with, other management techniques to accomplish a variety of objectives. The primary objective for using prescribed fire on the OHWMA is to restore and/or maintain fire-dependent native habitat communities. This will result in preserving and maintaining native plant communities while simultaneously improving wildlife habitat. Secondary objectives for the use of prescribed fire include the maintenance of early successional habitats, timber management, and hazardous fuel reduction. Early successional habitats are important for many species of wildlife found on the OHWMA.

The derived benefits from prescribed burning on the OHWMA include not only long-term preservation of native plant communities and improved wildlife habitat, but numerous others as well:

1. Reduction of fuel loads, which will help to prevent or mitigate effects of wildfires.
2. Enhancement of the area's aesthetics by reducing vegetation height and triggering flowering response of native plants.
3. Control of exotic plant species.
4. Improved public access.
5. Increased success of longleaf and south Florida slash pine regeneration.

DESCRIPTION OF AREA

The OHWMA, in Sarasota County, consists of 5,776 acres within the Myakka Ranchlands Project of the Florida Forever Program. The OHWMA is located in the city of North Port just south of the Longino Ranch Conservation Area and Lewis Longino Preserve in Sarasota County and west of the 6,000-acre RV Griffin Reserve in DeSoto County. The southwest corner of the property is parallel to I-75. OHWMA is bordered to the west by approximately 2,040 acres of contiguous land in private ownership that is slated for potential development. Additionally, the

southern end of the WMA is bordered by numerous small, privately-owned parcels. The OHWMA represents the largest undeveloped parcel of land in Sarasota County and is part of a 121,000+ acre conservation corridor that protects a matrix of environmentally sensitive lands between the Peace River, Myakka River, and Charlotte Harbor Estuary.

The property is comprised of 16 community types as mapped by the Florida Natural Areas Inventory (FNAI) (Figure 1). Table 1 contains a list of community types within OHWMA and their associated acreages. Brief descriptions of the FNAI identified natural communities, including the recommended frequency of fire for fire-maintained communities (FNAI 2010), are found in Appendix A.

PRESCRIBED BURNING PROGRAM

A. FIREBREAKS

Natural water features (e.g., canals and wetlands) and existing roads are utilized as firebreaks whenever feasible. Recreational trails that are utilized as firebreaks will be mowed throughout the year to reduce vegetation height and disked to mineral soil prior to the application of fire. Most firebreaks will be disked to mineral soil. Adjacent vegetation may be mowed or roller-chopped to reduce fire intensity along firebreaks.

Approximately 31 miles of existing firebreaks need widening (Figure 2). Boundary firebreaks will be widened to a minimum of eight feet using a disk to break up vegetation to mineral soil; shredding or chopping may be utilized first if vegetation is too dense to disk. Interior firebreaks should be widened to eight feet using similar methods.

3.6 miles of new firebreaks will be constructed on the western and northwestern boundary of the property (Figure 3). Existing vegetation will be shredded or chopped and disked to a minimum width of eight feet.

The additional installation of new firebreaks or the widening/improving of existing firebreaks will be evaluated by area and regional staff and will be constructed/improved as deemed necessary to facilitate prescribed burning activities.

B. SIZE AND ARRANGEMENT OF BURN UNITS

Thirty-three burn units totaling 5,718.67 acres have been delineated on the OHWMA (Figure 4), averaging 173 acres in size. 4,338.88 acres are currently classified as fire-maintained communities. Burns should be conducted at 2-3-year intervals, or in some cases, in consecutive years if objectives are not accomplished. The current conditions and desired future conditions of the communities in a particular burn unit will be one of the main factors in determining burn rotation. Burn units will be burned in a mosaic pattern when possible, so that some species with small home ranges such as bobwhite quail will have nearby escape cover. If burn days are limited due to weather constraints, several burn units may be burned on the same day.

C. BURN PRESCRIPTION

A standardized FWC prescription form (Appendix B) will be used to prepare the prescription for each burn. Prescription content will be specific for each burn and will include, among other things, the burn unit(s) location and description, firing methods, contingencies, desired weather parameters, personnel and equipment, safety measures, smoke management, and measurable objectives of the burn.

D. TYPE OF BURN

Most burns will begin with a backfire along the downwind side of the unit. The rest of the unit will be burned with spot, flank, or headfires, depending on fuel loads and desired fire intensity. Burns will be ignited primarily using ground crews; aerial ignition may be utilized on the largest burn units if conditions and funding permit. Drone use for aerial ignition could be used

in the future if and when that technology becomes proven and readily available.

E. SEASON AND TIME OF DAY

Prescribed burning in units with low to moderate fuel loads will be conducted during the growing season (April to September); units with heavy fuel loads may be conducted during the dormant season (October - March). When the fuel loads have been reduced, burns will be switched to primarily growing season. Exceptions will be made if an initial burn in a unit with high fuel loads is necessary outside of the recommended season to reduce fuel loads or if burn windows are small. Burning will be conducted during daylight hours and begun as early as possible. Starting a burn in the early to mid-morning will allow staff to safely establish a downwind black line with minimal control issues due to higher relative humidity, residual moisture on vegetation, and lower wind speeds.

F. OPTIMAL WEATHER CONDITIONS

Winds out of the west and south will be most favorable for burning on OHWMA. West and southerly winds will push fire and smoke away from US Interstate 75 and away from nearby communities. Burns will begin as early as possible in the day to utilize higher relative humidity and mitigate for wind shifts and potential afternoon thunderstorms, especially during the spring and summer. Units lying further inside the WMA, mainly in the northeast corner away from US Interstate 75, may be burned with winds containing a northerly component and a good dispersion index (40-70). Burn units that are close to residences and roads will also require a good dispersion during the day and the following night. Additionally, a predicted wind direction that does not push smoke toward these areas will be utilized.

Other parameters will be considered, and all carry an acceptable range of values. Days since last rain (0-30 days), minimum relative humidity (35%), surface wind speed (6-17 mph), and KBDI (<600) will be prescribed based on burn objectives for the unit(s) and containment concerns. LVORI ranges of 1-10 will be deemed acceptable depending on other factors such as the unit's distance from the interstate and the chance of forecasted fog. We will not burn on days that are deemed too volatile or days in which we do not anticipate being able to meet our objectives.

G. SMOKE MANAGEMENT

Direction, volume, and dissipation of smoke from prescribed burning on OHWMA are of primary concern due to the proximity of smoke-sensitive areas. The primary area of concern that may be affected by smoke, or particulates carried by smoke, under optimum burning conditions are US Interstate 75 in the southwest corner. There are also two school complexes, Woodland Middle School and Atwater Elementary School, which are designated smoke sensitive areas, south of I-75 near the southwest corner of the property. The schools are 0.75 and 1.0 miles from the boundary, respectively.

To minimize smoke problems, burning should be conducted when the atmosphere is slightly unstable, with the mixing height at a minimum of 1,700 feet and transport wind speed at a minimum of 9 mph. Additionally, the use of backfires, as prescribed, will produce less smoke and consume fuel more completely than head firing (Mobley et al. 1973, Southern Forest Fire Laboratory 1976, Crow and Shilling 1983). The use of backfires can be difficult in larger burn units as time often does not allow for completion of the burn in one day. Also, fires that burn for long periods of time, such as backfires, undergo increased chance of wind shifts that can lead to erratic fire behavior. Additional fire lines are needed to use the backfire technique exclusively in larger units. Therefore, this method will only be used as burn unit and weather conditions allow. For most burns, we will use a backfire to establish a black baseline against the downwind firebreak and other firing techniques, including interior spotting/interior grid ignition and/or flanking and head fires to burn out the remainder of the unit more quickly.

Smoke management is difficult during night burns because smoke often stays close to the ground and smoke drift is difficult to predict. Smoke tends to seek lower areas (along streams and creeks) and may drift across surrounding highways. Night burning is unlikely to be used in the OHWMA area for the above reasons. However, night burns can be highly effective for burning units with high fuel loads, facilitating intensity control, and, if allowed and conditions are favorable for a safe night burn, the burn will be approached with caution and in close association with the FFS to avoid threats to public safety.

Mop-up standards will be applied to boundary and interior units. All units will have burning and smoking snags (higher than four feet) within a certain distance of the control line monitored as determined by the burn manager; snags will be extinguished or felled as needed. All smoking debris and 1000-hour fuels within the control line buffer will also be monitored and extinguished as deemed appropriate by the burn manager.

Units that receive fire will be monitored daily after the initial burn until no smoke or glowing combustion is observed, and the fire can be declared out.

H. PERSONNEL

Burning can be conducted safely and effectively with a minimum of 3 crew members depending on burn unit size, weather forecasts, and on the ground conditions. A typical crew consists of one to two ignition personnel, one to two suppression crews, and a burn boss. The FFS will be requested to stand by with a dozer-plow unit on complex burns. Commission personnel who are FFS-certified prescribed burn managers and meet all other FWC requirements will boss the burns. Personnel from other agencies (e.g., SWFWMD, FFS, Department of Environmental Protection, and Sarasota County) will be used as additional crew members if they are available and needed. Any person participating on a FWC prescribed burn will meet the minimum training and experience requirements as described in the FWC's Division of Habitat and Species Conservation (HSC) Prescribed Burning and Wildfire Suppression Standards (Appendix C).

I. EQUIPMENT

All members of the fire crew will wear, at a minimum, the personal protective equipment required by FWC's HSC Prescribed Burning and Wildfire Suppression Standards (Appendix C). Type V and VI engines, tractor-plows, farm tractors, ATVs, UTVs, hand tools, and other equipment may be used as conditions require. ATV drip torches, handheld drip torches, flares, and/or a pyroshot dragon egg launcher will be used for ignition depending on burn unit conditions and fire intensity needs. Engines will be equipped with chainsaws, drafting equipment, and foam. Smoke caution signs for nearby roads will be deployed as necessary.

J. PERMITS AND NOTIFICATIONS

A permit will be obtained from the FFS on the afternoon before or the morning of the burn in accordance with FS 590.125. Notification will be given to:

1. Sarasota County Sheriff's Office and Fire Department
2. Landowners and agencies of surrounding areas that request notification
3. FWC Law Enforcement (email)
4. Florida Highway Patrol dispatch (email); phone call if burning near I-75
5. Southwest Regional Staff (email)
6. FWC's Statewide Call Center (email)

K. EVALUATION OF BURN

Burns will be evaluated informally during and shortly after each burn by comparing burn objectives with burn effects. During the burn, rate of spread, flame height, fire intensity, and general fire behavior will be evaluated. Post-burn evaluations will include fuel consumption amounts, pine tree crown scorch, pine tree mortality, and hardwood topkill. Objective Based Vegetation Monitoring (OBVM) data will be collected on a 5-year cycle and used to determine if the fire frequency and intensity is maintaining the desired vegetative composition

and structure or moving the composition and structure towards desired future conditions for the major fire-maintained communities, which are mesic flatwoods, dry prairie, wet prairie, depression marsh, basin marsh, and slough marsh.

L. SPECIAL CONSIDERATIONS

Special attention will be given to ensure our burns do not adversely affect adjacent landowners and nearby roads. We will minimize smoke impacts on nearby roads and residents by utilizing a smoke screening map, the FFS smoke screening tool, and responding to changing weather conditions during the burn. Smoke signs will be placed on roadways near the burn if there is a chance smoke will affect those roadways either during the burn or during the night(s) following the burn. Burn bosses will coordinate with law enforcement agencies (Florida Highway Patrol (FHP), local Sheriff's Department, and/or FWC Law Enforcement) to help monitor smoke and visibility on roadways following burns when needed.

Units along the WMA boundary will be evaluated several months in advance of a burn to assess where and to what extent mechanical treatments are needed prior to the burn to reduce the risk of a spot-over outside the WMA boundary

Sensitive wildlife resources will be depicted on burn maps and protected. Infrastructure within the burn unit will be depicted on burn maps and protected as well.

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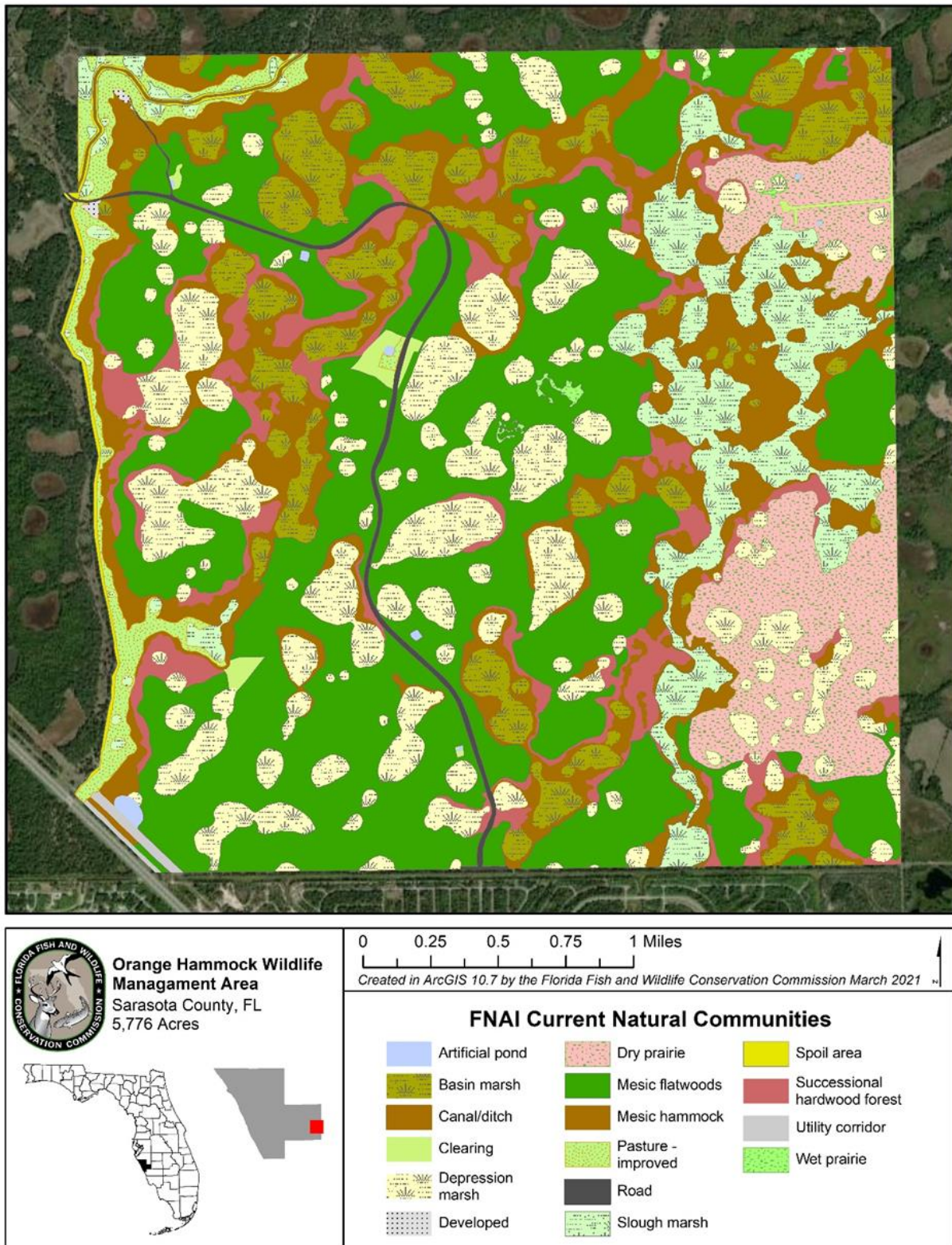


Figure 1. Orange Hammock WMA Natural Communities

Table 1. Orange Hammock WMA Community Types and Acreages.

#	Natural Community Type	Fire Maintained Community? (Interval)	Acres
1	Artificial Pond	No	8.27
2	Basin Marsh	Yes (5-7+ years)	472.34
3	Canal/ditch	No	7.69
4	Clearing	No	28.21
5	Depression Marsh	Yes (2-4 years)	845.70
6	Developed	No	2.82
7	Dry Prairie	Yes (1-2 years)	451.78
8	Mesic flatwoods	Yes (2-3 years)	2007.83
9	Mesic hammock	No	942.73
10	Pasture - Improved	Yes (As needed)	124.93
11	Road	No	45.56
12	Slough Marsh	Yes (3-10 years)	425.58
13	Spoil Area	No	29.11
14	Successional hardwood forest	No*	361.07
15	Utility Corridor	No	12.66
16	Wet Prairie	Yes (2-3 years)	10.72

*Successional hardwood forest – Closed-canopied forest dominated by fast growing hardwoods such as laurel oak (*Quercus hemisphaerica*), water oak (*Quercus nigra*), and/ or sweetgum (*Liquidambar styraciflua*), often with remnant pines. These forests are either invaded natural habitat (i.e., mesic flatwoods, sandhill, upland pine, upland mixed woodland) due to lengthy fire-suppression or old fields that have succeeded to forest. The subcanopy and shrub layers of these forests are often dense and dominated by smaller individuals of the canopy species. Successional hardwood forests can contain remnant species of the former natural community such as turkey oak (*Quercus laevis*), saw palmetto (*Serenoa repens*), gallberry (*Ilex glabra*), and infrequently wiregrass (*Aristida stricta* var. *beyrichiana*). Additionally, species such as beautyberry (*Callicarpa americana*), muscadine (*Vitis rotundifolia*), and sparkleberry (*Vaccinium arboreum*) are common. Restoration of these forests includes mechanical tree removal and reintroduction of fire. Where characteristic herbaceous species (e.g., wiregrass) have been lost, reintroduction via seed or plants may be necessary to restore natural species composition and community function

Firebreaks to Widen - OHWMA



Figure 2. Existing firebreaks to be widened as needed (31 miles).

New Firebreaks - OHWMA



Figure 3. New firebreaks to be constructed on OHWMA (3.6 miles).

Orange Hammock Burn Units

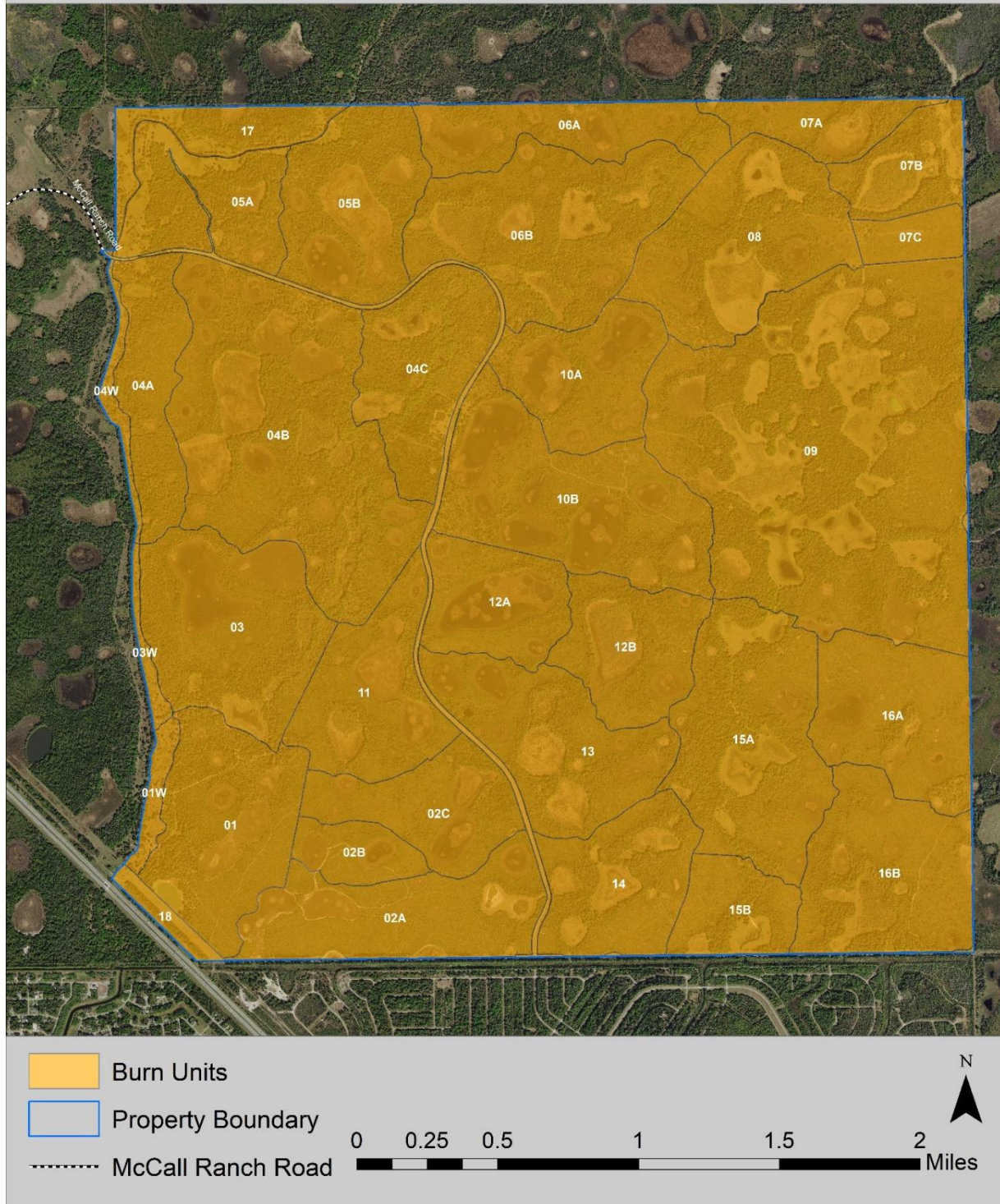


Figure 4. Orange Hammock WMA burn units.

APPENDIX A

FIRE-MAINTAINED NATURAL COMMUNITY SHORT DESCRIPTIONS

- **Basin Marsh (5-7+ years)**- herbaceous or shrubby depression wetlands, generally protected from frequent fire by their large size or by their location within a non-pyrogenic landscape. The deepest areas within a basin marsh generally remain inundated year-round. Basin marsh contains zones of vegetation based on the water depth and/or the amount of peat accumulation.
- **Depression Marsh (2-4 years)**- isolated wetlands embedded in a pyrogenic community. They are typically shallow, may dry out during drought, and because of their landscape position, they burn frequently with the surrounding community. The substrate is usually acid sand with deepening peat toward the center. Because water depth in depression marshes usually increases toward the center, vegetation often forms distinctive zones corresponding to depth.
- **Dry Prairie (1-2 years)**- flat, upland areas of dwarf shrubs and grasses with few or no pines and many of the same species in the shrub and herb layers as are found in a mesic flatwoods community. The treeless aspect of dry prairies is thought to be the result, at least in part, of a more frequent natural burn regime caused by an undissected landscape that allows fire to move unimpeded across large areas.
- **Mesic Flatwoods (2-3 years)** - open, pine canopy forests with a diverse understory of short shrubs and herbs occurring on low, flat terrain. Fire is an important factor in maintaining high plant diversity and naturally occurs during the late spring/early summer lightning season.
- **Pasture – Improved (As needed)** - areas that have been stripped of most or all native vegetation and replanted in pasture grasses.
- **Slough Marsh (3-10 years)**- broad, flat marshes with slow flowing water, permanently saturated and inundated for at least 180 days a year. Frequent fire limits woody encroachment and peat accumulation. They are generally dominated by emergent grasses, sedges, and herbs. Shrubs are usually infrequent but are sometimes quite abundant in limited areas.
- **Wet Prairie (2-3 years)** - wetland herbaceous community characterized by a seasonally high water table and frequent fire, with dense stands of graminoids intermingled with other herbs. These communities have a shorter hydroperiod than marshes.

ALTERED AND NON-FIRE-MAINTAINED NATURAL COMMUNITY SHORT DESCRIPTIONS

- **Artificial/Farm Pond** - created habitat meant for water retention, cattle ponds, etc. Fire will be allowed to burn up to the edges to minimize fire shadows and shrubby/woody encroachment on the edges.
- **Canal/ditch** - artificial linear drainage ways. Fire will be allowed to burn up to the edges to minimize fire shadows and shrubby/woody encroachment on the edges.
- **Clearing** - dove fields, wildlife food plots, old homesites, or recent or historic clearings that have significantly altered the groundcover and/or overstory of the original natural community.
- **Developed** - Developed areas include check stations, ORV use areas, parking lots, buildings, maintained lawns, botanical or ornamental gardens, campgrounds, recreational, industrial, and residential areas.
- **Mesic Hammock** - closed-canopy forest of temperate and tropical hardwood species often occurring in a mosaic of wetlands. Mesic hammocks occur throughout the OHWMA, generally

associated with the marsh systems that run north to south across the property. These wet marshes act as a natural barrier to fire, providing shadows where less fire tolerant species could develop. Fire will not be prevented from entering mesic hammocks but allowed to burn up to and burn the edges to minimize fire shadows and shrubby/woody encroachment on the edges.

- **Road** - areas that are maintained by FWC and used for vehicular traffic. This includes two-tracks used regularly by area staff to access and manage the WMA/WEA regardless of public accessibility. Only roads greater than 5 meters in width are delineated on the map.
- **Spoil Area** - sites where dredge or spoil material is deposited. These areas may or may not be re-colonized by vegetation.
- **Successional Hardwood Forest** - closed-canopied areas that may resemble natural upland hardwood forests or mesic hammocks. They are dominated by fast growing hardwoods such as laurel oak (*Quercus hemisphaerica*), water oak (*Quercus nigra*), and/or sweetgum (*Liquidambar styraciflua*), often with remnant pines. These forests are either invaded natural habitat (i.e., mesic flatwoods, sandhill, upland pine, upland mixed woodland) due to lengthy fire-suppression or old fields that have succeeded to forest. Fire will not be prevented from entering successional hardwood forests but allowed to burn up to and burn the edges to minimize fire shadows and shrubby/woody encroachment on the edges.
- **Utility Corridor** - electric, gas, or telephone right-of-ways.

APPENDIX B

Prescribed Burning Prescription Florida Fish and Wildlife Conservation Commission					
WMA/WEA: Click here to enter managed area			Management Lease/Agreement Number: Enter number		
Burn Manager: Burn manager name			Customer Number: Number		
Burn Manager Certification Number: Number			County of Burn: County		
FFS Certified Burn Authorization Number:			Date of Burn: Date of burn		
Authorization Date and Time Period:					
Burn Unit Names/Numbers	Acres	Section(s)	Township	Range	Last Burn Date
Unit name/number	Acres	Section	Township	Range	Date
Unit name/number	Acres	Section	Township	Range	Date
Unit name/number	Acres	Section	Township	Range	Date
Unit name/number	Acres	Section	Township	Range	Date
Total	Total Acres				
Latitude/Longitude or Road Intersection to Assist with Emergency Locate: Enter Lat/Long and/or intersection					
Nearest Helicopter Landing Zone and Coordinates: Click here to enter. LZ should be in open grassy or asphalt/concrete area; not sandy.					
Unit Description and Habitat Composition - Attach Maps of Area to be Burned					
Overstory Description and Basal Area if Applicable: Click here to enter description					
Understory Description: Click here to enter description					
Fuel Loading – May Vary for Different Areas of the Burn Unit (Very Heavy, Heavy, Moderate, Light, Very Light): Click here to enter fuel loading					
Known Duff or Muck Locations: Click here to enter duff or muck locations					
Hazards, Infrastructure and Wildlife Features to Protect: Click here to enter along with locations					

Description and Condition of Fire Breaks: Click here to enter description and make sure firebreaks (internal and external) are shown on map	
Other Important Stand Parameters if Applicable: Click here to enter parameters	
Restoration Burn ☐ Maintenance Burn ☐	
Burn History and Vegetative Description of Surrounding Units (and/or attach map): Click here to enter surrounding unit information	
Emergency Contacts (can be attachment)	
FFS Dispatch: Click here to enter number	
FFS Forest Area Supervisor(s): Click here to enter contact info	
Local Fire Departments: Click here to enter number	
Local Hospitals or Emergency Care Centers: Click here to enter number	
FHP: Click here to enter number	DOT: Click here to enter number
FWC Dispatch: Click here to enter number	
Other: Click here to enter	
Notifications (e-mail group, adjacent landowners, schools, airports, media, etc): Click here to enter notifications or include attachment with notifications	
Minimum Number of Personnel to be Used on the Burn: Enter minimum number of personnel	
Personnel Names and Crew Assignments: Click here to enter personnel/assignments	
Equipment and Suppression Tools to be Used on Burn: Click here to enter equipment/tools	

Purpose of Burn: Click here to enter purpose
Measurable Burn Objectives: Click here to enter objectives
Season and Time of Day to Meet Objectives: Click here to enter season/time of day for fire to meet your objectives
Firing Plan and Ignition Method/Pattern: Click here to enter plan/pattern
Intensity Desired to Meet Purpose and Objective: Click here to enter intensity
Contingencies (includes safety zones, escape routes, secondary control lines, escape response procedures): Click here to enter contingencies
Mop-up and Monitoring Standards: Click here to enter standards
Declaring the Fire Out Standards: Click here to enter standards

Smoke Management
Smoke Sensitive Areas Identified Using “A Guide for Prescribed Fire in Southern Forests” Smoke Screening Tool? ☐ Yes ☐ No
Any Critical Smoke Sensitive Areas Identified? ☐ Yes ☐ No If “Yes”, Do Not Burn Under Current Prescription, or Provide Additional Smoke Monitoring and Mitigation Procedures in the Smoke Management Plan. Work with Florida Forest Service on Approval to Burn When Identifying Critical Smoke Sensitive Areas That May Be Impacted.
Downwind/Downdrainage Smoke Sensitive Areas and Distance from Burn: Click here to enter areas
Other Smoke Sensitive Areas and Distance from Burn: Click here to enter areas
Smoke Management Plan (attach smoke management screening maps): Click here to enter smoke management plan
Is There Potential for Smoke to Impact a Public Roadway? ☐ Yes ☐ No If yes, you need to erect smoke warning signs. Contact FHP if smoke will impact a federal or state roadway (not including WMA roads). Contact local LE agencies as needed to inform them of potential smoke impacts.
Plan for Monitoring Smoke During and After the Burn to Assess Visibility Issues if Applicable: Click here to enter smoke monitoring plan

WEATHER PARAMETERS	Desired Parameters	Forecast Conditions – Attach Fire Weather Forecast and Spot Weather Forecast. Use Separate Form for Actual Weather Readings
Surface (20') Wind Direction	Desired wind directions	Located on Forecast.
Surface (20') Wind Speed	Desired wind speeds	Located on Forecast
Transport Wind Direction	Desired wind directions	Located on Forecast
Transport Wind Speed	Desired wind speeds	Located on Forecast
Minimum Mixing Height	Minimum mixing height	Located on Forecast
Dispersion Index (DAY)	Desired dispersion range	Located on Forecast
Dispersion Index (NIGHT)	Desired minimum dispersion	Located on Forecast
Maximum Temperature	Desired max temperature	Located on Forecast
Minimum Relative Humidity	Desired minimum humidity	Located on Forecast
Minimum Fine Fuel Moisture	Desired minimum fuel moisture	Estimated Fine Fuel Moisture.
KBDI	Desired max KBDI	KBDI
LVORI	Desired max night LVORI	Located on Forecast
Fire Danger Index	Do Not Populate	FDI
Days since ½" Rain	Desired days since ½" rain	Actual
Additional Field	Additional Field Parameter	
Additional Field	Additional Field Parameter	
FIRE BEHAVIOR		
Rate of Spread	Desired rate of spread	Pertinent Observations on Evaluation
Starting Time	Desired starting time	Actual Starting Time Below
Flame Length	Desired flame length	Pertinent Observations on Evaluation

PRE-BURN CHECKLIST – Check off as completed prior to burn.
BURN MANAGER: Check each item to indicate compliance. ☐ All prescription requisites met. ☐ Authorization obtained. ☐ All equipment required on scene and fully operational. ☐ Each crew member has required personal gear and clothing. ☐ Appropriate steps have been taken to ensure crew and public safety including signs for visitors and motorists

CREW BRIEFING – Check off as discussed prior to burn.
☐ Objectives of burn. ☐ Exact area of burn including unit size and boundaries (ensure crew members have maps). ☐ Hazards discussed (volatile fuels, spotting potential, weak points in perimeter lines, terrain features, fences, ditches, etc.). ☐ Predicted weather and anticipated fire behavior/smoke dispersal discussed. ☐ Crew assignments made. ☐ Weather monitoring assignment made. ☐ Ignition technique and pattern. Holding method(s). ☐ Location of extra equipment, fuel, water, vehicle keys. ☐ Authority and communications; conduct radio check. ☐ Contingencies covered including escape routes or procedures. ☐ Sources of nearest assistance. Nearest phone and emergency numbers. ☐ Special instructions regarding smoke management, contact with the public and others. ☐ Safety briefing. Any EMTs on burn crew? ☐ Mop-up standards discussed. ☐ Arrange next day inspection and mop-up assignments. ☐ Questions? ☐ Crewmembers given opportunity to decline participation (is there anything that is going to prevent full physical performance?). ☐ Conduct test burn.

Prescription Prepared by: Name		Date/Time Prescription Prepared/Updated:	
Burn Manager Signature/Date/Time:			
Start Time:		Completed Time:	
Time Crew Released:		Time Burn Manager Left Burn Unit:	
Date Fire Declared Out:	Evaluated Objectives, Recorded Pertinent Burn Notes, and Entered into LMIS ☐		

Evaluation Notes

Additional Pages

APPENDIX C

Florida Fish and Wildlife Conservation Commission Division of Habitat and Species Conservation Policies and Procedures

Subject: Prescribed Burning and Wildland Fire Suppression Standards

Policy:

The following policy shall apply to all Division of Habitat and Species Conservation (DHSC) employees, volunteers and contractors engaged in prescribed burning or wildland fire suppression activities. The policy also applies to all other Florida Fish and Wildlife Conservation Commission (FWC) employees and volunteers engaged in prescribed burning or wildland fire suppression activities conducted through the DHSC. Prescribed burning or wildland fire suppression efforts that DHSC funds through grants, cost-share agreements, or other methods not conducted on DHSC-managed lands are outside the scope of this policy; however, DHSC staff physically participating in these burns are required to comply with the policy. This policy will be reviewed and any appropriate edits made at least once every 3 years.

Background and General Guidelines:

Wildland fire has been a major force shaping Florida landscapes for thousands of years. Florida's plant communities are the result of surface water conditions and frequent lightning ignitions across its vast landscape. Many plant communities experienced fire every few years and wildlife species adapted to these fire-maintained habitats. Floridians have consistently used fire as a land management tool and the Florida legislature recognizes the importance of prescribed burning per Chapter 590.125 F.S.

Likewise, DHSC recognizes the importance of prescribed fire for Florida's diverse wildlife and the habitats that sustain them. As Florida continues to lose natural wildlife habitat, prescribed fire is more important than ever in maintaining and enhancing our remaining natural areas. As FWC is the lead managing agency on more than 1.4 million acres of the Wildlife Management Area (WMA) system, DHSC regularly conducts burns on these lands, and others, for wildlife management, hazardous fuel reduction, and ecological purposes. DHSC also provides financial support and technical assistance for conducting prescribed burns outside of the WMA system.

In addition to conducting prescribed burning, DHSC employees are periodically asked to assist the Florida Forest Service (FFS) with wildland fire suppression efforts, particularly during declared wildfire emergencies. Working on prescribed fires or wildfires is an inherently dangerous and risky activity that can result in significant property damage, personal injury, or loss of life. Therefore, it is necessary to establish standards for training and certification to ensure DHSC employees, volunteers and contractors have the appropriate skills and knowledge to perform these activities safely and effectively. Employees are encouraged to obtain higher levels of training and certification as warranted and approved through supervisory channels.

The majority of DHSC wildland fire activities occur within the Wildlife and Habitat Management Section (WHM). However, other Sections within DHSC have employees that participate in wildland fire activities. To ensure efforts are not duplicated, this policy designates specific WHM staff positions as the point of contact or lead on coordination for prescribed fire and wildland fire suppression activities conducted through DHSC.

Employees are responsible for acquiring (with agency funds and supervisor approval) and maintaining all required personal protection equipment. Immediate supervisors are responsible for ensuring that direct reports have all the required training to participate in wildland fire activities. WHM Regional Wildlife Biologists will be responsible for coordinating applicable wildland fire training and incident reviews through the WHM Section Leader or their designee.

All prescribed burns shall be conducted in compliance with all laws regulating the use of prescribed fire; specifically Chapter 590.125(3), Florida Statutes and Chapter 5I-2, Florida Administrative Code. When a DHSC employee, volunteer or private contractor is the burn manager, burn prescriptions shall be prepared using the FWC Prescribed Burning Prescription form and contain all the required elements per Chapter 5I-2.006 Florida Administrative Code, as well as all other applicable information requested on the prescription form. Prescriptions shall be prepared with employee and public safety as the highest priority. All prescribed burns shall be conducted as a certified prescribed burn within prescription, and managed by a Certified Prescribed Burn Manager.

All prescribed fires conducted on FWC lead WMAs shall be documented within the WHM Land Management Information System according to the procedures and schedules determined by the WHM Section Leader.

Chapter 1 Prescribed Burning

Prescribed Burn Participation: This section establishes the training, certification, and experience standards required for members of a prescribed burn team. These standards apply to all DHSC burn crew members, regardless of the location of the burn, and for all non-DHSC crew members on burns managed by DHSC staff.

- A. **Crew Member Trainee:** Those who do not meet the requirements for Crew Member shall be classified as a Crew Member Trainee. A Crew Member Trainee may participate in prescribed burning activities provided that they are under the direct supervision of a Crew Member. A Crew Member may supervise no more than one Crew Member Trainee. No more than 40% of the burn crew shall be Crew Member Trainees*.

** For prescribed burns conducted during a DHSC-coordinated training course, Crew Members may supervise more than one Crew Member Trainee, and more than 40% of the burn crew may be Crew Member Trainees.*

- B. Crew Member: Crew members may participate independently in prescribed burning activities. They shall have successfully completed the following National Wildfire Coordinating Group (NWCG) courses:
- 1) Introduction to the Incident Command System (I-100 or ICS-100);
 - 2) Basic Wildland Firefighter Training (S-130);
 - 3) Introduction to Wildland Fire Behavior (S-190);
 - 4) All participants on a prescribed burn crew shall have successfully completed fire shelter or fire shelter refresher training within the past 12 months;
 - 5) At least once every 36 months, all DHSC employees on a prescribed burn crew shall take an agency-approved wildland fire refresher training course.
- C. Prescribed Burn Manager Mentee: Prescribed burn manager mentees may serve as burn manager to fulfill the responsibilities of acquiring DHSC and Florida Certified Prescribed Burn Manager status. Mentee must be under the direct supervision of a DHSC Certified Prescribed Burn Manager on prescribed burns that will be used to qualify them for DHSC certified prescribed burn manager status. They shall have successfully completed the following level of training and have the specified level of experience:
- 1) The FFS Florida Certified Prescribed Burn Manager Training Course;
 - 2) I-100 or ICS-100, S-130 and S-190;
 - 3) Participated on at least five prescribed burns;
 - 4) Enrolled in or completed the DHSC Prescribed Burn Manager Mentoring Program, when adopted.
- D. Certified Prescribed Burn Manager: A DHSC Certified Prescribed Burn Manager may request prescribed burn authorizations and serve as burn manager. They shall have successfully completed the following level of training, and have the specified certification and level of experience:
- 1) I-100 or ICS-100, S-130 and S-190;
 - 2) FFS Prescribed Burn Manager Certification* (per section 590.125, Florida Statutes and 5I-2, Florida Administrative Code);
 - 3) Participated on at least ten prescribed burns;
 - 4) DHSC employees and volunteers must successfully complete the DHSC Certified Prescribed Burn Manager Mentoring Program to become a burn manager. Burn managers certified prior to the implementation of the mentoring program may be required to complete all or part of the mentoring program at the discretion of the WHM Regional Biologist.

***Note: Any employee aspiring to become a Certified Prescribed Burn Manager must obtain certification within three years of completing the Florida Certified Prescribed Burn Manager Training Course. Otherwise they must re-take the full course to become**

certified. If the certification lapses, the employee may re-certify by successfully completing the Distance Learning course if they served as burn manager on five or more burns. Otherwise they must re-take the full course to regain certification.

- E. Prescribed Burn Engine (Pumper Unit/Brush Truck) Operator: To independently operate a water-delivery engine in support of prescribed burns, crew members shall have successfully completed the following level of NWCG training and have the specified level of experience:
 - 1) Qualified at or above Crew Member level for prescribed burning;
 - 2) Demonstrated proficiency in operation of water-delivery engines to supervisor; **or** successful completion of Southern Area Engine Academy (S-211 and SA-214) or Engine Operator (PMS 419);
 - 3) Participated on at least five prescribed burns.
- F. Prescribed Burn Bulldozer Plow Unit Operator: To independently operate a dozer plow unit during prescribed burns, crew members shall have successfully completed the following level of training and have the specified level of experience:
 - 1) Qualified at or above Crew Member level for prescribed burning;
 - 2) The wildland fire portion of FFS Basic Fire Control Training (or equivalent training);
 - 3) Participated on at least five prescribed burns;
 - 4) Experience and demonstrated proficiency to supervisor operating a dozer plow unit.
- G. Prescribed Burn Aerial Plastic Sphere Dispenser (PSD) Operator: To independently operate a PSD from an aircraft during a prescribed burn, crew members shall have successfully completed the following level of training and have the specified level of experience:
 - 1) Qualified at or above Crew Member level for prescribed burning;
 - 2) Completed an aerial PSD training workshop;
 - 3) Participated on at least five prescribed burns.

Chapter 2 Wildland Fire Suppression

Wildland Fire Suppression Participation: The leadership of FFS, or other entity, may request assistance from FWC during a wildland fire suppression incident. This request will usually be for a wildland fire strike team to conduct mop-up operations. A wildland fire strike team consists of one wildland fire strike team leader, and two wildland fire strike team members per Type V or VI engine. Occasionally there will be a request for a bulldozer operator to facilitate mop-up operations. Standards for strike team members and leaders are outlined below. In addition, requests may be made for personnel to fill positions on a suppression incident that are not covered by the following standards. The decision to assist, and the level of assistance provided,

on fire suppression incidents will be made by the DHSC Division Director or their designee. Coordination of all requests will be handled by the WHM Section Leader or their designee.

A. Wildland Fire Strike Team Member: To participate on wildland fire strike teams in support of suppression efforts, strike team members shall have successfully completed the following level of training and have the specified level of experience:

- 1) I-100 or ICS-100, S-130 and S-190;
- 2) Southern Area Engine Academy or PMS 419*;
- 3) Participated on at least ten prescribed burns and/or wildland fire suppression incidents.
- 4) All participants on a wildland fire suppression incident shall have successfully completed fire shelter or fire shelter refresher training within the past 12 months.
- 5) At least once every 36 months, all DHSC employees on a wildland fire suppression incident shall take an agency-approved wildland fire refresher training course.

*Employees who have not yet completed Southern Area Engine Academy or PMS 419 can be approved by the WHM Section Leader or their designee to serve on a wildland fire strike team. Exceptions can be granted when available strike team personnel are not sufficient to meet the requested need. Training and experience levels should be considered when approving exceptions.

B. Wildland Fire Strike Team Leader: To serve as team leader for wildland fire strike teams in support of suppression efforts, strike team members shall have completed the following level of training and have the specified level of experience **in addition to that required to participate as a wildland fire strike team member**:

- 1) Basic Incident Command System (I-200 or ICS-200);
- 2) Experience as a Certified Prescribed Burn Manager on at least ten prescribed burns and experience as a Wildland Fire Strike Team Member on at least one incident.

C. Wildland Fire Bulldozer Plow Unit Operator: To independently operate dozer fire-plow units in support of suppression efforts, strike team members shall have completed the following level of training and have the specified level of experience:

- 1) I-100 or ICS-100, S-130 and S-190;
- 2) The wildland fire portion of Basic Fire Control Training (or equivalent);
- 3) Participated on at least ten prescribed burns or wildland fire suppression incidents;
- 4) Experience and demonstrated proficiency to supervisor operating a dozer plow unit.

Chapter 3 Safety

3.1 Personal Protective Equipment (PPE): Required Personal Protective Equipment for all wildland fire activities includes*:

- A. Flame Resistant Shirt and Pants, or Jumpsuit
- B. Wildland Fire Hard Hat
- C. Leather Gloves
- D. Leather Boots – ≥ 8 " Lace-up
- E. Eye Protection
- F. Hand-held Radio
- G. Fire Shelter

*Safety considerations and/or vegetation types may dictate that crew members wear additional equipment or in some cases deviate from the above required equipment. The burn manager/strike team leader shall determine what PPE will be worn by their crew to maximize safety, and shall document any deviations from the above list on their burn prescription or wildfire crew briefing report.

3.2 Physical Standards: Prescribed burning and fire suppression are physically demanding activities. Each prescribed burn crew/strike team member shall maintain a fitness level that will allow full participation in these activities. It is the burn crew/strike team member's responsibility to make the burn manager/strike team leader aware of any limitations that may restrict or prevent full participation.

DHSC employees shall maintain a fitness level that adheres to the standards of the DHSC Prescribed Burner Physical Fitness Program once adopted.

3.3 Mobile Equipment: The following is a list of required items for mobile equipment used during wildland fire activities. Mobile equipment includes all-terrain vehicles, utility vehicles, airboats, swamp buggies, trucks, tractors, and bulldozers.

- A. An ABC fire extinguisher that has been inspected, serviced, and maintained in accordance with the manufacturer's maintenance procedures shall be in or on all mobile equipment. Below are minimum extinguisher sizes (net extinguishing agent weights):
 - 1) All-terrain and utility vehicles – 2.5 pound
 - 2) Trucks and tractors – 5 pound
 - 3) Bulldozers and Swamp Buggies – 10 pound (could be two 5 pound extinguishers)
 - 4) Vessels – 5 pound (could be two 2.5 pound extinguishers)
- B. All-terrain vehicles, utility vehicles, swamp buggies, and trucks used in the interior of a burn unit shall have an operational winch.
- C. All mobile equipment used in the interior of a burn unit shall have an operational water delivery system with at least five gallons of water.

3.4 Public Safety: All wildland fire operations shall be conducted in a manner that protects the public and minimizes the potential adverse impacts of both smoke and fire. Prescriptions shall be prepared with public safety as the highest priority.

Chapter 4 Incident Reviews

This chapter outlines the procedure for reviewing a prescribed fire whose results include negative consequences on DHSC managed lands or from a burn managed by a DHSC burn manager. The purpose of a fire-related incident review is to gather facts regarding the incident and, if possible, recommend actions that may help minimize the chance of reoccurrence.

4.1 Fire-related Incident: A fire or smoke related incident that includes any of the following:

- A. FFS Notice of Violation;
- B. Conducting a burn outside of the prescription;
- C. Fire leaves the prescribed burn unit and resources in addition to the burn crew are utilized;
- D. Fire leaves the WMA system;
- E. Prescribed burn activities cause property damage or personal injury;
- F. Post-burn combustion poses a threat to public safety, property, or natural resources.

4.2 Reporting of Fire-related Incidents: The burn manager shall notify the appropriate WHM Regional Biologist about the incident as soon as possible, but no later than 8:30 am the day after the fire-related incident occurred. For extended post-burn combustion, the burn manager shall notify the regional biologist if it becomes apparent that the combustion and/or associated smoke may pose a threat to public safety, property, or natural resources. The Regional Biologist shall notify the WHM Section Leader or their designee of the incident as soon as possible. The notification should include the following:

- A. Date, time, and location of incident;
- B. Brief description of the incident and current status;
- C. Other agencies or entities assisting;
- D. Resources needed.

4.3 Fire-related Incident Review: The WHM Section Leader shall determine the need for and the scope of fire-related incident reviews. The WHM Section Leader or their designee will coordinate the incident review. Within 60 days of completing a fire-related incident review, the reviewer(s) shall submit a report to the DHSC Division Director for approval.

Approved: _____

Division Director

11-14-19
Date

10.10 Management Procedures and Guidelines – Management of Cultural Resources

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) 245-643

10.11 Land Management Uniform Accounting Council Categories

Land Management Uniform Cost Accounting Council

Uniform Land Management Cost Categories and Subcategories

1. Resource Management

- a. Exotic Species Control. -- Invasive exotic plant and animal removal activities and costs for inventorying, planning, preparing, executing, evaluating, monitoring and reporting. Also includes equipment, chemicals, protective clothing and supplies. Includes nuisance native feral animal and plant control.
- b. Prescribed Burning. -- Prescribed burning activities and costs for assessing, planning, preparing, executing, evaluating and reporting. Also includes equipment, protective clothing and supplies.
- c. Cultural Resource Management. -- Management activities and costs for assessing, planning, executing, evaluating and reporting, and for all maintenance, restoration or monitoring activities for prehistoric and historic sites, features and collection objects.
- d. Timber Management. -- Activities and costs related to the establishment of a stand of potentially merchantable timber, harvest of merchantable timber, and cultural treatments intended primarily to improve the growth and overall health of a stand of merchantable timber. Also includes activities and costs related to the cutting of merchantable timber in natural community and habitat restoration projects.
- e. Hydrological Management. -- Hydrological management and restoration activities and costs for assessing, monitoring, planning, preparing, executing, evaluating and reporting. Includes water level management, repair, removal or back-filling of ditches, canals, berms and dams. Also includes water quality and water quantity monitoring.
- f. Other. -- All other resource management activities and costs not captured in other specific subcategories. Examples include natural community and habitat restoration through other techniques; plant, animal or biological community survey, monitoring and research; listed species management; technical assistance; and evaluating and commenting on resource impacts to parks.

2. Administration

- a. Central Office/Headquarters. -- Headquarters units conducting general administration of land under management by the agency. Includes upper management direction, administration and fiscal, budget, personnel, purchasing and record keeping required for operations oversight and specific programs. Includes all duties unless they specifically relate to other categories or subcategories.
- b. Districts/Regions. -- Sub-state administrative districts or regions conducting general

administration of the properties under their management. Includes all duties, unless they specifically relate to other categories or subcategories. General operating costs of district or region administrative facilities are included.

- c. Units/Projects. -- Conducting general administration duties at a specific management unit (state park, state forest, state wildlife management area, etc.). Includes supervisory duties, fiscal and record keeping duties, and any other duties that do not specifically relate to other categories or subcategories. General operating costs for the property, such as utilities, telephones and garbage collection, are included.

3. Support

- a. Land Management Planning. -- Developing land management plans required by Sec. 253.034, F.S. Includes researching and compiling plan information, materials and maps, coordinating planning activities, conducting review activities (internal reviews, public meetings, advisory group meetings, ARC, etc.), and promulgating draft plans and final plans.
- b. Land Management Reviews. -- Planning, organizing and conducting land management reviews by teams created under Sec. 259.036, F.S. Includes preparing and responding to land management review reports. Also includes similar work conducted as part of internal agency land management reviews.
- c. Training/Staff Development. -- Staff training and development costs incurred in any facet of the agency's land management activities.
- d. Vehicle Purchase. -- Acquisition of any vehicle purchased primarily for land management purposes or to support any category of land management activity by the agency.
- e. Vehicle Operation and Maintenance. -- Costs of operating and upkeep of any vehicle used by the agency to support any category of land management activity.
- f. Other. -- Any other support activity or cost not captured by other categories or subcategories.

4. Capital Improvements

- a. New Facility Construction. -- Use of Fixed Capital Outlay (FCO) or other budget authority for all new facility design and construction activities. Includes new roads, parking and all other infrastructure.
- b. Facility Maintenance. -- Use of Fixed Capital Outlay (FCO) or other budget authority for all repairs or renovations to existing facilities, roads or other infrastructure. Also includes ADA accessibility improvements and renovations.

5. Visitor Services/Recreation

- a. Information/Education Programs. -- Interpretive, environmental education and marketing programs that explain or promote the agency's mission or instill in visitors an understanding and appreciation for Florida's natural and cultural resources and their proper use and care. Includes signs, brochures, maps and other public information materials that are produced or disseminated.
- b. Operations. -- Includes the non-administrative and non-support costs involved in providing public access to lands. Includes all actions required to manage visitor activities in a way to ensure safe and enjoyable use by the public. Includes routine maintenance, cleaning and other work required to provide safe and efficient utilization of facilities and resources that support visitor use and recreation. Includes protection activities required by staff to safeguard natural and cultural resources, facilities, material, staff and visitors.

6. Law Enforcement

The provision of all activities for enforcing criminal, conservation and boating laws on land, freshwater and marine environments and all costs associated with these services. Includes the provision of uniform patrol. Includes overt and covert criminal investigations. Includes regulation of commercial wildlife trade. Also includes the direction and administration of all law enforcement programs and activities, and all associated costs.

Land Management Uniform Accounting Council and FWC Activity Code Groupings

Resource Management

Exotic Species Control

- 210 Exotic species control
- 211 Exotic plant control (mechanical)
- 212 Exotic plant control (chemical)

Prescribed Burning

- 205 Prescribed burning
- 206 Prescribed burning C growing season (April 1 to September 30)
- 207 Prescribed burning C dormant season (October 1 to March 31)
- 208 Firebreaks

Cultural Resource Management

- 201 Cultural resource management

Timber Management

- 202 Timber management

Hydrological Management

- 215 Hydrology management
- 216 Dams, dikes, levees
- 217 Canals
- 218 Water level management
- 194 Lake restoration

Other

- 185 GIS
- 186 Biometrics
- 200 RESOURCE MANAGEMENT
- 203 Tree and shrub planting
- 213 Wildlife management
- 214 Listed Species management
- 219 Upland restoration
- 282 Herbaceous seeding
- 283 Clearings
- 289 Native vegetation management (mechanical)
- 290 Native vegetation management (chemical)
- 221 Animal surveys
- 228 Inland aerial surveys
- 235 Vegetation and plant surveys
- 250 MONITORING AND ASSESSMENTS
- 252 Biomedical monitoring
- 253 Ecological monitoring
- 256 Habitat monitoring analysis
- 263 Nest box monitoring
- 264 Population demographics
- 295 Biological data collection, analysis, and reporting
- 275 Permits and authorizations
- 276 Commission rule development and review
- 277 Relocation
- 278 CITES tags
- 281 Other resource management
- 284 Feeding/watering

- 285 Nest structures
- 286 Population control
- 287 Stocking enhancements/population augmentation
- 288 Nuisance animal complaints
- 293 Mortality investigations
- 294 Program coordination and implementation C inter- and intra-agency coordination and program implementation at the section, bureau, or division level
- 296 Habitat protection technical assistance
- 750 URTD assessment
- 789 Site Preparation – GCR
- 790 Irrigation – GCR
- 791 Seed Collection – Hand
- 792 Seed Collection – Mechanical
- 793 Herbicide Maintenance Treatment

Administration

Central Office/Headquarters

- 100 ADMINISTRATION C administrative tasks, including preparation of forms, word processing, photocopying, filing, and other clerical/secretarial duties.
- 104 Budget/purchasing/accounting

Districts/Regions

See Location code

Units/Projects

See Location code

Support

Land Management Planning

- 103 Meetings C includes workshops, conferences, staff, and other meetings.
- 204 Resource planning

Land Management Reviews

- 209 Land Management Reviews
- 101 Project inspection C field inspections of projects.

Training/Staff Development

150 PERSONNEL MANAGEMENT C recruitment, hiring, training, counseling, and supervising.

Vehicle Purchase

- 128 New Vehicle and Equipment Purchase

Vehicle Operation and Maintenance

- 923 FEM C vehicles/equipment

Other

- 140 REPORT WRITING/EDITING/MANUSCRIPT PREPARATION
- 141 Grant applications
- 180 SYSTEMS ADMINISTRATION AND MANAGEMENT
- 182 Data management
- 184 Metadata development and management
- 187 IT
- 188 Web development
- 721 Geospatial analysis techniques
- 191 Stamp design coordination
- 226 Human dimensions surveys

Capital Improvements

New Facility Construction

- 910 New facility construction C buildings/structures
- 912 New construction C roads/bridges
- 913 New construction C trails
- 914 New construction C fences

Facility Maintenance

- 920 Facility and equipment maintenance (FEM) C buildings/structures
- 921 FEM C utilities
- 922 FEM C custodial functions
- 925 FEM C boating access
- 926 FEM C roads/bridges
- 927 FEM C trails
- 928 FEM C fences

Visitor Services/Recreation

Information/Education Programs

- 145 Technical bulletin

Operations

- 311 Boundary signs
- 312 Informational signs
- 320 Outreach and education C attending or developing educational or informational materials or events for the public
- 327 Becoming an Outdoor Woman C enhancement
- 331 Wings Over Florida
- 339 Range safety operations
- 341 Public use administration (hunting)
- 342 Public use administration (non-hunting)
- 350 Customer service support C disseminating written or verbal information or assistance to the public
- 700 STUDIES
- 740 EVALUATIONS AND ASSESSMENTS

Law Enforcement

FWC Activity Code Numeric Listing

- 100 ADMINISTRATION C administrative tasks, including preparation of forms, word processing, photocopying, filing, and other clerical/secretarial duties.
- 101 Project inspection C field inspections of projects.
- 103 Meetings C includes workshops, conferences, staff, and other meetings.
- 104 Budget/purchasing/accounting
- 128 New Vehicle and Equipment Purchase
- 140 REPORT WRITING/EDITING/MANUSCRIPT PREPARATION
- 141 Grant applications
- 145 Technical bulletin
- 150 PERSONNEL MANAGEMENT C recruitment, hiring, training, counseling, and supervising.
- 180 SYSTEMS ADMINISTRATION AND MANAGEMENT
- 182 Data management

184	Metadata development and management
185	GIS
186	Biometrics
187	IT
188	Web development
191	Stamp design coordination
194	Lake restoration
200	RESOURCE MANAGEMENT
201	Cultural resource management
202	Timber management
203	Tree and shrub planting
204	Resource planning
205	Prescribed burning
206	Prescribed burning C growing season (April 1 to September 30)
207	Prescribed burning C dormant season (October 1 to March 31)
208	Firebreaks
209	Land Management Reviews
210	Exotic species control
211	Exotic plant control (mechanical)
212	Exotic plant control (chemical)
213	Wildlife management
214	Listed Species management
215	Hydrology management
216	Dams, dikes, levees
217	Canals
218	Water level management
219	Upland restoration
221	Animal surveys
226	Human dimensions surveys
228	Inland aerial surveys
235	Vegetation and plant surveys
250	MONITORING AND ASSESSMENTS
252	Biomedical monitoring
253	Ecological monitoring
256	Habitat monitoring analysis
263	Nest box monitoring
264	Population demographics
275	Permits and authorizations
276	Commission rule development and review
277	Relocation
278	CITES tags
281	Other resource management
282	Herbaceous seeding
283	Clearings
284	Feeding/watering
285	Nest structures
286	Population control
287	Stocking enhancements/population augmentation
288	Nuisance animal complaints
289	Native vegetation management (mechanical)

290	Native vegetation management (chemical)
293	Mortality investigations
294	Program coordination and implementation C inter- and intra-agency coordination and program implementation at the section, bureau, or division level
295	Biological data collection, analysis, and reporting
296	Habitat protection technical assistance
311	Boundary signs
312	Informational signs
320	Outreach and education C attending or developing educational or informational materials or events for the public
327	Becoming an Outdoor Woman C enhancement
331	Wings Over Florida
339	Range safety operations
341	Public use administration (hunting)
342	Public use administration (non-hunting)
350	Customer service support C disseminating written or verbal information or assistance to the public
700	STUDIES
721	Geospatial analysis techniques 740 EVALUATIONS AND ASSESSMENTS
750	URTD assessment
789	Site Preparation – GCR
790	Irrigation – GCR
791	Seed Collection – Hand
792	Seed Collection – Mechanical
793	Herbicide Maintenance Treatment
910	New facility construction C buildings/structures
912	New construction C roads/bridges
913	New construction C trails
914	New construction C fences
920	Facility and equipment maintenance (FEM) C buildings/structures
921	FEM C utilities
922	FEM C custodial functions
923	FEM C vehicles/equipment
925	FEM C boating access
926	FEM C roads/bridges
927	FEM C trails
928	FEM C fences

10.12 Operation Plan Fiscal Year 2021-2022

Activity	Description	<u>Man Days</u>	<u>Salary</u>	<u>Fuel Cost</u>	<u>Other</u>	<u>Total</u>
100	Administration	0.00	\$0.00	\$0.00	\$1400.00	\$1400.00
128	New Vehicle and Equipment Purchases	0.00	\$0.00	\$0.00	\$25000.00	\$25000.00
200	Resource Management	5.00	\$1089.90	\$42.50	\$120202.01	\$121334.41
206	Prescribed burning - growing season	1.00	\$217.98	\$8.50	\$5000.00	\$5226.48
207	Prescribed burning - dormant season	1.00	\$217.98	\$8.50	\$5000.00	\$5226.48
208	Firebreaks	2.00	\$435.96	\$17.00	\$40000.00	\$40452.96
212	Exotic plant control (chemical)	3.00	\$653.94	\$25.50	\$53000.00	\$53679.44
215	Hydrology Management	2.00	\$435.96	\$17.00	\$75000.00	\$75452.96
311	Boundary signs	0.00	\$0.00	\$0.00	\$5000.00	\$5000.00
910	New facility construction -- buildings/structures	2.00	\$435.96	\$17.00	\$12000.00	\$12452.96
923	FEM -- vehicles/equipment	0.00	\$0.00	\$0.00	\$15000.00	\$15000.00
926	FEM -- roads/bridges	4.00	\$871.92	\$34.00	\$73000.00	\$73905.92
928	FEM -- fences	0.00	\$0.00	\$0.00	\$47000.00	\$47000.00
Total:		20.00	\$4,359.60	\$170.00	\$476,602.01	\$481,131.61

10.13 Conservation Action Strategy

Introduction

The Orange Hammock Wildlife Management Area (OHWMA) in Sarasota County consists of 5,776 acres in the Myakka Ranchlands. The OHWMA is located in the City of North Port just south of the Longino Ranch Conservation Area and Lewis Longino Preserve in Sarasota County and west of the 6,000-acre RV Griffin Reserve in DeSoto County. The OHWMA represents the largest undeveloped parcel of land in Sarasota County and is part of a 121,000+ acre conservation corridor that protects a matrix of environmentally sensitive land between the Peace River, Myakka River, and Charlotte Harbor. The area's wetlands, sloughs, and natural floodplain provide crucial flood protection, which is critical for protection of drinking water supply, water retention/storage, and aquifer recharge.

The OHWMA is owned by the Board of Trustees of the Internal Improvement Fund (Board of Trustees). The FWC has lead management authority for all resources within the established boundary (Figures 1 and 2). The OHWMA is managed to conserve wildlife species, to restore natural communities, and to provide high-quality opportunities for hunting, fishing, wildlife viewing, and other fish and wildlife-based public outdoor recreation opportunities including horseback-riding, cycling, and hiking. More detailed information about the OHWMA including operational and resource management goals, objectives, and baseline resource data may be found in the OHWMA Management Plan.

The OHWMA Conservation Action Strategy (CAS) has been developed as an integral component of the FWC Land Conservation Work Plan and the OHWMA Management Plan. The CAS provides recommended land conservation acquisition and stewardship actions for the OHWMA. As described in the OHWMA Management Plan, the FWC utilizes a three-tiered approach to land conservation and stewardship actions that includes identifying, acquiring, or otherwise protecting important conservation lands adjacent to, or in proximity to, existing FWC-managed areas. This three-tiered process involves the development of an Optimal Resource Boundary (ORB), Optimal Conservation Planning Boundary (OCPB), and a CAS.

The CAS was developed to aid in the recommendation of lands within the OHWMA OCPB for inclusion on the FWC Florida Forever Additions and Inholdings (A&I) Acquisition List, to enhance the ongoing operational and resource management of the OHWMA, to sustain the overall conservation of wildlife within and adjacent to the OHWMA, to increase wildlife habitat or landscape conservation connectivity on adjacent public and private conservation lands, to maintain adequate prescribed burning buffers, to aid in landscape conservation connectivity, to conserve additional wildlife habitat, and to provide more public access opportunities on conservation lands.

Additionally, the CAS also fulfills an objective of the OHWMA Management Plan, specifically the Land Conservation and Stewardship Goal. The remaining elements of this CAS include more information on the area's location; acquisition purposes and history; adjacent land uses within

the vicinity of the OHWMA; the OCPB; and the recommended prioritized conservation actions that have been developed to provide a proactive, comprehensive, and long-term strategy for further potential land conservation opportunities within, adjacent to, and surrounding the OHWMA.

Location

The OHWMA consists of 5,776 acres located in the City of North Port within Sarasota County. It lies in Township 39 South, Range 22 East, and Sections 1-4, 9-12, and 13-15. The OHWMA is approximately 20 miles east of the City of Venice, 16 miles southwest of the City of Arcadia, 13 miles north of the City of Punta Gorda, and 35 miles southeast of the City of Sarasota. The OHWMA is located on the north side of I-75; it shares its northern boundary with Longino Preserve, eastern boundary with RV Griffin Preserve, western boundary with Alderman Slough, and southern boundary with the Snover Waterway. The OHWMA serves as an integral part of a larger system of conservation lands within the Southwest region of Florida that provides important water quality protection, conserves vital wildlife habitat, and enhances the quality of life in the region and state (Figure 1).

Purpose for Acquisition

As part of the Myakka Ranchlands Florida Forever project, the OHWMA builds on a landscaped-sized protection area in the Myakka River watershed and upstream of the Charlotte Harbor Estuary.

The OHWMA will serve to:

- conserve, protect, manage, or restore important ecosystems, landscapes, and forests to enhance or protect significant surface water, coastal, recreational, timber, and fish and wildlife resources;
- conserve and protect significant landscape-scale habitat and provide wildlife corridors for rare and imperiled species by increasing linkages and conservation corridors between public land and private conservation easements in the region;
- conserve, protect, manage, or restore habitat in Southwest Florida by providing surface and groundwater protection and protecting natural floodplain functions; and
- provide opportunities for fish and wildlife resource-based public outdoor recreation.

The FWC's land management objectives for the OHWMA are consistent with the acquisition purpose and management goals set forth under the Florida Forever Act, which establishes the purpose for lands the FWC has acquired and continues to manage. The purpose, goals, and objectives for all of the lands acquired and managed as the OHWMA are more comprehensively expressed in the OHWMA Management Plan that is reviewed and approved by the Acquisition and Restoration Council (ARC), the land acquisition and management advisory council to the Governor and Cabinet.

Acquisition History

The OHWMA is owned by the citizens of the State of Florida. The Title is held by the Board of Trustees. The acquisition of 5,776 acres of the OHWMA was made in 2020 under the Florida Forever Program and through funding from the Conservation Foundation of the Gulf Coast. In January 2021, the FWC received a lease from the Board of Trustees through the Department of

Environmental Protection's Department of State Lands (DEP-DSL) assigning the FWC as lead manager over the OHWMA.

Proximity to Other Public Conservation Lands and Florida Forever Projects

The OHWMA is located in the vicinity of a network of conservation lands, including lands managed by the Southwest Florida Water Management District (SWFWMD), the DEP, the Florida Forest Service (FFS), the Peace River Audubon Society, EarthBalance, Sarasota County, and Charlotte County. Several Florida Forever projects (Figure 1) are also located in the vicinity of the area.

The Florida Forever projects and conservation lands within a 10-mile radius of the OHWMA include lands managed by public and private entities that conserve cultural and natural resources within this region of Florida. Most of the nearby conservation lands are owned in full-fee by a public entity. However, some of these areas fall within a less-than-fee ownership classification where the land is owned and being managed by a private landowner while a public agency or not-for-profit organization holds a conservation easement on the land.

The OHWMA was acquired as a part of the Myakka Ranchlands Florida Forever project. The Myakka Ranchlands includes a total of 47,414 acres, in which approximately 16,841 acres have been acquired, leaving 30,573 remaining acres to be acquired. Other nearby Florida Forever projects include Charlotte Harbor Estuary and Peace River Refuge (Figure 1). Charlotte Harbor Estuary includes a total of 47,197 acres, in which approximately 41,295 have been acquired, leaving 5,902 remaining acres to be acquired. Peace River Refuge includes a total of 3,878 acres, in which approximately 74 have been acquired, leaving 3,804 remaining acres to be acquired.

Adjacent Land Use

The OHWMA is located in eastern Sarasota County in the City of North Port. It is directly adjacent to southwestern DeSoto County on its eastern border. The current Sarasota County zoning designation is Incorporated, however the City of North Port zoning designation for the OHWMA is No Zoning Designation (NZD). The City of North Port's 2040 future land use maps indicate that the OHWMA will be designated as approximately 75% Agricultural/Estates and 25% Recreation Open Space in the future. The Agricultural/Estates designation allows agricultural land use and very low-density residential development not to exceed one residential unit per three acres. The Recreation/Open Space designation allows either passive or active recreational uses and follows a chain of wetlands in the area.

Lands immediately adjacent to the OHWMA are classified as Open Use Agricultural/Rural to the north; Agricultural-10 ([A-10](#)) to the east, including the RV Griffin Reserve managed by SWFWMD; Residential Single Family-2, Residential Two Family, Commercial General S, and Government Use to the south; and Planned Community Development, Village, and NZD to the west. The adjacent zoning designations to the south and the west are located in the City of North Port and pose the most significant adjacent future land use challenges to the OHWMA.

The OHWMA will be managed by the FWC as a Wildlife Management Area in conformance with the original purposes for acquisition, as noted previously, in order to ensure the preservation of fish and wildlife resources and for fish and wildlife-based public outdoor recreation. The FWC, as lead manager of the area, will manage the OHWMA in accordance with the FWC's statutory and administrative authority to conserve fish and wildlife. Management goals for the OHWMA will also emphasize conservation of fish and wildlife resources in accordance with the original purposes of acquisition under the general guidance of the Florida Statutes including Chapters 253 and 259 and associated Florida Administrative Code Rules, the Conceptual State Lands Management Plan, and the FWC Strategic Plan. Strategies on the OHWMA are designed to perpetuate the natural communities of the wetlands, natural floodplain, and its associated wildlife.

Florida's Changing Population

More U.S. residents moved to Florida than any other state in 2018, making it one of the fastest-growing states in the nation. Florida had the nation's fourth-highest growth rate (1.5 percent), the third-highest population (21 million), the second-highest number of total new residents (323,000), and 133,000 people who came from elsewhere in the country between July 1, 2017 and July 1, 2018. This means that Florida's population is growing by nearly 1,000 people a day: about half of the newcomers are foreign-born immigrants and half are from other U.S. states. The 2019 U.S. Census estimates that there are 417,442 people living in Sarasota County. The Department of Economic Affairs Bureau of Economic and Business Research's (BEBR) medium-range population projection indicates that in the year 2030, there will be 484,300 people living in Sarasota County. The BEBR population projections for the counties surrounding Sarasota County for the year 2030 are as follows: Charlotte County – 206,100; DeSoto County – 37,700; Manatee County – 467,700.

However, it should be noted that, according to Wildlife 2060, the population of coastal counties is predicted to double from 12.3 million to more than 26 million by 2060 (FWC 2008). The FWC has prepared a report titled ["Wildlife 2060: What's at Stake for Florida"](#) to relay changes that may occur in Florida's fish and wildlife and in our own lifestyles if the state's population doubles. But recent predictions indicate that, as a study published by [1000 Friends of Florida](#) suggests, about seven million acres of land could be converted from rural and natural to urban uses.

OHWMA Optimal Conservation Planning Boundary

Several properties have been identified for inclusion in the OCPB (Figures 3-4). These properties have been identified to further protect the wildlife and other resources of the property, to lessen conflicts caused by housing development within an area where prescribed burning is required for resource management, to achieve an optimum property boundary, and to provide critical habitat connectivity for the OHWMA and other wildlife habitat. Lands within the OCPB are important to buffer the boundaries of the OHWMA from potential adjacent incompatible developments and to aid the FWC, other state and federal governmental entities, non-governmental organizations, and local governments with their acquisition and planning efforts in order to better manage the area on a landscape level for the benefit and continued conservation of wildlife and other natural resources.

Potential Conservation Stewardship Opportunities Adjacent to the OHWMA

The FWC Landowner Assistance Program (LAP) provides many potential opportunities for conservation-minded landowners to obtain the assistance and advice of FWC staff and programs for improving land conservation practices on their lands. The LAP routinely conducts workshops for interested landowners to interact with FWC staff and learn how they may participate in the program. In addition, the LAP works with landowners to enroll in the Natural Resources Conservation Service (NRCS) conservation cost-share programs in order to assist with implementation of wildlife friendly practices.

At this time, no specific land stewardship workshops have been conducted for landowners adjacent to the OHWMA. However, the role and development of Land Conservation and Stewardship Partnerships will be fully explained in the Management Plan. Private landowners seeking assistance with habitat management will likely find it offered within the FWC's LAP. The FWC employs biologists who are available to provide wildlife-related assistance with land use planning and habitat management. There are many forms of assistance that include technical, financial, educational, and various forms of recognition that seek to award landowners who manage their wildlife habitat responsibly. The FWC will continue to evaluate the level of interest and efficacy of providing technical assistance to adjacent private landowners on enhancing the conservation management of their lands. More information on FWC's LAP program and online habitat management tools are available online at <http://myfwc.com/conservation/special-initiatives/lap/>.

FWC Florida Forever Additions and Inholdings Acquisition List Conservation Benefits Analysis

Several properties have been identified for recommended acquisition under the auspices of FWC's Florida Forever A&I Acquisition program for the OHWMA (Figures 5-6). The Additions and Inholdings list identifies lands within or adjacent to FWC-managed areas that are important for the conservation of fish and wildlife, serve as a link or corridor to other publicly owned property, enhance the protection or management of the property, create a more manageable boundary configuration, have a high resource value that would otherwise be unprotected, or that may be available for acquisition at substantially less than fair market value. Consistent with Florida Forever program criteria, parcels on the list have been ranked High, Medium, or Low priority based on a score generated by a GIS-based resource evaluation model, along with technical input from FWC staff.

The FWC Florida Forever A&I Acquisition List is updated through time, thus staying up to date for land ownerships, County parcel records, land conservation opportunities, and evolving management challenges. The FWC continually analyzes, evaluates, and prioritizes its recommended conservation actions in a systematic, comprehensive, and consistent manner over time.

The FWC continues to recommend acquisition of the remaining lands within the Myakka Ranchlands project as essential to the long-term conservation of wildlife and to the optimal resource and operational management of the OHWMA. Parcels on the FWC Florida Forever A&I Acquisition List will be acquired if possible, according to their priority ranking for acquisition

and landowner willingness to sell their lands. Participation in any FWC acquisition is entirely voluntary and at the sole discretion of willing landowners.

Prioritization of Lands on the FWC Florida Forever Additions and Inholdings Acquisition List

Figures 5-6 depict the results of the FWC's Acquisition Prioritization Model Analysis and the recommended prioritization of acquisition actions of lands on the FWC Florida Forever A&I Acquisition List for the OHWMA. These parcels are prioritized on the accompanying map (Figure 6), into one of three priority categories: High, Medium, and Low. The order of acquisition priority may be changed as necessary based on factors including available funding necessary to complete a particular acquisition project, changing development pressures, landowner willingness, funding partnerships, unique acquisition opportunities like bargain sales (less than 80% of appraised value), and donations.

It should be noted that only parcels located directly in or adjacent to the subject area can be recommended for acquisition through the FWC Florida Forever A&I Acquisition program. A corresponding list also provides more detailed ownership information. A complete list of all the parcel identification numbers, corresponding prioritization ranking, and acreage are provided in Table 1. If the circumstances with adjacent land uses and conservation opportunities arise, the FWC may recommend adding other parcels to the FWC Florida Forever A&I Acquisition List.

Acquisition Partnership Opportunities

Opportunities for potential acquisition partners within this project area include the U.S. Fish and Wildlife Service (USFWS), U.S. Department of Defense (DOD), NRCS, DEP, FFS, SWFWMD, Conservation Florida, Conservation Foundation of the Gulf Coast, other non-governmental conservation organizations, and potential grant programs.

Analysis of the Potential and Need for Fee vs. Less-than-Fee Acquisition

At this time, the FWC often recommends full-fee acquisition of the lands on the FWC Florida Forever A&I Acquisition List for the OHWMA that are either inholdings or are located immediately adjacent to the area to optimize the conservation of fish and wildlife, public access and use, and overall resource and operational management of the area. However, less-than-fee acquisition of large acreage tracts on the FWC Florida Forever A&I Acquisition List should also be considered as a viable conservation alternative; less-than-fee acquisitions may often provide similar conservation benefits if the landowner has a desire to manage their lands to maintain a working landscape in a manner that will also enhance the conservation benefits provided by their lands. Nevertheless, the FWC continues to recommend full-fee acquisition or may pursue less-than-fee acquisition with adjacent landowners within the Myakka Ranchlands Florida Forever project in order to optimize the conservation of wildlife and overall resource and operational management of the OHWMA. Though it should be noted that landowner preference is often the key element in determining whether to pursue full-fee or less than fee acquisition.

Recommendations for Prioritized Land Conservation Actions

Following are the prioritized recommendations of conservation actions for the OHWMA:

1. Acquire parcels on the FWC Florida Forever A&I Acquisition List as prioritized and feasible with available funding.
2. Recommend adding parcels within the Myakka Ranchlands Forever project and/or parcels that are within the OHWMA OCPB for inclusion on the FWC Florida Forever A&I Acquisition List.
3. Work with surrounding landowners and, as needed, recommend addition of parcels to nearby Florida Forever projects, the OCPB, and/or the A&I Acquisition List.
4. Continue to assist and support DEP/Board of Trustees with the acquisition of the lands remaining within the Myakka Ranchlands project and any other projects in the vicinity of the area.
5. Continue to work with private landowners near the OHWMA to encourage participation in available conservation stewardship programs for private landowners.
6. Recommend landowner assistance workshop(s) for neighboring and surrounding landowners to assist with enhanced conservation of these lands.
7. Continue to cooperate with public and private organizations for conservation of lands within the OCPB.
8. Continue to recommend acquisition of identified land through the USFWS, DOD, NRCS, FFS, DEP, Conservation Florida, SWFWMD, Conservation Foundation of the Gulf Coast, and other organizations and potential grant programs.

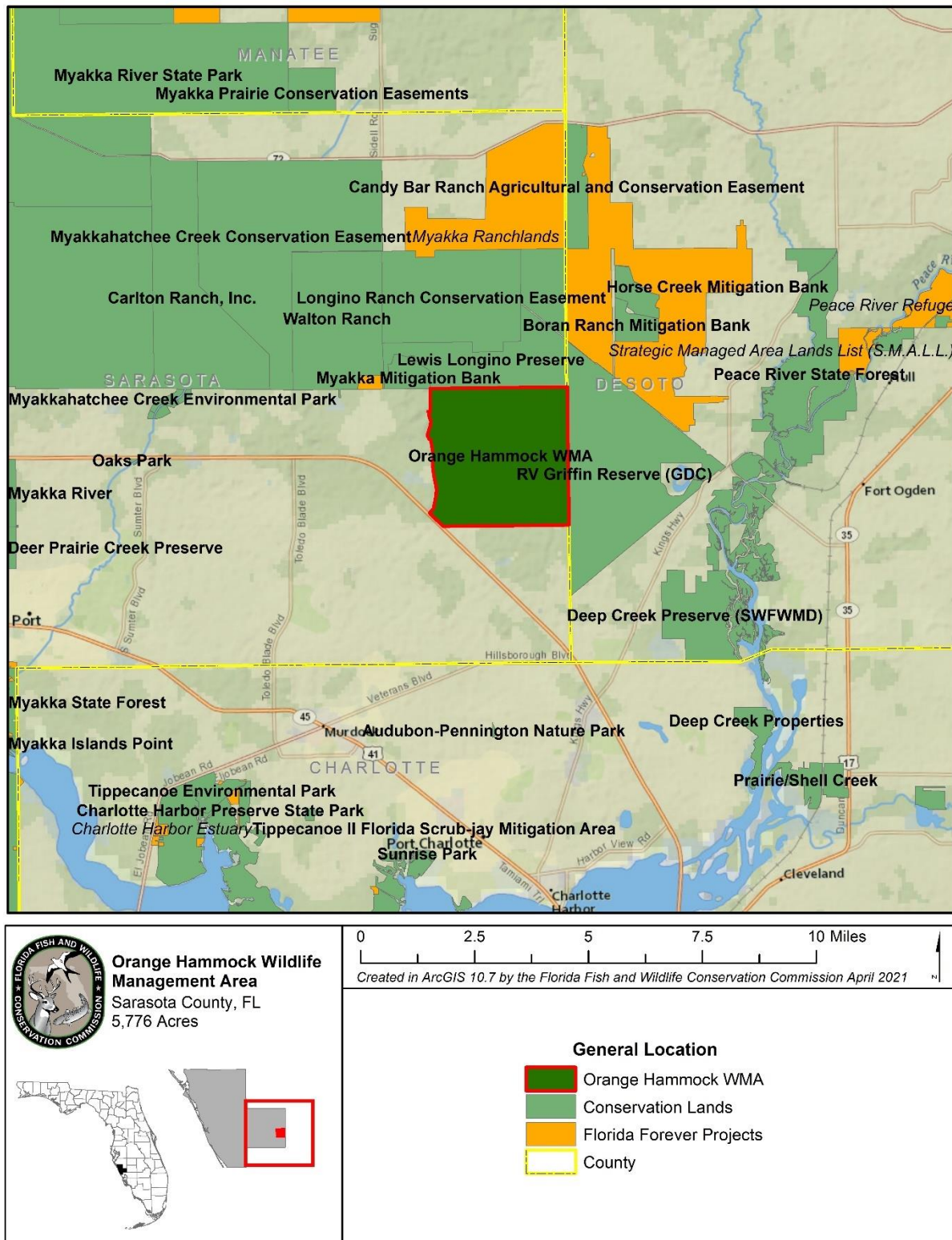


Figure 14. Vicinity Map of the OHWA

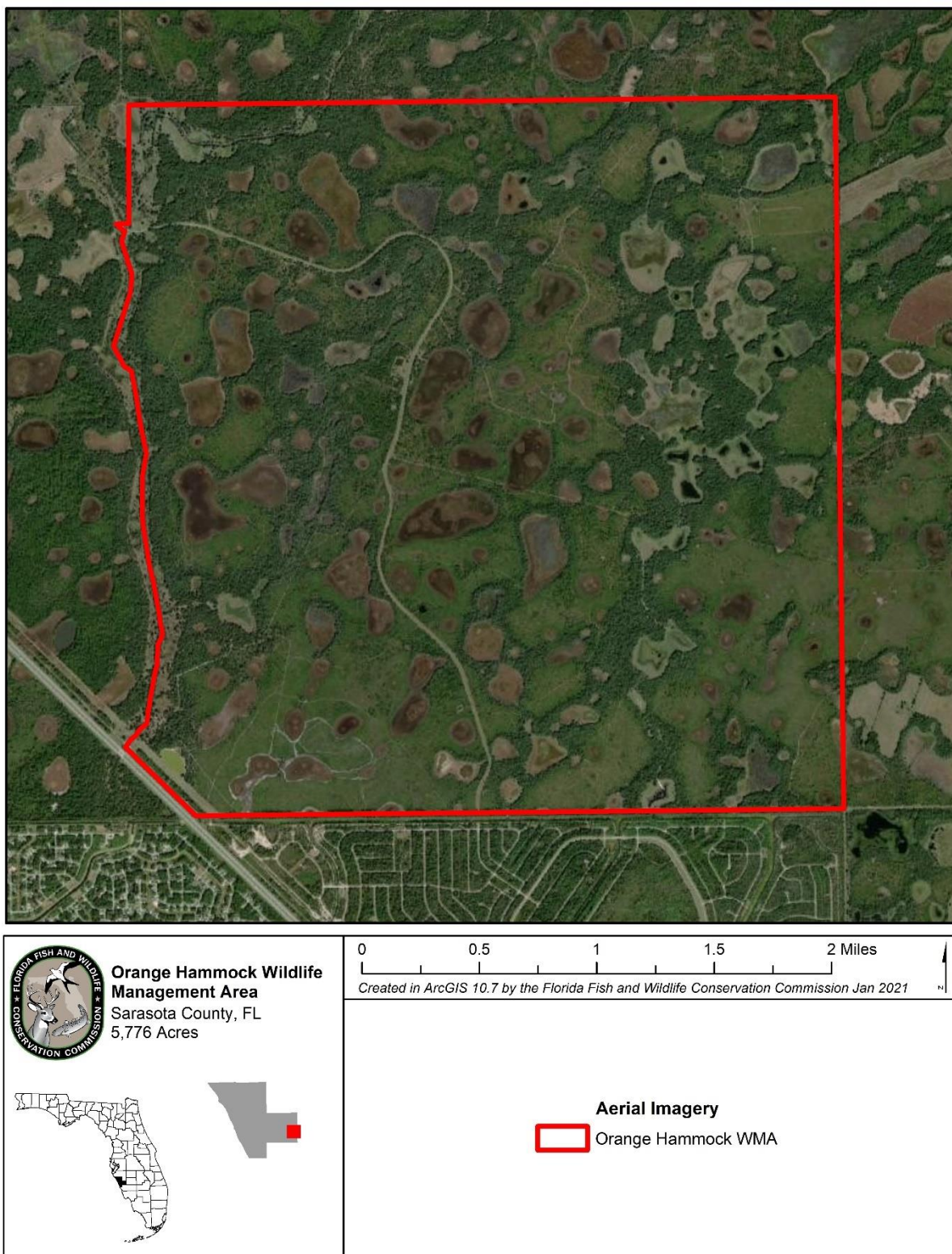


Figure 15. Aerial Imagery of the OHWMA

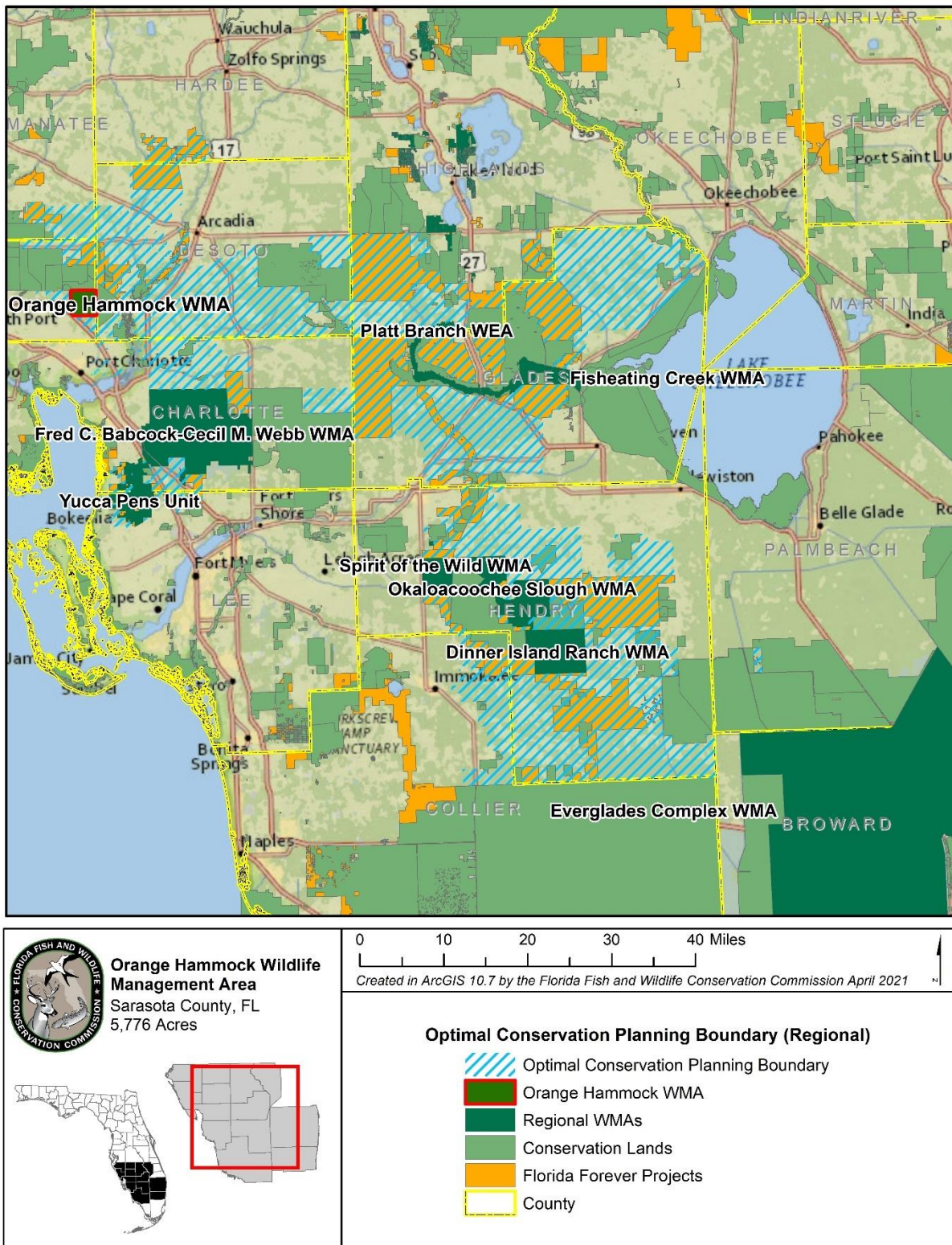


Figure 16. The OHWMA Regional Optimal Conservation Planning Boundary

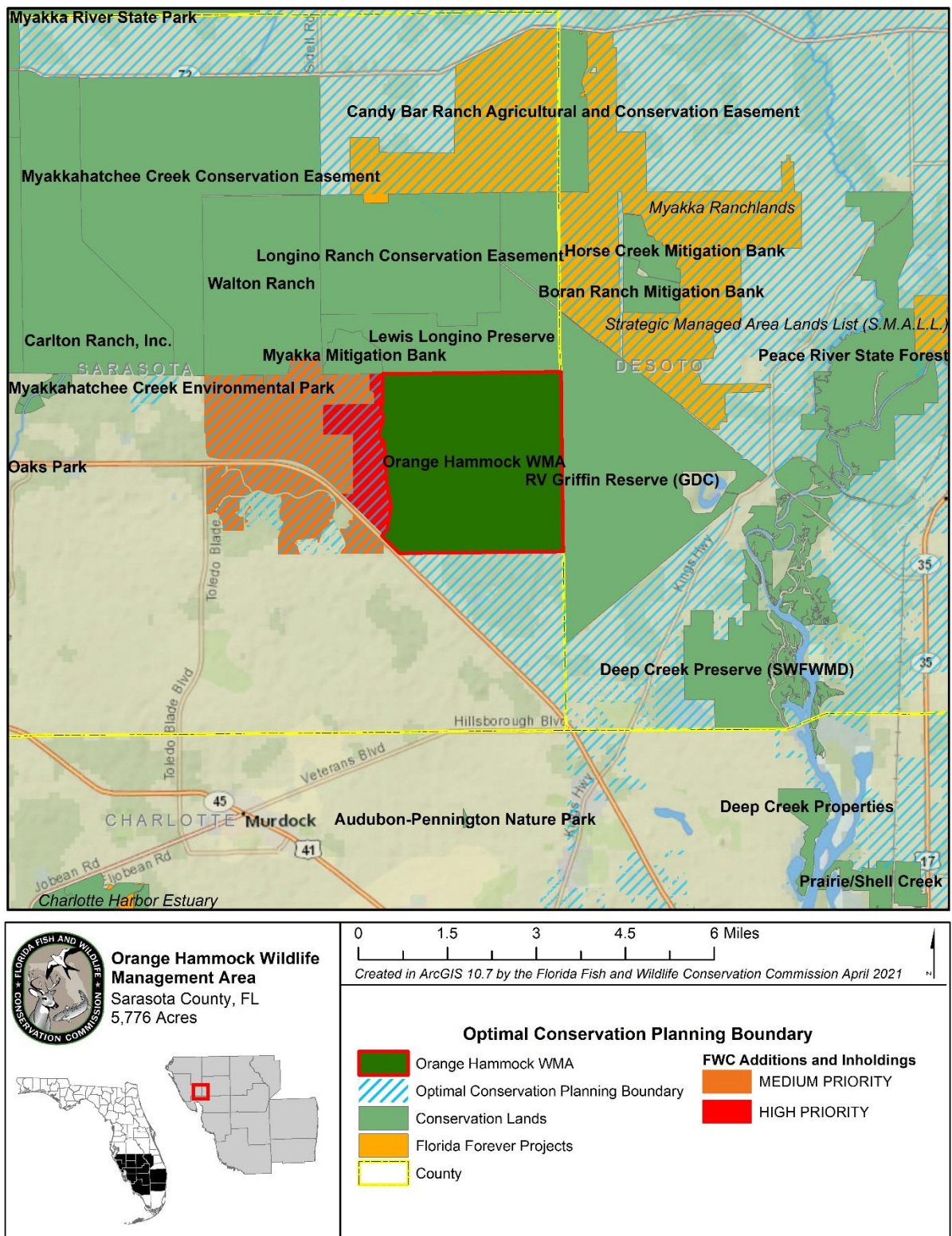


Figure 17. The OHWMA Optimal Conservation Planning Boundary (Zoomed)

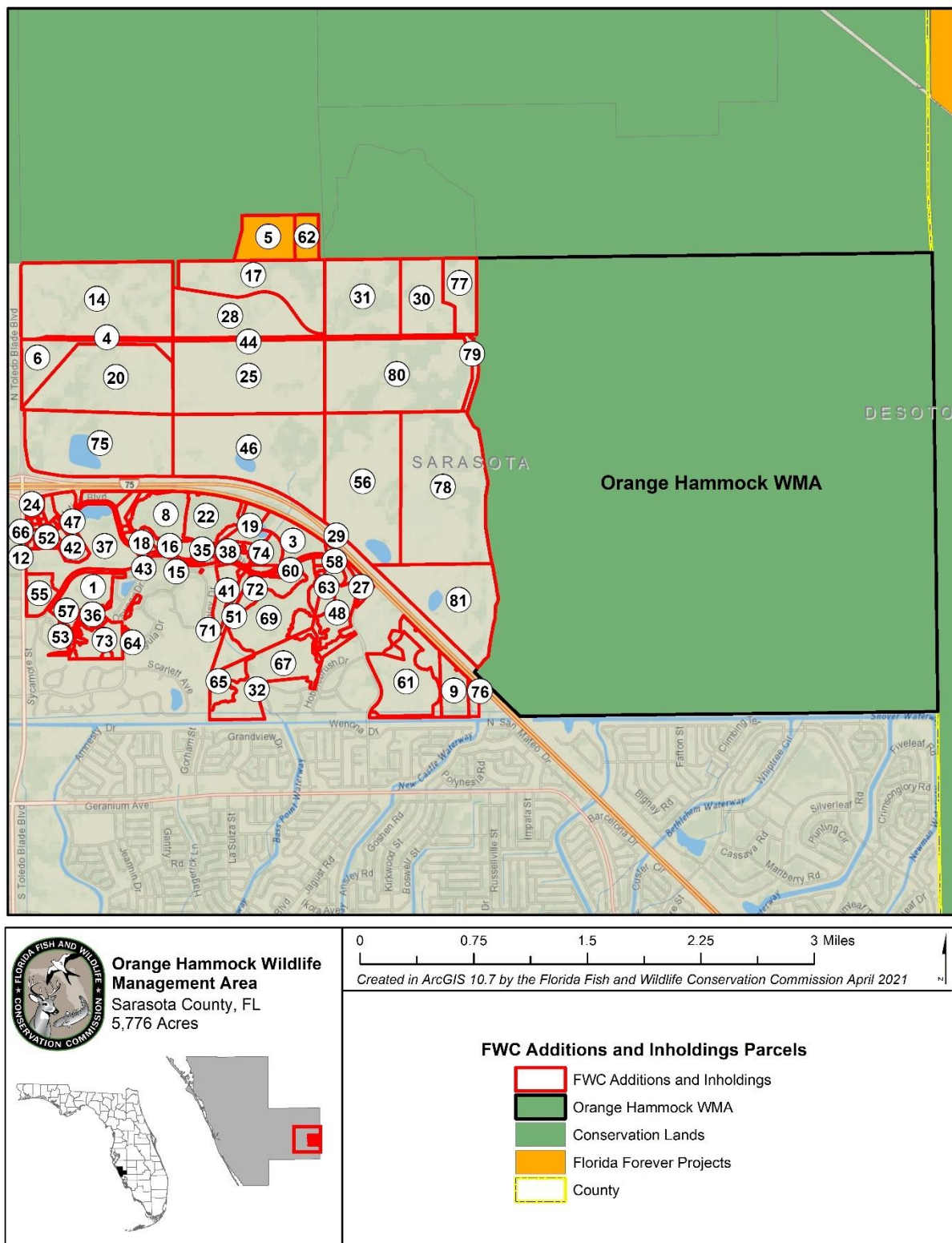


Figure 18. The OHWMA Additions and Inholdings Parcels

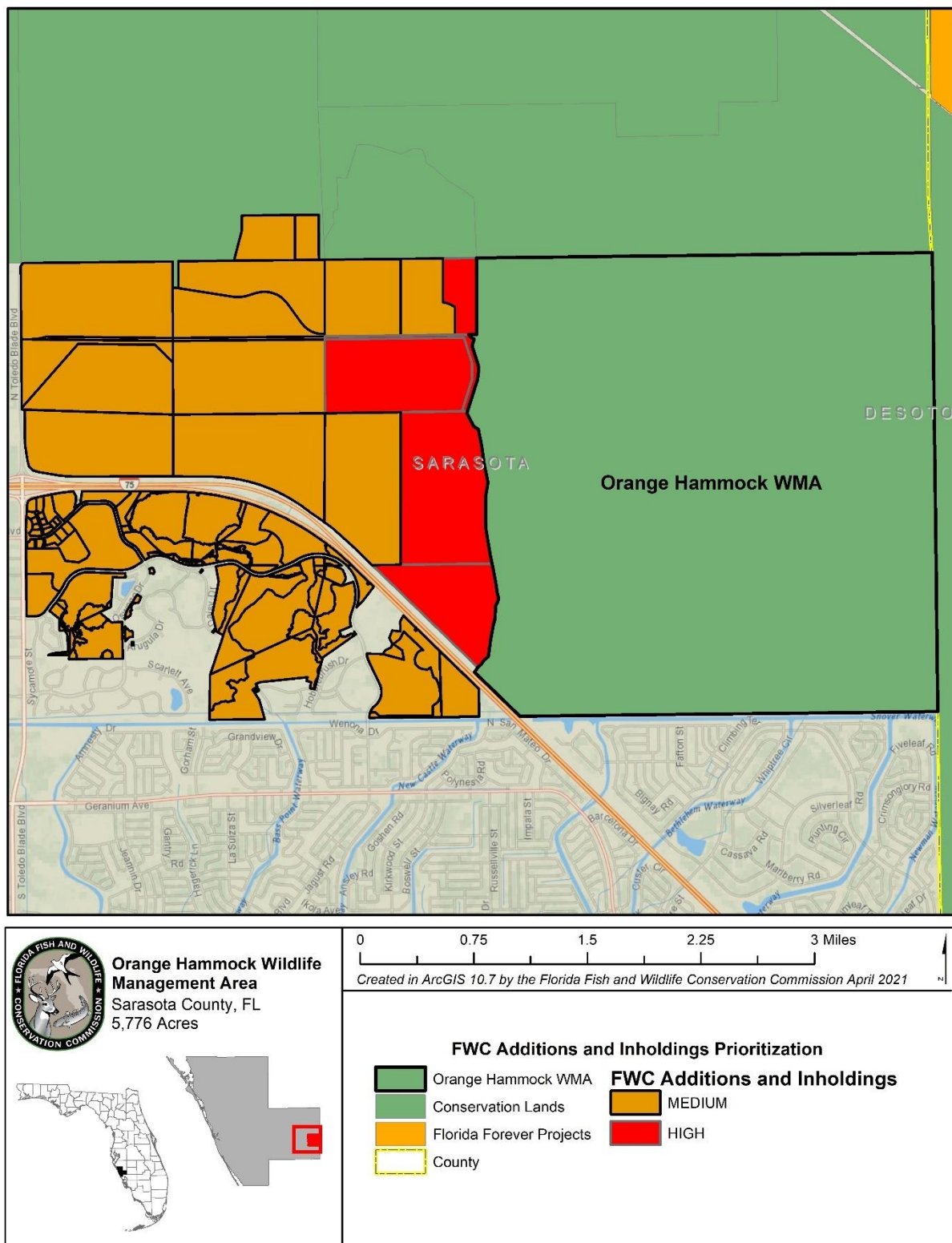


Figure 19. The OHWMA Additions and Inholdings Parcel Prioritization

Table 11. Additions and Inholdings List for the OHWMA

<u>Label</u>	<u>PARCEL ID</u>	<u>Priority</u>	<u>Acres</u>
1	1115001300	MEDIUM	57.60
2	1094010030	MEDIUM	1.19
3	1096003200	MEDIUM	46.60
4	1092002000	MEDIUM	10.36
5	1072001001	MEDIUM	69.99
6	1092003000	MEDIUM	72.82
7	1098002000	MEDIUM	0.42
8	1094003300	MEDIUM	64.14
9	1112003000	MEDIUM	83.78
10	1094010080	MEDIUM	1.01
11	1094010160	MEDIUM	1.80
12	1094010170	MEDIUM	1.75
13	1094010040	MEDIUM	1.56
14	1091001000	MEDIUM	319.00
15	1096003000	MEDIUM	9.26
16	1094003010	MEDIUM	25.48
17	1089001010	MEDIUM	166.78
18	1094003250	MEDIUM	23.24
19	1094003350	MEDIUM	29.07
20	1092001000	MEDIUM	231.76
21	1094010060	MEDIUM	3.10
22	1094003200	MEDIUM	61.90
23	1094010020	MEDIUM	1.18
24	1094010050	MEDIUM	3.25
25	1090001000	MEDIUM	313.36
26	1094010110	MEDIUM	1.00
27	1111003300	MEDIUM	9.25
28	1089001000	MEDIUM	154.00
29	1098003100	MEDIUM	4.10
30	1087001015	MEDIUM	100.98
31	1087001000	MEDIUM	162.81
32	1114050045	MEDIUM	0.18
33	1113002000	MEDIUM	7.32
34	1094010120	MEDIUM	1.00
35	1094003360	MEDIUM	15.73
36	1115001800	MEDIUM	14.59
37	1094003400	MEDIUM	152.92
38	1094003500	MEDIUM	0.18
39	1113040179	MEDIUM	0.12
40	1094010070	MEDIUM	1.05
41	1113001200	MEDIUM	29.85

42	1094010181	MEDIUM	35.03
43	1094003000	MEDIUM	2.09
44	1090002000	MEDIUM	12.18
45	1094010100	MEDIUM	1.50
46	1095001000	MEDIUM	337.09
47	1094010130	MEDIUM	3.00
48	1111003050	MEDIUM	37.96
49	1094010140	MEDIUM	3.00
50	1094010090	MEDIUM	1.01
51	1113002100	MEDIUM	11.41
52	1094010150	MEDIUM	3.70
53	1115001150	MEDIUM	8.91
54	1115001100	MEDIUM	1.57
55	1115001000	MEDIUM	29.90
56	1097002000	MEDIUM	295.57
57	1115001400	MEDIUM	11.05
58	1111002000	MEDIUM	8.34
59	1096003100	MEDIUM	2.86
60	1113001000	MEDIUM	8.58
61	1112004000	MEDIUM	103.70
62	1072001003	MEDIUM	30.00
63	1111002100	MEDIUM	26.66
64	1115070032	MEDIUM	0.15
65	1114002000	MEDIUM	36.80
66	1094010010	MEDIUM	1.98
67	1114003100	MEDIUM	109.75
68	1094010180	MEDIUM	0.96
69	1113001300	MEDIUM	97.40
70	1098003000	MEDIUM	2.86
71	1113020069	MEDIUM	0.11
72	1113002200	MEDIUM	82.42
73	1115001350	MEDIUM	40.62
74	1096002000	MEDIUM	40.46
75	1093001000	MEDIUM	263.08
76	1111001002	MEDIUM	49.63
77	1087001010	HIGH	61.53
78	1097001000	HIGH	354.33
79	1088002000	HIGH	23.17
80	1088001000	HIGH	295.00
81	1111001000	HIGH	218.20

10.14 Arthropod Control Plan



Nicole 'Nikki' Fried
COMMISSIONER

Florida Department of Agriculture and Consumer Services
Division of Agricultural Environmental Services

ARTHROPOD MANAGEMENT PLAN - PUBLIC LANDS

Section 388.4111, F.S.
Telephone: (850) 617-7995

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: Orange Hammock Wildlife Management Area

Is Control Work Necessary: ☐ Yes ☒ No

Location: Orange Hammock Wildlife Management Area, Sarasota County

Land Management Agency: Florida Fish and Wildlife Conservation Commission

Are Arthropod Surveillance Activities Necessary? ☐ Yes ☒ No
If "Yes", please explain:

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: N/A

Arthropod Species for Which Control is Proposed:

Proposed Larval Control: None

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 larvicide: N / A

Chemical or Common name: N/A

☐ 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:

Chemical or common name:

Rate of application:

Method of application:

Proposed Modifications for Public Health Emergency Control: In the event of a declared public health emergency, control may be performed by the arthropod control agency, as part of a larger treatment plan to safeguard public health. Land managers of the area will be notified prior to treatment.

Proposed Notification Procedure for Control Activities:

Manager of the area will be notified by e-mail when treatment of the area will occur. The notice should include a map of the area being treated, the material to be used and the general time of day the treatment will occur.

Records:

Are records being kept in accordance with Chapter 388, F.S.:

X Yes ☐ No

Records Location:

Mosquito database

How long are records maintained: 3 years

Vegetation Modification: NA

What trimming or altering of vegetation to conduct surveillance or treatment is proposed?

None

Proposed Land Modifications: NA

Is any land modification, i.e., rotary ditching, proposed:

None

Include proposed operational schedules for water fluctuations:

None

List any periodic restrictions, as applicable, for example peak fish spawning times.

None

Proposed Modification of Aquatic Vegetation: NA

None

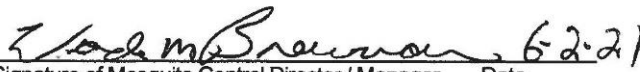
Land Manager Comments:

Arthropod Control Agency Comments: This is an area we don't for see any treatments needed unless responding to a public health emergency at which point the land manager would be contacted.

James C Conner III

Digitally signed by James C
Conner III
Date: 2021.06.24 12:51:05 -04'00'

Signature of Lands Manager or Representative Date

 6-2-21

Signature of Mosquito Control Director / Manager Date

10.15 Sarasota County Letter of Compliance with Local Government Comprehensive Plan



October 18, 2021

Jackie Bucheck, Land Conservation Planner IV
Florida Fish and Wildlife Conservation Commission
Division of Habitat and Species Conservation
620 South Meridian Street
Tallahassee, Florida 32399

RE: Orange Hammock Wildlife Management Area (OHWMA) Management Plan

Dear Ms. Bucheck,

Sarasota County is pleased to provide a review of the Orange Hammock Wildlife Management Area (OHWMA) Management Plan. Our planning staff finds that the OHWMA Management Plan is in compliance with the Goals, Objectives and Policies of the Sarasota County Comprehensive Plan.

Thank you for the opportunity to review the proposed OHWMA Management Plan. If you require further assistance from our planning staff, or, if you have questions, please let us know. We can be reached via email at planner@scgov.net, or via telephone at (941) 861-5000.

Thank you,

Elma Felix, Long Range Planning & Neighborhood Services Manager

Sarasota County Planning and Development Services – 1660 Ringling Boulevard, Sarasota, FL 34236
Telephone 941-861-5000 – Fax 941-861-5593

11 Endnotes

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