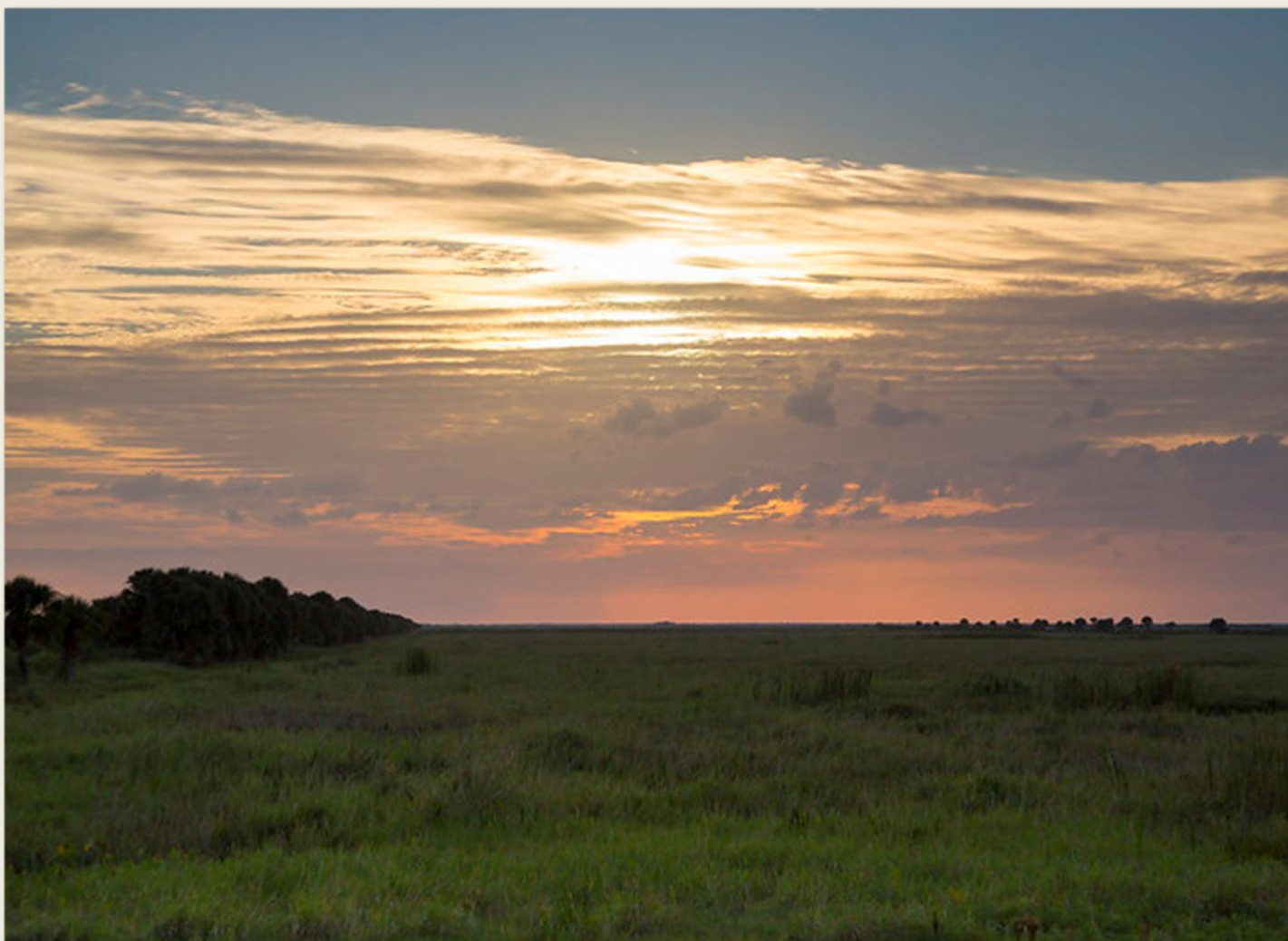


2025-2035

T.M. GOODWIN WATERFOWL MANAGEMENT AREA

10-YEAR MANAGEMENT PLAN
BREVARD COUNTY



**FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION**

620 SOUTH MERIDIAN STREET
TALLAHASSEE, FL 32399-1600



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PENDING APPROVAL LETTER

**A Management Plan
for the
T.M. Goodwin Waterfowl Management Area**

Brevard County

Owned by the St. Johns River Water Management District
Managed by the Florida Fish and Wildlife Conservation Commission



August 2025

Approved

A handwritten signature in blue ink that reads "Melissa Tucker". The signature is written in a cursive style.

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: T.M. Goodwin Waterfowl Management Area

Location: Brevard County, Florida

Acreage Total: 6,482 acres

Acreage Breakdown:

<u>Land Cover Classification</u>	<u>Acres</u>	<u>Percent of Total Area</u>
Impoundment	6,482	100%

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

Lease/Management Agreement No.: 90106 and 01183 (Appendix 11.1)

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

Designated Land Use: Waterfowl Management Area

Sublease (s): None

Encumbrances: A 30-year NRCS WRP conservation easement, a perpetual drainage easement on Goodwin Unit granted to James Sartori, and a housing agreement with an FWC employee.

Type Acquisition: Save our Rivers Program, Preservation-2000, Wetlands Reserve Program.

Unique Features: Natural: Wetland habitat and wildlife that it supports.

Archaeological/Historical: One archaeological site and one linear resource.

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

Acquisition Needs/Acreage: 10,380 acres FWC Additions and Inholdings list; 1,747 acres remaining in the St. Sebastian-St. Johns River Greenway Florida Forever Project (Figure 1).

Surplus Lands/Acreage: None.

Public Involvement: Management Advisory Group consensus building meeting and Public Hearing (Appendix 11.3).

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	8-9
3	Degree of title interest held by the Board, including reservations and encumbrances such as leases.	18-2.021	1, 8, 9, Appendix 11.1-11.2
4	The legal description and acreage of the property.	18-2.018 & 18-2.021	1, 8, Appendix 11.1
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	27
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	30
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	48-52
8	Identification of adjacent land uses that conflict with the planned use of the property, if any.	18-2.021	28
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)	9
10	Proximity of property to other significant State, local or federal land or water resources.	18-2.021	1-4

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	29-30
12	A description of past and existing uses, including any unauthorized uses of the property.	18-2.018 & 18-2.021	24-27
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	29-30
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	8, Appendix 11.1
15	Include a provision that requires that the managing agency consult with the Division of Historical Resources, Department of State before taking actions that may adversely affect archeological or historical resources.	18-2.021	23, 32, 45, 53, Appendix 11.17
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	2-3
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)	25-27
18	A finding regarding whether each planned use complies with the 1981 State Lands Management Plan, particularly whether such	18-2.021	29

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 11.16
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	43-45
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	29-30
22	If the lead managing agency determines that timber resource management is not in conflict with the primary management objectives of the managed area, a component or section, prepared by a qualified professional forester, that assesses the feasibility of managing timber resources pursuant to section 253.036, F.S.	18-021	45
23	A statement regarding incompatible use in reference to Ch. 253.034(10).	253.034(10)	30

*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, Appendices 11.3-11.4
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)	10
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 11.3-11.4
27	Summary of comments and concerns expressed by the advisory group for parcels over 160 acres	18-2.021	Appendix 11.3
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	253.034(5) & 259.032(10)	Appendix 11.3-11.4

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
	scheduled meeting of the local governing body before the actual public hearing. <i>Include a copy of each County's advertisements and announcements (meeting minutes will suffice to indicate an announcement) in the management plan.</i>		
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	31, Appendix 11.8
30	Summary of comments and concerns expressed by the management review team, if required by Section 259.036, F.S.	18-2.021	Appendix 11.8
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	Appendix 11.8

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	10,11, Appendix 11.7
33	Insert FNAI based natural community maps when available.	ARC consensus	15,16
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	14-18, Appendix 11.5
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	20-24
36	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding beaches and dunes.	18-2.021	23
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	23
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	18-20, 38
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	17,18
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	20, Appendix 11.10
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)	31,32
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.	↓	30-39, 57-62

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
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.	↓	58
42-C.	The associated measurable objectives to achieve the goals.	↓	58
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>	↓	57, Appendix 11.13
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.		65,66, Appendix 11.12
43	***Quantitative data description of the land regarding an inventory of forest and other natural resources and associated acreage. <i>See footnote.</i>	253.034(5)	23, 45
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).	↓	30-39, 57-62
44-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	↓	57-62
44-C.	Measurable objectives (see requirement for #42-C).	↓	57-62
44-D.	Related activities (see requirement for #42-D).	↓	57-62, Appendix 11.13
44-E.	Budgets (see requirement for #42-E).		65,66, Appendix 11.12
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).	↓	30-39, 57-62
45-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	↓	57-62
45-C.	Measurable objectives (see requirement for #42-C).	↓	57-62
45-D.	Related activities (see requirement for #42-D).	↓	57-62, Appendix 11.13
45-E.	Budgets (see requirement for #42-E).		65,66, Appendix 11.12
45-F	Assess the feasibility of managing the lands > 40 contiguous acres as a recipient site for gopher tortoises consistent with rules of the Fish and Wildlife Conservation Commission, as prepared by the agency or cooperatively with a Fish and Wildlife Conservation Commission wildlife biologist.	259.105	19
45-G	Economic feasibility of establishing a gopher tortoise recipient site, including the initial cost, recurring management costs and the revenue projections.	259.105	19
46	***Quantitative data description of the land regarding an inventory of invasive and non-native plants and associated acreage. <i>See footnote.</i>	253.034(5)	17-18, 39-40
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 11.15
48	Invasive and non-native species maintenance and control	259.032(10) & 253.034(5)	
48-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	30-39,57-62

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
48-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	↓	57-62
48-C.	Measurable objectives (see requirement for #42-C).	↓	57-62
48-D.	Related activities (see requirement for #42-D).	↓	57-62, Appendix 11.13
48-E.	Budgets (see requirement for #42-E).		65,66, Appendix 11.12

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 the appropriate managing agencies that have been notified of the proposed plan.</i>	18-2.018 & 18-2.021	20-22
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	20-22
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	20-22
52	***Quantitative description of the land regarding an inventory of hydrological features and associated acreage. <i>See footnote.</i>	253.034(5)	20-22
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).	↓	43,44
53-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	↓	59
53-C.	Measurable objectives (see requirement for #42-C).	↓	59
53-D.	Related activities (see requirement for #42-D).	↓	59
53-E.	Budgets (see requirement for #42-E).		65,66, Appendix 11.12

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	23-24,
55	***Quantitative data description of the land regarding an inventory of significant land, cultural or historical features and associated acreage.	253.034(5)	23-24
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	23-24, 45

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).	↓	45
57-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	↓	60
57-C.	Measurable objectives (see requirement for #42-C).	↓	60
57-D.	Related activities (see requirement for #42-D).	↓	60
57-E.	Budgets (see requirement for #42-E).		65-66, Appendix 11.12

**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. See footnote.	253.034(5)	27, 45-46
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).	↓	45-46, 60
59-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	↓	60
59-C.	Measurable objectives (see requirement for #42-C).	↓	60
59-D.	Related activities (see requirement for #42-D).	↓	60
59-E.	Budgets (see requirement for #42-E).		65-66, Appendix 11.12
60	*** Quantitative data description of the land regarding an inventory of recreational facilities and associated acreage.	253.034(5)	45-46
61	Public Access and Recreational Opportunities	259.032(10) & 253.034(5)	41-43
61-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	59
61-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).	↓	59
61-C.	Measurable objectives (see requirement for #42-C).	↓	59
61-D.	Related activities (see requirement for #42-D).	↓	59
61-E.	Budgets (see requirement for #42-E).		65-66, Appendix 11.12

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-ix
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	37, 38, 41, 43, 44, 46, 53
65	Key management activities necessary to achieve the desired outcomes regarding other appropriate resource management.	259.032(10)	57-63

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
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)	65-66, Appendix 11.12
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)	65-66, Appendix 11.12
68	A statement of gross income generated, net income and expenses.	18-2.018	28, Appendix 11.12

*** = 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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Acronym Key

ADA	Americans with Disabilities Act
DEP	Department of Environmental Protection
DHR	Division of Historical Resources
DSL	Division of State Lands
F.A.C.	Florida Administrative Code
FDACS	Florida Department of Agriculture and Consumer Services
FISC	Florida Invasive Species Council
FLAM	Florida Landscape Assessment Model
FMSF	Florida Master Site File
FNAI	Florida Natural Areas Inventory
F.S.	Florida Statute(s)
FWC	Florida Fish and Wildlife Conservation Commission
GIS	Geographic Information Systems
IMPP	Internal Management Policies and Procedures
IPCC	Intergovernmental Panel on Climate Change
LAP	Landowner Assistance Program
LMR	Land Management Review
MAG	Management Advisory Group
NRCS	Natural Resources Conservation Service
OBVM	Objective-Based Vegetation Management
OFW	Outstanding Florida Waters
SJRWMD	St. Johns River Water Management District
TMGWMA	T.M. Goodwin Waterfowl Management Area
USACOE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USJRB	Upper St. John River Basin
WCPR	Wildlife Conservation Prioritization and Recovery
WCS	Water Control Structure
WMA	Waterfowl Management Area

1 Introduction and General Information

The T.M. Goodwin Waterfowl Management Area (TMGWMA) is owned by St. Johns River Water Management District (SJRWMD) and leased to the Florida Fish and Wildlife Conservation Commission (FWC) for management as a waterfowl management area and public small game hunting area along with other compatible fish and wildlife-focused recreational uses. The FWC has lead management authority for all resources within the established boundary (Figures 1 and 2).

This Management Plan serves as the basic statement of policy and direction for the management of the TMGWMA and has been developed to guide each aspect of the TMGWMA's resource and operational management for the 10-year planning period. It provides information including the past usage, conservation acquisition history, and descriptions of the natural and cultural resources found on the TMGWMA. Furthermore, it identifies the FWC's management intent, goals, and objectives, as well as challenges and potential solutions.

This Management Plan is submitted for review to the Governing Board of the SJRWMD, in compliance with Chapters 253 and 259, Florida Statutes (F.S.), and Chapters 18-2 and 18-4, Florida Administrative Code (F.A.C.). Format and content were drafted in accordance with SJRWMD requirements for management plans. Terms (Appendix 11.9) used in this Management Plan describing management activities conform to those developed for the Land Management Uniform Accounting Council Biennial Land Management Operational Report.

1.1 Location

The TMGWMA is in Central Florida in southern Brevard County and encompasses approximately 6,482 acres (Figures 1 and 2). The TMGWMA lies in all or parts of Sections 4, 5, 8, 9, 16, 17, 20, 21, 22, 28, 29, 32, 33, and 34 of Township 30 South, Range 36 East (Figure 3). The TMGWMA is located approximately seven miles northwest of Fellsmere, Florida. Larger cities including Palm Bay, Melbourne, and Vero Beach are located approximately 11 miles northeast, 16 miles northeast, and 23 miles southeast of the TMGWMA, respectively. The TMGWMA is not located within a designated Area of Critical State Concern.

1.1.1 Proximity to other Public Conservation Lands

The TMGWMA is in the vicinity of an extensive network of conservation lands, including lands managed by the SJRWMD, the Department of Environmental Protection (DEP), and Brevard County. Federally owned properties in the vicinity include Malabar Transmitter Annex managed by the United States Department of Defense. Several Florida Forever projects are also located in the vicinity (Figure 4).

Tables 1 and 2 list the Florida Forever projects and conservation lands within a 10-mile radius of the TMGWMA, including lands managed by public and private entities that conserve historical and natural resources within this region of Florida. Most of the conservation lands listed in Table 2 are owned 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
Brevard Coastal Scrub Ecosystem	18,454.70
Osceola Pine Savannas	422.14
Ranch Reserve	16,877.40

Table 2. Conservation Lands within a 10-mile Vicinity

Federal Government	Managing Agency/ Easement Holder
Malabar Transmitter Annex	USDOD
State of Florida	
Micco Expansion	FWC
Ox Creek Agricultural and Conservation Easement	FDACS
St. Sebastian River Preserve State Park	DEP
Ten Mile Ridge	FWC
Water Management District	
Blue Cypress Conservation Area	SJRWMD
Escape Ranch Conservation Easement	SJRWMD
Far Reach Ranch Conservation Easement	SJRWMD
Fellsmere Water Management Area	SJRWMD
Jane Green Creek Less-than-fee Easement Additions	SJRWMD
Kempfer Property Conservation Easement	SJRWMD
Mills Ranch Conservation Easement	SJRWMD
Three Forks Conservation Area	SJRWMD
Willowbrook Conservation Easement	SJRWMD
Wolf Creek Ranch Conservation Easement	SJRWMD

Table 2. Conservation Lands within a 10-mile Vicinity

Local Government	
Fellsmere Trailhead Preserve	City of Fellsmere
Grant Flatwoods Sanctuary	Brevard County
Malabar Scrub Sanctuary	Brevard County
Micco Scrub Sanctuary	Brevard County
Pressley Ranch NAWCA Tract	Indian River County
South Babcock	Brevard County
Valkaria Expansion	Brevard County
Valkaria Scrub Sanctuary	Brevard County
Private/Public Conservation Organization	
Mary A Ranch Mitigation Bank	B.K.I., Inc., Consulting Ecologists
Putnam Land Conservancy Brevard Parcels	Putnam Land Conservancy, Inc.

Acronym Key	Agency Name
USDOD	United States Department of Defense
DEP	Florida Department of Environmental Protection
FWC	Florida Fish and Wildlife Conservation Commission
SJRWMD	St. Johns River Water Management District
FDACS	Florida Department of Agriculture and Consumer Services

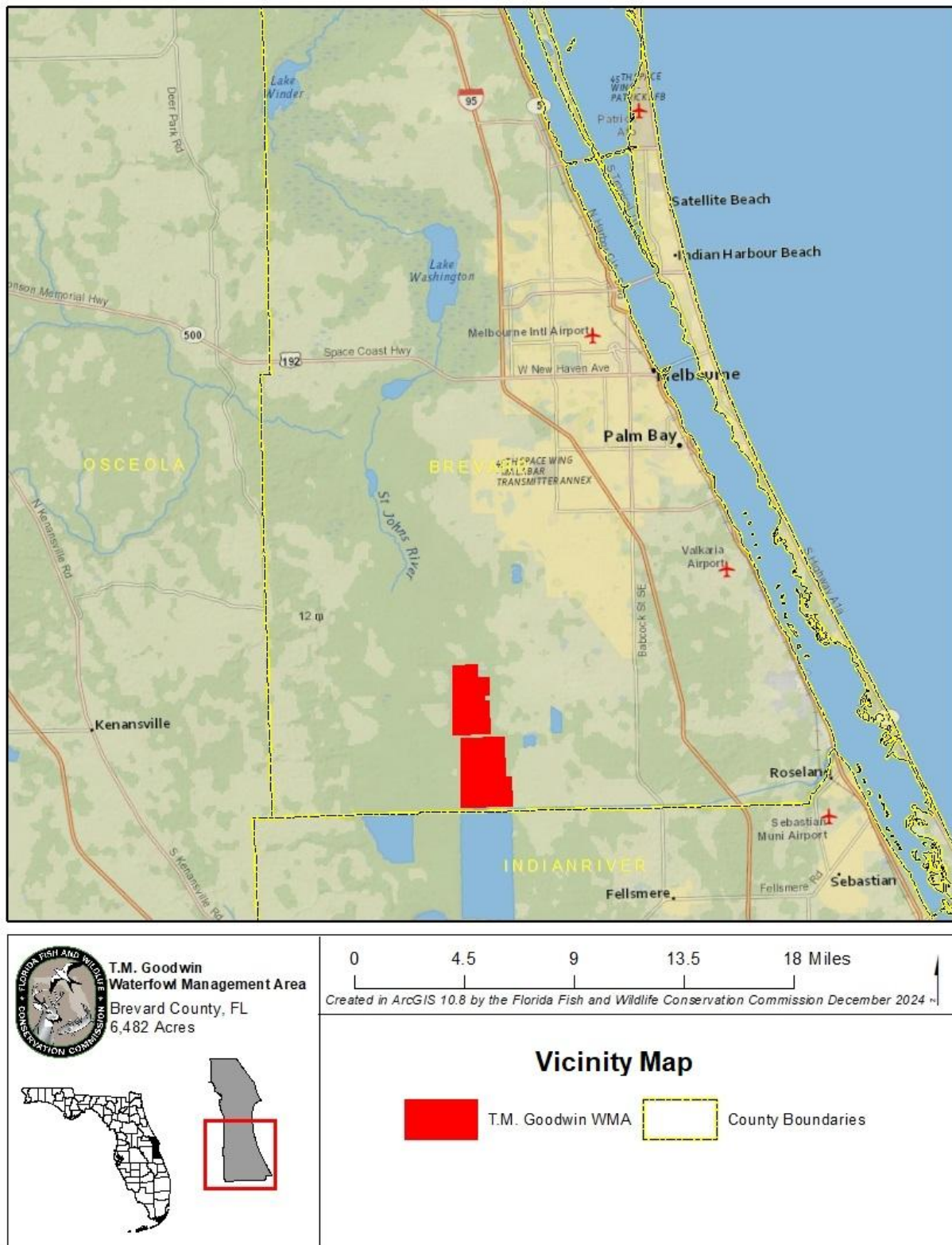


Figure 1. Vicinity Map

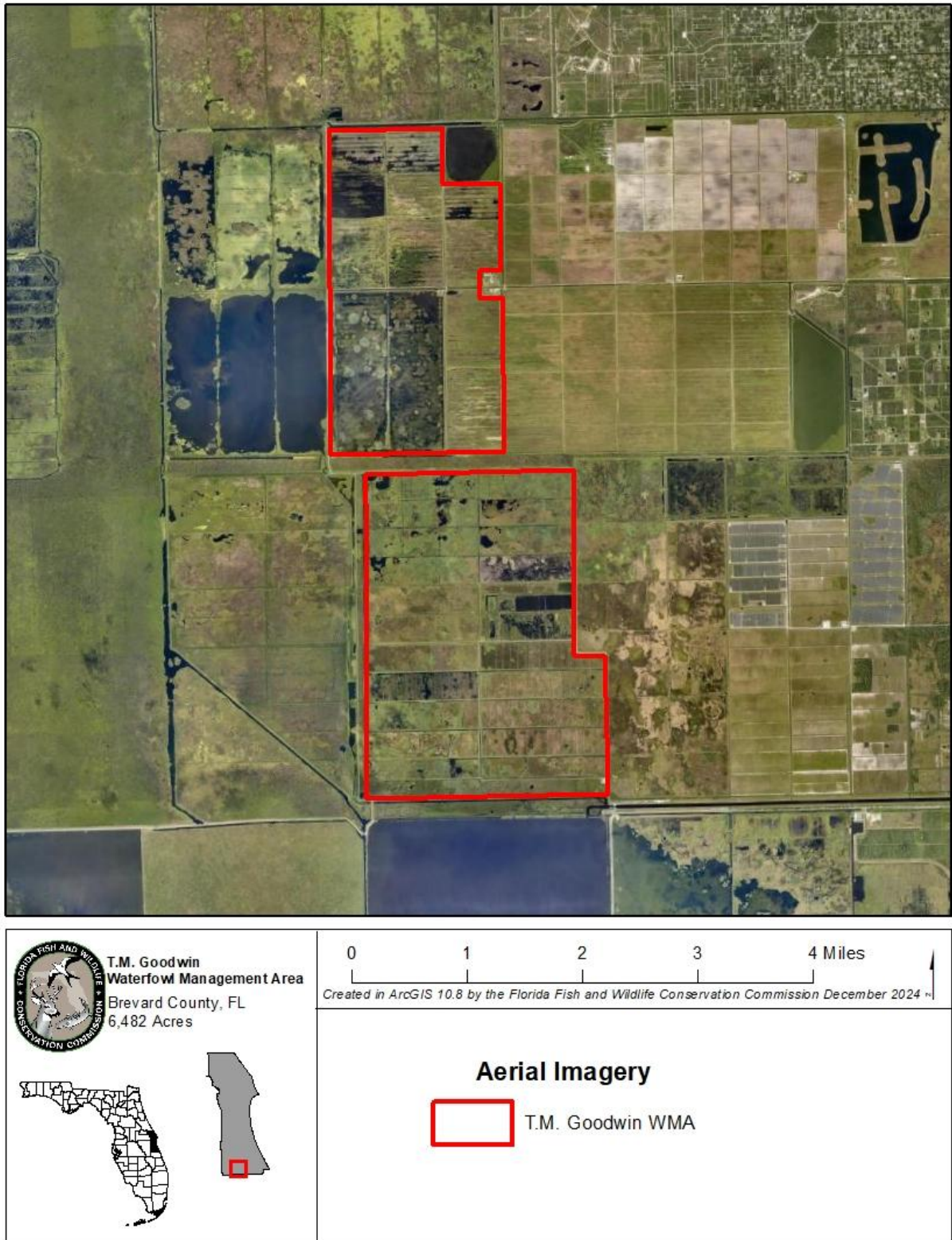


Figure 2. Aerial Imagery

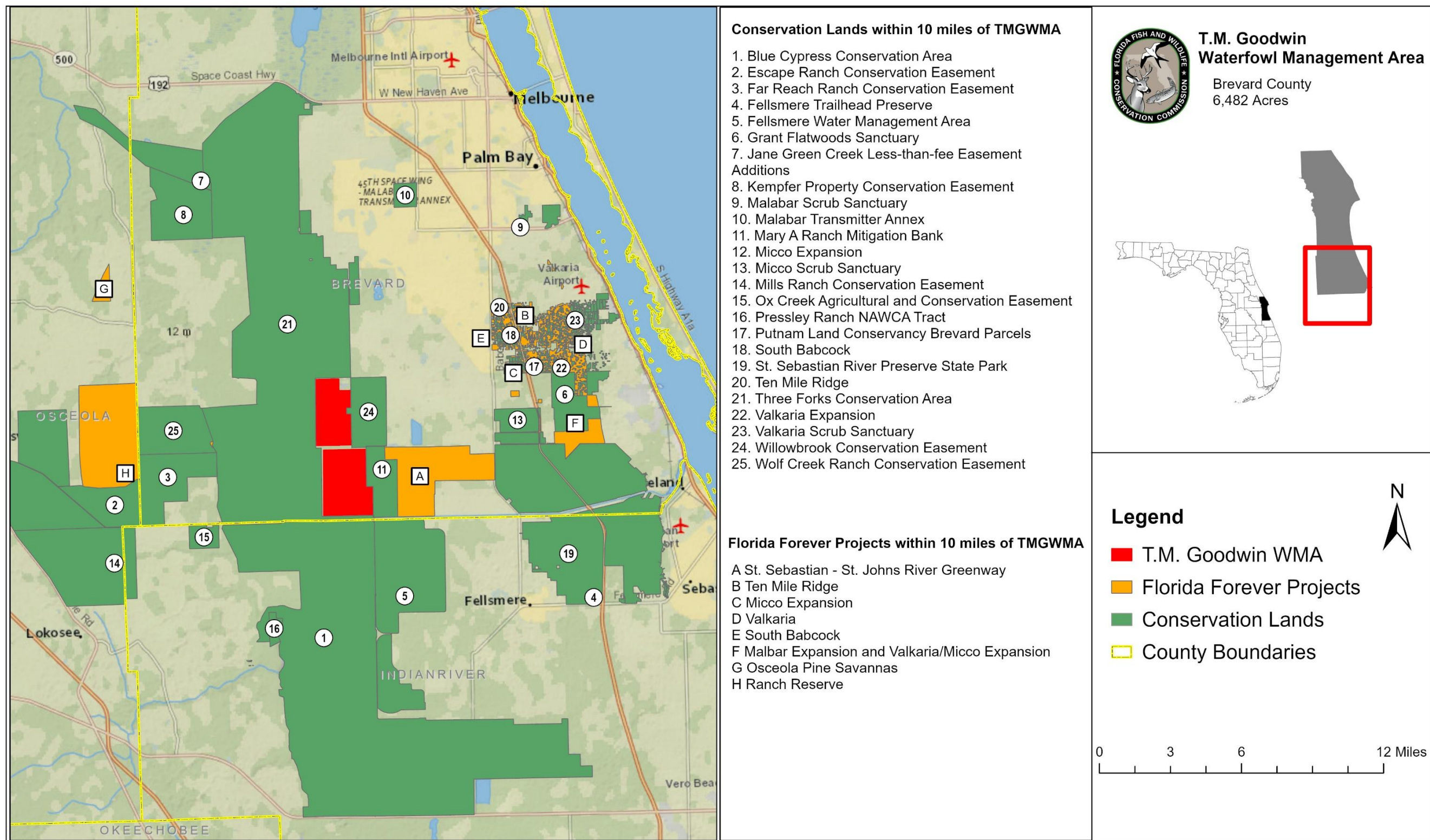


Figure 4. Nearby Conservation Lands and Florida Forever Projects

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1.2 Title Interest and Management Authority

As State-owned lands, title to the TMGWMA is vested in the SJRWMD. In May 1991, the Governing Board of the SJRWMD entered a 30-year lease agreement (Lease Agreement No. 90106) granting the FWC management authority for the Goodwin Unit. In 2021, this agreement was renewed for a 20-year term with an automatic five-year renewal. In April 2002, the Governing Board of the SJRWMD entered in Management Agreement 01183 granting FWC management authority for the Broadmoor Marsh Unit. An annual financial contribution is provided to the FWC by the SJRWMD for management and restoration activities on the Broadmoor Marsh Unit (Appendix 11.1.2). 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 F.S. These constitutional provisions and laws provide the FWC with the authority to protect, conserve, and manage the State's fish and wildlife resources.

The SJRWMD agreements provide authority to the FWC to manage the TMGWMA “for the purpose of the construction, establishment, and operation of a waterfowl management area and associated wildlife management, habitat management, recreational, research, and educational activities and other compatible uses as mutually agreed upon between [the SJRWMD and the FWC].”

1.3 Acquisition

1.3.1 Acquisition History

In January 1988, the SJRWMD acquired 3,682 acres from the Fellsmere Farm Company for \$6.3 million with funding from the State's Save Our Rivers program. This tract of land was originally called the C-54 Retention Area in recognition of its intended purpose to serve as a water storage and flood control area within the upper St. Johns River Basin (USJRB) Project. The C-54 Retention Area was later renamed the Goodwin Unit. The SJRWMD and the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) acquired 2,800 acres of land that became the Broadmoor Marsh Unit in 1998 for approximately \$11.5 million. The SJRWMD contributed \$7.3 million toward the overall acquisition project cost using the State's Preservation 2000 program funds and the NRCS contributed \$4.2 million using federal Wetland Reserve Program (WRP) funds. The use of federal funds to acquire the Broadmoor Marsh Unit resulted in the NRCS obtaining a 30-year conservation easement on the unit.

Recreational users in the area recommended that the newly acquired properties should be available for public use. After discussing this subject with the FWC's Waterfowl Management Section, in April 1988, the SJRWMD endorsed the concept of managing one of the tracts for wetland wildlife. After evaluation of several options, the Waterfowl Management Section concluded that the C-54 Retention Area had the best potential for intensive wetland management. The SJRWMD's Governing Board approved the concept of the FWC managing the C-54 Retention Area in January 1989. A site-specific agreement to use Matching Aid to Restore States Habitat program funds from Ducks Unlimited was signed in December 1990. State matching funds for development were approved by the 1990 Florida Legislature. In May 1991, the FWC entered

into an agreement with the SJRWMD thereby designating the FWC as the lead management agency.

During construction of the Broadmoor Marsh Unit, the SJRWMD and the NRCS expressed interest in having the FWC manage the Broadmoor Marsh Unit for wetland wildlife similar to its management of the Goodwin Unit. The SJRWMD and the NRCS provided cost-share funding for restoration activities for the first three years after development, and the Florida Legislature allotted funding for a full-time staff position for the Broadmoor Marsh Unit. In 2002, the FWC entered into a three-party agreement with the SJRWMD and the NRCS to designate the FWC as the lead management agency. Through the WRP, the NRCS allocated funding to modify the Broadmoor Marsh Unit's existing drainage system into a wetland management system similar to the Goodwin Unit's. In doing so, the NRCS consulted with FWC and SJRWMD staff for operational design and contracted with Ducks Unlimited for the overall engineering design and project construction.

1.3.2 Purpose for Acquisition of the Property

The C-54 Retention Area (known as the Goodwin Unit) was purchased to provide 11,600 acre-feet of flood storage capacity within the USJRB, alleviate inter-basin diversion and discharge to the Indian River Lagoon, and serve as a wetland restoration and conservation site. The SJRWMD and the NRCS purchased the Broadmoor Marsh Unit jointly as part of the SJRWMD's ongoing efforts to restore wetlands in the USJRB. Unlike the Goodwin Unit, however, the Broadmoor Marsh Unit was not acquired for flood storage. The Broadmoor Marsh Unit was acquired for wetland restoration and conservation and the management of waterfowl habitat and other wetland wildlife.

1.3.3 Encumbrances

Encumbrances include a 30-year NRCS WRP conservation easement placed on the Broadmoor Marsh Unit as part of the federal funding grant covenants to ensure the land is protected, conserved, and managed for the original purpose of acquisition that expires in 2028. Additionally, there is a perpetual drainage easement on the Broadmoor Marsh Unit granted to James Sartori and Willowbrook Farms (Appendix 11.2) as well as one indefinite housing agreement with an FWC employee.

1.4 Planning Philosophy

The FWC emphasizes consensus-building to engage, understand, and incorporate the ideas of the various interests, user groups, and communities that it serves. To achieve this, the FWC convenes a Management Advisory Group (MAG) meeting which engages stakeholders from various user groups at the beginning of FWC's planning process, and a public hearing in which the public can provide formal testimony.

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 plan by reporting on the objectives, management activities, and projects accomplished over the last planning timeframe (see Section 4). The 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 4.2). As needed, amendments to Management Plans are presented to the SJRWMD for review and consideration.

1.5 Public Involvement

The FWC conducted a MAG meeting in Palm Bay, Florida on February 26, 2025, to obtain input from both public and private stakeholders regarding management of the TMGWMA. Results of this meeting were used by the FWC to develop management goals and objectives and to identify opportunities and strategies for management to include in the update to the Management Plan. Further, a public hearing, as required by Chapter 259.032(10), F.S., was held in Cocoa, Florida on April 29, 2025, to solicit input and comments from the public regarding the upcoming update to the Management Plan. The Management Prospectus was made available to the public in advance of the hearing as well as for an extended period of public comment following. A report of that hearing is included in the Management Plan (Appendix 11.4). At any time regardless of public hearing dates, the public may provide input on Management Plans in development by visiting the FWC [website](#). Input received from all public involvement efforts are considered in the development of the update to the Management Plan.

2 Natural and Cultural Resources

2.1 Physiography

2.1.1 Topography and Geologic Formations

The State of Florida is a part of the Florida platform that extends into the Atlantic Ocean and extends over 100 miles into the Gulf of America. Florida has a mosaic of geologic formations and soil types and is part of the Coastal Plain physiographic province which stretches from Cape Cod to the Mexican border. The Coastal Plain is divided into six physiographic sections, and Florida lies between two of these sections: the Floridian section, which encompasses most of peninsular Florida, and the East Gulf Plain section, which encompasses the panhandle of Florida. Additionally, there are a total of 10 physiographic divisions within Florida. The TMGWMA is primarily located in the Barrier Island Sequence District, as well as a region that contains Holocene sediments. These sediments are characterized by quartz sands, carbonate sands, muds, and organics and shallow elevations that range from six feet above mean sea level to 20 feet National Geodetic Vertical Datum of 1929 (NGVD29). Specifically, on the TMGWMA the maximum elevation is 20 feet NGVD29.

2.1.2 Soils

The NRCS data was used to identify the TMGWMA soil series and depth-to-water table. The map units described in the soil survey of the TMGWMA are distributed as shown in Figure 5. Analyses of depth-to-water table on the TMGWMA 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 survey.”¹ Soil map units may contain multiple soil components, which are given names that are unique identifiers. Appendix 11.7 lists the names and official map unit descriptions as determined

by the NRCS. Analysis of depth to water table for map units occurring within the TMGWMA are also provided in Appendix 11.7. Specific soils found on the TMGWMA are generally associated with swamps, marshes, and floodplains in poorly drained marine terraces and primarily consist of organic soils derived from decaying hydrophytic plant materials. Everglades mucky peat makes up approximately half of the TMGWMA with Micco mucky peat making up nearly 29% and Canova muck making up 15%. Various other soil types that each make up less than 10% of the area include Oldsmar sand and Canova mucky peat.

2.1.3 Weather Conditions

In general, moderate climates occur in Brevard County. The TMGWMA is characterized by long, warm summers and mild winters. The average daily winter temperature over the last 10 years has been 67° Fahrenheit (F), with an average minimum temperature of approximately 58°F. The average daily summer temperature is 81°F with an average maximum temperature of approximately 89° F.² Over the last 10 years, the TMGWMA has seen an average annual rainfall of 53 inches with the majority occurring in the summer season.

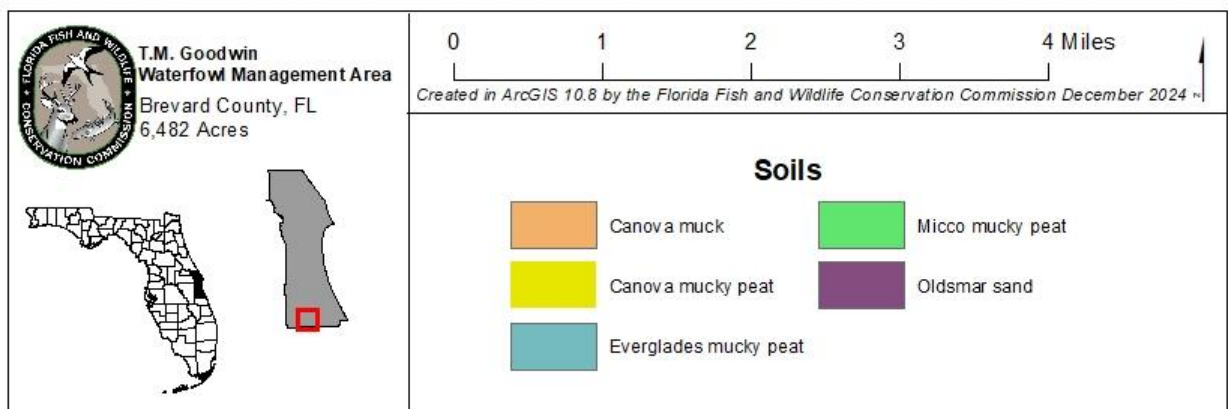
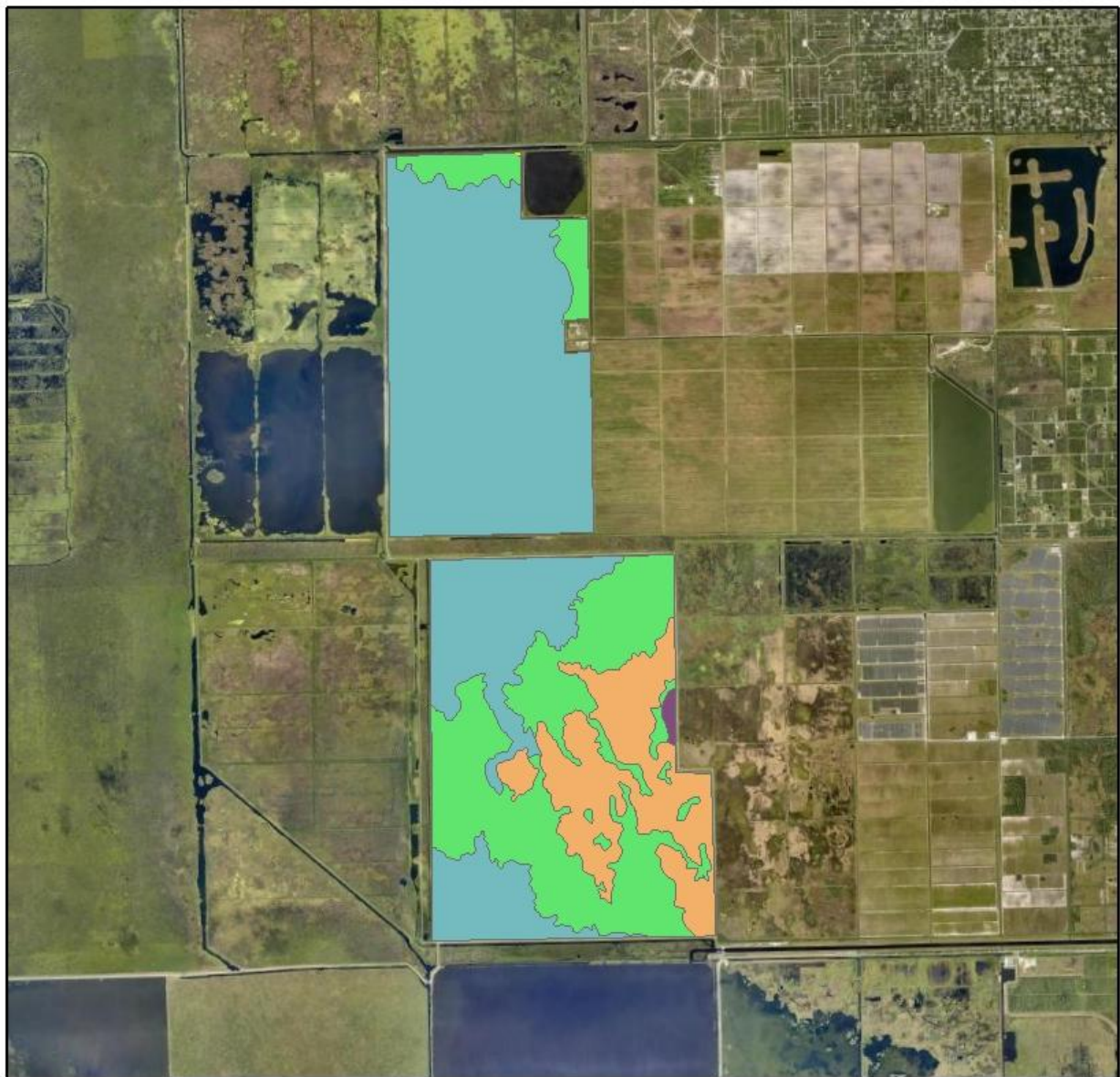


Figure 5. Soil Types

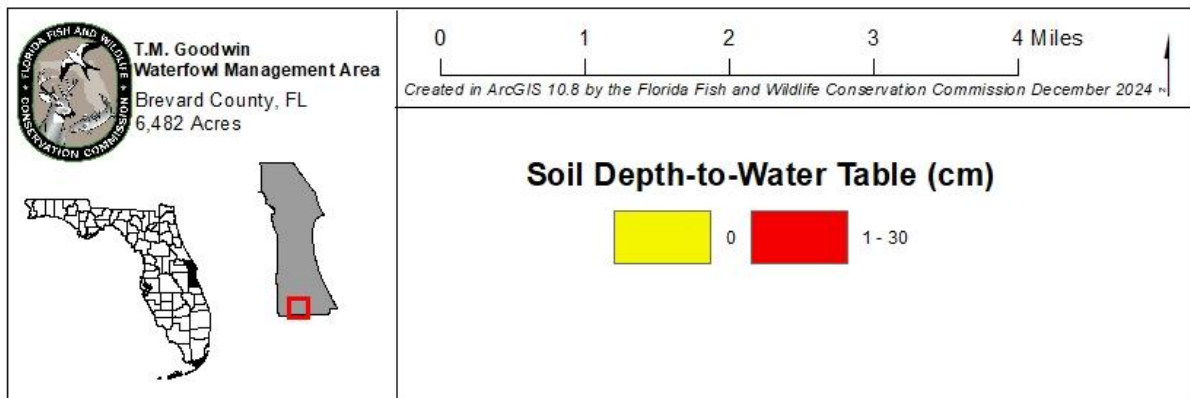
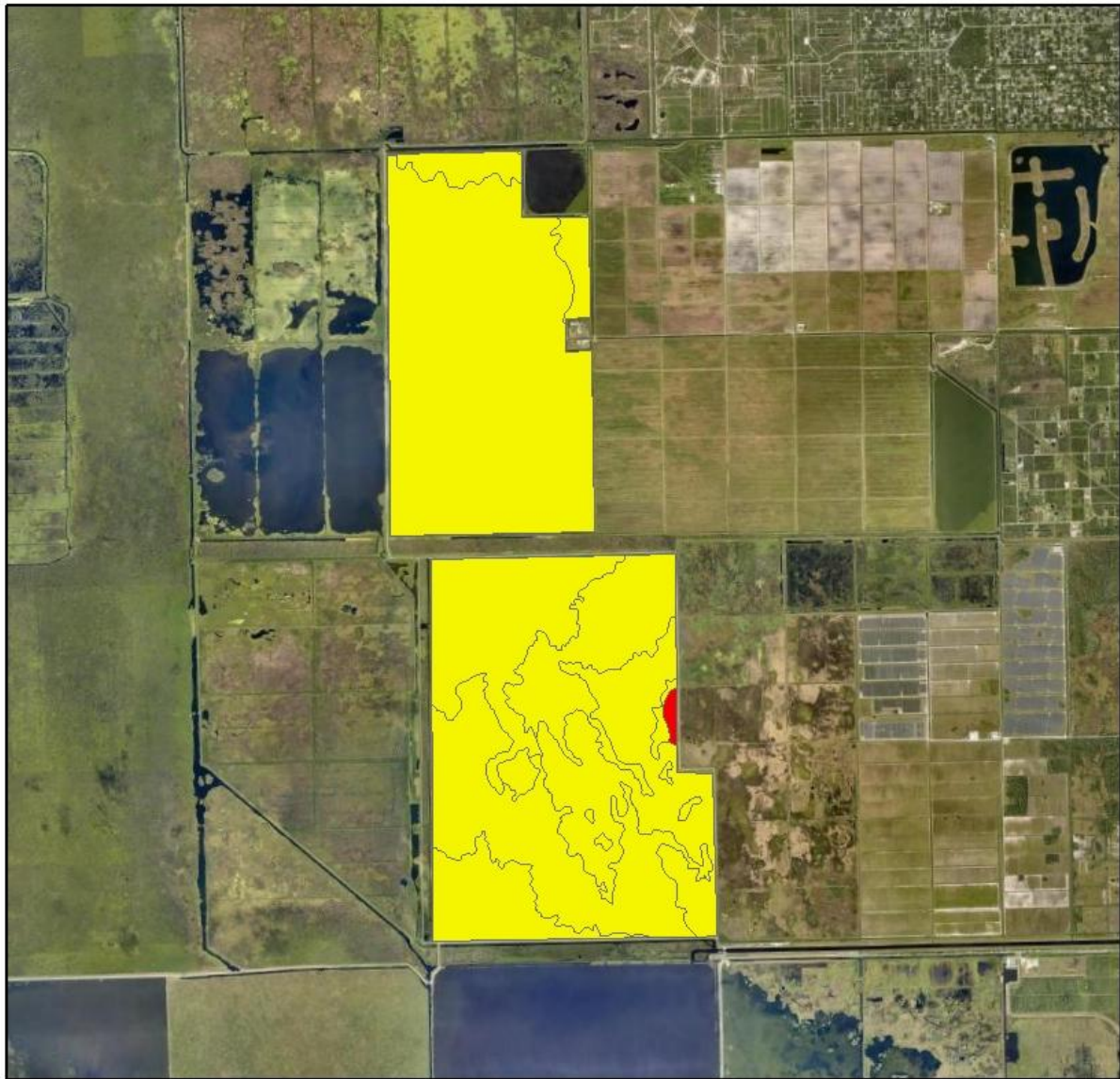


Figure 6. Soil Depth-to-Water Table

2.2 Vegetation

Through the services of the Florida Natural Areas Inventory (FNAI), the FWC has mapped the current and historic natural community and altered landcover types of the TMGWMA and documented one altered landcover type existing on the TMGWMA which is impoundment (Table 3, Figures 7 - 8). An impoundment is a stream, river, or watershed that contains artificial structures that retain water at unnatural levels. The TMGWMA is located entirely in the floodplain of the St. Johns River. The TMGWMA contains numerous hydrology alterations such as ditch and water control structures to manipulate water levels with the goal of waterfowl management. The impoundment contains a patchwork of habitats including open water, aquatic bed, emergent marsh, and shrub marsh.

Additionally, native plant species (not including imperiled and non-native species) found on the TMGWMA have been documented and recorded by either FWC staff or contractors (Appendix 11.5). Currently, no imperiled plant species and 20 non-native plant species have been documented on the area (Table 4, Sections 2.2.1-2.2.2).

Table 3. Natural Communities and Altered Landcover Type

Community Type	GIS Acres	Percentage
Impoundment	6,482	100%



Figure 7. FNAI Natural Communities and Altered Landcover Type

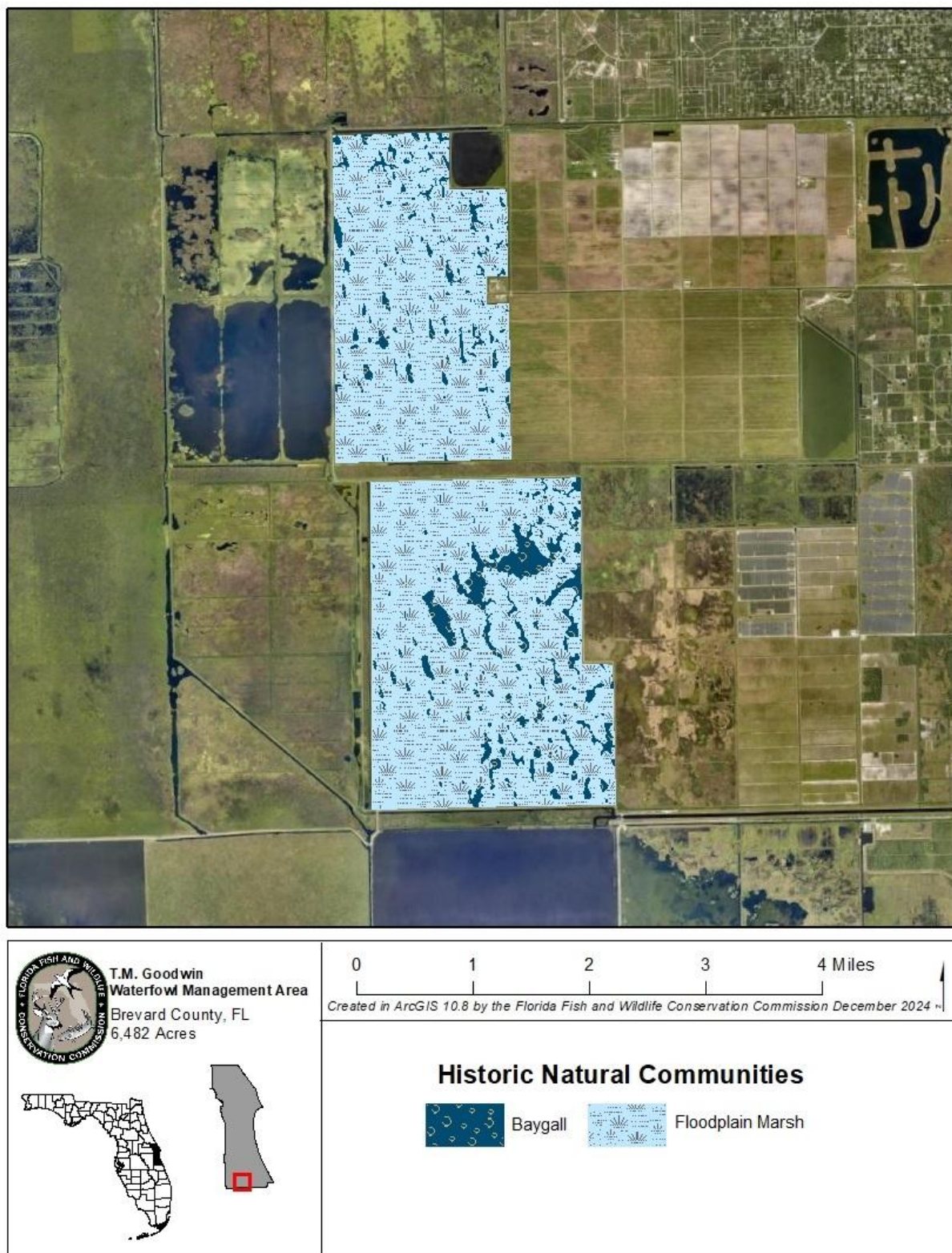


Figure 8. Historic Natural Communities

2.2.1 Imperiled Plants

For the purposes of this Management Plan, the term “imperiled species” as it relates to plants refers to plant species that Florida Department of Agriculture and Consumer Services (FDACS) or the United States Fish and Wildlife Service (USFWS) has 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, F.A.C.) that is maintained by FDACS.

There has been no formal rare plant inventory on the TMGWMA, and there are no imperiled plant species known to occur. It is possible that imperiled species occur, 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 species have a higher probability of persistence than in the absence of this management. However, while habitat management provides overall benefits to a host of species reliant upon these natural communities, imperiled species sometimes require specific attention.

2.2.2 Non-native Plants

FWC biologists and contractors have documented 20 non-native plant species on the TMGWMA, of which 12 are invasive (Table 4). Species that are considered invasive are species that (a) are non-native to a specified geographic area; (b) were introduced by humans (intentionally or unintentionally); and (c) do or can cause environmental, economic, or human harm. The FWC relies on the Florida Invasive Species Council (FISC) for the categorization of invasive plant species.

Table 4. Non-native Plant Species

Scientific Name	Common Name	FISC Category
<i>Alternanthera philoxeroides</i>	Alligatorweed	II
<i>Azolla pinnata</i>	Feathered mosquitofern	-
<i>Ceratopteris thalictroides</i>	Watersprite	-
<i>Cynodon dactylon</i>	Bermudagrass	-
<i>Cynodon nlemfuensis</i>	African bermudagrass	-
<i>Cyperus alopecuroides</i>	Foxtail flatsedge	-
<i>Cyperus blepharoleptos</i>	Cuban bulrush	I
<i>Eichhornia crassipes</i>	Water hyacinth	I
<i>Hemarthria altissima</i>	Limpograss	II
<i>Hydrilla verticillata</i>	Hydrilla	I
<i>Imperata cylindrica</i>	Cogongrass	I
<i>Ludwigia peruviana</i>	Peruvian primrose-willow	I
<i>Lygodium microphyllum</i>	Old world climbing fern	I
<i>Panicum repens</i>	Torpedo grass	I
<i>Paspalum notatum</i>	Bahiagrass	-
<i>Pistia stratiotes</i>	Water-lettuce	I

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<i>Salvinia minima</i>	Water spangles	I
<i>Schinus terebinthifolia</i>	Brazilian pepper	I
<i>Sorghum halepense</i>	Johnsongrass	-
<i>Urochloa mutica</i>	Para grass	I

2.3 Fish and Wildlife Resources

The TMGWMA supports a wide array of imperiled and more common wildlife species. Active wildlife management practices make the TMGWMA an excellent place to observe wildlife. The TMGWMA's one altered community type, impoundment, contains a patchwork of habitats including open water, aquatic bed, emergent marsh, and shrub marsh which provide critical habitat for resident and migratory wildlife. The FWC maintains an inventory of fauna that has been documented on the TMGWMA listed in Appendix 11.5, including mammals, birds, reptiles, and fish. This inventory will continue to be updated with new observations as they occur.

2.3.1 Imperiled Fish and Wildlife

For the purposes of this Management Plan, the term “imperiled fish and wildlife” refers to animal species that are currently designated as federally-Threatened or Endangered by the USFWS or state-Threatened by the FWC. This designation is also commonly known as “listed species.” Table 5 outlines all imperiled fish and wildlife that have been observed on the TMGWMA. In instances where the currently accepted scientific name differs from the scientific name listed in the Florida Endangered and Threatened Species List rule (68A-27.003, F.A.C.), the F.A.C. name is denoted in brackets.

Table 5. Imperiled Fish and Wildlife Species

Scientific Name ¹	Common Name	Status	FNAI Ranks*
<i>Antigone canadensis pratensis</i>	Florida sandhill crane	ST	G5T2, S2
<i>Egretta caerulea</i>	Little blue heron	ST	G5, S4
<i>Egretta tricolor</i>	Tricolored heron	ST	G5, S4
<i>Laterallus jamaicensis jamaicensis</i>	Eastern black rail	FT	G3, S2
<i>Mycteria americana</i>	Wood stork	FT	G4, S2
<i>Platalea ajaja</i>	Roseate spoonbill	ST	G5, S2
<i>Caracara plancus cheriway</i>	Crested caracara	ST	G5, S2
<i>[Polyborus plancus audubonii]</i>			
<i>Rostrhamus sociabilis plumbeus</i>	Everglade snail kite	FE	G4G5, S2

*FNAI Ranking System descriptions can be found in Appendix 11.6

¹ Currently accepted name [name as listed in 68A-27.003 F.A.C. when it differs]

Acronym	Status
FE	Federally Endangered
FT	Federally Threatened
ST	State Threatened

At its November 2016 Commission meeting, the FWC approved Florida's [Imperiled Species Management Plan](#), which included changes to the listing status for many wildlife species. Subsequent rule changes (68A-27.003 and 68A-27.005, F.A.C.) have come into effect since the Imperiled Species Management Plan was approved and those changes have been incorporated into this Management Plan. All federally listed species that occur in Florida are included in [Florida's Endangered and Threatened Species list](#) as federally-designated Endangered or 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 state designated as Threatened.

Gopher Tortoise Recipient Site Eligibility

Per Chapter 259.01 F.S., the FWC has evaluated the TMGWMA for eligibility as a recipient site for gopher tortoises. Based on a preliminary GIS analysis conducted by the FWC, the TMGWMA does not meet the April 2024 [Gopher Tortoise Permitting Guidelines](#), and, therefore, would not be permissible as a gopher tortoise recipient. This determination is due to the site's soil composition being primarily wet, poorly drained soil types, which are not conducive to supporting viable gopher tortoise populations and do not meet the recipient site criteria of the guidelines.

2.3.2 Non-native Wildlife Species

In addition to the native wildlife species listed in Appendix 11.5, five non-native wildlife species have been documented on the TMGWMA (Table 6). The FWC will continue to document any occurrences of non-native species. More information on monitoring and management of non-native wildlife can be found in Section 4.5 and Section 5.4.

Table 6. Non-native Wildlife Species

Scientific Name	Common Name
<i>Agama agama</i>	African redhead agama
<i>Agama picticauda</i>	Peter's rock agama
<i>Iguana iguana</i>	Green iguana
<i>Porphyrio poliocephalus</i>	Gray-headed swampphen
<i>Python molurus</i>	Burmese python
<i>Sus scrofa</i>	Wild hog

2.3.3 FNAI Element Occurrences

A diversity of wildlife species is found on the TMGWMA. The FWC uses the FNAI Natural Heritage Database to assist in identifying and recording resources on FWC-managed areas. This database also supplemented the development of the species tables found in Appendix 11.5. FNAI's Natural Heritage Database is a comprehensive compilation of records documenting the location and ecological status of rare plant and animal species in the state. The database consists of "element occurrences", where an "element" is any exemplary or rare component of the natural environment, such as a species, natural community, or other ecological feature; and an "element occurrence" is an area of land and/or water where an element is, or was, present. FNAI scientists "track"

(collect information on) approximately 233 vertebrates, 562 invertebrates, and 492 plants representing approximately 13% of the state's vertebrate species, less than 5% of the invertebrates, and about 12% of the plants. The status of each tracked element is assessed using standardized methodology; each tracked element is assigned ranks that reflect its rarity and degree of imperilment at the global and state level. These ranks are applied using a standardized methodology that incorporates many factors, including geographic range; number, size, and condition of known occurrences; population size and trends; life history characteristics; and threats. The Natural Heritage ranking system definitions are in Appendix 11.6 and may be found [online](#).

The FNAI element occurrence records include two occurrences of wildlife species in the vicinity of the TMGWMA. Several of the imperiled species discussed in Section 2.3.1 in this report are tracked by FNAI. These species and their ranks are listed in Table 5. In addition to the imperiled species listed in Table 5, FNAI also tracks the following rare and/or vulnerable species that occur on the TMGWMA: American alligator (*Alligator mississippiensis*) G5 S4, caspian tern (*Hydroprogne caspia*) G5 S2, glossy ibis (*Plegadis falcinellus*) G5 S3, limpkin (*Aramus guarauna*) G5 S3, peregrine falcon (*Falco peregrinus*) G4 S2, swallow-tailed kite (*Elanoides forficatus*) G5 S2, and yellow-crowned night-heron (*Nyctanassa violacea*) G5 S3. Appendix 11.10 contains a letter from FNAI authorizing the FWC to utilize their database for the purpose of identifying known plant and animal resources.

2.4 Water Resources

All surface waters of the State are classified by the DEP according to designated uses as described in Chapter 62-302.400, F.A.C. The surface waters of the TMGWMA are designated as Class III and classified for fish consumption; recreation or limited recreation; as well as 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, F.A.C.). No portions of the TMGWMA are designated as OFW. The TMGWMA is located adjacent to the Indian River-Malabar to Vero Beach Aquatic Preserve.

At TMGWMA, water resources include shallow impoundments, Goodwin Lake, and a reservoir on the Goodwin Unit and Broadmoor Marsh Unit. The TMGWMA was designed to allow for the movement of water from the reservoirs to the impoundments as drawdowns and re-watering are needed to achieve management objectives. Two water control structures (WCS) are installed in each impoundment; one being connected to the central canal and the other connected to a canal extending around the Goodwin Unit's perimeter. In addition, two-10,000 gallon per minute, electric, bi-directional pumps are located on the southern end of the central canal to move and control water.

The northern half of the Goodwin Unit is used as a reservoir to store water for managing the impoundments. The reservoir is directly connected to the canal extending around the perimeter of the impoundments on the southern half. Two WCS also connect the reservoir to the central

canal; one on the northern end of the central canal, and the other on the southern end of the central canal.

The Broadmoor Marsh Unit is divided into 10 impoundments, each averaging about 214 acres. A central canal bisects the Unit with eight impoundments to the north and two impoundments plus an 875-acre reservoir to the south. Previous farming practices on the property dictated the need for numerous lateral drainage ditches, oriented in an east-west direction and spaced approximately 220 feet apart, for precise water level manipulations within each impoundment. The ditches have been left intact and are used to facilitate the conveyance of water. Two WCS are installed in each impoundment. The WCS convey water to a slightly deeper secondary drainage ditch that is connected to the central canal and the pump station.

The water levels in the Goodwin Unit and the Broadmoor Marsh Unit reservoirs are managed to maintain a semi-permanent flooded marsh, with water levels ranging between 24 to 36 inches. The Goodwin Unit serves as a storm water retention area for use by the SJRWMD so water levels in its reservoir cannot exceed an overall mean elevation of 22 feet NGVD29. Maintaining water levels at or below this elevation will provide approximately 11,610 acre-feet of floodwater storage when the Goodwin Unit is flooded to an elevation of 25 feet NGVD29. No water level restrictions exist for the Broadmoor Marsh Unit.

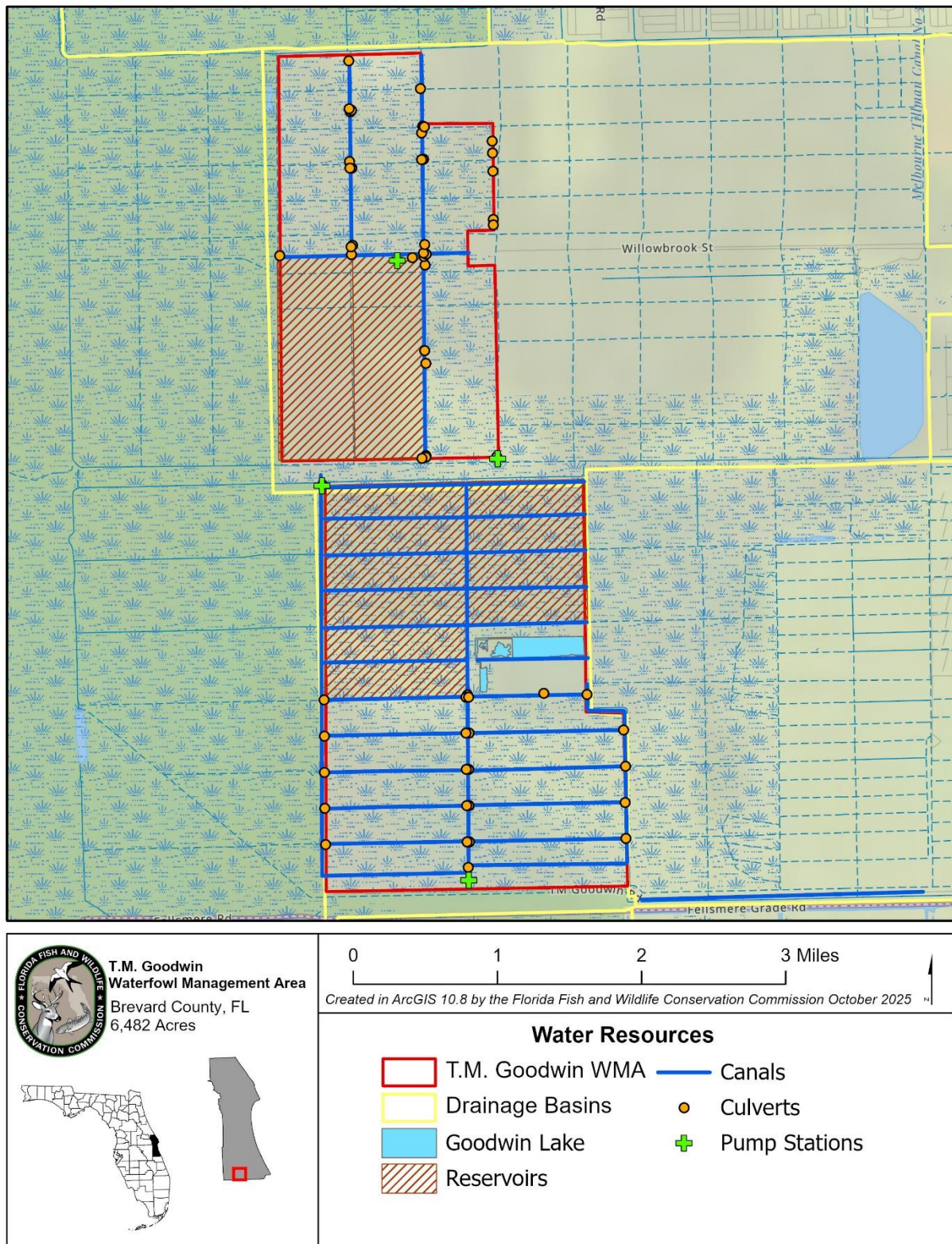


Figure 9. Water Resources

2.5 Forest Resources

There are no timber resources on the TMGWMA. As a result, the FWC and the Florida Forest Service (FFS) have determined that a professional forest assessment for the TMGWMA is unnecessary. The FWC will cooperate with the FFS or a qualified professional forestry consultant regarding any forestry management activities, should they become necessary or appropriate.

2.6 Beaches and Dunes

There are no beaches or dunes located at TMGWMA.

2.7 Mineral Resources

Mineral operations in Brevard County have included mining of limestone-coquina, sand, gravel, fill, clay, stone, heavy metals, aluminum, phosphates, fluorine-fluorite, iron, magnesite, uranium, and titanium. No minerals are commercially mined at TMGWMA. There is a 184-acre borrow pit on the east-central portion of the Goodwin Unit, south of Goodwin Lake. The SJRWMD retains the right for use of borrow material in maintaining and constructing levees in the USJRB Project and allows the FWC to use fill material for maintenance of levees on the TMGWMA.

2.8 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).

To date, the FMSF indicates that two previous cultural resource surveys have been conducted on the TMGWMA. Additionally, one archaeological site and one resource group have been recorded on the TMGWMA, neither of which have been determined eligible for inclusion in the National Register of Historic Places (Table 7). The FWC consults with the DHR to determine the necessary actions for resource inventory and preservation. All identification, assessment, and preservation strategies are developed in consultation with the DHR.

Table 7. Cultural Resources

FMSF No.	Resource Category	Resource Title	Acres	National Register of Historic Places Eligibility
BR1614	Archaeological site	TM Goodwin Waterfowl Site	6.22	No
BR1957	Linear resource	Main Sottile Canal	3.0	No

2.9 Scenic Resources

The TMGWMA is part of the USJRB Project, which is a unique, important resource management effort that has ecological, agricultural, and historical significance. As a result of the project, wetland management and protection in the USJRB has provided excellent wildlife habitat at

TMGWMA and many forms of recreational activities for the public. Scenic resources include views of wetland habitat and the variety of wildlife it supports including waterfowl, wading birds, and shorebirds. The TMGWMA is part of the Great Florida Birding and Wildlife Trail, and observers have documented more than 90 species of birds during fall and spring migrations. Visitors can observe wildlife in the impoundments and reservoirs from the area's network of levees.

3 Uses of the Property

3.1 Previous Use and Development

During the 1960s, Gulf Western Food Products, a division of Gulf Western Industries, purchased approximately 58,000 acres of freshwater marshlands, including present day TMGWMA, from South Puerto Rican Sugar Corporation. Most of this land was within Brevard and Indian River counties. Gulf Western Industries began draining much of this land for agricultural purposes, primarily citrus, sod, and cattle production. Between 1972 and 1980, the Goodwin Unit was quarter-drained, which involved dredging lateral ditches in an east-west direction every one-quarter mile. These ditches connect to larger, slightly deeper ditches dredged in a north-south direction every mile. This facilitated the quick removal of surface and shallow ground water, which was pumped offsite to keep the area relatively dry. The area was planted with numerous pasture grasses [i.e., bahiagrass (*Paspalum notatum*), para grass (*Urochloa mutica*), and bermudagrass (*Cynodon dactylon*)] and stocked with cattle at a rate of about one cow per two acres for a total of about 2,000 head of cattle.

In January 1988, the SJRWMD acquired the property from the Fellsmere Farm Company and subsequently named the tract the C-54 Retention Area in recognition of its intended purpose within the USJRB Project. Like the Goodwin Unit, the Broadmoor Marsh Unit was quarter-drained beginning in the mid-1950s by the Sottile family. In the late 1970s, the Sartori family bought the property, known as Willowbrook Farms, which included the present-day Broadmoor Marsh Unit. The Broadmoor Marsh Unit was not farmed until 1981, when the Sartori family began clearing the area and constructing additional lateral drainage ditches for row crop production, primarily feed corn for dairy cows. In the mid- to late-1980s, portions of the Broadmoor Marsh Unit were leased to A. Duda and Sons for vegetable production. The Broadmoor Marsh Unit was farmed until the SJRWMD and the NRCS purchased the property in March 1998 as part of wetland restoration efforts in the USJRB.

3.2 Current Use

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

The TMGWMA is being managed as a multiple-use conservation land. Multiple-use management strategies incorporate uses related to wildlife, fisheries, forest management, and fish and wildlife-focused public outdoor recreation. Current and anticipated resource uses of the property are diverse. Fish and wildlife-focused public outdoor educational and recreational opportunities are provided that are compatible with the original purposes for acquisition of the TMGWMA. Hunting continues to be a popular recreational activity. The area also offers excellent opportunities for wildlife watching. The area is managed for waterfowl and provides for high quality bird watching. Additional uses include hiking, fishing, boating, photography, bicycling, nature study, and horseback riding. Due to the proximity of population centers in Brevard County, public use can be expected to increase as public awareness of opportunities increases.

3.2.1 Hunting

The TMGWMA is one of the premier duck hunting locations in Florida. Late fall through winter, its open marsh habitat, mudflats, and impoundments contain the full spectrum of duck species. Currently, hunting opportunities at TMGWMA include seasons for waterfowl and snipe. Alligator hunting is also allowed on the area. For more information on hunting opportunities at the TMGWMA visit the following link: [Hunting in Florida | FWC](#).

3.2.2 Fishing

Fishing is authorized year-round at the TMGWMA.

3.2.3 Paddling and Boating

Goodwin Lake is open to boats (40 horsepower or less) on Sundays and Thursdays from 9am to 4pm. Boating and paddling opportunities are also available in the Goodwin Unit and Broadmoor Marsh Unit reservoirs when water levels are adequately high. There is a boat ramp and dock at Goodwin Lake, a boat ramp in the northwest corner of the Goodin Unit, and one unimproved boat ramp on the Broadmoor Marsh Unit. Motorized vessels are not permitted in the Goodwin impoundments.

3.2.4 Trails and Roads

Eight miles of the SJRWMD's Three Forks trail follow the western exterior levee of the Broadmoor Marsh Unit and the eastern exterior levee of the Goodwin Unit. Hiking, bicycling, and horseback riding are allowed on the area's levees. Horses and horseback riding are not permitted on L-75 and L-74 North. There are approximately 42 miles of roads and levees on the TMGWMA that are managed by FWC. Of those 42 miles, approximately 10.3 miles are open to the public for vehicular travel. There are an additional 8.1 miles of levees open for public vehicular travel that are managed by the USACOE or the SJRWMD.

3.2.5 Camping

Camping is conditionally allowed only during FWC coordinated events.

3.2.6 Geocaching

Geocaching, also known as Global Positioning System (GPS) Stash Hunt and GeoStash, is a contemporary combination of orienteering and scavenger hunting generally utilizing a GPS 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.

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 the FWC-managed lands is governed by specific guidelines. These guidelines may be found on the FWC [website](#).

3.2.7 Wildlife Watching

Wildlife watching is excellent at TMGWMA, particularly for waterfowl, wading birds, and shorebirds. The area is part of the Great Florida Birding and Wildlife Trail, a 2,000-mile, self-guided highway trail that connects and unifies 515 birding and wildlife watching sites throughout Florida. Visitors can expect to observe 100 different bird species on the area during fall and spring migrations. Marshlands next to the levees are good spots to observe great blue herons (*Ardea herodias*), glossy ibis, roseate spoonbills (*Platalea ajaja*), mottled ducks (*Anas fulvigula*), and alligators. Visitors can view the area's wildlife by following the series of levees around the impoundments.

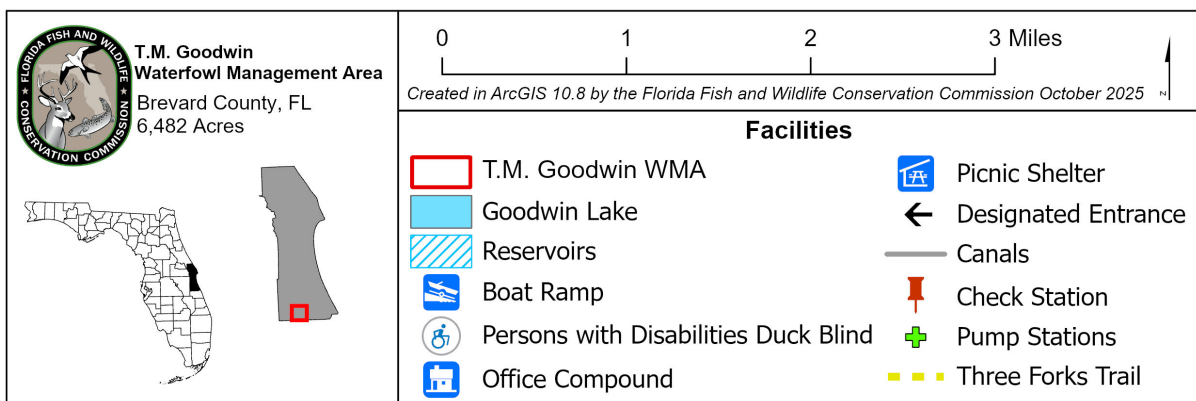
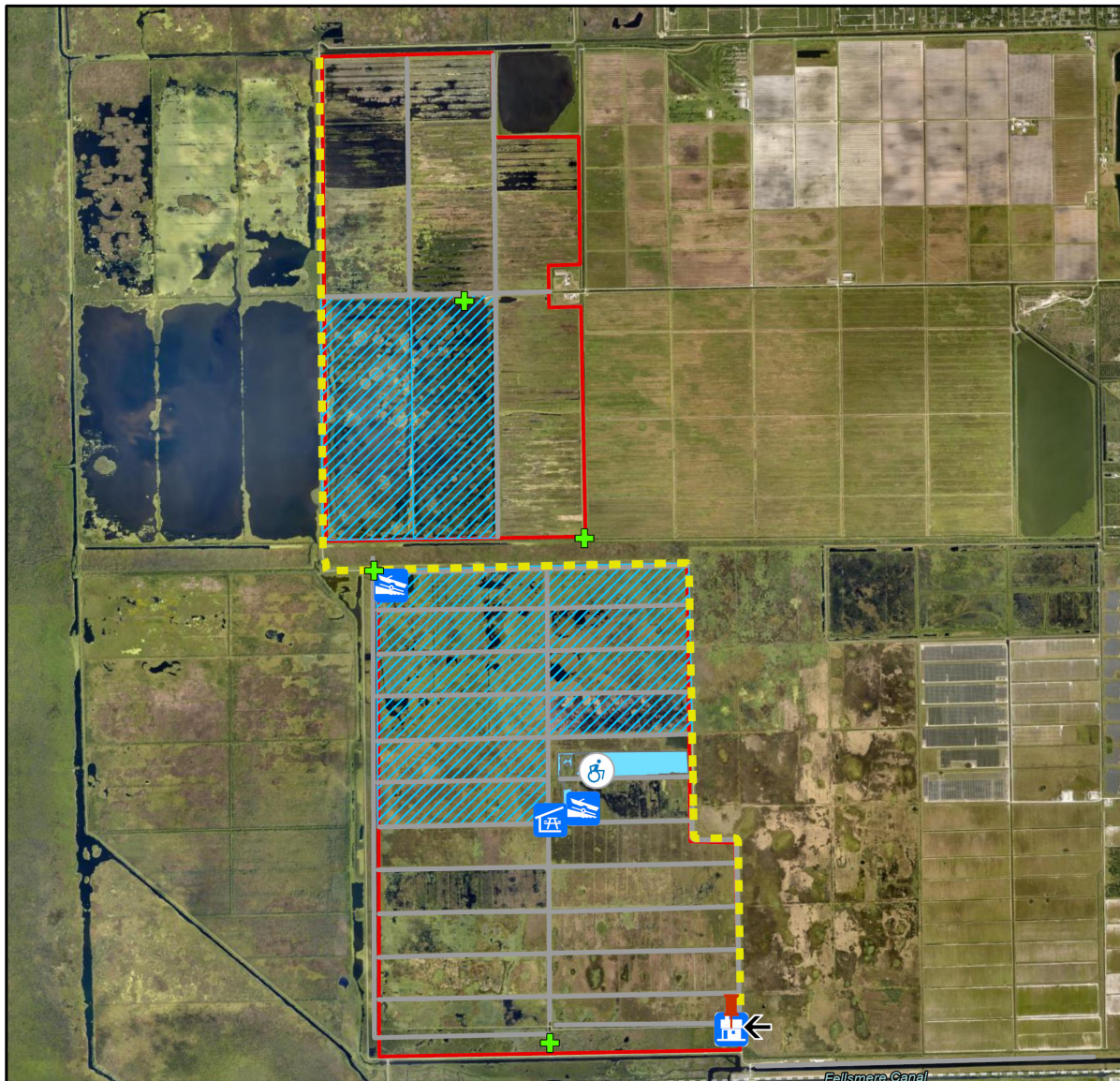


Figure 10. Facilities

3.3 Adjacent Land Uses

The TMGWMA is in southern Brevard County near the County's border with Indian River County to the south. Over the last 50 years, the economy of this area has been based primarily on citrus, and to a lesser extent, cattle and fertilizer. The urban areas of Melbourne and Palm Bay have been growing in the westerly and southerly directions, which will likely influence future development in the area. The 2023 U.S. Census estimates that there are 643,979 people living in Brevard County. The Department of Economic Affairs, Bureau of Economic and Business Research's medium-range population projection indicates that in the year 2030, there will be 678,300 people living in Brevard County.

The current zoning ordinance for the TMGWMA is primarily General Use. According to Brevard County's Comprehensive Plan, this designation encompasses rural single-family residential development or unimproved lands for which there is no definite current proposal for development, or land in areas lacking specific development trends. Portions of the TMGWMA located in Sections 08 and 09, Township 30, South Range 36 East are zoned as Agricultural Residential, a classification which encompasses lands devoted to agricultural pursuits and single-family residential development of spacious character. Brevard County's future land use maps indicate that the TMGWMA will be designated and zoned as Public Conservation. Lands immediately adjacent to the TMGWMA are classified as General Use and Agricultural Residential.

3.4 Visitation, Economic Benefits, and Revenue-generating Potential

Visitation and public use of the area for fish and wildlife-focused public outdoor recreational opportunities is the primary source of economic benefits from the TMGWMA, which contributes to the overall economy for the Northeast region of Florida. In Fiscal Year 2023-24, an estimated 19,972 people visited the TMGWMA. Primarily because of this visitation and use of the area, the FWC economic analysis estimates that the TMGWMA generated an annual economic impact of \$3,902,329 for the State and the Northeast region of Florida. This estimated annual economic impact has aided in the support or creation of an estimated 40 jobs.*

Further revenue generating potential of the TMGWMA will depend upon future uses described in the Management Plan and may include sales of various permits, recreational user fees, or other ecotourism activities, if such projects are feasible. The annual area regulations can be consulted to clarify the necessary and required permits, fees, and regulations.

**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 in 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 values used to calculate these expenditures 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 make adjustments, if needed.*

3.5 Single- or Multiple-use Management

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

3.5.1 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 TMGWMA. Uses classified as “Approved” are in accordance with the purposes for acquisition; the Conceptual State Lands Management Plan; and the FWC agency mission, goals, and objectives as expressed in the FWC Agency Strategic Plan. 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, 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.

	Approved	Conditional	Rejected
Apiaries		✓	
Archery		✓	
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 cultural resources	✓		
Primitive camping		✓	
Protection of imperiled species	✓		
Off-road vehicle use			✓
Shooting sports park			✓

Soil and water conservation	✓		
Timber harvest		✓	
Wildlife observation	✓		

3.5.2 Incompatible Uses and Linear Facilities

Consideration of incompatible uses and linear facilities on the TMGWMA are made in accordance with the requirements of Section 253.034(10), F.S.; various applicable Florida statute, rule, and policy requirements; and other provisions governing applications for proposed incompatible uses or linear facilities on state-owned conservation lands. Upon approval and implementation of the 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 Division of State Lands (DSL) and the SJRWMD prior to any incompatible use or linear facility being authorized on the TMGWMA.

3.6 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 and SJRWMD. The FWC considers recommendations for surplus lands as they relate to Florida's "No Net Loss of Hunting Lands" legislation (Ch. 379.3001, F.S.), 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 TMGWMA 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-focused public outdoor recreational opportunities. Therefore, no portion of the TMGWMA 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 non-renewable cultural resources. In general, the FWC management intent for the TMGWMA is to manage and improve wetland habitats for various waterfowl and wetland dependent species, including wading birds, shorebirds, and rare and more common wildlife species. In conjunction with this primary emphasis, it is the FWC's intent to provide quality fish and wildlife-focused public outdoor recreational opportunities on the TMGWMA. As noted previously, the management activities described in this section comply 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 SJRWMD are required every five years by Section 259.036, F.S. These reviews determine whether the lands are 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 373.591, F.S. According to statute, the review team will “determine whether conservation, preservation, and recreation lands titled in the names of the water management districts are being managed for the purposes for which they were acquired and in accordance with land management objectives, the water management districts shall establish land management review teams to conduct periodic management reviews.”

4.2 Adaptive Management

Adaptive management is "learning by doing";³ it is the adjustment or modification of conservation actions to achieve a desired conservation goal, which is practiced on the TMGWMA. 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.^{3, 4, 5}

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.^{3, 4, 5} 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} The FWC will monitor conservation actions, species, habitats, and major threats to the conservation of the natural and cultural resources of the TMGWMA.

4.2.1 Monitoring

A well-developed monitoring protocol is also one of the required criteria for the management of the TMGWMA. 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 the essential data for evaluating the costs, benefits, and effectiveness of planned conservation actions, whereby those evaluations can then be used to modify management actions as necessary to meet longer-term management goals.³

For natural communities, monitoring protocols are generally established through the FWC's Objective Based Vegetation Management (OBVM) program which monitors how specific vegetative attributes are responding to FWC management. However, OBVM is not implemented on TMGWMA which is further described in Section 4.3.1. FWC staff may also monitor additional fish and wildlife species when deemed appropriate. Volunteer monitoring opportunities that support community engagement and the goals and objectives of the TMGWMA may be developed in collaboration with land managers, key biologists, and/or partners and could include projects ranging in focus from single-day events like bioblitzes to longer term programs assisting in species monitoring. Invasive plant and animal species are monitored as needed and appropriate (Section 4.5). Recreational uses are monitored through the FWC's Public Access Services Office and work

in conjunction with the establishment and adjustment of public access carrying capacities (Section 4.6.3). Cultural resources are monitored with guidance from the DHR (Section 4.9).

4.2.2 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. The FLAM evaluates the Florida landscape based upon important natural resources and habitat needs of wildlife to identify ecologically significant lands in the state and to assess the potential impacts of management and land-use changes. The FLAM was developed to provide technical assistance to various local, regional, state, and federal agencies and entities interested in wildlife needs and conservation 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 TMGWMA has a moderate mean wildlife value of 5.1 (Figure 11).

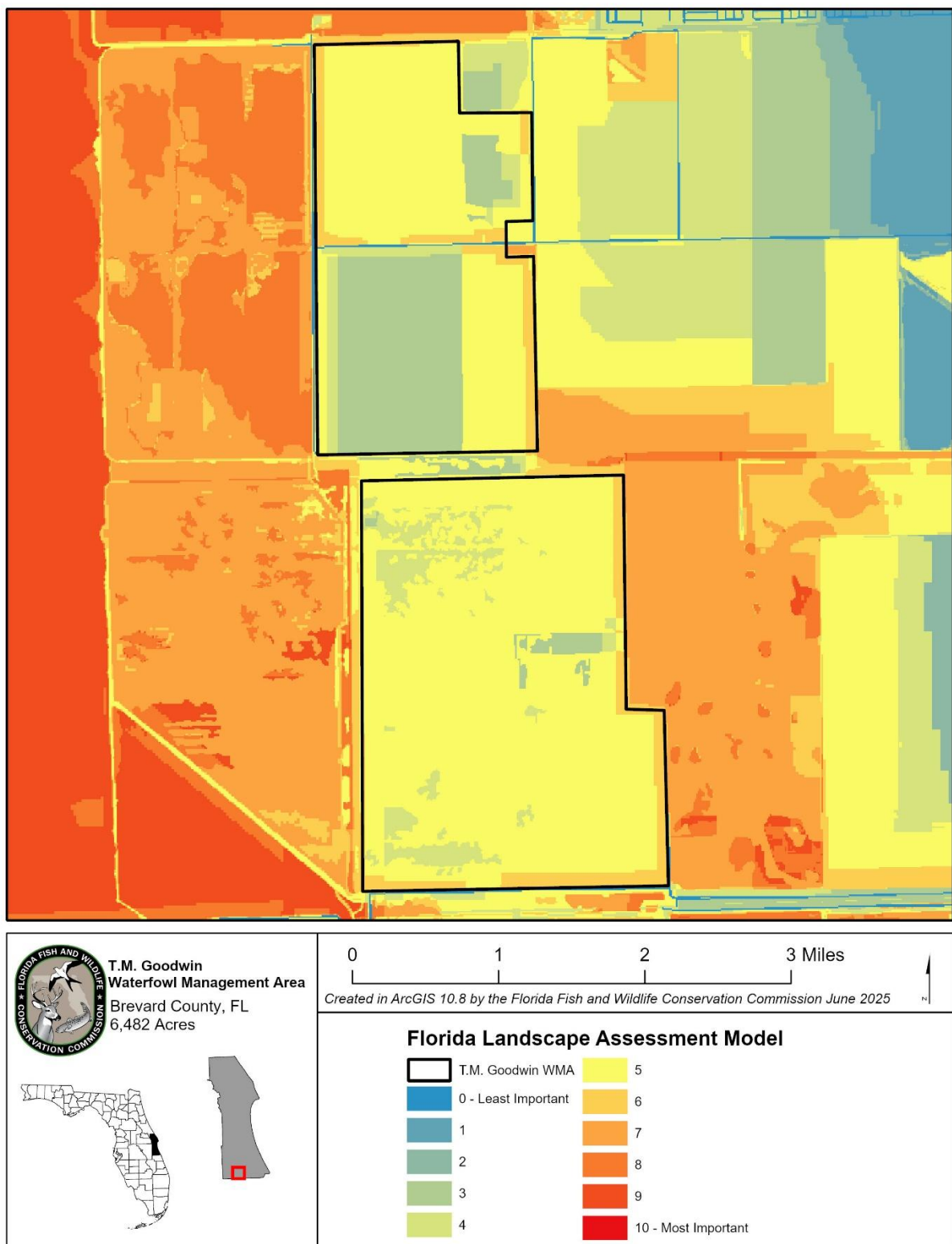


Figure 11. Florida Landscape Assessment Model

4.2.3 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.

4.2.4 Implementation

The TMGWMA Management Plan serves as the guiding framework to implement this adaptive management process. It serves as the underpinning for the integration of management programs underway to accomplish needed conservation actions that are planned to manage the natural resources of the TMGWMA 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 TMGWMA, the FWC will emphasize habitat management that maintains early successional, predominately wetland plant communities to provide habitat and food sources for waterfowl, shorebirds, and other wetland wildlife species. Management and maintenance may be achieved using prescribed fire, water level management, and mechanical and chemical vegetation management activities. Water level management is the primary habitat management tool used on the area. Habitat management is accomplished by manipulating water levels in the impoundments to promote the production of native, moist-soil, wetland plants. The FWC will continue to manage and protect the marsh, open water, and aquatic beds within the area's impoundments and reservoirs using integrated wetland management techniques.

4.3.1 Objective-Based Vegetation Management

The FWC often uses a comprehensive resource management approach to improving FWC-managed areas. OBVM is a monitoring tool used by the FWC to monitor how specific structural vegetative attributes, that characterize a natural community, are responding to management.

Because the TMGWMA is maintained and managed as an impoundment, an altered community, there are no natural communities to be monitored by the OBVM program. Due to the specific composition of artificial wetlands and associated management objectives, the area is managed to provide habitat for waterfowl and other wetland species.

The FNAI mapped TMGWMA in 2012 and classified the entire area as impoundment. The impoundment classification includes the TMGWMA's open water, aquatic bed, emergent marsh, shrub marsh, levees, and managed impoundments. Using aerial photography from 1943 that was geo-rectified and merged to create a mosaic covering all of the property and some of the surrounding lands, the FNAI mapped two historic natural communities on the area, consisting of

floodplain marsh and South Florida bayhead, a variant of baygall. Instead of focusing management activities to restore the historic natural communities that occurred at TMGWMA, FWC staff uses moist soil management techniques to establish and perpetuate pre-emergent aquatic wetland vegetation to provide a diversity of wintering and breeding habitats for various waterfowl species, wading and shore birds.

After communities have been mapped, management units are delineated. Management units on the area consist of the impoundments and reservoirs on the Goodwin and Broadmoor Marsh Units. Area staff assess the current vegetation in each impoundment and reservoir, including documenting plant species by impoundment and reservoir. Staff then develop management actions by impoundment that are needed to achieve the desired vegetative conditions and composition as well as ideal water level. These actions include water level manipulation, chemical and manual treatment of non-native vegetation, roller chopping, disking, and prescribed burning. Through these management regimes, the area's aquatic vegetation normally regenerates naturally without any reseeding necessary to provide abundant pre-emergent aquatic vegetation for waterfowl and wading birds as well as other fish and wildlife species that occur on the area.

4.3.2 Prescribed Fire and Fire Management

As noted earlier, prior to acquisition by the SJRWMD, the TMGWMA was used for agriculture and pastureland which involved installing water control structures, ditches, and levees to facilitate conditions favorable for farming and grazing. Site preparation, drainage, and lack of fire have all combined to alter the plant species composition of the area and had inhibited the natural fire return interval for the area's freshwater marshes. Since the area was acquired by the SJRWMD and leased to the FWC, the FWC has been engaged in site-specific combinations of prescribed fire, mechanical and chemical vegetation control, and management of water regimes to maintain the area's network of marsh, open water, and varying vegetative cover.

The FWC employs a fire management regime to maintain or increase species and plant diversity and will continue a prescribed burning program on the TMGWMA in accordance with management objectives. At TMGWMA, the network of levees and canals are used as firebreaks.

In addition to the general prescribed fire management guidelines described above, an area-specific Prescribed Burn Plan (Appendix 11.13) has been developed and implemented. This plan includes, but is not limited to, delineation of burn management units, descriptions of prescribed fire methodology, safety, and smoke management guidelines. Since TMGWMA is made up of impoundments, which are not considered fire-maintained communities, prescribed burns occur as needed. Challenges that continue to impact the implementation of prescribed fire are described further in Section 7. The continuing benefits of prescribed fire on the area's wildlife habitats, along with other ongoing habitat management activities that are being implemented, are described in more detail in Section 5.1.

4.3.3 Habitat Restoration and Improvement Activities and Accomplishments

As described earlier, the natural vegetative community on TMGWMA was severely altered due to past drainage practices and previous land use. Previous and ongoing management activities include application of prescribed fire on the area's freshwater marshes, water level management,

removal and treatment of non-native vegetation, and mechanical vegetation treatment to control plant succession and maintain the marsh in an early successional state.

Every aspect of the day-to-day operation of the area has wetland habitat management and enhancement as its primary goal. For example, culvert maintenance, properly functioning pumps and structures, and ditches clear of vegetation all aid in water level manipulation and movement. The quicker and more efficient water can move around the area, the higher the quality and quantity of habitat staff can provide.

Continuing a rigorous non-native plant management program on the area has proved extremely beneficial in improving conditions for wetland dependent plant species that were lost by previous management activities prior to SJRWMD acquisition. Chemical treatments of non-native vegetation coupled with follow-up burning, disking, chopping, or a combination of the three and followed by flooding has greatly increased the number of usable acres by waterfowl and wading birds on the area.

Finally, the most important aspect of habitat management at TMGWMA is maintenance. By maintaining a proper fire return interval and performing mechanical treatment such as disking and chopping, TMGWMA staff ensures a robust and diverse vegetative composition in the managed areas. While in drawdown, spot spraying of non-natives will continue to be a standard operating procedure, but the overall management goal is to use high water level manipulation, prescribed fire, and mechanical soil disturbance to promote native vegetation.

Following is a list of the primary habitat management and improvement activities that have occurred since 2015.

- The Prescribed Burn Plan was updated in 2025.
- Approximately 8,703 acres have been mechanically treated including roller chopping, mowing, disking, or cookie cutting to maintain early successional habitat conditions. This includes treatment of the same areas multiple times over the 10-year period to continue to provide early successional habitat.

Continuing habitat management activities will focus on enhancing natural communities, utilizing prescribed fire to promote the growth of wetland dependent plant species, treating and removing invasive plant species, and managing vegetation through mowing and roller chopping as needed. Invasive species management is more extensively discussed in Section 5.5. Further specific habitat management and improvement objectives planned for the TMGWMA are described in Section 5.

4.4 Fish and Wildlife Management, Enhancement, and Population Restoration

Due to the active wildlife and moist soil management practices at TMGWMA, a diversity of wildlife, including waterfowl, rare, imperiled, game, and nongame species, can be found on the area. In

managing for the conservation of wildlife species, an emphasis is placed on migrating, wintering, and resident waterfowl.

The size, location, and management of TMGWMA creates a habitat mosaic for a wide variety of wildlife species. The diverse habitats range from mud flats to moist-soil and shallow water impoundments to more deeply flooded marsh. Resident wildlife will be managed for optimum species richness, diversity and abundance. In addition to resident wildlife, TMGWMA provides resources critical to many migratory birds including waterfowl, passerines, raptors, shorebirds, and others. Habitats important to migratory species will be protected, maintained, or enhanced. Water management schedules for selected impoundments are specifically designed to provide shallow feeding areas (one to three inches) and exposed mud flats during migratory periods.

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 watching opportunities. Hunting opportunities are regulated through quotas to ensure the persistence of viable game species populations, as well as hunter safety and satisfaction.

The primary emphasis of wildlife management is on managing habitat for waterfowl and other wetland wildlife species. The FWC also places an emphasis on documenting the occurrence and abundance of rare and imperiled species as well as some species of waterfowl. 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 will include prescribed burning, water level management, roller chopping, disking, and native and invasive vegetation treatment.

4.4.1 Game Populations

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 populations will be managed to provide continued recreational sport hunting and wildlife watching opportunities. However, 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.

4.4.2 Fish and Wildlife Management Activities and Accomplishments

The FWC will continue to monitor and manage for game and nuisance animal species. Following is a list of activities and monitoring outcomes that have occurred since 2015 to further FWC's mission for managing fish and wildlife on the TMGWMA.

- Fish attractors were installed in Goodwin Lake.
- Fifteen wood duck (*Aix sponsa*) nest boxes were installed and maintained on the area.

4.5 Non-native Species Maintenance and Control

With invasive species populations continuing to grow in Florida, the FWC takes a proactive and comprehensive approach to the monitoring and management of 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 because of human activities and are closely monitored by the FWC for potential future impacts. If a non-native species is found to cause or is likely to cause environmental or economic harm to humans, it is classified as an invasive; as such, the Plan uses the term “invasive” where appropriate. On the TMGWMA, the FWC has established a variety of control measures for the management of any non-native plant and animal species found on the area, as further outlined in Section 5.4 of this Management Plan.

4.5.1 Non-native Plant Species

The FWC will continue efforts to manage the establishment and spread of FISC Category I and II plants 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](#).

During the previous planning period, several management activities have occurred (Section 4.5.3). FWC staff strive to either eradicate infestations or achieve maintenance rotation. 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 vary 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 10-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 like 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 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. Treatment strategies for invasive plants will be adjusted over time as conditions change on the TMGWMA. Changes may include hydrological management, wildfire, and reintroduction of endangered plant/animal species.

Additionally, the FWC will continue efforts to manage the introduction of non-native species, as well as pests and pathogens, on the TMGWMA by requiring all personnel, both contracted and internal, to follow the FWC Decontamination Protocol. The TMGWMA has a designated site which can be used for decontamination of both equipment and personnel to allow for a proactive approach to managing new introductions.

The 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. For areas on the TMGWMA 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 Section for assistance and guidance on aquatic plant management. Level of infestation will be monitored and managed as practicable to allow recreational use as well as providing valuable ecological resources for wintering waterfowl, wading birds, shorebirds, fish and other wetland-dependent species.

4.5.2 Non-native Fish and Wildlife Species

The FWC continues to work towards minimizing the adverse impacts of non-native fish and wildlife species in Florida. A non-native species may be considered invasive if it causes or is likely to cause adverse impacts to Florida's ecology, economy or human health and safety. Minimizing adverse impacts is accomplished through prevention, early detection, rapid response, control and management, and education and outreach. Early detection and rapid response are a critical defense against the establishment of non-native fish and wildlife. The FWC monitors and removes these species, responds to new invasions, and continues to assess the risk of species not yet present in our state. Rule 68-5, F.A.C., Federal Lacey Act, and certain F.S. govern the importation, possession, and use of invasive fish and wildlife. Rule 68-5, F.A.C., identifies Conditional and Prohibited invasive species in Florida. More information on these regulations can be found [here](#) and the rule may be found [here](#). Conditional species (formerly referred to as restricted species) and Prohibited species are dangerous to Florida's native species and habitats and could pose threats to health and welfare of the people of Florida or the economy. The FWC relies on monitoring efforts and current science including risk determination, supplemental documentation, and research to identify possible invasive species. To further assist the FWC's effort on non-native fish and wildlife identification and removal, the FWC encourages the public to utilize the FWC's Invasive Species Hotline at 888-Ive-Got1 (483-4681) or report observations of non-native species [here](#). More information on these public reporting options and other components of the Wildlife Impact Management Section's Non-native Fish and Wildlife Program can be found [here](#).

To address the presence of non-native fish and wildlife on the TMGWMA, FWC area staff will continue to work closely with FWC's Wildlife Impact Management Section for guidance and assistance. The FWC also relies on public assistance and participation in the management of

non-native fish and wildlife species. Executive order 23-16 authorizes the lethal take and removal of non-native reptiles on 32 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 species on private and public lands including WMAs. More information on this permit process can be found [here](#). Due to the growing concern related to the impacts of several invasive species, the FWC and partners take a proactive and coordinated approach towards the removal of these harmful non-native species.

An invasive animal of concern throughout the state and on the TMGWMA is the wild hog. These animals have high reproductive rates, and when populations reach high densities, wild hogs can significantly degrade vegetative 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 may also be managed by trapping, as necessary, to aid in minimizing the negative impacts caused by wild hog populations on the area.

4.5.3 Non-native Activities and Accomplishments

Invasive plant species known to occur are shown in Table 4. During the previous planning period, FWC staff worked to survey and manage non-native plant and wildlife species. Following is a list of activities the FWC accomplished during the last planning period as well as activities that are still ongoing. Non-native species objectives and challenges for the TMGWMA for the next 10 years are further detailed in Sections 5-6.

- Approximately 13,785 acres have been treated for native nuisance species and invasive non-native species, including water hyacinth (*Eichhornia crassipes*), water-lettuce (*Pistia stratiotes*), para grass, Brazilian pepper (*Schinus terebinthifolia*), Cuban bulrush (*Cyperus blepharoleptos*), cattails (*Typha sp.*), yellow pondlily (*Nuphar advena*), etc. This includes several areas that have received multiple treatments over the 10-year period.

4.6 Public Access and Recreational Opportunities

To facilitate wildlife-focused outdoor recreational opportunities on the area, the FWC has continued to establish and maintain a picnic shelter, boat ramps, levees, shooting blind, and youth hunts.

In addition to recreational opportunities on the TMGWMA, the FWC offers a variety of recreation and environmental education programs throughout the state. The FWC has several summer camp locations that provide programming on the theme of conservation-centered recreation. The FWC also hosts events that encourage Florida residents and visitors to get outdoors and enjoy the Wildlife Management Area system. For more information on the numerous recreation opportunities the FWC offers on all areas visit MyFWC.com/Recreation.

Further planned public access, recreational, and educational opportunities on the area are detailed in Section 5. Ongoing public access and recreational opportunity management challenges are addressed in Section 6.

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 ADA⁶ where:

1. Compliance will cause harm to historical 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 Public Access Assessments

The FWC has adopted a comprehensive approach to the planning and administration of fish and wildlife-focused public outdoor recreational opportunities for the TMGWMA. To accomplish this, the FWC will develop a Public Access Assessment for the TMGWMA that will be used to further guide the design and development of appropriate infrastructure and interpretive materials that will support the recreational use of the area by the public. This Public Access Assessment will include information on local area demographics, natural features, and wildlife characteristics of the TMGWMA that contribute to high-quality sustainable outdoor recreation experiences, assessment of current infrastructure, volunteer program opportunities, and interpretive themes.

4.6.3 Public Access Carrying Capacity

Baseline carrying capacities for users on the 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 the 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 fish and wildlife-focused 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 TMGWMA can currently support 341 visitors per day. 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 to protect the natural and cultural resources and to ensure that visitors will have a high-quality visitor experience while minimizing impacts to environmentally sensitive communities. The public access carrying capacity will be periodically reevaluated, and additional or reduced capacity may be contemplated.

4.6.4 Public Access and Recreational Activities and Accomplishments

During the previous 10-year planning period, the FWC completed the following public access and recreational improvements and enhancements on the TMGWMA:

- Vehicular public use access days were modified to increase recreational use of the area. Moved from Monday and Thursday to Sunday and Thursday to include a weekend day for vehicular access.
- Access on hunt days was modified to include additional vehicular access on Goodwin units.

4.7 Hydrological Preservation and Restoration

As noted above, water level management is the primary habitat management tool used on TMGWMA. Habitat management is accomplished by manipulating water level in the impoundments to promote the production of native, moist-soil, wetland plants. Moist soil conditions created during the growing season promote the establishment of native seed producing plants. The timing, speed, and length of the drawdowns and subsequent reflooding influence the species of plants that respond and grow in moist soil conditions. Different manipulations among the impoundments promote specific types of plant response, provide diverse habitat, and result in favorable conditions for a variety of wetland wildlife. Shallow reflooding occurs in late summer followed by a gradual increase in water levels up to about 18 inches in the fall and winter.

The manipulation of water levels in the impoundments is accomplished either by adding or removing flashboards from the WCS or by raising or lowering a screwgate on the WCS to permit the gravity flow of water into or out of the impoundments. If gravity flow is not possible, the pump station is operated to facilitate gravity flow within the central canal. For instance, if water levels in the reservoir pool and the central canal are too low to permit the flooding of an impoundment, the pump station will be operated to discharge water from the reservoir pool into the central canal. The appropriate WCS can then be adjusted to permit the gravity flow of water from the central canal into the selected impoundments. Conversely, if water levels in the reservoir and the central canal are too high to permit the dewatering of an impoundment, water from the central canal can be discharged into the reservoir pool. By either opening the screwgate or removing flashboards from the selected WCS, water can then gravity flow from the impoundment into the central canal. Excess water in the central canal is then discharged into the reservoir.

The precise manipulation of water level within each impoundment is the most important technique used to effectively manage plant communities. Water levels in and among the impoundments vary seasonally, particularly during the growing season, and range from about zero to 18 inches. As a general guide, the impoundments are flooded at the higher end of the range (approximately nine to 18 inches) from late fall through the winter and at the lower end of the range (approximately zero to nine inches) during the spring and summer season.

For the reservoirs, water level will fluctuate based on the amount of rainfall the TMGWMA receives and management of water levels in the impoundments. Generally, water level is highest during the summer because of seasonal rainfall and lower water levels maintained in the impoundments.

Water level in the reservoir is typically lowest during the spring when evapotranspiration exceeds rainfall.

Currently, staff continue to communicate and collaborate as needed with the SJRWMD and the DEP on any ground or surface water quality or quantity monitoring and any monitoring protocols needed. In this capacity, the FWC will primarily rely on the expertise of the SJRWMD 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 TMGWMA, as guided by the DEP and the SJRWMD.

4.7.1 Hydrological Preservation and Restoration Activities and Accomplishments

During the previous 10-year planning period, the FWC completed several hydrological improvement activities on the TMGWMA, including:

- Four riser/culverts were replaced and two culverts were repaired.
- Two pumps on the Goodwin Unit and three pumps on the Broadmoor Marsh Unit were rebuilt.
- One electric motor on a Goodwin Unit pump was replaced.
- Enhanced the levee system through vegetation clearing and stabilization
- Approximately 56 miles of ditches/canals were maintained to enhance and maintain water movement capabilities on the area.

4.8 Forest Resource Management

There are no timber resources on the TMGWMA. As a result, the FWC and the FFS have determined that a professional forest assessment for the TMGWMA is unnecessary. The FWC will cooperate with the FFS or a qualified professional forestry consultant regarding any forestry management activities should they become necessary or appropriate.

4.9 Cultural Resources

A review of the FMSF indicates that two cultural resources have been recorded on the TMGWMA (Section 2.8). Additionally, two cultural resource surveys have been conducted on the area. In cooperation with the DHR, the FWC will continue to monitor and report on archaeological site BR1614 annually. The Sottile Canal, site BR1957, is monitored frequently through area staff's daily operations

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 TMGWMA. In addition, the FWC will ensure area management staff have 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*, and, in accordance with Sections 267.061(2)(a,b), F.S., 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 TMGWMA, the FWC will prepare and submit all necessary documentation to the FMSF.

4.9.1 Cultural Resource Management Activities and Accomplishments

During the previous planning period, no significant management activities or changes to the existing cultural resources on the area have occurred.

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-focused 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.

Current capital facilities and infrastructure on the TMGWMA include three pump stations; the Goodwin Lake boat ramp, dock, and accessible parking; a viewing structure with a picnic shelter; the L-75 boat ramp; a FWC office and equipment storage compound; a Persons with Disabilities duck blind; approximately 30.5 miles of levees; and an entrance sign. 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 ADA Act (Public Law 101-336). Maintenance and improvement activities of current and future capital facilities are further outlined in Section 5.9 and Figure 10.

4.10.1 Capital Facilities and Infrastructure Activities and Accomplishments

During the previous 10-year planning period, the FWC completed several capital facilities and infrastructure improvements on the TMGWMA, including:

- The Goodwin Lake boat ramp was improved including replacing the dock and updating the parking area with accessible parking.
- The office building and equipment storage shed were replaced.
- A trailer hook up for the employee residence was added.
- The Persons with Disabilities duck blind was refurbished.
- A new entrance sign was installed.
- The Broadmoor Marsh Unit pole barn was removed to comply with NRCS easement.
- The office septic area was improved to increase capacity and meet County requirements.

4.11 Land Conservation and Stewardship Partnerships

Landscape conservation can create a resilient and adaptive landscape and economy that can support future generations of Florida. Thriving landscapes and habitats produce a range of benefits such as protecting our water and air, mitigating climate change, and providing habitat for fish, wildlife, and plants. In addition, productive landscapes power local and regional economies

by supporting sustainable activities including fishing, farming, ranching, forestry, recreation, and tourism. Maintaining these benefits as Florida is facing ever-increasing significant land and water issues is paramount. Population growth, habitat loss and fragmentation, land use changes, invasive species, water crises, and climate change can threaten Florida's future. To successfully manage these challenges for the long term, there is a growing need for conservation work to be done at a larger scale and with multiple partners that can pool their resources and incorporate best scientific practices.

4.11.1 Decision Support Tools

Florida Conservation Blueprint

The Florida Conservation Blueprint (Blueprint) is a spatial plan that identifies shared conservation priorities across Florida. The Blueprint was developed by the Peninsular Florida Landscape Conservation Cooperative for the cooperative incorporation of strategies from a suite of partners and supports spatial conservation planning to inform conservation actions and investment. The FWC uses the Blueprint to help guide and prioritize landscape conservation actions and acquisition opportunities (Figure 12).

Other Decision Support Tools

There are additional data and tools that have been developed as decision support tools for identifying and prioritizing areas for conservation action as well as to guide resource (i.e., time, staff, and funding) allocation. These tools include, but are not limited to, FLAM (Section 4.2.2), Critical Lands and Water Identification project, the Florida Ecological Greenways Network, FNAI element occurrences database, Simple Map Viewer, Fire Map Viewer, Florida Springs Dashboard, Climate Adaptation Explorer, and the Florida Ecological Report Cards. Tools and supporting data can be found at www.FNAI.org or on the Florida Conservation Planning Atlas.

4.11.2 Conservation Stewardship and Partnership Opportunities

Private Lands Partnerships

The FWC recognizes the interconnected needs of protecting and enhancing private property values and rights and creating new markets and economies that support the conservation value of private working lands. Private landowners seeking assistance with habitat management will likely find it offered within the FWC Landowner Assistance Program (LAP). The FWC LAP program provides many opportunities for conservation minded landowners to obtain 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. The FWC employs biologists who are available to provide wildlife-related assistance with land use planning and habitat management. In addition, the LAP works with landowners to enroll in NRCS conservation cost-share programs to assist with implementation of wildlife friendly practices. 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. At the time of the plan development, no specific land stewardship workshops had been conducted for landowners adjacent to the TMGWMA. The

FWC will continue to evaluate the level of interest and efficacy of providing technical assistance to adjacent private landowners to enhance the conservation management of their lands. More information on the FWC's LAP program and online habitat management tools are available [online](#).

Landscape Conservation Partnerships

The FWC will continue to work with partners including government entities, private organizations, and academic institutions on collaborative landscape conservation efforts and acquisition opportunities. Potential partners for the TMGWMA and surrounding areas include SJRWMD, FDACS-FFS, USFWS, NRCS, USACOE, Brevard County, DEP, Conservation Florida, and other organizations and potential grant program opportunities. The FWC will continue to commit staff time and other resources to regularly providing information to partners regarding landscape conservation science, opportunities, and progress.

4.11.3 Land Acquisition

Using identified tools outlined previously, the FWC works to identify 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, or have a high resource value that would otherwise be unprotected. Preservation of these lands can be accomplished through fee-simple or less-than-fee acquisition. The FWC works to pursue these opportunities through the FWC Additions and Inholdings Acquisition program, supporting Board of Trustees acquisition and addition of lands within the Florida Forever program and continued partnership with other agencies and private organizations on acquisition of identified lands.

Less-Than-Fee Acquisition

Less-than-fee acquisitions, also known as conservation easements, are voluntary agreements between a landowner and government agency or conservation organization that acquires certain rights to a landowner's property for long-term conservation of the land, while the landowner still retains ownership of their property. The agreement is designed for landowners to continue to manage their land to maintain a working landscape in a manner that also enhances the conservation benefits provided by their land. These voluntary agreements to conserve land support the goals of landscape conservation. Less-than-fee acquisition is not only a means of conserving land but is also a cost-effective means for governmental and non-governmental organizations to protect land, while also providing economic and tax benefits to the landowner and local economy.

Fee-Simple Acquisition

Fee-simple acquisition is the process of acquiring complete ownership of the land. Fee-simple acquisition can be accomplished through the Florida Forever program or through grant programs and acquisition partnerships. The Florida Forever program is a land acquisition program with the purpose of conserving natural and cultural resources throughout the State. The DEP, as staff to the Board of Trustees, oversees the program. The Florida Forever program replaced the

Preservation 2000 program, and since these programs' inception, nearly three million acres have been conserved throughout the State.

FWC's Additions and Inholdings Acquisition Program

Per 18-2.021, F.A.C., the FWC identifies parcels located directly in or adjacent to the subject area which can be recommended for acquisition through the FWC Additions and Inholdings Acquisition program. Multiple properties, equaling approximately 10,380 acres, have been identified for recommended acquisition under the auspices of the FWC's Additions and Inholdings Acquisition program for the TMGWMA (Figure 13). 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 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 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 frequently analyzes, evaluates, and prioritizes its recommended conservation actions in a systematic, comprehensive, and consistent manner over time. Currently, the FWC often recommends fee-simple acquisition of the lands on the FWC Additions and Inholdings Acquisition List for the TMGWMA to optimize the conservation of fish and wildlife, public access and use, and overall resource and operational management of the area. However, as mentioned previously, the FWC may also pursue less-than-fee acquisition with adjacent landowners; though it should be noted that landowner preference is often the key element in determining whether to pursue a fee-simple or less-than-fee acquisition.

Parcels on the FWC Additions and Inholdings Acquisition List will be acquired if possible, according to their priority ranking for acquisition, as funding availability allows, and based on the landowner's willingness to sell their lands. Participation in any FWC acquisition is entirely voluntary and at the sole discretion of willing landowners. The FWC also continues to assist and support the DEP/Board of Trustees in the acquisition or recommend acquisition of the remaining lands within nearby Florida Forever projects as essential to the long-term conservation of wildlife and other elements important to the ecosystem functions.

Alternative Options

Along with the several land acquisition options described previously, alternative land protection methods are also available. The state accepts donations of land, life estate, and first-right-of-refusal. Life estate is an alternative that allows a landowner to reside on their property during their lifetime, however, ensures state ownership after passing. Additionally, there is also the option that a landowner could offer the state a first-right-of-refusal. After a first offer is denied by a landowner, the first-right-of-refusal option provides the state with a chance to purchase the land in the future. The state offers several alternative possibilities to obtaining the rights and/or ownership to land

for conservation purposes, which furthers conversation-based goals and objectives for Florida's future.

4.11.4 Landscape Conservation Activities and Accomplishments

During the previous 10-year planning period, the FWC has worked to advance landscape conservation partnerships and pursue potential acquisition opportunities. Also, the FWC continues to work with non-governmental agencies such as Ducks Unlimited, United Waterfowlers-Florida, and Delta Waterfowl on conservation activities on the TMGWMA and in the vicinity. Some examples of projects completed during the previous 10 years include the annual youth hunt celebration and the refurbishment of the Persons with Disabilities Duck Blind. The FWC continued to collaborate with the USACOE and SJRWMD to maintain levees on the area. The FWC continues to collaborate with Willowbrook Farms to share water to maintain appropriate hydraulic levels and continues to coordinate with Mary A Ranch Mitigation Bank on invasive plant management.

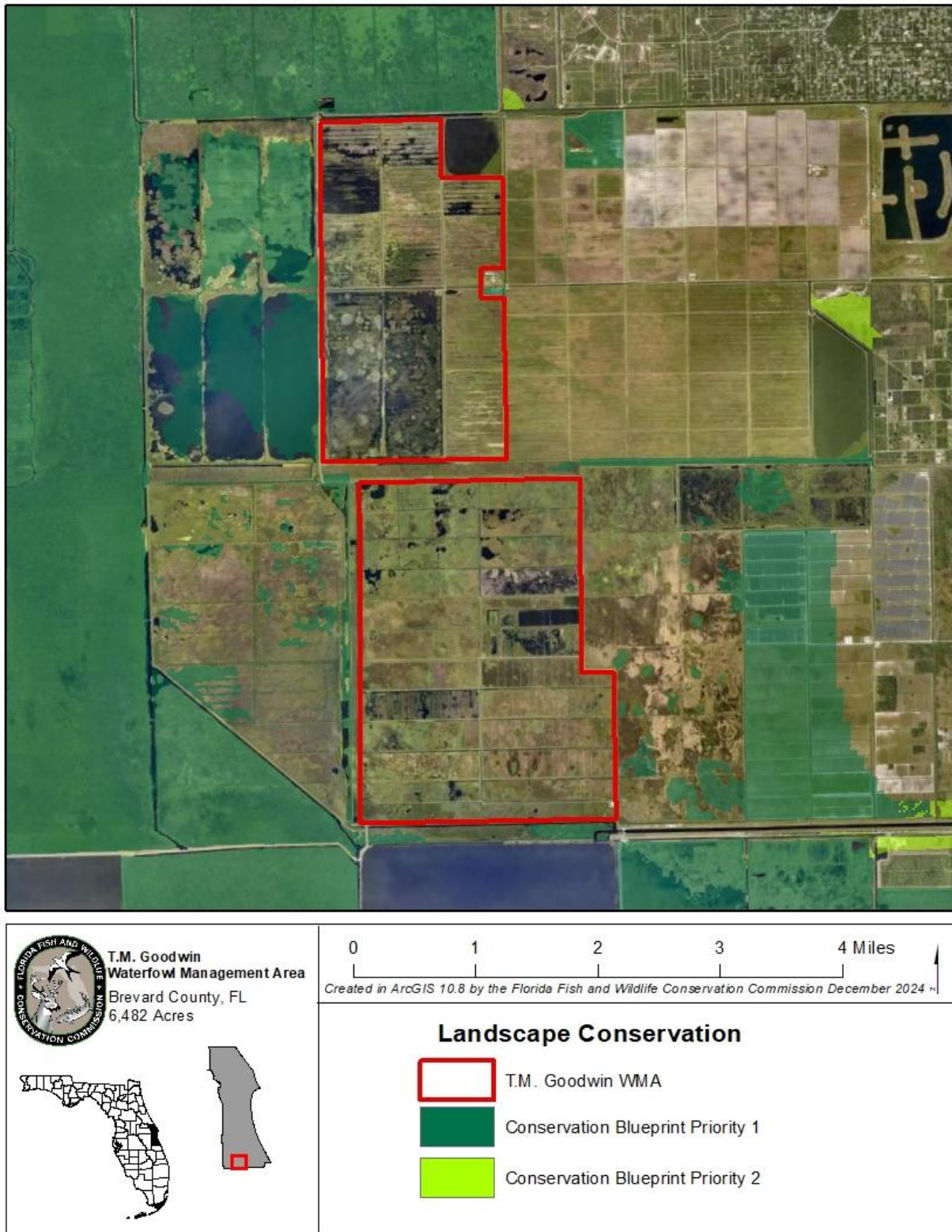


Figure 12. Landscape Conservation Blueprint

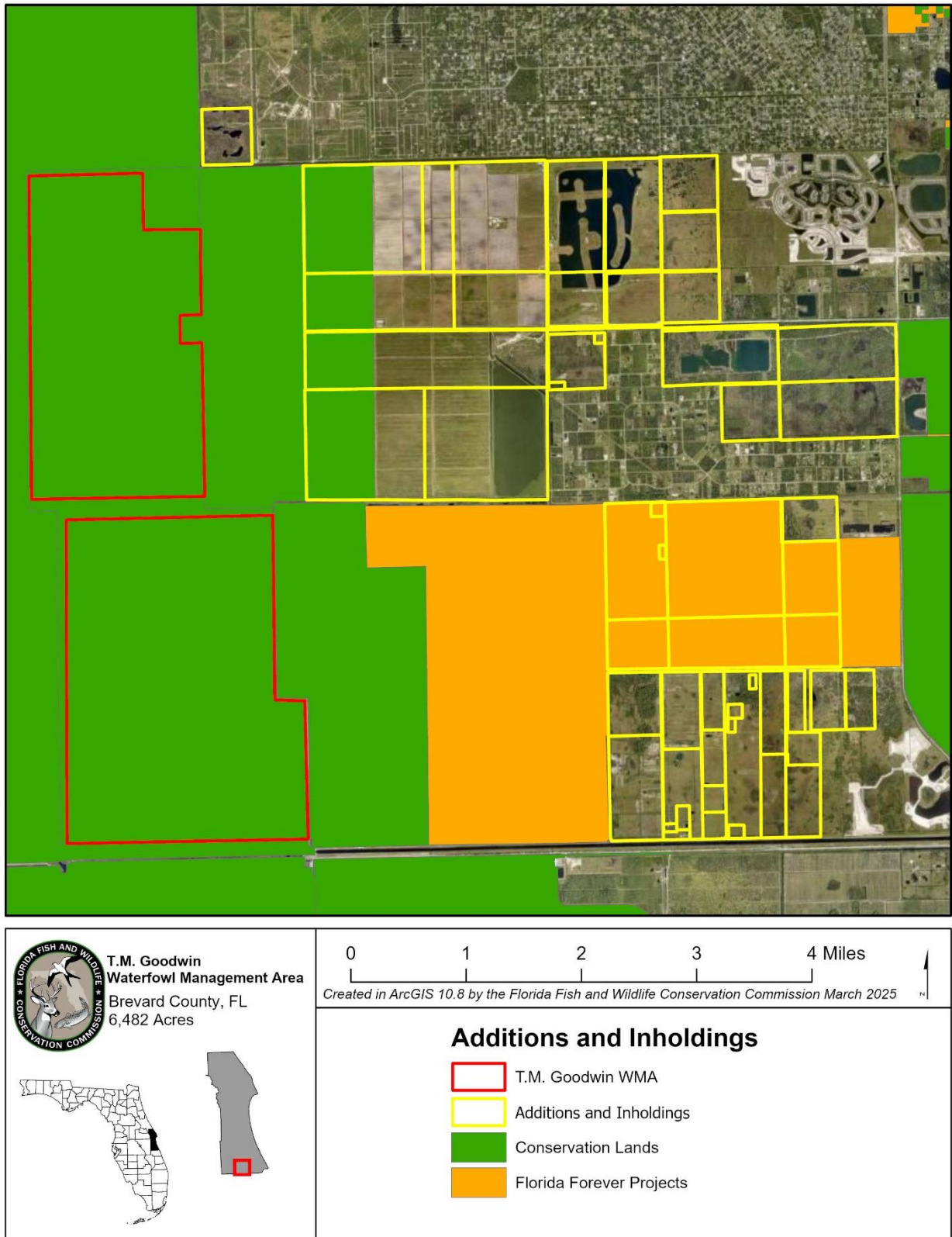


Figure 13. Additions and Inholdings

4.12 Research Opportunities

The FWC intends to cooperate with researchers, universities, and others as feasible and appropriate. For the TMGWMA, 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 must have prior approval by the FWC.

During the previous 10-year planning period, the FWC participated in several research opportunities on the TMGWMA, including:

- Coordinated with researchers on studies looking at regional populations, hybridization, and lead accumulation in mottled duck.
- Coordinated with researchers on the use of Unmanned Aerial Systems to survey for American alligators and conduct nest searches as part of a global crocodilian conservation effort.

4.13 Cooperative Management and Special Uses

4.13.1 Cooperative Management

The FWC is responsible for the overall management and operation of the TMGWMA as set forth in the lease agreements with the SJRWMD. In keeping with the lease agreements and conducting 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 11.17) are followed regarding any ground-disturbing activities. Also, the FWC cooperates and consults with the SJRWMD and DEP for the monitoring and management of both ground and surface water resources and the overall management of the TMGWMA.

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 TMGWMA. 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 TMGWMA and cause no measurable long-term impact to the natural resources of the area. Additionally, FWC staff must be notified and approve of the training through the issuance of a permit prior to any such training taking place on the TMGWMA. Any first-responder or military training that is not low-impact, intermittent and occasional would require an amendment to the Management Plan and therefore will be submitted by the FWC to the SJRWMD for approval consideration prior to authorization.

4.13.3 Apiaries

Currently, there are no apiaries operating on the TMGWMA. However, use of apiaries is conditionally approved for the TMGWMA, is deemed to be consistent with purposes for acquisition, follows the Conceptual State Lands Management Plan, and is consistent with the FWC agency mission, goals, and objectives. Location, management, and administration of apiaries on the TMGWMA will be guided by the FWC Division of Habitat and Conservation's Apiary Policy (Appendix 11.14).

4.14 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. Water conservation is accomplished through hydrological management and monitoring as described in Section 4.7.

5 Resource Management Goals and Objectives

The management goals and objectives described in this section are broad, enduring statements designed to guide the general direction of management actions aimed at achieving an overall desired future outcome for the TMGWMA. 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. The objectives are classified as having either short-term (less than two years) or long-term (up to 10 years) timelines for completion.

5.1 Habitat Restoration and Improvement

Goal: Improve extant habitat and restore disturbed areas.

Long-term

1. Continue to implement Prescribed Burn Plan and update as needed.
2. Conduct habitat/natural community improvement through mechanical and chemical treatments to control plant succession and maintain marsh in an early successional state and provide quality forage for wintering waterfowl, wading birds, shorebirds, and other migratory species.
3. Remove vegetation that impedes water movement from area ditches and canals as needed to improve ability to maintain water levels in impoundments and reservoirs to enhance moist soil conditions for favorable vegetation.
4. Explore the feasibility of conducting a dewatering/de-mucking project on Goodwin Reservoir to improve habitat and remove floating tussocks. If determined appropriate and feasible complete designated improvement work as funding allows.
5. Develop an impoundment management and monitoring plan which optimizes habitat.

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

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

Long-term

1. Continue to collect and record opportunistic wildlife species occurrence data.
2. Evaluate the need for an imperiled species assessment on the area.

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

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

Long-term

1. Continue to manage impoundments for favorable moist soil vegetation through various mechanical, chemical, and hydrologic management methods to maintain and enhance habitat for waterfowl, wading birds, shorebirds, and other migratory species.
2. Continue to collect opportunistic game and more common wildlife species occurrences on the area.
3. Manage beneficial non-native species for wildlife use while considering potential public access and off-site impacts.
4. Continue to collect biological harvest data on harvested game species.
5. Continue to manage water levels within area's impoundments and reservoirs to enhance habitat for waterfowl, wading birds, and shorebirds.
6. Maintain 15 wood duck boxes throughout the area.
7. Maintain nesting habitat on area's levees during the breeding season to increase nesting success of mottled duck.
8. Monitor waterfowl, wading birds, shorebirds, and other migratory species as needed to adjust management of impoundments/reservoirs to benefit the species while providing quality recreational opportunities for area visitors including hunters, wildlife observers, etc.
9. Conduct waterfowl banding as determined appropriate.

5.4 Non-native Species Maintenance and Control

Goal: Remove non-native plants and animals and conduct needed maintenance and/or control.

Long-term

1. Monitor the TMGWMA for the level of infestation of FISC Category I and Category II invasive plant species and treat as needed and appropriate. (Table 4)

2. Mechanically and chemically treat nuisance and non-native species as needed to maintain open water, promote favorable vegetation, maintain public access, and maintain ability to manage water levels efficiently.
3. Ensure that staff are familiar with the identification, reporting procedures, and control measures of high priority non-native wildlife species.
4. Evaluate the need for and continue to implement control measures on non-native animal species as deemed appropriate.
5. Continue to evaluate permit applications for control and research opportunities for non-native fish and wildlife species.

5.5 Public Access and Recreational Opportunities

Goal: Provide public access, participation, and recreational opportunities.

Long-term

1. Develop a Public Access Assessment.
2. Continue to implement public access and recreation opportunities guided by the Public Access Assessment results and update if new acquisitions or other factors warrant.
3. Continue to maintain 8.46 miles of trails.
4. Maintain public access and recreational opportunities to allow for a recreational carrying capacity of 341 visitors per day.
5. Include the area in annual statewide public conservation programs and events.
6. Continue to provide a website, a two-panel kiosk, public access guide, and iNaturalist project for the area.
7. Continue to provide hunting opportunities during waterfowl, alligator, and snipe seasons.
8. Continue to provide paddling opportunities on appropriate water bodies.
9. Continue to provide fishing opportunities on appropriate water bodies.
10. Continue to assess and improve recreational and educational amenities for ADA compliance as needed.
11. Develop and continue to provide one new public access guide including days and use types on the area.
12. Update and improve signage for recreational users.
13. Work with SJRWMD to install approach signage on Fellsmere Grade Road and near the water control structure crossover.

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

1. Maintain and enhance hydrological functions, install, maintain, or replace bridges, pumps, riser board culverts, and standard culverts as appropriate.
2. Continue collecting water level and rainfall data.

3. Monitor and maintain the area's levee and ditch system.
4. Continue to operate and maintain three pump stations.
5. Evaluate the need for replacement of the southern water control structure and pump station on the Goodwin Unit to improve function and efficiency of the structure. If determined appropriate replace as funding allows.
6. If necessary, continue to cooperate with the SJRWMD and the DEP for the monitoring of surface and ground water quality and quantity.
7. If necessary, conduct a hydraulic study to determine the need for additional pumps, control structures, and ditches and design and construct if determined necessary.

5.7 Cultural Resources

Goal: Protect, preserve, and maintain cultural resources of the TMGWMA.

Short-term

1. Conduct a historical resource survey.

Long-term

1. Cooperate with the DHR in designing site plans for development of infrastructure.
2. 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.
3. Continue to annually monitor, protect, preserve, and report any changes on two recorded sites) on the TMGWMA.
4. Ensure any newly identified sites are reported to the DHR for inclusion in the FMSF.
5. Coordinate with the DHR to ensure that staff have received updated Archaeological Resource Management training.

5.8 Capital Facilities and Infrastructure

Goal: Develop the capital facilities and infrastructure necessary to meet the goals and objectives of this Management Plan.

Short-term

1. Construct a pole barn at the office/shop to increase equipment storage capacity.

Long-term

1. Monitor trails and infrastructure monthly for visitor impacts.
2. Continue to maintain eight facilities.
3. Continue to maintain 42 miles of roads.
4. Improve, repair, or replace facilities and roads as needed.
5. Add a concrete slab to the shelter at the day use/observation area.

6. Construct an accessible parking space and sidewalk at the day use/observation area.
7. Construct a kiosk near the entrance or move the kiosk at the office/shop to a more convenient location for the public to access.
8. Design, permit, and construct a replacement shop/storage building.
9. Coordinate with NRCS and others as appropriate to explore the feasibility of adding a pole barn to the Broadmoor Marsh Unit. If appropriate, design, permit, and construct pole barn.
10. Install a new automated gate at the main entrance to provide increased recreational hours.
11. Maintain and improve existing trailer pads as needed.
12. Maintain and improve the Goodwin Lake boat ramp as needed.
13. Determine feasibility and funding to repair the viewing structure and proceed as appropriate.

5.9 Land Conservation and Stewardship Partnerships

Goal: Enhance fish and wildlife conservation, resource, and operational management through internal and external partnerships and programs.

Long-term

1. Continue to identify and evaluate potential important wildlife habitat, landscape-scale linkages, wildlife corridors, and operational management needs for TMGWMA as appropriate and necessary.
2. Continue to contact and inform adjoining private landowners about the FWC Landowners Assistance Program, and coordinate with public entities to pursue conservation stewardship partnerships.
3. Staff will continue to maintain relationships with adjoining private landowners for nomination for the LAP Wildlife Habitat Recognition Program.
4. Continue to evaluate and identify FWC inholdings and additions priority parcels for potential conservation acquisition and pursue acquisitions as funding allows.
5. Continue to maintain a GIS shapefile and other necessary data to facilitate nominations for the FWC landowner assistance and conservation acquisition programs.
6. Continue to identify potential non-governmental land stewardship organization partnerships and grant program opportunities.
7. Determine the efficacy of conducting a landowner assistance/conservation stewardship partnership workshop(s) and pursue as necessary and appropriate.
8. Continue to evaluate and determine if any portions of TMGWMA are no longer needed for conservation purposes and therefore may be designated as surplus lands.

5.10 Cooperative Management, Special Uses, and Research Opportunities

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

Long-term

1. Continue to assess the need for and cooperate with researchers, universities, and others on research and environmental education partnership opportunities as appropriate.
2. Coordinate and cooperate with Department of Defense military branches to allow for training opportunities for military personnel and other initiatives as appropriate and compatible with the conservation of the TMGWMA.
3. Collaborate with non-governmental organizations, community groups, stakeholders, and other private entities to forward common goals.
4. Continue to work with other FWC Divisions, Offices, and Institutes on projects beneficial to the management of the area.
5. Continue to work with the Ducks Unlimited, Delta Waterfowl, United Waterfowlers - Florida and other partners to manage the area and provide recreational opportunities.
6. Continue to follow existing cooperative agreements with the SJRWMD and Willowbrook Farms.
7. Continue to cooperate with the SJRWMD and the USACOE on management of the area's levee use, access, and maintenance.

6 Resource Management Challenges and Strategies

The following section identifies and describes further management needs and challenges associated with the TMGWMA 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.

Challenge 1: Meeting FWC law enforcement and management staff standards and needs can be challenging.

Strategy: Agency staff levels will continue to be evaluated to determine if increased staffing or other alternatives can improve management needs.

Strategy: Pursue funding for increased law enforcement, management staffing, and additional private sector contract services, as appropriate.

Strategy: Explore potential volunteer resources for assisting with management.

Challenge 2: Potential future development on adjacent lands can result in incompatible land uses increasing management challenges for the area.

Strategy: Cooperate and work with Brevard County to ensure land use and zoning designations adjacent to TMGWMA will continue to be compatible with the management of the area.

Challenge 3: The TMGWMA's proximity to major roadways and residential areas presents potential smoke management challenges during prescribed burning.

Strategy: Use available tools and resources to minimize smoke impact and increase outreach for areas of potential impact.

Strategy: Coordinate with the Division of Law Enforcement, Florida Highway Patrol, Florida Department of Transportation, FFS, and the Brevard County Sheriffs' Offices and Fire Department.

Challenge 4: Currently, non-native plant infestations exist at a level beyond the ability of area staff to fully maintain.

Strategy: Establish a treatment rotation and continue funding projects for contract spraying.

Strategy: Explore the feasibility of utilizing contractual services for appropriate activities.

Strategy: Cooperate with other nearby FWC staff to assist when needed.

Challenge 5: The population of visitors and TMGWMA users is increasing, resulting in increased needs for coordination with fellow agencies.

Strategy: Cooperate with other agencies, the County, area stakeholders, and regional landowners to investigate regional recreational opportunities including linking hiking and multi-use trail systems between adjacent public areas.

Challenge 6: Currently, vehicular public access to the area is limited due to the unimproved network of levees and agreements with cooperators.

Strategy: Assess the viability of increasing the number of vehicular access days.

Strategy: Work with cooperators to determine if expanding the number of vehicular access days is compatible with the maintenance and operation of the area's levee system.

7 Cost Estimates and Funding Sources

The following represents the actual and unmet budgetary needs for managing the lands and resources of the TMGWMA. 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 development of fixed capital facilities.

The following cost estimate, 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 TMGWMA. Cost estimate categories are those currently recognized by the FWC and the Land Management Uniform Accounting Council. More information on these categories, as well as the Fiscal Year 2023-2024 operational plan showing detailed cost estimates by activity and categories of expenditures, may be found in Appendix 11.12.

TMGWMA Management Plan Cost Estimate*Maximum expected one-year
expenditure*

<u>Resource Management</u>	<u>Expenditure</u>
Invasive Species Control	\$187,237.18
Prescribed Burning	\$10,715.36
Cultural Resource Management	\$5,940.90
Timber Management	\$0.0
Hydrological Management	\$526,175.19
Vegetation Monitoring/Management	\$131,738.13
Wildlife Monitoring/Management	\$3,638.82
Subtotal	\$865,442.57
 <u>Administration</u>	
General Administration	\$36,892.91
 <u>Support</u>	
Land Management Planning	\$5,598.30
Management Reviews	\$0.0
Training/Staff Development	\$8,257.84
Vehicle Purchase	\$212,218.70
Vehicle Operation and Maintenance	\$45,150.75
Other (Technical Reports, Data Management, etc.)	\$17,097.84
Internal Program Review	\$1,083.22
Technology and Data Management	\$7,064.01
Subtotal	\$296,470.65
 <u>Capital Improvements</u>	
New Facility Construction	\$37,146.44
Facility Maintenance	\$174,609.63
Subtotal	\$211,756.07
 <u>Visitor Services/Recreation</u>	
Info./Education/Operations	\$10,235.75
 <u>Law Enforcement</u>	
Resource protection	\$5,238.10
 Total	\$1,426,036.05

* Based on the characteristics and requirements of this area, 2 FTE positions would be optimal to fully manage this area. All land management funding is dependent upon annual legislative appropriations.

TMGWMA Management Plan Cost Estimate

Ten-year projection

<u>Resource Management</u>	<u>Expenditure</u>	<u>Priority</u>	<u>Priority schedule:</u>
<i>Invasive Species Control</i>	\$2,088,089.28	(1)	(1) Immediate (annual)
<i>Prescribed Burning</i>	\$119,498.89	(1)	(2) Other (5+ years)
<i>Cultural Resource Management</i>	\$66,253.51	(1)	
<i>Timber Management</i>	\$0.0	(1)	
<i>Hydrological Management</i>	\$5,867,962.74	(1)	
<i>Vegetation Monitoring/Management</i>	\$1,469,157.86	(1)	
<i>Wildlife Monitoring/Management</i>	\$40,547.07	(1)	
<u>Subtotal</u>	\$9,651,509.35		
 <u>Administration</u>			
<i>General Administration</i>	\$411,433.75	(1)	
 <u>Support</u>			
<i>Land Management Planning</i>	\$62,432.81	(1)	
<i>Management Reviews</i>	\$0.0	(2)	
<i>Training/Staff Development</i>	\$92,092.28	(1)	
<i>Vehicle Purchase</i>	\$2,366,685.92	(2)	
<i>Vehicle Operation and Maintenance</i>	\$503,526.03	(1)	
<i>Other (Technical Reports, Data Management, etc.)</i>	\$190,676.96	(1)	
<i>Internal Program Review</i>	\$12,080.20	(1)	
<i>Technology and Data Management</i>	\$78,778.60	(1)	
<u>Subtotal</u>	\$3,306,272.81		
 <u>Capital Improvements</u>			
<i>New Facility Construction</i>	\$414,261.12	(2)	
<i>Facility Maintenance</i>	\$1,947,265.47	(1)	
<u>Subtotal</u>	\$2,361,526.59		
 <u>Visitor Services/Recreation</u>			
<i>Info./Education/Operations</i>	\$114,150.21	(1)	
 <u>Law Enforcement</u>			
<i>Resource protection</i>	\$59,255.88	(1)	
 <u>Total</u>	\$15,904,148.58	*	

* Based on the characteristics and requirements of this area, 2 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” 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:

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

9 Compliance with Federal, State, and Local Governmental Requirements

The operational functions of 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 ADA 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 access accommodation is structurally impractical or where providing such access would change the fundamental character of the facility being provided).

Uses planned for the TMGWMA follow 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. 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, F.S.

The FWC has developed and utilizes an Arthropod Control Plan for the TMGWMA in compliance with Chapter 388.4111, F.S. (Appendix 11.15). This plan was developed in cooperation with the local TMGWMA county arthropod control agency. This plan is also in conformance with the Local Government Comprehensive Plan as approved and adopted for Brevard County, Florida, (Appendix 11.16).

10 Endnotes

1. Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Official Soil Series Descriptions. Available online. Accessed [2019].
2. Administration, N. O. (n.d.). Climate at a Glance. Retrieved from NOAA: National Centers for Environmental Information [Time Series](#).
3. Sadahisa Kato & Jack Ahern (2008) 'Learning by doing': adaptive planning as a strategy to address uncertainty in planning, *Journal of Environmental Planning and Management*, 51:4, 543-559.
4. Wilhere, G. F. 2002. Adaptive management in Habitat Conservation Plans. *Conservation Biology* 16:20-29.
5. Walters, C. J. and R. Hilborn. 1978. Ecological optimization and adaptive management. *Annual Review of Ecology and Systematics* 9:157–188.
6. Architectural and Transportation Barriers Compliance Board on Final Accessibility Guidelines for Outdoor Developed Areas, Final Report (2013).
7. Emanuel, K.A. 2005. Increasing Destructiveness of Tropical Cyclones Over the Past 30 Years.
8. Webster et al. 2005; Webster, P. J., et al. 2005. Changes in Tropical Cyclone Number, Duration, and Intensity, in a Warming Environment. *Science* 309: 1844–1846.
9. Mann, M.E. and K.A. Emanuel. 2006. Atlantic Hurricane Trends Linked to Climate Change. *Eos Trans. AGU* 87: 233-244.
10. Stanton, E.A. and F. Ackerman. 2007. Florida and Climate Change: The Costs of Inaction. Tufts University Global Development and Environment Institute and Stockholm Environment Institute–US Center, Tufts University, Medford, MA.
11. Clough, J.S. 2008. Application of the Sea-Level Affecting Marshes Model (SLAMM 5.0) to Crystal River NWR. Warren Pinnacle Consulting, Inc. for U.S. Fish and Wildlife Service. 46 pp.

11 Appendices

11.1.1 Lease Agreement 90106 Goodwin Unit

DIVISION LOG # W638

5-468

CONTRACT ROUTING REVIEW FORM

CONTRACT NUMBER 90106 CONTRACTOR St. Johns River Water Management District

BRIEF TITLE Lease Agreement-Thomas M. Goodwin Waterfowl Management Area

(X) NEW () RENEWAL () EXTENSION () MODIFICATION

CONTRACT BEGIN DATE @ signing END DATE 30 years OPTION FOR _____ YEARS

ORIGINATOR/CONTACT Mike Brooks PHONE 410-0656 DIV/OFF HSC
Ext. 17276

TOTAL CONTRACT AMOUNT \$ 0 PAYMENT AMOUNT \$ 0

BILLING PERIODS: () MONTHLY () QUARTERLY () ANNUALLY () OTHER _____

() EXPENDITURE () REVENUE () AGREEMENT

RCC CODE _____ PROPOSED OBJECT CODE _____ PROJECT (IF NONGAME) _____

Indicate estimated percent of total contract that is for commodities _____ %.

ROUTING ORDER FOR APPROVAL	CONCUR/INITIALS	DATE	COMMENTS
1. PROJECT LEADER*	<u>ECM</u>	<u>5-2-91</u>	
2. DIV/REGIONAL DIRECTOR*	<u>ECM</u>	<u>5/2/91</u>	
3. PURCHASING*	<u>BST</u>	<u>5/2/91</u>	
4. LEGAL	<u>JR</u>	<u>5/2/91</u>	
5. AD SERVICES			
DISBURSEMENT SUPERVISOR			
REVENUE SUPERVISOR			
FEDERAL AID ACCOUNTANT*			
CHIEF OF ACCOUNTING	<u>SP</u>	<u>5/2/91</u>	
AD SERVICES DIRECTOR	<u>SP</u>	<u>5/2/91</u>	
6. EXEC/DIV/REGION DIRECTOR*			

*ROUTING OF FEDERAL AID DOCUMENTS ONLY

DIVISION/OFFICES ARE TO FORWARD COMPLETED ORIGINAL CONTRACT AND ROUTING SLIP TO THE PURCHASING OFFICE.

FLORIDA GAME AND FRESH WATER FISH COMMISSION

WILLIAM G. BOSTICK, JR.
Winter Haven

DON WRIGHT
Orlando

THOMAS L. HIRES, SR.
Lake Wales

MRS. GILBERT W. HUMPHREY
Miccosukee

JOE MARLIN HILLIARD
Clewiston

ROBERT M. BRANTLY, Executive Director
ALLAN L. EGBERT, Ph.D., Assistant Executive Director



FARRIS BRYANT BUILDING
620 South Meridian Street
Tallahassee, Florida 32399-1600
(904) 488-1960

May 17, 1991

Ms. Sharon C
Senior Land
St. John's
Management
Post Office
Palatka, FL

Dear Ms. C

Enclos
Lease Agree
waterfowl
our record

Thank
not hesita
you.

Tim -

Please place routing
slip on this and
forward to Purchasing.

(SW)

the
for
do
to

James V. Antista
General Counsel

JVA/sw
LEG 8
File: SJRWMD
cc: Records Center

FLORIDA GAME AND FRESH WATER FISH COMMISSION

WILLIAM G. BOSTICK, JR.
Winter Haven

DON WRIGHT
Orlando

THOMAS L. HIRES, SR.
Lake Wales

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Clewiston

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ALLAN L. EGBERT, Ph.D., Assistant Executive Director



FARRIS BRYANT BUILDING
620 South Meridian Street
Tallahassee, Florida 32399-1600
(904) 488-1960

May 17, 1991

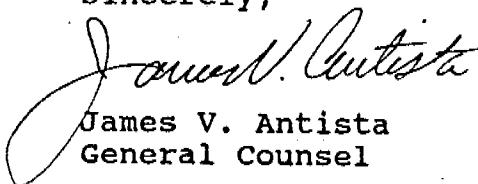
Ms. Sharon G. Carlin
Senior Land Acquisition Agent
St. John's River Water
Management District
Post Office Box 1429
Palatka, Florida 32178-1429

Dear Ms. Carlin:

Enclosed is a fully executed and notarized original of the Lease Agreement for operation of the C-54 Retention Area for waterfowl management. We have retained the second original for our records.

Thank you for your cooperation in this matter. Please do not hesitate to contact me if I may be of further assistance to you.

Sincerely,


James V. Antista
General Counsel

JVA/sw
LEG 8
File: SJRWMD
cc: Records Center

LEASE AGREEMENT

THIS LEASE AGREEMENT (hereinafter called the "AGREEMENT"), made and entered into this 8th day of May, 1991 by and between the Governing Board of the St. Johns River Water Management District, a public body existing under Chapter 373 of the Florida Statutes, whose mailing address is Post Office Box 1429, Palatka, Florida 32178-1429 (hereinafter referred to as the "DISTRICT"), and the Florida Game and Fresh Water Fish Commission, a public body created pursuant to Section 9, Article IV, of the Florida Constitution, whose mailing address is 620 South Meridian Street, Tallahassee, Florida 32399-1600, (hereinafter referred to as "COMMISSION").

W I T N E S S E T H :

WHEREAS, the DISTRICT is the fee simple owner of certain real property referred to as the C-54 Retention Area as depicted in Exhibit "A" attached hereto and by reference made a part hereof; and

WHEREAS, the COMMISSION is desirous of leasing the C-54 Retention Area for the purpose of establishing a waterfowl management area; and

WHEREAS, over 200,000 acres of wetlands have been lost in the upper basin of the St. Johns River, waterfowl populations have been declining due to loss of habitat, and the quality of remaining waterfowl habitat can be increased through management; and

WHEREAS, the waterfowl management area will provide a diversity of wintering and breeding habitats for various waterfowl species, as well as benefiting many species of wading and shore birds, and a number of endangered species; and

WHEREAS, the waterfowl management area will provide significant public recreational benefits, including hunting, birding, fishing, and environmental education.

NOW THEREFORE, for and in consideration of the premises, which are made a part of this Agreement, and the mutual covenants, terms and conditions hereinafter contained, and for other good and valuable consideration, the receipt of which is hereby acknowledged, the DISTRICT and THE COMMISSION, each intending to be legally bound, do hereby agree as follows:

1. The Lease. Subject to the terms, conditions and limitations set forth in this Agreement, the DISTRICT hereby leases to THE COMMISSION and COMMISSION hereby leases from the DISTRICT that portion of the C-54 Retention Area as depicted in Exhibit "A" (hereinafter referred to as the "PROPERTY") for the purposes and in the manner hereinafter set forth.
2. Term. The initial term of the lease shall be for a period of thirty (30) years commencing on May 8, 1991, and terminating on May 7, 2021. Thereafter, the lease shall be renewable on a five (5) year basis unless said lease is terminated as set forth herein. Renewal of this lease after the initial term shall not be unreasonably withheld by the District.
3. Purpose.
 - A. The DISTRICT and COMMISSION agree that the PROPERTY shall be used only for the purpose of the construction, establishment and operation of a waterfowl management area and associated wildlife management, habitat management, recreational, research, educational activities, and other compatible uses as

mutually agreed upon by both parties (hereinafter referred to as the "PROJECT"):

B. Notwithstanding any provision contained herein to the contrary, this Agreement is subject to:

(i.) the terms, conditions, restrictions and limitations set forth in this AGREEMENT; and

(ii.) all applicable federal laws, state statutes, local ordinances and the rules and regulations pertaining thereto which may be applicable to the PROJECT.

4. Limiting Conditions of Lease. Notwithstanding any provision contained herein to the contrary, this Agreement is subject to the following terms and conditions:

A. The C-54 Retention Area is an element of the Upper St. Johns River Basin portion of the Central and Southern Florida Flood Control Project, a federal flood control project locally sponsored by the DISTRICT, and any uses of the C-54 Retention Area contemplated herein by COMMISSION shall be consistent with the General Design Memorandum (GDM) and any amendments thereto as approved by the DISTRICT and the U.S. Army Corps of Engineers. In adopting any amendments to the GDM, the DISTRICT shall make a good faith effort to consider, and to the extent feasible, accommodate the interests of the COMMISSION hereunder.

B. The DISTRICT and COMMISSION agree that the primary purpose of the C-54 Retention Area is water storage; and all other uses, including intensive habitat management for waterfowl and other wetland wildlife, will be secondary.

C. The COMMISSION recognizes that the water conditions on the PROJECT may be affected by the Water Control Manual (WCM), yet to be agreed upon by the DISTRICT and the U. S. Army Corps of Engineers, and will accept the water conditions which may occur as a result of the DISTRICT adhering to the Manual. In developing the WCM, or adopting any amendments to the WCM, the DISTRICT shall make a good faith effort to consider and to the extent feasible, accommodate the interests of the COMMISSION hereunder. In addition, the DISTRICT will use its best effort to minimize the frequency, depth and duration of flooding on the Property as long as such minimization is consistent with the WCM and the defined purpose and utilization of said Property. If, when acting under the guidelines of the WCM, the DISTRICT desires to alter the hydrologic regime of the C-54 Retention Area, the COMMISSION will be notified immediately of the plans and be given adequate time to make appropriate adjustments on the interior water control structures, if any, provided however, that in the event of any emergency as determined by the DISTRICT, the District will make every reasonable effort to provide notice to the COMMISSION at its 24 hour dispatch center at the Regional Office in Ocala, at (904) 732-1225.

D. The DISTRICT cannot guarantee availability of water to the PROJECT, and the COMMISSION should rely on water storage and management within the area to insure water supply for the PROJECT. Provided, however, the DISTRICT will use its best effort to provide water for the Property which is consistent

with the WCM and the defined purpose and utilization of said Property.

- E. The pump station on the NW corner of the PROPERTY will be maintained and operated by the DISTRICT to regulate high water stages within the C-54 Retention Area. Non-regulatory discharges, which are desired by the COMMISSION, will be made only after prior approval is given by the DISTRICT. The DISTRICT, however, will not unreasonably withhold such approval.
- F. Development and construction of the PROJECT will not interfere with any DISTRICT construction project or the construction of the U. S. Army Corps of Engineers Federal Flood Control project, however, good faith will be used to coordinate and/or resolve any conflicts which may arise.
- G. COMMISSION covenants and agrees that the PROJECT will be designed, constructed, operated and maintained in an environmentally acceptable manner, and in accordance with good management practices.
- H. The COMMISSION shall submit a Master Site Plan, which shall include locations of water control structures, office and maintenance buildings, and any additional improvements necessary for the operation of the PROJECT, to the DISTRICT for approval. Any modification to the Master Site Plan shall be subject to prior approval by the DISTRICT. The design and construction of any structures, buildings, or improvements on the PROPERTY shall be subject to the prior written approval of the DISTRICT, which approval will not unreasonably be withheld.

The DISTRICT shall use its best efforts to promptly review any such submittals. THE COMMISSION shall make available to the DISTRICT any surveying assessments made of the property. The design and construction of any structure, buildings, and improvements shall not be modified without the prior written consent of the DISTRICT, which consent may not be unreasonably withheld.

- I. COMMISSION acknowledges and agrees that the DISTRICT will use a portion of the PROPERTY to obtain borrow material for use in maintaining and constructing levees contained in the Upper St. Johns River Basin Federal Flood Control Project. Any overburden associated with removal of the borrow material may be used by the COMMISSION for waterfowl management area development. In obtaining borrow material from the Property, the DISTRICT shall make a good faith effort to consider, and to the extent feasible, accommodate the interests of the COMMISSION.

5. Non-Waiver of DISTRICT's Regulatory Powers.

- A. Except with respect to the specific rights and duties set forth herein, nothing contained in this Agreement shall be construed as a waiver of or contract with respect to the regulatory or permitting authority of the DISTRICT as it now or hereafter exists under applicable laws, rules and regulations.
- B. It shall be the responsibility of the COMMISSION, at its sole cost and expense, to obtain or renew any and all permits which may be required by the DISTRICT, the State of Florida Department of Environmental Regulation, and other applicable

governmental agencies for activities conducted by the COMMISSION hereunder.

6. Covenants and Obligations. The COMMISSION and DISTRICT hereby mutually agree as follows:

- A. The COMMISSION shall submit a draft Conceptual Management Plan (CMP), which shall address the operational policies and management procedures of the PROJECT, to the DISTRICT within eighteen (18) months of the effective date of this Agreement. The DISTRICT shall have three months to review and provide input to the COMMISSION. The final CMP shall be submitted by the COMMISSION to the DISTRICT within twenty four (24) months of the effective date of the lease. The CMP shall not be in conflict with the DISTRICT'S Land Management Plan or the GDM. Although final decisions on resolution of conflicts will rest with the DISTRICT, a reasonable effort will be made to resolve such conflicts with the COMMISSION.
- B. The COMMISSION shall have the right to manage the habitat on the PROPERTY for waterfowl and other wetland wildlife and take specific management actions including, but not limited to, construction of office and maintenance facilities, improving internal levees and ditch system, installation of internal water control facilities, on site water level manipulation, controlled burning, disking, planting and mowing, etc. as consistent with the CMP; provided, however that the construction and installation of internal water control facilities shall be subject to the provisions of Paragraph 4(H).

- C. The COMMISSION shall have the right to regulate public use of the PROPERTY including establishment of hunting regulations and refuges for management purposes.
- D. The COMMISSION shall provide the DISTRICT a quarterly report of activities and accomplishments on the area. Information in the quarterly report should include at a minimum: construction and management activities, results of surveys and on-going research, harvest and hunter use information, visitor use, water conditions (rainfall, water levels, discharges, etc.), as specified in the CMP, and future management and research plans. The quarterly report shall be submitted to the DISTRICT no later than fifteen (15) days after the end of each quarter.
- E. All major signage, brochures, and pamphlets, prepared by the COMMISSION, relating to the PROJECT, shall include the name C-54 Retention Area and shall contain a prominent statement concerning the primary purpose of the PROJECT, and the probability of periodic adverse water conditions negatively affecting the PROJECT.
- F. The DISTRICT shall be allowed to establish environmental educational facilities and programs on the Property which are consistent with the CMP and which shall include information on the Upper St. Johns River Basin Federal Flood Control Project.
- G. The DISTRICT shall be responsible for the following maintenance and associated costs:
 - 1. All perimeter levees, roads, and canals.

2. Water control structures and pumps which are necessary for the required operation of the C-54 Retention Area as specified in the DISTRICT'S water management plan.
 3. The access road to the PROJECT.
 4. Aquatic weed control.
 5. Other such work as specifically contracted between the DISTRICT and COMMISSION.
- H. The COMMISSION shall be responsible for the following maintenance and associated costs:
1. All interior water control structures and pumps, to include levees, dikes, ditches, canals, etc., except those associated with the DISTRICT'S borrow area located on the Property.
 2. All interior roads.
 3. All interior structures, buildings, etc.
- I. The COMMISSION will not, as part of its habitat management program, introduce or encourage any exotic species of plant, including but not limited to hydrilla except those agricultural plants commonly used for wildlife management purposes as specified in the CMP.
- J. The DISTRICT will coordinate with the COMMISSION regarding any aquatic weed control activities within the PROPERTY.
- K. The DISTRICT will provide and maintain public access to the PROJECT for the duration of the lease.
- L. COMMISSION shall pay all lawful debts incurred by it with respect to the PROPERTY and shall satisfy all liens of contractors, subcontractors, mechanics, laborers, and

materialmen in respect to any construction, alteration, improvements or repair in or on the PROPERTY authorized by the COMMISSION, its agents or employees. To the extent provided by and subject to the limitations specified in Section 768.28, F.S., COMMISSION shall indemnify the DISTRICT for all legal costs and charges, including reasonable attorney's fees on appeal, in any suit involving claims, liens, judgments or encumbrances suffered by the DISTRICT as a result of the use or occupancy of the PROPERTY by the COMMISSION, its agents or employees. Furthermore, the COMMISSION shall have no authority to create any mortgages on the PROPERTY, and in any contract pertaining to work to be performed on the PROPERTY, the contractor shall be notified that they and any subcontractors, laborers or materialmen must look to the COMMISSION only to secure the payment of any bill or account for work done, materials furnished, or money owed during the term of this AGREEMENT.

- M. All structures, improvements or personal property placed upon, or moved in or upon the PROPERTY shall be at the risk of COMMISSION and the DISTRICT shall not be liable for any damage to said personal property, structures or improvements unless each such damage results from the negligent or wrongful acts of the DISTRICT. The COMMISSION and the DISTRICT agree that the flooding of the Property by the DISTRICT shall not be construed or interpreted as negligent or wrongful acts or omissions of the DISTRICT.

- N. All structures or improvements placed upon or moved in or upon the PROPERTY shall be deemed personal property of COMMISSION and shall not be considered attached to the land as a fixture.
- O. COMMISSION through its agents, consultants and employees shall be authorized to enter upon the PROPERTY for the purposes of surveying, operation and maintenance of any COMMISSION structures and utilities on the PROPERTY, activities in connection with all permits, licenses and regulatory agency mandated actions, and for such other purposes as are reasonably consistent with the lease granted by this Agreement. Any agents, consultants or employees of COMMISSION and the DISTRICT shall be responsible to promptly close and lock any gates through which they pass in the exercise of such right of entry.
- P. COMMISSION takes possession of the PROPERTY with full knowledge of the existing condition of the PROPERTY. COMMISSION agrees that it has inspected the PROPERTY and accepts the PROPERTY in "as is" condition. The DISTRICT makes no representations or warranties as to the fitness of the PROPERTY for any particular use.
- Q. COMMISSION shall not assign or transfer this Agreement without prior written consent of the DISTRICT.
- R. The COMMISSION is a public agency of the State of Florida. As such, it is self-insured by the Florida Casualty Insurance Risk Management Trust Fund (FUND) pursuant to Section 768.28 and Chapter 284, Part II, Florida Statutes. The COMMISSION shall maintain in force workers' compensation coverage prior to the COMMISSION commencing work on the Agreement. The DISTRICT

shall receive thirty (30) days written notice of any change or cancellation of the FUND of any of the required coverage, including the liability coverage.

S. COMMISSION shall maintain the PROPERTY in the following manner:

1. COMMISSION may construct fences around the perimeter of the project site as determined in site plan review.
2. COMMISSION, at its sole cost and expense, may install such utilities (telephone, electrical, water, sewage, etc.) as are needed on the PROPERTY for the operation of the PROJECT. Provided however, that there must be prior DISTRICT approval to the location of such utilities.
3. COMMISSION shall make every reasonable effort to protect the PROPERTY from uncontrolled fires (structural and woodland-brush fires) by employing appropriate management practices as specified in the approved CMP.
4. COMMISSION shall perform law enforcement services as needed for the PROPERTY to insure protection from vandalism, and trespassers to the best of their ability subject to fiscal and resource constraints.

T. COMMISSION acknowledges that the lease granted herein does not convey to COMMISSION fee title to the PROPERTY nor any interests, rights, or privileges other than those specified herein.

U. The DISTRICT shall bear no financial cost, expense or obligation to COMMISSION as a result of this Lease Agreement, except as otherwise specified herein. The COMMISSION shall be responsible for the payment of any and all taxes, fees or

special assessments, if any, levied or assessed against the Property by reason of the COMMISSION'S use or occupancy of same during the term of this Agreement.

7. Termination and Surrender.

- A. In the event of default of this Agreement by the COMMISSION, the DISTRICT may, at its option, declare this Agreement terminated; provided however, that DISTRICT shall give the COMMISSION written notice of the default and allow COMMISSION sixty (60) days from receipt of such notice to cure the default. After notice and failure of COMMISSION to cure the default, DISTRICT shall have the right, without further notice, to enter upon and take possession of the PROPERTY and, thereupon, this Lease Agreement and everything contained under DISTRICT'S behalf to be done and performed shall cease and be null and void. In addition to the foregoing remedy, DISTRICT reserves to itself all other remedies provided at law or in equity and DISTRICT shall be entitled to collect from COMMISSION any and all costs, including resonable attorney's fees, to which the DISTRICT may be legally entitled by reason of COMMISSION'S default.
- B. In the event of default of this Agreement by the DISTRICT, the COMMISSION may, at its option, declare this Agreement terminated, provided however, that COMMISSION shall give the DISTRICT written notice of the default and allow DISTRICT sixty (60) days from receipt of such notice to cure the default. After notice and failure of DISTRICT to cure the default, without further notice, this Agreement and everything contained under COMMISSION'S behalf to be done and performed shall cease and be null and void. In addition to the foregoing remedy, COMMISSION reserves to itself all other remedies provided at

law or in equity and COMMISSION shall be entitled to collect from DISTRICT any and all costs, including reasonable attorney's fees, to which the COMMISSION may be legally entitled by reason of DISTRICT'S default.

- C. All personal property, equipment and improvements owned by COMMISSION and located on or about the PROPERTY and not removed within one hundred-twenty (120) days after the termination of this Lease Agreement shall, at the option of DISTRICT, become the property of DISTRICT.
 - D. In the event of termination of this Agreement, COMMISSION shall deliver possession of the PROPERTY to DISTRICT in substantially the same condition as originally existed prior to the execution of this Agreement, reasonable wear and tear and alterations pursuant to the approved Master Site Plan and Conceptual Management Plan excepted.
 - E. In the event that the COMMISSION'S ability to meet their objectives for this project are jeopardized by constraints imposed by the final GDM, LMP, or WCM or their amendments, the COMMISSION may terminate the Agreement without default.
 - F. In the event that an initial engineering assessment of the PROJECT reveals that intensive wetland habitat management is not feasible, the COMMISSION may terminate this Agreement without default and this Agreement shall cease and be null and void.
8. DISTRICT'S Right of Entry. COMMISSION shall deposit with the DISTRICT a duplicate key for each lock barring access to any part of the PROPERTY other than structures for storage of equipment

materials and supplies, in order that the DISTRICT or its duly authorized agents shall have access to inspect the PROPERTY. Should any lock be added, changed, replaced or removed, COMMISSION shall immediately notify the DISTRICT in writing, and forward to the DISTRICT the new duplicate key.

9. Notices. All notices, consents, approvals, waivers and elections which any party shall be required or shall desire to make or give under this Agreement shall be in writing and/or shall be sufficiently made or given only when mailed by Certified Mail, postage prepaid, return receipt requested, addressed as follows to the parties listed below or to such other address as any party hereto shall designate by like notice given to the other parties hereto:

DISTRICT: ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
P. O. BOX 1429
PALATKA, FL 32078-1429
ATTENTION: DIRECTOR
DIVISION OF LAND ACQUISITION

COMMISSION: FLORIDA GAME AND FRESH WATER FISH COMMISSION
620 S. MERIDIAN STREET
TALLAHASSEE FLORIDA 32399-1600
ATTENTION: DIRECTOR, DIVISION OF WILDLIFE

Notices, consents, approvals, waivers and elections given or made as aforesaid shall be deemed to have been given and received on the date of the mailing thereof as aforesaid.

10. Entire Agreement, Amendment. This Agreement contains the complete agreement between the COMMISSION and the DISTRICT and, as of the effective date hereof, shall supersede all other agreements, communications or representations, either verbal or written,

between the COMMISSION and the DISTRICT. The COMMISSION and the DISTRICT stipulate that neither of them has made any representations except such representations as are specifically contained within this Agreement and each party acknowledges reliance on its own judgement in entering into this Agreement. The COMMISSION and the DISTRICT further acknowledge that any payments or any representations that may have been made outside of those specifically contained herein are of no binding effect and have not been relied upon by either party in its dealings with the other in entering into this Agreement.

11. Governing Law. This Agreement shall be construed and interpreted according to the laws of the State of Florida.
12. Construction of Agreement. This Agreement shall not be construed more strictly against one party than against the other merely by virtue of the fact that it may have been prepared by Counsel for one of the parties, it being recognized that both the DISTRICT and COMMISSION have contributed substantially and materially to the preparation hereof.
13. Effective Date. For all purposes of this Agreement, the Effective Date hereof shall mean the date when the last of the COMMISSION or the DISTRICT has executed the same, and that date shall be inserted at the top of the first page hereof.
14. The COMMISSION'S obligations under this Agreement are subject to legislative appropriation and availability of funding.
15. The DISTRICT and COMMISSION reserve the right to unilaterally cancel this Agreement for refusal by either to allow public access

to all documents, papers, letters, or other material subject to the provisions of Chapter 119, Florida Statutes, and made or received by the DISTRICT and the COMMISSION in conjunction with this Agreement.

16. As a condition of this Agreement the DISTRICT and COMMISSION hereby covenant and agree not to 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 pursuant to this Agreement.

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement, on the date and year first above written.

GOVERNING BOARD OF THE ST. JOHNS
RIVER WATER MANAGEMENT DISTRICT

ATTEST:

By: Merritt C. Fore
MERRITT C. FORE, Secretary

Saundra H. Gray
SAUNDRA H. GRAY, Chairman

Executed on May 8, 1991
(SEAL)

FLORIDA GAME AND FRESH WATER
FISH COMMISSION

ATTEST:

By: Ann Singster-Doerr
ANN SINGSTER-DOERRER
Agency Clerk

Robert M. Brantly
COLONEL ROBERT M. BRANTLY
Executive Director

Executed on May 3, 1991

STATE OF FLORIDA
COUNTY OF PUTNAM

BEFORE ME, an officer duly authorized to take acknowledgments in the State and County aforesaid, personally appeared Sandra H. Gray and Merritt C. Fore, to me known to be the Chairman and Secretary of ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, a public body existing under Chapter 373, Florida Statutes, who being duly authorized, executed the foregoing document, and they acknowledged before me that they executed the same on behalf of ST. JOHNS RIVER WATER MANAGEMENT DISTRICT.

WITNESS my hand and official seal this 8th day of May, 1991.

(NOTARIAL SEAL)

[Signature]
Notary Public

My Commission Expires: _____

NOTARY PUBLIC, STATE OF FLORIDA;
MY COMMISSION EXPIRES: OCT. 29, 1992;
BONDED THRU NOTARY PUBLIC UNDERWRITERS;

STATE OF FLORIDA
COUNTY OF Leon

BEFORE ME, an officer duly authorized to take acknowledgments in the State and County aforesaid, personally appeared Colonel Robert M. Brantly and Ann Singster-Doerrer, to me known to be the Executive Director and Agency Clerk of the FLORIDA GAME AND FRESH WATER FISH COMMISSION, who being duly authorized, executed the foregoing document, and they acknowledged before me that they executed the same on behalf of the FLORIDA GAME AND FRESH WATER FISH COMMISSION.

WITNESS my hand and official seal this 3rd day of May, 1991.

(NOTARIAL SEAL)

[Signature]
Notary Public

My Commission Expires: _____

Notary Public, State of Florida
My Commission Expires Oct. 20, 1991
Bonded Thru Troy Fain - Insurance Inc.

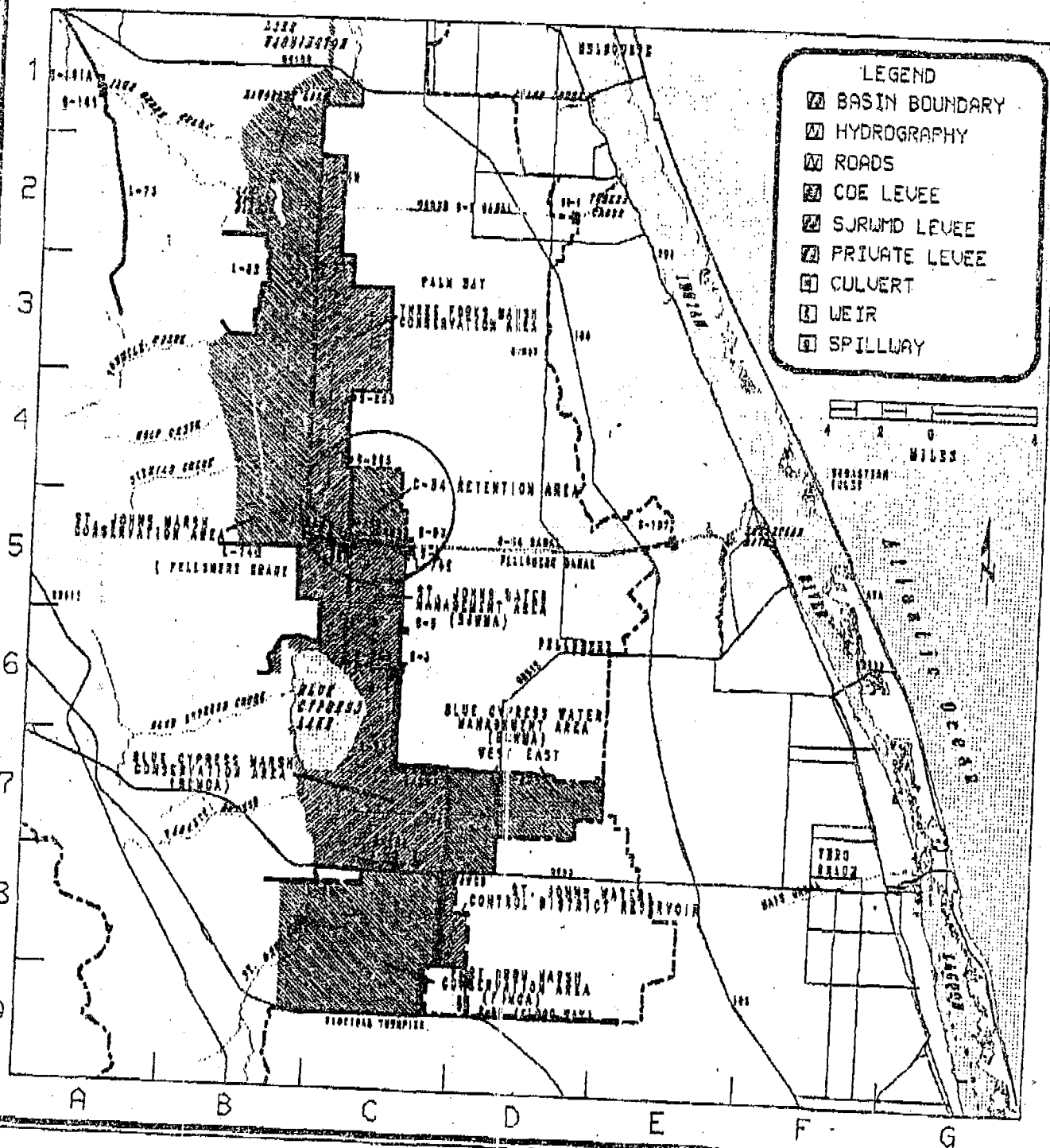
APPROVED AS TO FORM:

APPROVED BY:

[Signature]
JOHN W. WILLIAMS
Office of General Counsel
S.J.R.W.M.D.

[Signature]
COMMISSION ATTORNEY

UPPER ST. JOHNS
RIVER BASIN PROJECT



11.1. 2 Lease Agreement 01183 Broadmoor Marsh Unit and Amendments

DIVISION LOG # W1443CONTRACT NUMBER 01183

CONTRACT ROUTING REVIEW FORM

CONTRACTOR NAME ST. JOHNS RIVER WATER MANAGEMENT DISTRICTVENDOR ID NO. _____ PROCUREMENT METHOD*/BID/RFP NO. NABRIEF TITLE BROADMOOR MARSH COOPERATIVE MANAGEMENT AGREEMENT☒ NEW** ☐ RENEWAL ☐ EXTENSION ☐ AMENDMENT (See Reverse for Definitions)CONTRACT BEGIN DATE EXECUTION END DATE 5 YEARS AFTER EXECUTION OPTION FOR AUTOMATICALLY RENEWED IN 5 YEAR INCREMENTS YEARSORIGINATOR/CONTACT STEVE ROCKWOOD/PAUL SCHULZ PHONE 321-726-2862/850-488-3831 DIV./OFFICE/MAIL WILDLIFE

TOTAL CONTRACT AMOUNT \$ _____ PAYMENT AMOUNT \$ _____

BILLING PERIODS: ☐ MONTHLY ☐ QUARTERLY ☐ ANNUALLY ☐ OTHER _____☐ EXPENDITURE** ☒ REVENUE ☐ AGREEMENT ☐ EASEMENT/DEED ☒ LEASE (INCLUDES WMA OR FMA LEASES)BUILDING INSURANCE TO BE INCURRED BY THE COMMISSION ☒ NO ☐ YES (Notify Property Administrator)

****ALL NEW EXPENDITURE CONTRACTS:** (1) FSAA State Project Checklist: Copy must be attached. (check to verify) ☐ Yes
 (2) Vendor/Recipient Checklist: Copy must be attached if State Project Checklist shows this is a State Project. Attached? ☐ Yes ☐ No

ORG. CODE	E.O.	OBJECT CODE	AMOUNT	PROJECT ID	FY

Certified Minority: ☐ Yes ☐ No ☐ Not Available ☒ Not Appl. Minority Category _____ (See reverse side for options)Class/group Code _____ FLAIR: ☐ Yes ☐ No Federal Funds: Agcy _____ CFDA _____

Routing Order for Approval	Approval (Signature)	Date	Comments
1. Project Leader	<i>[Signature]</i>	3-22-02	
2. Proj. Budget Mgr. (Expenditure Only)			Budget Authority: ☐ Existing ☐ New
3. Div./Reg./Inst./Off. Dir.	<i>[Signature]</i>	3-25-02	
4. Bur. of Office Operations	<i>[Signature]</i>	3/26/02	
5. Legal	<i>[Signature]</i>	3-26-02	
6. Dir. of Auditing (Expenditure/Revenue)	<i>[Signature]</i>	3-26-02	<i>[Signature]</i> F20 A
7. Bureau of Accounting	<i>[Signature]</i> AJ	3/27/02 3-28-02	Funds Availability: ☐ Yes ☐ No
8. Exec./Div./Reg./Inst./Off. Dir. review (check below):			
☐ Expenditure Contracts: Return to Originator for Contractor signature. ☐ Other documents: Send to (circle) Exec./Div./Reg./Inst./Off. Dir. for signature.			Expenditure Contracts: After Contractor signs, send to Exec./Div./Reg./Inst./Off. Director for signature and dating.
9. Exec./Div./Reg./Inst. Dir. execute	<i>[Signature]</i>	1-April-2002	
Originator Copy to Accounting	<i>[Signature]</i>	25 April 02	
Originator to Bur. of Office Ops.	<i>[Signature]</i>	25 April 02	Send executed Original Contract and Routing Slip to BOO
Bur. of Office Ops. to Central Files			

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

Waterfowl Management Section
T.M. Goodwin WMA
3200 T.M. Goodwin Road
Fellsmere, FL 32948
(321) 726-2862

March 15, 2002

MEMORANDUM

To: Contract Reviewers
From: Stephen V. Rockwood
Subject: Broadmoor lease agreement

Attached for your review is a renewable five-year lease/revenue agreement with the St. John's River Water Management District (SJRWMD) for the Broadmoor Marsh Restoration Area (approximately 2,600 acres) located in Brevard County. The area will be managed as an extension of the T.M. Goodwin Waterfowl Management Area.

This agreement provides up to \$346,000 of restoration funds over the first three years. Funds will be made available from the SJRWMD and the Natural Resources Conservation Service under a separate agreement that is referenced and attached as an exhibit in the current agreement. Restoration funds will be used to purchase a tractor for habitat management, mowing levees, water level manipulation, and other maintenance activities. At the end of the restoration period, the SJRWMD has agreed to provide yearly management funds at a level acceptable to both parties for the continued management of the project.

If you have any questions, please feel free to contact me. Thank you for your assistance.

SVR/W1010/jea

WLD 8-7-4

Broadmoor memo to contract reviewers.doc

cc: Mr. Paul Schulz
Ms. Diane Eggeman
Mr. Jace Albury

COOPERATIVE MANAGEMENT AGREEMENT

Broadmoor Marsh

THIS COOPERATIVE MANAGEMENT AGREEMENT is made and entered into this 15th day of April, 2002, between the Governing Board of the **ST. JOHNS RIVER WATER MANAGEMENT DISTRICT**, a public body existing under Chapter 373, Florida Statutes, whose mailing address is P.O. Box 1429, Palatka, Florida 32178-1429 (hereinafter called the "DISTRICT") and the **FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION**, a public body of the State of Florida, whose mailing address is Farris Bryant Building, 620 South Meridian Street, Tallahassee, FL 32399-1600 (hereinafter called the "COMMISSION"),

WITNESSETH

WHEREAS, the DISTRICT is the fee simple owner of certain real property, hereinafter referred to as the "PROPERTY," in southern Brevard County approximately six miles west of Babcock Street (State Road/County Road 507) identified as the Broadmoor Marsh and as depicted in Exhibit "A" attached hereto and by reference made a part hereof; and

WHEREAS, the COMMISSION is desirous of managing the PROPERTY for the purpose of establishing a waterfowl management area; and

WHEREAS, the waterfowl management area will provide a diversity of wintering and breeding habitats for various waterfowl species, as well as benefiting many species of wading and shore birds, and a number of endangered species; and

WHEREAS, the DISTRICT and the COMMISSION recognize that the PROPERTY has potential for multiple uses if properly managed; and

WHEREAS, the COMMISSION possesses the personnel, ability, interest, and willingness to manage the PROPERTY under the multiple-use concept, based on sound ecological principles; and

WHEREAS, the DISTRICT and the COMMISSION recognize the value of close cooperation and mutual support in providing for public use and enjoyment of the PROPERTY.

NOW, THEREFORE, the parties hereto, for and in consideration of the premises and the mutual covenants, terms and conditions hereinafter contained, hereby covenant and agree as follows:

1. Subject to the terms, conditions and limitations set forth in this Agreement, the DISTRICT hereby conveys management responsibilities to the COMMISSION and the COMMISSION hereby accepts management responsibilities from the DISTRICT of the PROPERTY depicted in Exhibit "A" for the purposes and in the manner hereinafter set forth.
2. The initial term of this Agreement is for a period of five (5) years, commencing on April 15, 2002, and ending on April 14, 2007. Thereafter, this

Agreement shall be automatically renewed in five-year increments, unless terminated as otherwise set forth herein.

3. The COMMISSION shall be compensated by both the DISTRICT and the United States Department of Agriculture Natural Resource Conservation Service (NRCS) under a project agreement between the DISTRICT and the NRCS (the "NRCS Agreement") attached as Exhibit "B" in the sum of \$346,000 over the first three years of this Agreement. Total payments to the COMMISSION for the management and restoration of the PROPERTY over the first three years of this Agreement shall not exceed \$334,500 as set forth on Exhibit "C" attached hereto and by this reference made a part hereof (the "Budget"). Management and restoration includes water level manipulation, mowing, roller chopping, and project management. Once the \$346,000 dollars in management funds from both the DISTRICT and NRCS has been expended, the DISTRICT shall continue to reimburse yearly management costs to the COMMISSION at a level acceptable to both parties. The DISTRICT and NRCS shall pay the COMMISSION as depicted below:
 - a. The DISTRICT agrees to provide total matching funds in the amount of 25% or \$86,500 over the first three full fiscal years (July 1–June 30) of this Agreement, which funding shall not exceed \$25,000 per year for resource management and \$11,500 in inkind services (administrative work) over the three years.
 - b. Pursuant to the Agreement between the NRCS and the DISTRICT, funds shall be provided by the NRCS in the amount of 75% or \$259,500 of Wetlands Reserve Program (WRP) funding over the first three full fiscal years of this Agreement, with a major portion of the funding to be spent in the first year to purchase a tractor.
 - c. The DISTRICT shall maintain a detailed account of the inkind services provided by the DISTRICT.
 - d. An invoice in a format approved by the DISTRICT shall be provided by the COMMISSION to the DISTRICT no later than June 30 of each full fiscal year of the Agreement, detailing costs incurred throughout the previous year. The DISTRICT shall pay all expenses up to \$25,000 per year. The remainder of the amount of the invoice shall be obtained from the NRCS as long as it does not exceed \$259,500 over three years.
 - e. The DISTRICT shall forward each approved invoice to the NRCS according to the NRCS Agreement, documenting the share paid by the DISTRICT and the amount remaining to be paid by the NRCS.
 - f. Pursuant to the NRCS Agreement, the DISTRICT shall make direct payment to the COMMISSION of the share of each invoice attributable to the DISTRICT, and the NRCS shall make direct payment to the COMMISSION of the share of each invoice attributable to the NRCS.
4. The purpose of this Agreement shall be to designate the COMMISSION as the lead management entity. The COMMISSION shall have the right to manage the habitat on the PROPERTY for waterfowl and other wetland wildlife and take specific

management actions including, but not limited to, construction of office and maintenance facilities, improving internal levees, on site water level manipulation, controlled burning, discing, and planting and mowing, along with other allowable uses as described herein and in the Management Plan (the "Plan") to be developed pursuant to this Agreement.

5. Notwithstanding any provision contained herein to the contrary, this Agreement is subject to:
 - a. The terms, conditions, restrictions and limitations set forth in this Agreement; and
 - b. All applicable laws, state statutes, local ordinances and the rules and regulations pertaining thereto which may be applicable to the operation of the PROPERTY.
6. A Land Management Plan ("Plan") for the PROPERTY shall be written by the COMMISSION and approved by the DISTRICT. The Plan shall include a component for development of recreational opportunities, location of all water control structures, office and maintenance buildings, and any additional improvements necessary for operation of the waterfowl management area. The Plan shall be updated every five years. Amendments to the approved Plan may be proposed by either party to this Agreement at any time; however, both parties must agree in writing to the amendments. The Plan shall be submitted to the DISTRICT for approval within eighteen (18) months of execution of this Agreement.
7. The COMMISSION shall assume primary management responsibilities that are consistent with the approved Plan, and shall include the following:
 - a. An annual report due on or before June 30. This report shall include a list of expenditures by management activity for the prior year, construction and management activities, results of surveys and on-going research, harvest and hunter use information, visitor use, and future management and research plans.
 - b. A revised Budget shall be included with the annual report that covers the planned activities for the upcoming years and any changes or modifications from the previous years' projections.
 - c. Post the boundary of the PROPERTY and provide routine surveillance and security for the PROPERTY.
 - d. Provide passive recreational opportunities such as hiking, biking and horseback riding and regulate their use on the PROPERTY including establishment of hunting regulations and refuges for management purposes.
 - e. All major signage, brochures, and pamphlets, prepared by the COMMISSION, relating to the PROPERTY, shall include the DISTRICT logo and be reviewed by the DISTRICT prior to distribution or installation.
 - f. Maintain interior levees that are located within the exterior boundary levee.
 - g. Operate internal pumps, and obtain the appropriate permits for discharge, and for bringing water into the PROPERTY.
 - h. Develop a Land Management Plan for the PROPERTY, as identified in paragraph 6.
 - i. Control wildfires by employing appropriate management practices.
 - j. Control exotic and invasive plants, including aquatic weeds at maintenance levels.

8. The DISTRICT shall be responsible for the following:
 - a. Mowing the north, south, and west exterior boundary levees, and the east levee south of the maintenance area that remains in private ownership.
 - b. Maintaining external pumps.
 - c. Preparing an operating manual for the COMMISSION that shall address pump operation during flood conditions.
 - d. Obtaining approval from the USDA to implement a restoration plan for the PROPERTY including addressing any possible contamination due to prior land use activities.
 - e. Providing public access by securing and maintaining levees that are the District's responsibility and negotiating with the United States Army Corp of Engineers to allow public vehicles on the levee, which is the western boundary (L74N) of the PROPERTY.
9. Nothing contained in this Agreement shall be construed as a waiver of or contract with respect to the regulatory or permitting authority of the DISTRICT as it now or hereafter exists under applicable laws, rules and regulations.
10. It shall be the responsibility of the COMMISSION for a COMMISSION-initiated Project, and the DISTRICT for a DISTRICT-initiated Project, at its sole cost and expense, to obtain or renew any and all permits which may be required by the St. Johns River Water Management District, the State of Florida Department of Environmental Protection, and other applicable governmental agencies for activities conducted by such initiating party hereunder.
11. The COMMISSION acknowledges that the use authorized herein does not convey to COMMISSION any real property rights or interests to the PROPERTY nor any interests, rights, or privileges other than those specified herein.
12. The COMMISSION shall pay all lawful debts incurred by it with respect to the PROPERTY and shall satisfy all liens of contractors, sub-contractors, mechanics, laborers, and materialmen in respect to any construction, alteration and repair ordered by it in and on the PROPERTY, and any improvements thereon. Furthermore, the COMMISSION shall not have authority to create any mortgages on the PROPERTY or liens for labor or material on or against the PROPERTY and all persons contracting with the COMMISSION for the construction or removal of any structure, or for the erection, installation, alteration or repair of any structure or improvement on the PROPERTY, including all materialmen, contractors, mechanics and laborers involved in such work, shall be notified that they must look to the COMMISSION only to secure the payment of any bill or account for work done, material furnished, or money owed during the term of this Agreement.
13. All structures, improvements or personal property placed upon, or moved in or upon the PROPERTY by the COMMISSION shall be at the sole risk of the COMMISSION and the DISTRICT shall not be liable for any damage to said personal property, structures or improvements, unless said damage is due to the actions of the DISTRICT.
14. All structures and improvements currently existing on the PROPERTY or placed upon the PROPERTY by the DISTRICT shall remain the property of the DISTRICT. All new structures or improvements placed upon or moved in or upon the

PROPERTY by the COMMISSION shall be deemed personal property of the COMMISSION and shall not be considered attached to the land as a fixture unless otherwise agreed upon in writing between the parties.

15. The COMMISSION takes possession of the PROPERTY with full knowledge of the existing condition of the PROPERTY and accepts the PROPERTY in "as is" condition. The DISTRICT makes no representations or warranties as to the fitness of the PROPERTY for any particular use.
16. The COMMISSION possesses no knowledge of or expertise in the state of any pollutants, if they exist on the PROPERTY. Therefore, notwithstanding any other provision hereof, the COMMISSION shall in no way be liable for any claims or damages based, in whole or in part on the presence of pollutants or toxins, of any sort, on the PROPERTY.
17. The COMMISSION and other governmental agencies or organizations involved in management related activities on the PROPERTY shall, throughout the term of this Agreement, provide, maintain, and keep in force a program of insurance or self-insurance covering its liabilities as prescribed by Section 768.28, Florida Statutes. The COMMISSION agrees to maintain participation in the state insurance program or any similar insurance program enacted during the term of this Agreement for the duration of this Agreement. In addition, nothing contained herein shall be construed as a waiver of limitations of liability which may be enjoyed by the DISTRICT as a landowner providing land to the public for outdoor recreational purposes, as provided in Section 373.1395, F.S., or any other law providing limitations on claims against the landowner.
18. This Agreement and any and all rights and privileges contained herein are for the sole use of the DISTRICT and the COMMISSION and shall not be assigned or transferred to another party without the written consent of both the DISTRICT and the COMMISSION.
19. The DISTRICT's obligation to provide funding in connection with this Agreement and the provision for partial funding from NRCS, shall be contingent upon appropriate DISTRICT approval for such funding.
20. The COMMISSION shall not use or permit the PROPERTY to be used in violation of any valid present or future laws, ordinances, rules or regulations of any public or governmental authority at any time applicable thereto relating to sanitation or the public health, safety or welfare, or relating to the COMMISSION's activities in, and use of, the PROPERTY. It is understood and agreed by the parties that there shall be no facilities constructed or placed on the PROPERTY except those directly related to the operation and maintenance of the PROPERTY for public recreational purposes or as set forth in the approved Management Plan and future restoration plan.
21. The DISTRICT reserves the right for itself, its agents, consultants and employees, to enter upon the PROPERTY for the purpose of inspecting the PROPERTY, conducting other water management activities, and determining compliance with the terms of this Agreement, so long as such entry or use does not unreasonably interfere with the COMMISSION'S use of the PROPERTY for the purposes set forth herein.
22. Either party may terminate this Agreement, with or without cause, at any time upon ninety (90) days written notice to the other party.

23. All notices, consents, approvals, waivers and elections which any party shall be required or shall desire to make or give under this Agreement shall be in writing and/or shall be sufficiently made or given only when mailed by Certified Mail, postage prepaid, return receipt requested, addressed as follows to the parties listed below or to such other address as any party hereto shall designate by like notice given to the other parties hereto:

DISTRICT: ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
P.O. BOX 1429
PALATKA, FL 32178-1429
ATTENTION: DIRECTOR
DIVISION OF LAND MANAGEMENT

COMMISSION: FLORIDA FISH AND WILDLIFE CONSERVATION
COMMISSION
FARRIS BRYANT BUILDING
620 SOUTH MERIDIAN STREET
TALLAHASSEE, FL 32399-1600
ATTENTION: MR. TIMOTHY E. O'MEARA

Notices, consents, approvals, waivers and elections given or made as aforesaid shall be deemed to have been given and received on the date of the mailing thereof as aforesaid.

24. Wherever used herein, the terms "DISTRICT" and "COMMISSION" include all parties to this instrument, their employees, legal representatives and assigns of individuals, and the successors and assigns of corporations, partnerships, public bodies, and quasi-public bodies.
25. This Agreement constitutes the entire agreement of the parties, and there are no understandings dealing with the subject matter of this Agreement other than those contained herein. This Agreement may not be modified, changed or amended, except in writing signed by the parties hereto or their authorized representatives.
26. This Agreement shall be construed and interpreted according to the laws of the State of Florida.
27. As a condition of this Agreement the DISTRICT and COMMISSION hereby covenant and agree not to 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 pursuant to this Agreement.
28. The DISTRICT and COMMISSION reserve the right to unilaterally cancel this Agreement for refusal by either to allow public access to all documents, papers, letters, or other material subject to the provisions of Chapter 119, Florida Statutes, and made or received by the DISTRICT and the COMMISSION in conjunction with this Agreement.
29. This Agreement shall not be construed more strictly against one party than against the other merely by virtue of the fact that it may have been prepared by counsel for one of the parties, it being recognized that both the DISTRICT and COMMISSION have contributed substantially and materially to the preparation hereof.
30. Nothing contained in this Agreement or the Plan prepared pursuant to this Agreement shall be construed as a waiver of or contract with respect to the regulatory or

permitting authority of the DISTRICT or COMMISSION as it now or hereafter exists under applicable laws, rules and regulations.

31. For all purposes of this Agreement, the Effective Date hereof shall mean the date when the last of the DISTRICT or the COMMISSION has executed the same, and that date shall be inserted at the top of the first page hereof.

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement, on the date and year first above written.

**ST. JOHNS RIVER WATER
MANAGEMENT DISTRICT**



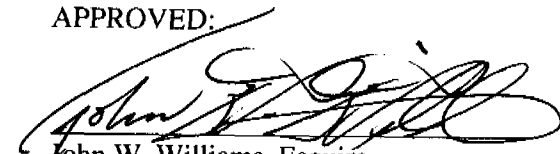
Kirby B. Green III
Executive Director

By authority of Section 373.083 (5), Florida
Statutes, and SJRWMD Policy Number
90-16 (Cooperative Agreements).

(SEAL)

Executed on April 15, 2002

APPROVED:


John W. Williams, Esquire
Office of General Counsel
SJRWMD

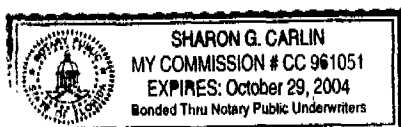
STATE OF FLORIDA
COUNTY OF PUTNAM

BEFORE ME, an officer duly authorized to take acknowledgments in the State and County aforesaid, personally appeared Kirby B. Green III, to me personally known and known to me to be the Executive Director of the ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, a public body existing under Chapter 373, Florida Statutes, who being duly authorized, executed the foregoing document, and he acknowledged before me that he executed the same on behalf of ST. JOHNS RIVER WATER MANAGEMENT DISTRICT.

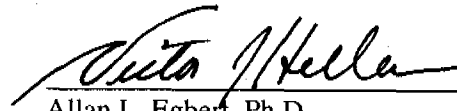
WITNESS my hand and official seal this 15th day of April, 2002.

(NOTARIAL SEAL)


Notary Public SHARON G. CARLIN
My Commission Expires: 10/29/04

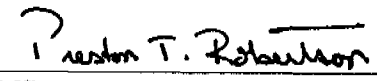


FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION


For Allan L. Egbert, Ph.D.
Executive Director

Executed on 1-April, 2002

APPROVED BY:


Office of General Counsel
Florida Fish and Wildlife Conservation Commission

STATE OF FLORIDA
COUNTY OF LEON

BEFORE ME, an officer duly authorized to take acknowledgments in the State and County aforesaid, personally appeared Victor J. Heller, to me personally known and known to me to be the Assistant Executive Director of the FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION, who being duly authorized, executed the foregoing document, and acknowledged before me that he executed the same on behalf of the FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION.

WITNESS my hand and official seal this 1st day of April, 2002



Jimmie C. Bevis
MY COMMISSION # DD077239 EXPIRES
December 28, 2005
BONDED THRU TROY FAIR INSURANCE, INC.

(NOTARIAL SEAL)


Notary Public JIMMIE C. BEVIS
My Commission Expires:



Jimmie C. Bevis
MY COMMISSION # DD077239 EXPIRES
December 28, 2005
BONDED THRU TROY FAIR INSURANCE, INC.

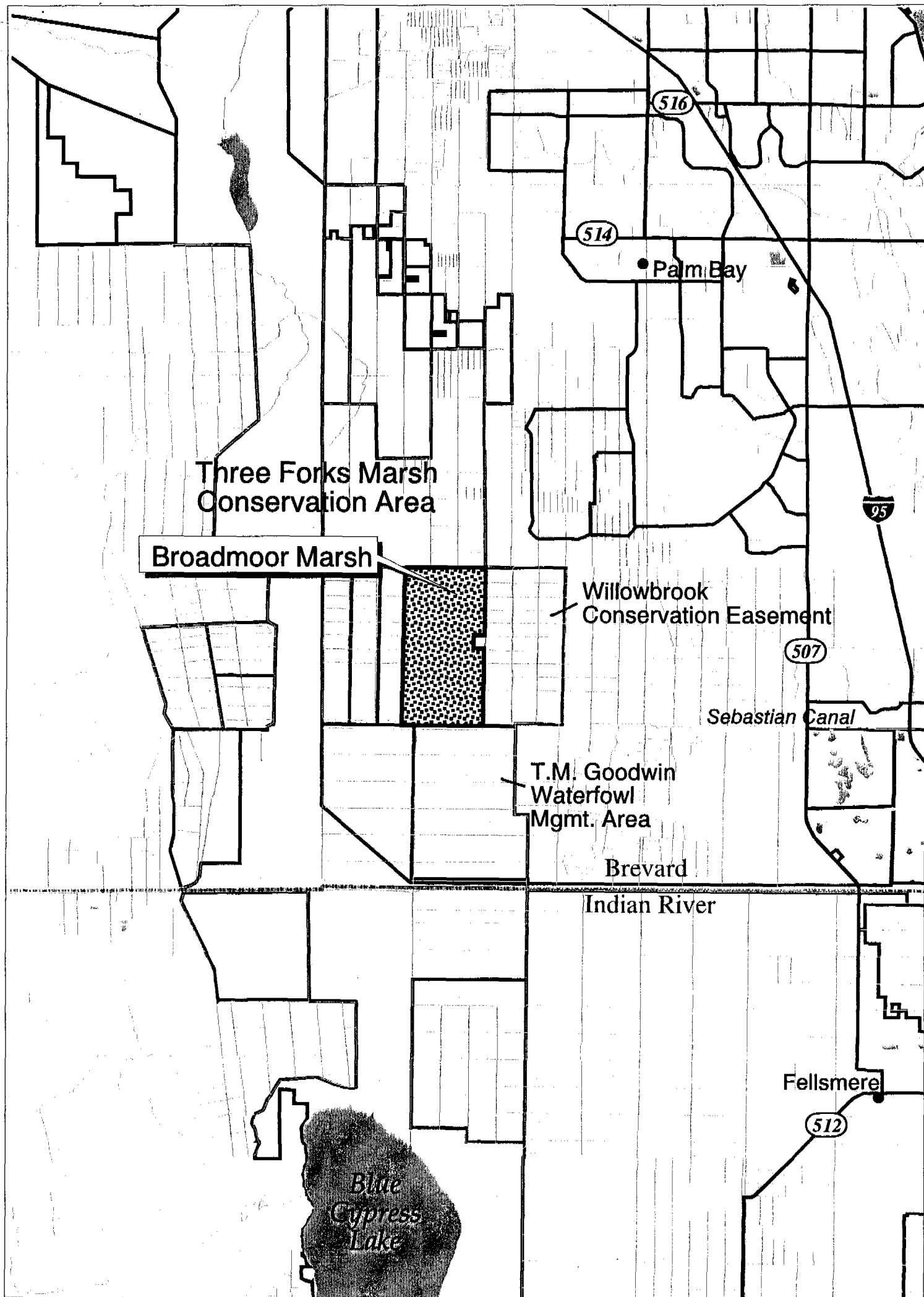


Exhibit "A" Broadmoor Marsh

Legend:

-  Subject Area
-  Water
-  Cities
-  Major Roads
-  County Boundaries
-  District Conservation Lands

The St. Johns River Water Management District prepares and uses this information for its own purposes and this information may not be suitable for other purposes. This information is provided "as is". Further documentation of this data can be obtained by contacting: St. Johns River Water Management District, Geographic Information Systems, Program Management, P.O. Box 1429, Palatka, Florida 32178-1429. (86) 329-4176.



0 1 2 Miles

1:140000

EXHIBIT "A"

FEE ACQUISITION PARCEL

A PARCEL OF LAND LYING IN THE AMMONIATE PRODUCTS CORPORATION'S SUBDIVISION OF UNSURVEYED TOWNSHIP 30 SOUTH, RANGE 36 EAST, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 5, PAGE 11, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, AND ALSO BEING A PORTION OF A PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 2237, PAGE 0362, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, INCLUDING CANALS AND ROAD RIGHTS-OF-WAY LYING WITHIN OR ADJACENT TO THE FOLLOWING DESCRIBED LOTS AND BEING DESCRIBED AS FOLLOWS:

THOSE PORTIONS OF THE EAST ONE-HALF OF LOTS 105, 205, 305, 405, 505, 605, 705, 805, 905, 1005, 1105 AND 1205, LYING EAST OF THE WESTERLY EDGE OF AN EXISTING CANAL, LOTS 106, 206, 306, 406, 506, 606, 706, 806, 906, 1006, 1106, 1206, 107, 207, 307, 407, 507, 607, 707, 807, 907, 1007, 1107, 1207, 108, 208, 308, 408, 508, 608, 708, 808, 908, 1008, 1108, 1208, 109, 209, 309, 409, 509, 609, 709, 809, 909, 1009, 1109, 1209, 110, 210, 310, 410, 510, 810, 910, 1010, 1110, 1210 AND A PORTION OF LOTS 610 AND 710, AND THOSE PORTIONS OF THE WEST ONE-HALF OF LOTS 111, 211, 311, 411, 511, 611, 711, 811, 911, 1011, 1111 AND 1211 LYING WEST OF THE EAST TOE OF SLOPE OF AN EXISTING LEVEE AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS DESCRIPTION AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF TOWNSHIP 30 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA; THENCE NORTH 89°53'53" EAST, ALONG THE NORTH LINE OF SAID TOWNSHIP 30 SOUTH, SAID NORTH LINE ALSO BEING THE NORTH LINE OF THE AFORESAID AMMONIATE PRODUCTS CORPORATION'S SUBDIVISION, A DISTANCE OF 8052.20 FEET TO THE POINT OF BEGINNING; THENCE, CONTINUING ALONG SAID NORTH LINE, NORTH 89°53'53" EAST, A DISTANCE OF 7901.33 FEET; THENCE, DEPARTING SAID NORTH LINE, SOUTH 00°00'09" EAST, A DISTANCE OF 157.51 FEET; THENCE NORTH 89°59'51" EAST, A DISTANCE OF 28.97 FEET, TO THE EAST TOE OF SLOPE OF AN EXISTING LEVEE; THENCE SOUTHERLY ALONG SAID EAST TOE OF SLOPE, THE FOLLOWING COURSES AND DISTANCES:

THENCE SOUTH 01°11'22" WEST, A DISTANCE OF 1701.31 FEET; THENCE SOUTH 00°01'17" WEST, A DISTANCE OF 1115.45 FEET; THENCE SOUTH 00°41'41" WEST, A DISTANCE OF 1170.38 FEET; THENCE SOUTH 01°20'11" WEST, A DISTANCE OF 1089.90 FEET; THENCE SOUTH 00°54'18" WEST, A DISTANCE OF 1437.00 FEET; THENCE, DEPARTING THE AFORESAID EAST TOE OF SLOPE, NORTH 89°59'42" WEST, A DISTANCE OF 1042.40 FEET; THENCE SOUTH 00°00'07" WEST, A DISTANCE OF 1288.60 FEET; THENCE SOUTH 89°59'47" EAST, A DISTANCE OF 1022.12 FEET; TO THE AFORESAID EAST TOE OF SLOPE; THENCE, ALONG SAID EAST TOE OF SLOPE, THE FOLLOWING COURSES AND DISTANCES:
SOUTH 00°54'13" WEST, A DISTANCE OF 268.52 FEET; THENCE SOUTH 00°39'29" WEST, A DISTANCE OF 1057.99 FEET; THENCE SOUTH 00°42'18" WEST, A DISTANCE OF 1098.48 FEET; THENCE SOUTH 00°38'28" WEST, A DISTANCE OF 1065.15 FEET; THENCE SOUTH 00°14'40" WEST, A DISTANCE OF 1030.12 FEET; THENCE SOUTH 00°25'08" WEST, A DISTANCE OF 2153.27 FEET; THENCE SOUTH 05°13'01" WEST, A DISTANCE OF 907.09 FEET, TO THE CENTERLINE OF A 60 FOOT PLATTED RIGHT-OF-WAY, SAID PLATTED RIGHT-OF-WAY LYING SOUTHERLY OF AND COINCIDENT WITH THE SOUTH LINE OF TRACTS 1200 THROUGH 1222 AS SHOWN ON SAID PLAT OF THE AMMONIATE PRODUCTS SUBDIVISION; THENCE NORTH 89°32'55" WEST, ALONG SAID CENTERLINE, A DISTANCE OF 7934.98 FEET; THENCE NORTH 00°59'25" EAST, ALONG THE AFORESAID WESTERLY WESTERLY EDGE OF AN EXISTING CANAL, A DISTANCE OF 15461.46 FEET, TO THE POINT OF BEGINNING.

CONTAINING 2800.00 ACRES, MORE OR LESS.



CFN 98061170

OR Book/Page: 3821 / 3043

PROJECT AGREEMENT

Between

ST JOHNS RIVER WATER MANAGEMENT DISTRICT

and the

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

Authority: Public Law 46-74, 16 U.S.C. (590 a-f)

THIS AGREEMENT, made and entered into this August 27th 2001 by and between the St Johns River Water Management District (hereinafter called the "SJRWMD"), whose address is P.O. Box 1429, Palatka, FL 32178-1429, and the United States Department of Agriculture Natural Resources Conservation Service (hereinafter called the "Service"), whose address is P.O. Box 141510, Gainesville, FL 32614-1510.

The SJRWMD and the Service have the common objective of helping to bring about the conservation, development, and wise use of land, water and related resources.

Whereas, under the provisions of the Wetlands Reserve Program (WRP) the SJRWMD and the Service have agreed to provide for the restoration of properties described as the Broadmoor Marsh Conservation Area to be detailed in specific site restoration plans and treatments subsequent to this agreement,

Therefore, the SJRWMD and the Service deem it mutually advantageous to cooperate in this undertaking, and hereby agree as follows:

A. The SJRWMD Agrees:

1. To provide matching funds in the amount of 25% or \$86,500.00 of the overall restoration cost estimated to be \$346,000.00
2. The SJRWMD Project Manager shall be Robert Christianson. The Project Manager shall be responsible for coordinating all matters relating to this agreement.

B. The Service Agrees:

1. To provide funds in the amount of 75% or \$259,500.00 in WRP in support of the overall restoration cost estimated to be \$346,000.00.
2. To provide a Service professionals for coordination as required.

C. It is mutually understood and agreed:

1. **TERM.** This agreement shall commence August 21, 2001 and shall continue until September 30, 2005, provided that such continuation does not extend the agreement beyond the fiscal year in which the work is completed.
2. **METHOD OF PAYMENT.** The Service and the SJRWMD shall negotiate and execute cooperative agreements with detailed plans of work, schedules, and budgets subsequent to this agreement. These agreements shall detail payment procedures for funds obligated by this agreement. The following list provides the anticipated project activities, and their anticipated costs to be completed:

Broadmoor Marsh Conservation Area -- Total Cost : \$346,000.00

Water Level Manipulation.....	\$ 21,000.00
Mowing.....	\$ 13,500.00
Roller Chopping.....	\$ 225,000.00
Project Management.....	\$ 86,500.00

3. **INTENT TO COOPERATE.** It is the intent of the Service and the SJRWMD to fulfill their obligations under this agreement. However, commitments cannot be made beyond the period for which funds have been appropriated. In the event funds from which the Service or the SJRWMD may fulfill their obligations are not appropriated, the agreement will automatically terminate. Reimbursement will then be for work completed that is otherwise eligible for reimbursement prior to the effective date of termination.
4. **TERMINATION.** This agreement may be terminated by either party giving a thirty (30) day advance written notice to the other party. Either party may unilaterally cancel this agreement for refusal by the other party to allow public access to documents or other materials related to this agreement for compliance with the provisions of the Freedom of Information Act or Chapter 119, Fla. Stat. as amended. Each party shall comply with their own statutes with consideration of any conflicting requirements.

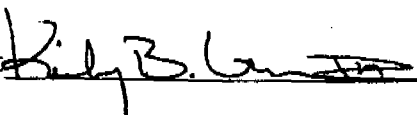
5. **MODIFICATION.** This agreement may be modified by amendment duly executed by authorized officials of the SJRWMD and the Service, provided such modification does not extend this agreement beyond the close of the fiscal year in which the work is completed.
6. **ADMINISTRATION.** This agreement shall be administered in accordance with the provisions of OMB circulars A-87, A-102, and A-128, 7 CFR 3015, and 7 CFR 3016.
7. **OFFICIALS NOT TO BENEFIT.** No member of Congress or Resident Supervisor shall be admitted to any share or part of this agreement, or to any benefit that may arise therefrom; but this shall not be construed to extend to this agreement if made with a corporation for its general benefit.
8. **RECORDS.** Each party agrees that the other party or their duly authorized representative shall have access to the other party's books, papers, documents, and records relative to this agreement for a period of three (3) years after the final expenditure of funds under this agreement.
9. **PROJECT MANAGERS.** Designated project managers shall be responsible for overall coordination and oversight of all matters relating to this agreement. The project manager for SJRWMD is Robert Christianson. The Project Manager for the Service is Ken Murray. The parties agree to direct all matters arising in connection with this agreement to the project managers for attempted resolution or action. All notices regarding this agreement shall be reduced to writing and shall be sent via certified mail to the project managers and shall be considered delivered upon receipt.
10. **NON-DISCRIMINATION.** The program or activities conducted under this agreement will be in compliance with the non-discrimination provisions contained in the Titles VI and VII of the Civil Rights Act of 1964, as amended; the Civil Rights Restoration Act of 1989 (Public Law 100-259); and other non-discrimination statutes; namely, section 504 of the Rehabilitation Act of 1973, Title IX of the Education Amendment of 1972, and the Age Discrimination Act of 1975. They will also be in accordance with the regulation of the Secretary of Agriculture (7 CFR-15, Subparts A and B), which provide that no person in the United States shall on the grounds of race, color, national origin, age, sex, religion, marital status, or handicapped be excluded from participation in, be denied benefits of, or be otherwise subjected to discrimination under any program or activity receiving federal financial and/or technical assistance from the Department of Agriculture of any agency thereof. This shall satisfy the requirements of Chapter 760 Fla. Stat.

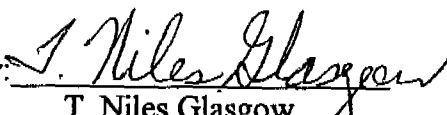
11. DRUG-FREE WORKPLACE. Certification Regarding Drug-Free Work
Place Requirements (Grants) For Alternative I – For Grantees Other Than
Individuals, Form AD-1049, is attached and made a part of this agreement.

This Agreement was approved by the St Johns River Water Management District on
August 27, 2001.

St Johns River
Water Management District

United States
Department of Agriculture
Natural Resources
Conservation Service

By: 
Executive Director

By: 
T. Niles Glasgow
State Conservationist

Approved

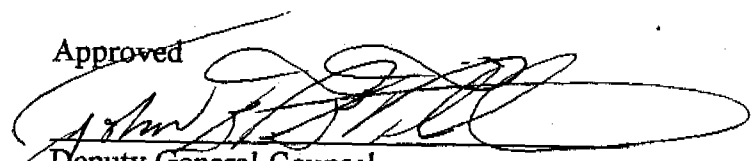

Deputy General Counsel
Office of General Counsel

EXHIBIT "C"**BUDGET****Florida Fish and Wildlife Conservation Commission**
Three-Year- Budget Projection

Funding Source	FY 2002/03	FY 2003/04	FY 2004/05	TOTAL
➤ DISTRICT	\$ 25,000	\$25,000	\$25,000	\$ 75,000
➤ NRCS	\$193,000	\$33,250	\$33,250	\$259,500
TOTAL	\$218,000	\$58,250	\$58,250	\$334,500

Management Activity	FY 2002/03	FY 2003/04	FY 2004/05	Total
➤ Water Level Manipulation	\$ 7,000	\$ 7,000	\$ 7,000	\$ 21,000
➤ Mowing	\$ 4,500	\$ 4,500	\$ 4,500	\$ 13,500
➤ Roller Chopping	\$181,500	\$21,750	\$21,750	\$225,000
➤ Project Management	\$ 25,000	\$25,000	\$25,000	\$ 75,000
TOTAL	\$218,000	\$58,250	\$58,250	\$334,500

Water Level Manipulation – Includes estimated annual electrical cost associated with operating pump station @ 60,000 Kilowatt hours (KWH) @ \$0.103/KWH, plus \$820.00 for miscellaneous supplies to maintain water control structures. Estimated man-days = 20 @ \$203.00/man-day

Mowing – Includes mowing approximately 360 acres/year @ \$10.00/acre. Mowing will include the top and side slopes of levees and slope mowing drainage ditches. Estimated man-days = 40 @ \$203.00/man-day.

Roller chopping – Includes the purchase of a large tractor and roller chopper in fiscal year 2002/03 (approx. \$160,000.00) and rolling chopping approximately 1,500 acres per year @ \$14.50/acre. Total estimated man-days = 60 @ \$203.00/man-day.

Project Management – Includes annual operating expenses of \$25,000.00/yr for all remaining aspects of project coordination, administration, and management. Total estimated man-days = 90 @ \$203.00/man-day.

St. Johns River Water Management District
In-kind Services Costs - Administrative Work

In-kind Services	Hourly Rate
• Project Manager	\$40.00
• Land Resource Planner II	\$16.00
• Land Manager Associate	\$13.00
• Business Resource Specialist IV	\$13.00
Miscellaneous Expenses	
• Photocopies	\$0.15/copy
• Telephone Calls	\$0.06/minute
• Faxes	\$0.10/fax sheet

DIVISION LOG #

CONTRACT ROUTING REVIEW FORM

CONTRACT NUMBER: **01183**

RECEIVED

OCT 13 2005

FVLD Bureau of
Accounting ServicesCONTRACTOR: **ST. JOHNS RIVER WATER MANAGEMENT DISTRICT**VENDOR ID NO. N/A PROCUREMENT METHOD*/BID/RFP NO. NAPROJECT TITLE **BROADMOOR MARSH COOPERATIVE AGREEMENT**ORIGINATOR/CONTACT ROCKWOOD/SNYDER PHONE 488-4066 DIV./OFFICE/MAIL AQUATIC HABITATNEW** X AMENDMENT RENEWS OR EXTENDS **BOO USE ONLY: REQUIRED POSTING 7 DAY: 72 Hr**EXPENDITURE** X REVENUE AGREEMENT EASEMENT/DEED X LEASE (INCLUDES WMA OR FMA LEASES)CONTRACT BEGINS: 7/1/05 DATE EXECUTED OR END DATE 4-14-07 OPTION FOR 5 YEARS - Automatic renewalsTOTAL CONTRACT AMOUNT \$30,000.00 PAYMENT AMOUNT \$ -0-BILLING PERIODS: MONTHLY QUARTERLY X ANNUALLY OTHERBUILDING INSURANCE TO BE INCURRED BY THE COMMISSION(LEASES) X NO YES (Notify Property Administrator)

****NEW EXPENDITURE:** (1) Attach a copy of the State Project checklist or, for Existing State Projects, show the CSFA No. _____
CONTRACTS (2) Vendor/Recipient Checklist: Attached? Yes No - not a State Project per (1) Checklist

ORG. CODE	E.O.	OBJECT CODE	AMOUNT	PROJECT ID			FY
77353050300	26	750015	\$30,000	9100	200	6000	05-06

Certified Minority: Yes No Not Available X Not Appl. Minority Category _____ (See reverse side for options)Commodity Code _____ FLAIR: Yes No Federal Funds: Agcy _____ CFDA _____

Routing Order for Approval	Approval (Signature)	Date	Comments- PLEASE RETURN TO CARROL HERNDON BRYANT BLDG. ROOM 370
1. Project Leader	Snyder <i>[Signature]</i>	10/10/05	
2. Proj. Budget Mgr. (Expenditure Only)			Budget Authority: <u>Existing</u> <u>New</u>
3. Div./Reg./Inst./Off. Dir.			
4. Bur. of Office Operations	<i>[Signature]</i>	10/11/05	
5. Legal	<i>[Signature]</i>	10/11/05	
6. Dir. of Auditing	<i>[Signature]</i>	10/12/05	
7. Bureau of Accounting	<i>[Signature]</i>	10/13/05	Funds Availability: <u>Yes</u> <u>No</u>
8. Exec./Div./Reg./Inst./Off. Dir. review (check below).			
<u>Expenditure Contracts:</u> Return to Originator for Contractor signature. <u>Other documents:</u> Send to (circle) Exec./Div./Reg./Inst./Off. Dir. for signature.			<u>Expenditure Contracts:</u> After Contractor signs, send to Exec./Div./Reg./Inst./Off. Director for signature and dating.
9. Exec./Div./Reg./Inst. Dir. <u>execute</u> (Deputy Director (mover))	<i>[Signature]</i>	10-27-05	
Originator Copy to Accounting*	<i>[Signature]</i>	10-27-05	
Originator to Bur. of Office Ops.*	<i>[Signature]</i>	10-27-05	Send executed Original Contract and Routing Slip to BOO
Bur. of Office Ops. to Central Files*	<i>[Signature]</i>	4/08/10	

INTEROFFICE MEMORANDUM

TO: Contract Reviewers

FROM: Aquatic Habitat Conservation and Restoration Section

DATE: October 17, 2005

SUBJECT: Contract between Florida Fish and Wildlife Conservation
Commission and St. Johns River Water Management District

Attached are two (2) originals of Amendment One to the Cooperative Management Agreement for Broadmoor Marsh Contract between the Florida Fish and Wildlife Conservation Commission and St. Johns River Water Management District. The Commission shall be compensated by the District for management and restoration activities on the property in the amount not to exceed \$30,000 annually for the final two years of the existing five year contract. Management and restoration includes; water level manipulation, mowing, roller chopping and project management. An invoice in a format approved by the District shall be provided by the Commission to the District for the period ending June 30 of each full fiscal year of the agreement, detailing costs incurred throughout the previous year. The District shall pay all expenses up to \$30,000 per year, subject to annual budget approval. The contract will be automatically renewed in five year increments unless terminated as otherwise set forth in the original contract. Funding from the District in an amount not to exceed \$30,000 annually will apply to future renewals unless changes in funding agreed to by both parties or the agreement is terminated.

Please call Lawson Snyder @488-4066 if you have further questions.

les/cah
Attachments



St. Johns River Water Management District

Kirby B. Green III, Executive Director • David W. Fisk, Assistant Executive Director

4049 Reid Street • P.O. Box 1429 • Palatka, FL 32178-1429 • (386) 329-4500
On the Internet at www.sjrwmd.com.

October 25, 2005

Ms. Carrol Herndon
Administrative Assistant
Florida Fish and Wildlife Conservation Commission
620 S. Meridian Street, Room 370
Tallahassee, FL 32399-1600

RE: First Amendment to Cooperative Management Agreement for Broadmoor Marsh

Dear Ms. Herndon:

Please find enclosed one original, fully executed First Amendment to Cooperative Management Agreement for Broadmoor Marsh.

If you have any questions, please call me at (386) 329-4855 or e-mail at sscott@sjrwmd.com.

Sincerely,

A handwritten signature in cursive script that reads 'Sherry Scott'.

Sherry Scott
Land Resources Planner II
Division of Land Management

Enclosures

c: Doug Voltolina, Land Manager, South Region, SJRWMD
Sharon Carlin, Senior Land Acquisition Agent, SJRWMD

GOVERNING BOARD

Ometrias D. Long, CHAIRMAN
APOPKA

David G. Graham, VICE CHAIRMAN
JACKSONVILLE

R. Clay Albright, SECRETARY
OCALA

Duane Ottenstroer, TREASURER
JACKSONVILLE

W. Leonard Wood
FERNANDINA BEACH

John G. Sowinski
ORLANDO

William Kerr
MELBOURNE BEACH

Ann T. Moore
BUNNELL

Susan N. Hughes
PONTE VEDRA

**FIRST AMENDMENT
TO
COOPERATIVE MANAGEMENT AGREEMENT FOR BROADMOOR MARSH**

THIS FIRST AMENDMENT is made and entered into this 19th day of October, 2005, between the ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, a public body existing under Chapter 373, Florida Statutes, whose mailing address is P.O. Box 1429, Palatka, Florida 32178-1429 (hereinafter called the "DISTRICT") and the **FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION**, a public body of the State of Florida, whose mailing address is Farris Bryant Building, 620 South Meridian Street, Tallahassee, FL 32399-1600 (hereinafter called the "COMMISSION"),

W I T N E S S E T H

WHEREAS, on April 15, 2002, the DISTRICT entered into a cooperative management agreement ("Agreement") with the COMMISSION, designating the COMMISSION as lead manager of Broadmoor Marsh (the "Property"), which consists of approximately 2,800 acres, more specifically described in Exhibit "A," attached hereto and by this reference made a part hereof.

WHEREAS, the DISTRICT agreed to provide \$25,000 per year for three years and then continue to reimburse yearly management costs at a level acceptable to both the DISTRICT and COMMISSION; and

WHEREAS, the three-year period has ended and the DISTRICT and COMMISSION have agreed on a yearly management contribution in the amount of \$30,000 per year; and

WHEREAS, the DISTRICT and COMMISSION wish to amend the Agreement so as to provide for long-term annual management contributions, subject to budget approval.

NOW, THEREFORE, the parties hereto, for and in consideration of the premises, which are hereby made a part of the Agreement, and the mutual covenants, terms and conditions hereinafter contained, hereby covenant and agree as follows:

1. Paragraph 3 of the Agreement is hereby deleted in its entirety and replaced with the following:

The COMMISSION shall be compensated by the DISTRICT for management and restoration activities on the Property in the amount not to exceed \$30,000 annually beginning with the year July 1, 2005 through June 30, 2006. Management and restoration includes: water level manipulation, mowing, roller chopping and project management.

- a. An invoice in a format approved by the DISTRICT shall be provided by the COMMISSION to the DISTRICT for the period ending June 30 of each full fiscal year of the Agreement, detailing costs incurred throughout the previous year. The DISTRICT shall pay all expenses up to \$30,000 per year.
- b. The DISTRICT shall make direct payment to the COMMISSION of each approved invoice not to exceed \$30,000 annually, subject to annual budget approval.

RECEIVED

OCT 13 2005

*FWDC Bureau of
Accounting Services*

2. All captioned terms used herein shall have the same meaning as that ascribed to them in the Agreement.
3. Except as specifically provided herein, the Agreement shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the parties hereto have duly executed this **FIRST AMENDMENT** to become effective on the date and year first above written.

**ST. JOHNS RIVER WATER
MANAGEMENT DISTRICT**

By: Kirby B. Green III
Kirby B. Green III
Executive Director
By authority of Section 373.083 (5), Florida
Statutes, and SJRWMD Policy Number
90-16 (Cooperative Agreements).

APPROVED:

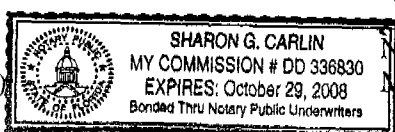
Stanley J. Niego Sr.
for Stanley J. Niego Sr., Assistant General Counsel
Office of General Counsel
SJRWMD

STATE OF FLORIDA
COUNTY OF PUTNAM

BEFORE ME, an officer duly authorized to take acknowledgments in the State and County aforesaid, personally appeared Kirby B. Green III, to me personally known and known to me to be the Executive Director of the ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, a public body existing under Chapter 373, Florida Statutes, who being duly authorized, executed the foregoing document, and he acknowledged before me that he executed the same on behalf of ST. JOHNS RIVER WATER MANAGEMENT DISTRICT.

WITNESS my hand and official seal this 28th day of Sept., 2005.

(NOTARIAL SEAL)



Sharon G. Carlin
Notary Public SHARON G. CARLIN
My Commission Expires: 10/29/08

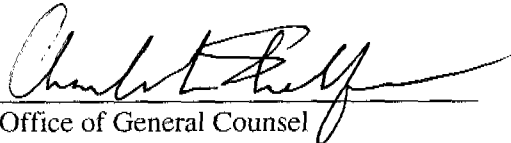
FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION



fs Kenneth D. Haddad
Executive Director

Executed on 17-Oct.-2005, 2005

APPROVED BY:

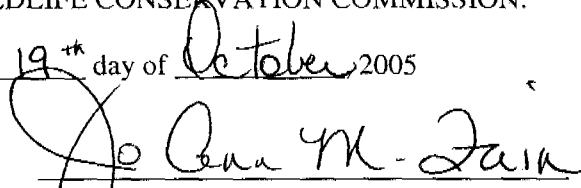


Office of General Counsel
Florida Fish and Wildlife Conservation Commission

STATE OF FLORIDA
COUNTY OF LEON

BEFORE ME, an officer duly authorized to take acknowledgments in the State and County aforesaid, personally appeared Charles R. Shelfer, to me personally known and known to me to be the Charles R. Shelfer of the FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION, who being duly authorized, executed the foregoing document, and acknowledged before me that he executed the same on behalf of the FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION.

WITNESS my hand and official seal this 19th day of October 2005



Notary Public _____
My Commission Expires: _____

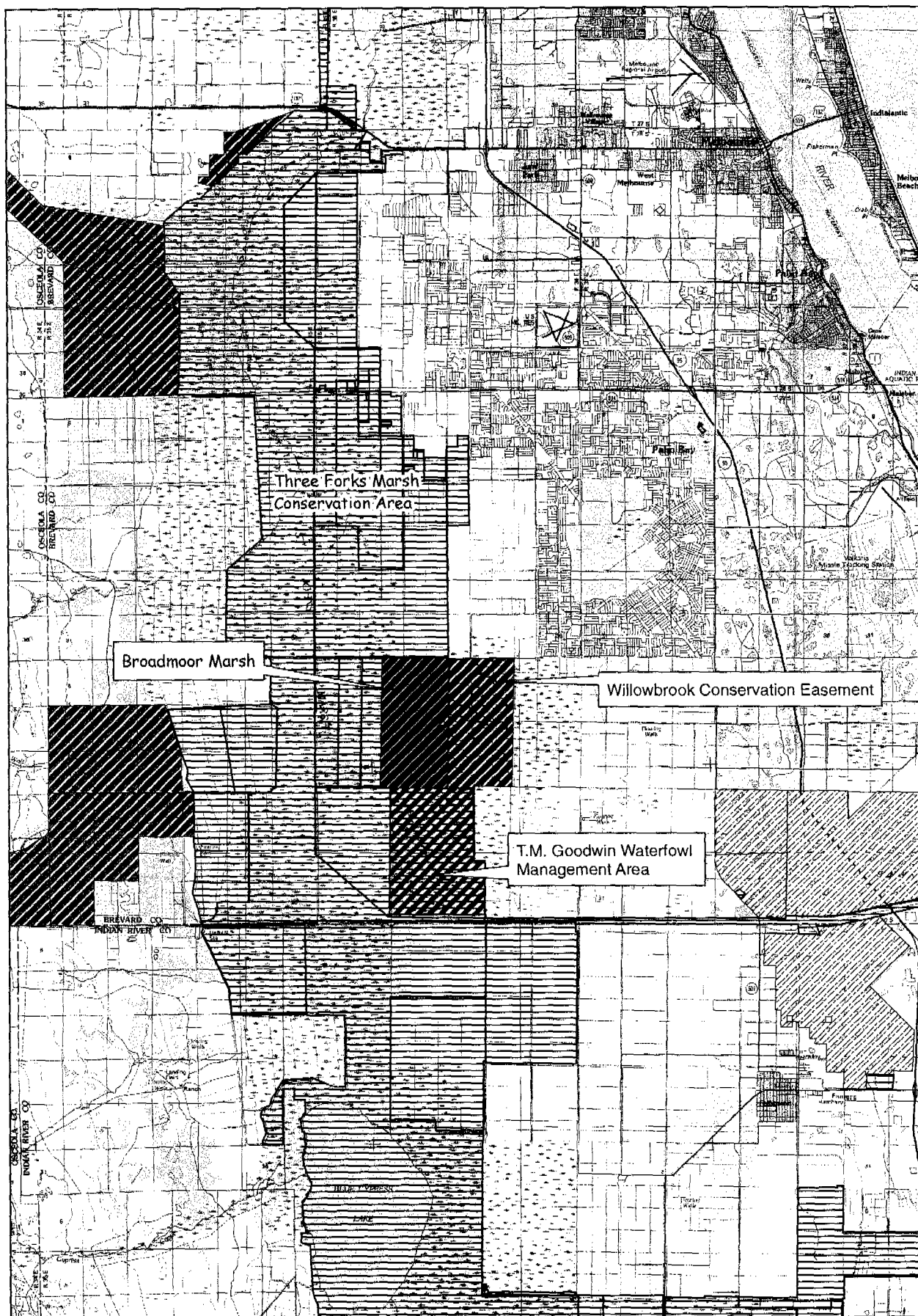
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OCT 13 2005

17-Oct-2005
ACT 17-2005



**Broadmoor Marsh
Exhibit "A"**



0 1 2 Miles

1:166878

Legend

- T.M. Goodwin
- Broadmoor Marsh
- Full fee
- Less than fee
- Joint ownership

The St. Johns River Water Management District prepares and uses this information for its own purposes and this information may not be suitable for other purposes. This information is provided as is. Further documentation of this data can be obtained by contacting:
St. Johns River Water Management District, Geographic Information Systems Program Management, P.O. Box 1429, 4049 Reid Street
Palatka, Florida 32178-1429
Tel: (386) 329-4176.

Author:sscott, Source:\pa3\land_mgmt\leases\Broadmoor Marsh\exhibit_A.mxd, Time:7/19/2005 3:10:43 PM

EXHIBIT "A"

LEGAL DESCRIPTION

FEE ACQUISITION PARCEL

A PARCEL OF LAND LYING IN THE AMMONIATE PRODUCTS CORPORATION'S SUBDIVISION OF UNSURVEYED TOWNSHIP 30 SOUTH, RANGE 36 EAST, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 5, PAGE 11, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, AND ALSO BEING A PORTION OF A PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 2237, PAGE 0362, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, INCLUDING CANALS AND ROAD RIGHTS-OF-WAY LYING WITHIN OR ADJACENT TO THE FOLLOWING DESCRIBED LOTS AND BEING DESCRIBED AS FOLLOWS:

THOSE PORTIONS OF THE EAST ONE-HALF OF LOTS 105, 205, 305, 405, 505, 605, 705, 805, 905, 1005, 1105 AND 1205, LYING EAST OF THE WESTERLY EDGE OF AN EXISTING CANAL, LOTS 106, 206, 306, 406, 506, 606, 706, 806, 906, 1006, 1105, 1206, 107, 207, 307, 407, 507, 607, 707, 807, 907, 1007, 1107, 1207, 108, 208, 308, 408, 508, 608, 708, 808, 908, 1008, 1108, 1208, 109, 209, 309, 409, 509, 609, 709, 809, 909, 1009, 1109, 1209, 110, 210, 310, 410, 510, 810, 910, 1010, 1110, 1210 AND A PORTION OF LOTS 610 AND 710, AND THOSE PORTIONS OF THE WEST ONE-HALF OF LOTS 111, 211, 311, 411, 511, 611, 711, 811, 911, 1011, 1111 AND 1211 LYING WEST OF THE EAST TOE OF SLOPE OF AN EXISTING LEVEE AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS DESCRIPTION AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF TOWNSHIP 30 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA; THENCE NORTH 89°53'53" EAST, ALONG THE NORTH LINE OF SAID TOWNSHIP 30 SOUTH, SAID NORTH LINE ALSO BEING THE NORTH LINE OF THE AFORESAID AMMONIATE PRODUCTS CORPORATION'S SUBDIVISION, A DISTANCE OF 8052.20 FEET TO THE POINT OF BEGINNING; THENCE, CONTINUING ALONG SAID NORTH LINE, NORTH 89°53'53" EAST, A DISTANCE OF 7901.33 FEET; THENCE, DEPARTING SAID NORTH LINE, SOUTH 00°00'09" EAST, A DISTANCE OF 157.51 FEET; THENCE NORTH 89°59'51" EAST, A DISTANCE OF 28.97 FEET, TO THE EAST TOE OF SLOPE OF AN EXISTING LEVEE; THENCE SOUTHERLY ALONG SAID EAST TOE OF SLOPE, THE FOLLOWING COURSES AND DISTANCES:

THENCE SOUTH 01°11'22" WEST, A DISTANCE OF 1701.31 FEET; THENCE SOUTH 00°01'17" WEST, A DISTANCE OF 1115.45 FEET; THENCE SOUTH 00°41'41" WEST, A DISTANCE OF 1170.38 FEET; THENCE SOUTH 01°20'11" WEST, A DISTANCE OF 1089.90 FEET; THENCE SOUTH 00°54'18" WEST, A DISTANCE OF 1437.00 FEET; THENCE, DEPARTING THE AFORESAID EAST TOE OF SLOPE, NORTH 89°59'42" WEST, A DISTANCE OF 1042.40 FEET; THENCE SOUTH 00°00'07" WEST, A DISTANCE OF 1288.60 FEET; THENCE SOUTH 89°59'47" EAST, A DISTANCE OF 1022.12 FEET; TO THE AFORESAID EAST TOE OF SLOPE; THENCE, ALONG SAID EAST TOE OF SLOPE, THE FOLLOWING COURSES AND DISTANCES:
SOUTH 00°54'13" WEST, A DISTANCE OF 268.52 FEET; THENCE SOUTH 00°39'29" WEST, A DISTANCE OF 1057.99 FEET; THENCE SOUTH 00°42'18" WEST, A DISTANCE OF 1098.48 FEET; THENCE SOUTH 00°38'28" WEST, A DISTANCE OF 1065.15 FEET; THENCE SOUTH 00°14'40" WEST, A DISTANCE OF 1030.12 FEET; THENCE SOUTH 00°25'08" WEST, A DISTANCE OF 2153.27 FEET; THENCE SOUTH 05°13'01" WEST, A DISTANCE OF 907.09 FEET, TO THE CENTERLINE OF A 60 FOOT PLATTED RIGHT-OF-WAY, SAID PLATTED RIGHT-OF-WAY LYING SOUTHERLY OF AND COINCIDENT WITH THE SOUTH LINE OF TRACTS 1200 THROUGH 1222 AS SHOWN ON SAID PLAT OF THE AMMONIATE PRODUCTS SUBDIVISION; THENCE NORTH 89°32'55" WEST, ALONG SAID CENTERLINE, A DISTANCE OF 7934.98 FEET; THENCE NORTH 00°59'25" EAST, ALONG THE AFORESAID WESTERLY WESTERLY EDGE OF AN EXISTING CANAL, A DISTANCE OF 15461.46 FEET, TO THE POINT OF BEGINNING.

CONTAINING 2800.00 ACRES, MORE OR LESS.

RECEIVED

OCT 13 2005
FINAL

DIVISION LOG # NAAGREEMENT NUMBER **01183****AGREEMENT ROUTING REVIEW FORM**CONTRACTOR ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT**MEMO TO FILE JULY 16, 2010**

VENDOR ID NO _____ PROCUREMENT METHOD*/BID/RFP NO. _____

PROJECT TITLE: BROODMOOR MARSH, COOPERATIVE AGREEMENT ORGANIZATION CODE CHANGEORIGINATOR/CONTACT DALE JERMYN PHONE 488-3831 DIV./OFFICE/MAIL IO☒ **NEW**** ☐ **AMENDMENT** ☐ **RENEWS OR EXTENDS** **PURCHASING USE ONLY: POSTING - 7 DAY:** 72 HR☐ **EXPENDITURE**** ☒ **REVENUE** ☒ **AGREEMENT** ☐ **EASEMENT/DEED** ☐ **LEASE** (INCLUDES WMA OR FMA LEASES)AGREEMENT BEGINNING DATE/EXECUTION 7/16/10 END DATE INDEFINITE OPTION FOR _____TOTAL CONTRACT AMOUNT \$30,00.00 YEAR PAYMENT AMOUNT 0BILLING PERIODS: ☐ **MONTHLY** ☐ **QUARTERLY** ☐ **ANNUALLY** ☒ **OTHER** _____BUILDING INSURANCE TO BE INCURRED BY THE COMMISSION(LEASES) ☒ **NO** ☐ **YES** (Notify Property Administrator)

****NEW EXPENDITURE:** (1) Attach a copy of the State Project checklist or, for Existing State Projects, show the CSFA No. _____

CONTRACTS (2) Vendor/Recipient Checklist: Attached? ☐ **Yes** ☐ **No** - not a State Project per (1) Checklist

ORG. CODE	E.O.	OBJECT CODE	CATEGORY	AMOUNT	PROJECT ID			FY
77352050100	26	750015	109940	\$30,000.00	9100	200	6000	2010/11

Certified Minority: ☐ **Yes** ☐ **No** ☐ **Not Available** ☐ **Not Appl.** Minority Category _____ (See reverse side for options)

Commodity Code _____ Federal Funds: Agency _____ CFDA _____

Routing Order for Approval	Approval (Signature)	Date	Comments
1. Project Leader	<i>M. Brooks</i>	7-16-10	Budget Sheet is available upon request by external sources. ☐ Yes ☐ No
2. Budget Director (Expenditure Only)			Budget Authority: ☐ Existing ☐ New
3. Div./Reg./Inst./Off. Dir./Section Leader			
4. Contracts Administrator	<i>Ray K. Chy</i>	7/19/10	
5. Legal	<i>N/A</i>		
6. Accounting	<i>N/A</i>		Funds Availability: ☐ Yes ☐ No
7. Exec./Div./Reg./Inst./Off. Dir. review (check below).			
☐ Expenditure Contracts: Return to Originator for Contractor signature. ☐ Other documents: Send to (circle) Exec./Div./Reg./Inst./Off. Dir. for signature.			Expenditure Contracts: After Contractor signs, send to Exec./Div./Reg./Inst./Off. Director for signature and dating.
8. Exec./Div./Reg./Inst. Dir. execute			
Originator Copy to Accounting*			Send a complete copy of the Contract & Routing Form
Originator to Contracts Administrator*	<i>Ray K. Chy</i>	7/19/10	Send executed Original Contract & Original Routing Form
Originator to OIG FSAA Originals			Send to OIG: Mail Code 1E

**FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
DIVISION OF HABITAT AND SPECIES CONSERVATION**

MEMORANDUM TO FILE

Date: July 16, 2010

Subject: Contract Number 01183, Organization Code Change to Broadmoor Marsh
Cooperative Agreement with St. John River Water Management District

From: W. Dale Jermyn
HSC/THCR

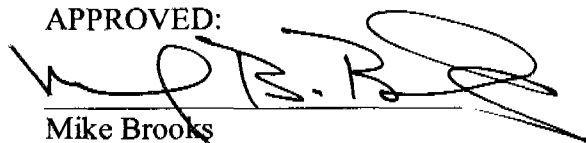
This letter to file is to document the requirement to move the organization code from 773553050300 to 77352050100 (see Attachment 1 memo). The EO code and object code shall remain the same and the category to be assigned is 109940, (see routing sheet for detail code configuration).

APPROVED:



Mike Allen
Section Leader

APPROVED:



Mike Brooks
Section Leader

Attachment

Jermyn, Dale

From: Lemley, Elisa
Sent: Friday, July 16, 2010 2:58 PM
To: Jermyn, Dale
Cc: Brooks, Mike; Allen, Mike; Phillips, Lisa
Subject: Contract #01183

Dale,

Contract #01183, St. Johns Water Management District needs a modification, changing the codes currently used to, org code 77352050100, eo26, category 109940.

Contact me if you have any questions and thank you for your assistance.

Thank you,

Elisa Lemley

Operations & Management Consultant I

FL Fish & Wildlife Conservation Commission

Div. Habitat Species Conservation

Ph. 850/488-3831, X17262

Fax 850/921-7793

email: elisa.lemley@myfwc.com

Attachment 1
Contract 01183

11.2 Easements and/or Other Agreements

11.2.1 NRCS Easement

THIS DOCUMENT PREPARED BY
AND SHOULD BE RETURNED TO:

Dykes C. Everett, Esquire
Winderweedle, Haines, Ward
& Woodman, P.A.
Post Office Box 880
Winter Park, Florida 32790



CFN 98061207

04-02-98 02:51 pm

OR Book/Page: 3821 / 3192

21

CONSERVATION EASEMENT

THIS EASEMENT is made as of the 29th day of March, 1998, by and between **ST. JOHNS RIVER WATER MANAGEMENT DISTRICT**, a public body existing under Chapter 373 of the Florida Statutes (hereinafter called "Grantor"), whose mailing address is Post Office Box 1429, Palatka, Florida 32178, and the **UNITED STATES OF AMERICA**, acting by and through the Commodity Credit Corporation, U.S. Department of Agriculture (hereinafter called "Grantee") whose mailing address is c/o Natural Resources Conservation Service, Post Office Box 141510, Gainesville, Florida 32614-1510. The Grantor and Grantee are jointly referred to as the "Parties".

WITNESSETH

PURPOSES AND INTENT. The purpose of this Easement is to restore, protect, manage, maintain and enhance the functional values of wetlands and other lands, and for the conservation of natural values including fish and wildlife habitat, water quality improvement, flood water retention, groundwater recharge, open space, aesthetic values, and environmental education. It is the intent of Grantee to give the Grantor the opportunity to participate in the restoration and management activities on the easement area.

AUTHORITY. This Easement acquisition is authorized by Title XII of the Flood Security Act of 1985, as amended (16 U.S.C. §3837), for the Wetlands Reserve Program.

NOW, THEREFORE, for and in consideration of the sum of FOUR MILLION ONE HUNDRED NINETY-EIGHT THOUSAND THREE HUNDRED FIFTY DOLLARS (\$4,198,350.00), the Grantor hereby grants and conveys to Grantee, and its assigns for 30 years, a conservation easement upon TWO THOUSAND SEVEN HUNDRED NINETY-EIGHT AND 9/10 (2,798.90) acres and interest in the land of the nature and extent set forth in Part I of this Agreement over the lands comprising the easement area described in Part I and appurtenant rights of access to the easement area; reserving to the Grantor those rights, title and interest expressly enumerated in Part II. It is the intention of the Grantor to convey and relinquish any and all other property rights not so reserved. This Easement shall constitute a servitude upon the land so encumbered, shall run with the land for 30 years, and shall bind the Grantor, its heirs, successors, assigns, lessees, and any other person claiming under them.

Sandy Crawford

Clerk Of Courts, Brevard County

#Pgs: 11	#Names: 2	Serv 0.00
Trust: 6.00	Rec: 45.00	Excise: 0.00
Deed: 0.00		nt Tax: 0.00
Mtg: 0.00		

SUBJECT, however, to all valid rights and encumbrances of record, if any.

PART I. Description of the Easement Area. The land encumbered by this Easement, referred to hereafter as the "Easement Area", is located in Brevard County, Florida, and is described on Exhibit "A" attached hereto and made a part hereof.

TOGETHER with a right of reasonable access for ingress and egress to the Easement Area described in Exhibit "B" and Part V, Section B, herein.

PART II. Reservations in the Grantor on the Easement Area. Subject to the rights, title, and interest conveyed by this Easement to the Grantee, the Grantor reserves:

A. Title. Record title, along with the Grantor's right to convey, transfer, and otherwise alienate title to these reserved rights.

B. Quiet Enjoyment. The right of quiet enjoyment of the rights reserved on the Easement Area.

C. Control of Access. The right to prevent trespass and control and permit access by the general public.

D. Recreational Uses. The right to undeveloped recreational uses, including hunting and fishing, and including leasing of such rights for economic gain, pursuant to applicable State and Federal regulations that may be in effect at the time.

E. Subsurface Resources. The right to oil, gas, minerals, and geothermal resources underlying the Easement Area, provided that any drilling or mining activities are to be located outside the boundaries of the Easement Area. Any drilling or mining activities within the boundaries of the Easement Area must be approved in writing by the Grantee prior to being undertaken by the Grantor.

PART III. Obligations of the Grantor. The Grantor shall comply with all terms and conditions of this Easement, including the following:

A. Prohibitions. Unless authorized as a compatible use under Part IV, it is expressly understood that the rights to the following activities and uses have been acquired by the Grantee and are prohibited of the Grantor on the Easement Area:

1. haying, mowing or seed harvesting for any reason;
2. altering of grassland, woodland, wildlife habitat or other natural features by burning, digging, plowing, diking, cutting or otherwise destroying the vegetative cover;
3. dumping refuse, wastes, sewage or other debris;
4. harvesting wood products;



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OR Book/Page: 3821 / 3193

5. draining, dredging, channeling, filling, leveling, pumping, diking, impounding or related activities, as well as altering or tampering with water control structures or devices;
6. diverting or causing or permitting the diversion of surface or underground water into, within, or out of the Easement Area by any means;
7. building or placing buildings or structures on the Easement Area;
8. planting or harvesting any crop; and
9. grazing or allowing livestock on the Easement Area.

B. Noxious plants and pests. The Grantor is responsible for noxious weed control and emergency control of pests as required by all Federal, State and local laws. A plan to control noxious weeds and pests must be approved in writing by the Grantee prior to implementation by the Grantor

PART IV. Allowance of Compatible Uses by the Grantor.

A. General. The Grantee may authorize, in writing and subject to such terms and conditions the Grantee may prescribe at its discretion, the use of the Easement Area for Compatible Economic Uses, including, but not limited to, managed timber harvest, periodic haying, or grazing.

B. Limitations. Compatible Use authorizations shall only be made if such use is consistent with the long-term protection and enhancement of the wetland and other natural values of the Easement Area. The Grantee shall prescribe the amount, method, timing, intensity, and duration of the Compatible Use.

C. Restoration Plan. The Grantee authorizes Grantor to use the Easement Area for all Compatible Uses as set forth in the Restoration Plan prepared by Grantor and approved by Grantee, which have been determined by Grantee to be consistent with the long-term protection and enhancement of the wetland and other natural values of the Easement Area.

PART V. Rights of the Grantee. The rights of the Grantee include:

A. Management Activities. The Grantee shall have the right to enter unto the Easement Area to undertake, at its own expense or on a cost share basis with the Grantor or other entity, any activities to restore, protect, manage, maintain, enhance, and monitor the Wetland and other natural values of the Easement Area. The Grantee, at its own costs, may apply to or impound additional waters on the Easement Area in order to maintain or improve wetland or other natural values.

B. Access. At all times, the Grantor shall provide the Grantee with reasonable ingress and egress to the Easement Area for the exercise of any of the rights of the



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Grantee under this Easement. The authorized representatives of the Grantee may utilize vehicles and other reasonable modes of transportation for access purposes.

C. **Easement Management.** The Grantee may delegate all or part of the management, monitoring or enforcement responsibilities under this Easement to any entity authorized by law that the Grantee determines to have the appropriate authority, expertise and resources necessary to carry out such delegated responsibilities. State or federal agencies may utilize their general statutory authorities in the administration of any delegated management, monitoring or enforcement responsibilities for this Easement. The authority to modify or terminate this Easement [16 U.S.C. §3837e(b)] is reserved to the Grantee in accordance with applicable law.

D. **Violations and Remedies - Enforcement.** The parties agree that this Easement may be introduced in any enforcement proceeding as the stipulation of the Parties hereto. If there is any failure of the Grantor to comply with any of the provisions of this Easement, the Grantee or other delegated authority shall have any legal or equitable remedy provided by law and the right:

1. To enter upon the Easement Area to perform necessary work for prevention of or remediation of damage to wetland or other natural values; and
2. To assess all expenses incurred by the Grantee (including any legal fees or attorney fees) against the Grantor, to be owed immediately to the Grantee.

PART VI. General Provisions.

A. **Successors in Interest.** The rights granted to the Grantee shall accrue to any of its agents, successors, or assigns. All obligations of the Grantor under this Easement shall also bind the Grantor's heirs, successors, agents, assigns, lessees, and any other person claiming under them. All the Grantors who are parties to this Easement shall be jointly and severally liable for compliance with its terms.

B. **Rules of Construction and Special Provisions.** All rights in the Easement Area not reserved by the Grantor shall be deemed acquired by the Grantee. Any ambiguities in this Easement shall be construed in favor of the Grantee to effect the wetland and conservation purposes for which this Easement is being acquired. The property rights of the Grantee acquired under this Easement shall be unaffected by any subsequent amendments or repeal of the Wetlands Reserve Program. If the Grantor receives the consideration for this Easement in installments, the Parties agree that the conveyance of this Easement shall be totally effective upon the payment of the first installment.



PART VII. Special Provisions.

A. At and prior to the date of acquisition of the Property by Grantor, Willowbrook conducted diversified agricultural and farming business activities upon the Easement Area. In order to provide for an orderly phase-out of agricultural and farming operations upon the Easement Area consistent with the Restoration Plan prepared by Grantor and approved by the Grantee, Grantor authorized Willowbrook Coal Company, a Pennsylvania general partnership, doing business in Florida as Willowbrook Farms ("Willowbrook") to continue its then existing uses of the Easement Area (the "Existing Uses") during a holdover period terminating on August 31, 1998. As used herein the term "Existing Uses" means and refers to diversified agricultural and farming operations of Willowbrook including, without limitation, the growing and harvesting packing of row crop. Grantee acknowledges that its acquisition of the easement and rights granted under this instrument are subject and subordinate to the rights of Willowbrook during the Holdover Period and any authorized extension thereof to conduct upon the easement area the Existing Uses and that the Existing Uses shall be deemed in all respects "compatible economic uses" under the terms of this instrument.

B. It is further agreed and understood that the parties are entering into this Easement with the express understanding and intent that by purchasing this Conservation Easement and undertaking its responsibilities thereto, the Grantee is acting in reliance upon representations made by Willowbrook and the Grantor in that certain unrecorded Agreement of Sale and Purchase between Willowbrook and Grantor dated August 13, 1997 (the "Contract"), the certain Environmental Affidavit of even date herewith (the "Environmental Affidavit"), and all representation made by the Grantor's contractors in the Environmental Assessments.

C. The Parties further agree that Grantor will be exclusively responsible to pay for or perform all claims, costs, expenses, fines, penalties, fees, actions or sanctions arising out of or relating to any condition or circumstance which requires or may in the future require investigation, cleanup, removal, remedial action, or other response under any Environmental Laws which are now or may in the future become applicable to or affect the Easement Area, except that the Grantee shall be responsible for any solid waste, hazardous substances, hazardous waste, toxic or hazardous material, pollutants or contaminants contributed after this date to the Easement Area by the Grantee. For purposes of this Easement, the term "Environmental Laws" shall mean all Federal, State, and local laws including statutes, regulations, ordinances, codes, rules and other governmental restrictions and requirements relating to the environment or solid waste, hazardous substances, hazardous waste, toxic or hazardous material, pollutants or contaminants including, but not limited, to the Comprehensive Environmental Response, Compensation, and Liability Act, as amended 42 U.S.C. §§9601, et seq., the Federal Water Pollution Control Act, as amended 33 U.S.C. §§1251, et seq., the Solid Waste Disposal Act, as amended, 42 U.S.C. §§6901, et seq., Florida Statutes, rules and regulations of the United States Environmental Protection Agency or other Federal agencies, the rules and regulations of the Florida Department of Environmental Protection, and the rules and regulations of the St. Johns River Water Management District, now or at any time hereafter in effect.



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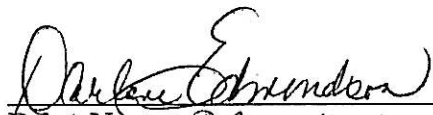
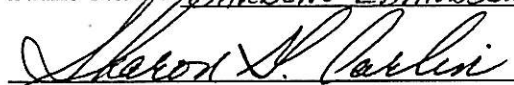
D. Nothing in this Easement shall be construed to alter or affect the rights of the Grantor under the terms of the Agreement between Grantor and Willowbrook or the Environmental Affidavit.

E. Nothing in this Easement shall be construed to create any rights, remedies or causes of action for any persons other than Grantor or Grantee.

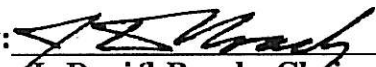
TO HAVE AND TO HOLD this Easement is granted to the UNITED STATES OF AMERICA, Grantee, and its successors and assigns for 30 years. ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, Grantor, covenants to comply with the terms and conditions enumerated in this document for the use of the Easement Area and adjacent lands for access, and to refrain from any activities not specifically allowed or that is inconsistent with the purpose of this Easement.

IN WITNESS WHEREOF, the Grantor has caused this instrument to be executed as of the day and year first above written.

Signed, sealed and delivered in
the presence of:


Print Name: DARLENE EDMONDSON

Print Name: SHARON G. CARLIN

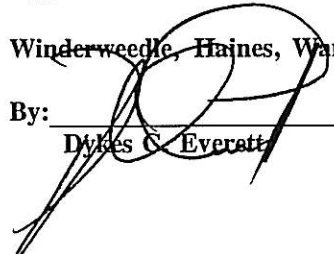
ST. JOHNS RIVER WATER
MANAGEMENT DISTRICT

By: 
J. Daniel Roach, Chairman

Attest: 
Otis A. Mason, Secretary

For use and reliance only by
St. Johns River Water Management
District, Legal Form and Content
Approved:

Winderweede, Haines, Ward & Woodman, P.A.

By: 
Dyles C. Everett



CFN 98061207

OR Book/Page: 3821 / 3197

STATE OF FLORIDA

COUNTY OF Nassau

THE FOREGOING instrument was acknowledged before me this 27th day of March, 1998, by J. DANIEL ROACH, Chairman of the governing board of the St. Johns River Water Management District, on behalf of the District, who is personally known to me ~~or who produced~~ _____ as identification.

Sharon G. Carlin
Notary Public, State of Florida
SHARON G. CARLIN

STATE OF FLORIDA

COUNTY OF St. Johns



THE FOREGOING instrument was acknowledged before me this 29th day of March, 1998, by OTIS A. MASON, Secretary of the governing board of the St. Johns River Water Management District, on behalf of the District, who is personally known to me ~~or who produced~~ _____ as identification.

Sharon G. Carlin
Notary Public, State of Florida



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OR Book/Page: 3821 / 3198

ACCEPTANCE

AGREED TO AND ACCEPTED THIS 26 DAY OF MARCH, 1998.

Signed, sealed and delivered
in the presence of:

UNITED STATES OF AMERICA, acting
by and through the Commodity Credit
Corporation, U.S. Department of
Agriculture

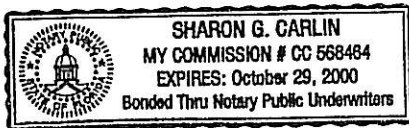
Frank Ellis
Print Name: Frank Ellis

John S Brown
Print Name: John S Brown

By: Jerry R Joiner
Name: Jerry R Joiner
Title: ASTC programs

STATE OF Florida
COUNTY OF Alachua

THE FOREGOING instrument was acknowledged before me this 26th day of March, 1998, by Jerry R. Joiner, the Asst. State Conservationist for Programs, on behalf of the United States of America, who is personally known to me or who produced _____ as identification.



Sharon G. Carlin
Notary Public SHARON G. CARLIN





CFN 98061207
E. OR Book/Page: 3821 / 3200

FEE ACQUISITION PARCEL

A PARCEL OF LAND LYING IN THE AMMONIATE PRODUCTS CORPORATION'S SUBDIVISION OF UNSURVEYED TOWNSHIP 30 SOUTH, RANGE 36 EAST, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 5, PAGE 11, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, AND ALSO BEING A PORTION OF A PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 2237, PAGE 0362, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, INCLUDING CANALS AND ROAD RIGHTS-OF-WAY LYING WITHIN OR ADJACENT TO THE FOLLOWING DESCRIBED LOTS AND BEING DESCRIBED AS FOLLOWS:

THOSE PORTIONS OF THE EAST ONE-HALF OF LOTS 105, 205, 305, 405, 505, 605, 705, 805, 905, 1005, 1105 AND 1205, LYING EAST OF THE WESTERLY EDGE OF AN EXISTING CANAL, LOTS 106, 206, 306, 406, 506, 606, 706, 806, 906, 1006, 1106, 1206, 107, 207, 307, 407, 507, 607, 707, 807, 907, 1007, 1107, 1207, 108, 208, 308, 408, 508, 608, 708, 808, 908, 1008, 1108, 1208, 109, 209, 309, 409, 509, 609, 709, 809, 909, 1009, 1109, 1209, 110, 210, 310, 410, 510, 610, 710, 810, 910, 1010, 1110, 1210 AND A PORTION OF LOTS 610 AND 710, AND THOSE PORTIONS OF THE WEST ONE-HALF OF LOTS 111, 211, 311, 411, 511, 611, 711, 811, 911, 1011, 1111 AND 1211 LYING WEST OF THE EAST TOE OF SLOPE OF AN EXISTING LEVEE AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS DESCRIPTION AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF TOWNSHIP 30 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA; THENCE NORTH 89°53'53" EAST, ALONG THE NORTH LINE OF SAID TOWNSHIP 30 SOUTH, SAID NORTH LINE ALSO BEING THE NORTH LINE OF THE AFORESAID AMMONIATE PRODUCTS CORPORATION'S SUBDIVISION, A DISTANCE OF 8052.20 FEET TO THE POINT OF BEGINNING; THENCE, CONTINUING ALONG SAID NORTH LINE, NORTH 89°53'53" EAST, A DISTANCE OF 7901.33 FEET; THENCE, DEPARTING SAID NORTH LINE, SOUTH 00°00'09" EAST, A DISTANCE OF 157.51 FEET; THENCE NORTH 89°59'51" EAST, A DISTANCE OF 28.97 FEET, TO THE EAST TOE OF SLOPE OF AN EXISTING LEVEE; THENCE SOUTHERLY ALONG SAID EAST TOE OF SLOPE, THE FOLLOWING COURSES AND DISTANCES:

THENCE SOUTH 01°11'22" WEST, A DISTANCE OF 1701.31 FEET; THENCE SOUTH 00°01'17" WEST, A DISTANCE OF 1115.45 FEET; THENCE SOUTH 00°41'41" WEST, A DISTANCE OF 1170.38 FEET; THENCE SOUTH 01°20'11" WEST, A DISTANCE OF 1089.90 FEET; THENCE SOUTH 00°54'18" WEST, A DISTANCE OF 1437.00 FEET; THENCE, DEPARTING THE AFORESAID EAST TOE OF SLOPE, NORTH 89°59'42" WEST, A DISTANCE OF 1042.40 FEET; THENCE SOUTH 00°00'07" WEST, A DISTANCE OF 1288.60 FEET; THENCE SOUTH 89°59'47" EAST, A DISTANCE OF 1022.12 FEET; TO THE AFORESAID EAST TOE OF SLOPE; THENCE, ALONG SAID EAST TOE OF SLOPE, THE FOLLOWING COURSES AND DISTANCES:
SOUTH 00°54'13" WEST, A DISTANCE OF 268.52 FEET; THENCE SOUTH 00°39'29" WEST, A DISTANCE OF 1057.99 FEET; THENCE SOUTH 00°42'18" WEST, A DISTANCE OF 1098.48 FEET; THENCE SOUTH 00°38'28" WEST, A DISTANCE OF 1065.15 FEET; THENCE SOUTH 00°14'40" WEST, A DISTANCE OF 1030.12 FEET; THENCE SOUTH 00°25'08" WEST, A DISTANCE OF 2153.27 FEET; THENCE SOUTH 05°13'01" WEST, A DISTANCE OF 907.09 FEET, TO THE CENTERLINE OF A 60 FOOT PLATTED RIGHT-OF-WAY, SAID PLATTED RIGHT-OF-WAY LYING SOUTHERLY OF AND COINCIDENT WITH THE SOUTH LINE OF TRACTS 1200 THROUGH 1222 AS SHOWN ON SAID PLAT OF THE AMMONIATE PRODUCTS SUBDIVISION; THENCE NORTH 89°32'55" WEST, ALONG SAID CENTERLINE, A DISTANCE OF 7934.98 FEET; THENCE NORTH 00°59'25" EAST, ALONG THE AFORESAID WESTERLY WESTERLY EDGE OF AN EXISTING CANAL, A DISTANCE OF 15461.46 FEET, TO THE POINT OF BEGINNING.

CONTAINING 2800.00 ACRES, MORE OR LESS.

EXHIBIT "A"

LESS AND EXCEPT THE FOLLOWING DESCRIBED PARCEL:

STAGING AREA

A PARCEL OF LAND LYING IN LOT 705 OF THE AMMONIATE PRODUCTS CORPORATION'S SUBDIVISION OF UNSURVEYED TOWNSHIP 30 SOUTH, RANGE 36 EAST, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 5, PAGE 11, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, AND ALSO BEING A PORTION OF A PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 2237, PAGE 0362, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA,

COMMENCE AT THE NORTHWEST CORNER OF TOWNSHIP 30 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA; THENCE NORTH 89°53'53" EAST, ALONG THE NORTH LINE OF SAID TOWNSHIP 30 SOUTH, SAID NORTH LINE ALSO BEING THE NORTH LINE OF THE AFORESAID AMMONIATE PRODUCTS CORPORATION'S SUBDIVISION, A DISTANCE OF 8052.20 FEET; THENCE, DEPARTING SAID NORTH LINE AND RUNNING ALONG THE WESTERLY EDGE OF AN EXISTING CANAL, SOUTH 00°59'25" WEST, A DISTANCE OF 7517.06 FEET TO THE POINT OF BEGINNING, SAID POINT BEING ON THE SOUTH TOP OF BANK OF AN EXISTING CANAL; THENCE CONTINUE SOUTH 00°59'25" WEST, A DISTANCE OF 190.81 FEET TO THE INTERSECTION WITH THE SOUTH TOP OF BANK OF AN EXISTING DITCH; THENCE SOUTH 89°29'22" EAST ALONG SAID TOP OF BANK, A DISTANCE OF 246.89 FEET; THENCE NORTH 00°59'25" EAST, A DISTANCE OF 197.27 FEET TO THE SOUTH TOP OF BANK OF THE AFORESAID CANAL; THENCE SOUTH 89°00'45" WEST ALONG SAID TOP OF BANK, A DISTANCE OF 247.03 FEET TO THE POINT OF BEGINNING.

CONTAINING 1.100 ACRES, MORE OR LESS.



CFN 98061207

OR Book/Page: 3821 / 3201

EXHIBIT "B"

INGRESS - EGRESS EASEMENT

BEING A STRIP OF LAND, 40 FEET IN WIDTH AND LYING 20 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE. SAID STRIP OF LAND RUNNING THROUGH THE SOUTHERLY PORTION OF THE FOLLOWING LOTS: A PORTION OF LOT 610 AND ALL OF LOTS 611 THROUGH 622 INCLUSIVE OF THE AMMONIATE PRODUCTS CORPORATION'S SUBDIVISION OF UNSURVEYED TOWNSHIP 30 SOUTH, RANGE 36 EAST, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 5, PAGE 11, PUBLIC RECORDS, BREVARD COUNTY, FLORIDA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF TOWNSHIP 30 SOUTH, RANGE 36 EAST, BREVARD COUNTY, FLORIDA; THENCE NORTH $89^{\circ}53'53''$ EAST, ALONG THE NORTH LINE OF SAID TOWNSHIP 30 SOUTH, SAID NORTH LINE ALSO BEING THE NORTH LINE OF THE AFORESAID AMMONIATE PRODUCTS CORPORATION'S SUBDIVISION, A DISTANCE OF 15953.53 FEET; THENCE, DEPARTING SAID NORTH LINE, SOUTH $00^{\circ}00'09''$ EAST, A DISTANCE OF 157.51 FEET; THENCE NORTH $89^{\circ}59'51''$ EAST, A DISTANCE OF 28.97 FEET, TO THE EAST TOE OF SLOPE OF AN EXISTING LEVEE; THENCE SOUTHERLY ALONG SAID EAST TOE OF SLOPE, THE FOLLOWING COURSES AND DISTANCES:

THENCE SOUTH $01^{\circ}11'22''$ WEST, A DISTANCE OF 1701.31 FEET;
THENCE SOUTH $00^{\circ}01'17''$ WEST, A DISTANCE OF 1115.45 FEET;
THENCE SOUTH $00^{\circ}41'41''$ WEST, A DISTANCE OF 1170.38 FEET;
THENCE SOUTH $01^{\circ}20'11''$ WEST, A DISTANCE OF 1089.90 FEET;
THENCE SOUTH $00^{\circ}54'18''$ WEST, A DISTANCE OF 1437.00 FEET;
THENCE, DEPARTING SAID EAST TOE OF SLOPE, NORTH $89^{\circ}59'42''$ WEST, A DISTANCE OF 1042.40 FEET; THENCE SOUTH $00^{\circ}00'07''$ WEST, A DISTANCE OF 786.06 FEET TO THE POINT OF BEGINNING OF THE AFORESAID CENTERLINE; THENCE NORTH $89^{\circ}06'31''$ EAST, A DISTANCE OF 490.00 FEET;
THENCE SOUTH $88^{\circ}00'40''$ EAST, A DISTANCE OF 99.51 FEET;
THENCE SOUTH $89^{\circ}56'58''$ EAST, A DISTANCE OF 365.02 FEET;
THENCE NORTH $75^{\circ}32'51''$ EAST, A DISTANCE OF 46.91 FEET;
THENCE SOUTH $88^{\circ}51'12''$ EAST, A DISTANCE OF 400.89 FEET;
THENCE SOUTH $89^{\circ}43'54''$ EAST, A DISTANCE OF 2299.79 FEET;
THENCE SOUTH $88^{\circ}43'01''$ EAST, A DISTANCE OF 723.16 FEET;
THENCE NORTH $89^{\circ}59'39''$ EAST, A DISTANCE OF 1821.49 FEET;
THENCE SOUTH $89^{\circ}14'09''$ EAST, A DISTANCE OF 2263.42 FEET;
THENCE SOUTH $89^{\circ}37'39''$ EAST, A DISTANCE OF 3024.61 FEET;
THENCE SOUTH $89^{\circ}02'22''$ EAST, A DISTANCE OF 748.90 FEET;
THENCE SOUTH $89^{\circ}37'26''$ EAST, A DISTANCE OF 1500.58 FEET;
THENCE SOUTH $89^{\circ}22'18''$ EAST, A DISTANCE OF 1521.01 FEET;
THENCE SOUTH $89^{\circ}38'18''$ EAST, A DISTANCE OF 1089.74 FEET;
THENCE SOUTH $89^{\circ}13'08''$ EAST, A DISTANCE OF 392.19 FEET;
THENCE NORTH $80^{\circ}22'01''$ EAST, A DISTANCE OF 48.44 FEET TO THE POINT OF TERMINATION OF THE HEREIN DESCRIBED CENTERLINE.

IT IS THE INTENTION OF THE HEREIN DESCRIBED CENTERLINE TO RUN COINCIDENT WITH THE APPROXIMATE CENTERLINE OF AN EXISTING DIRT ROAD AND THAT SAID DESCRIBED CENTERLINE TERMINATE ON THE COUNTY MAINTAINED AND SURFACED ROAD.



CFN 98061207

OR Book/Page: 3821 / 3202

11.2.2 Sartori Drainage Easement

DRAINAGE (PARCELS C, D & E) EASEMENT AGREEMENT

THIS GRANT OF EASEMENT is made as of the 26th day of September, 1985, by ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, a public body existing under Chapter 373 of the Florida Statutes, whose post office address is P.O. Box 1429, Palatka, Florida 32078-1429 (hereinafter referred to as "Grantor") in favor of JAMES SARTORI, individually (hereinafter "Sartori"), and WILLOWBROOK COAL COMPANY, a Pennsylvania general partnership d/b/a/ WILLOWBROOK FARMS in Florida (hereinafter "WF"), whose post office address is 3100 North Riverside Drive, Indialantic, Florida 32903 (Sartori and WF are hereinafter collectively referred to as "Grantee").

(Whenever used herein the terms "Grantor" and "Grantee" include all the parties to this instrument and the heirs, personal representatives, administrators, assigns and the successors in interest and title of said parties, be they individuals, corporations, governmental entities, or partnerships (including joint ventures).)

RECITALS:

WHEREAS, contemporaneously with the execution and delivery of this easement, WF has conveyed to Grantor fee simple title to those certain parcels of real property located in Brevard County, Florida, as more particularly described in Exhibit "A" attached hereto and made a part hereof and identified thereon as Parcels C, D and E (hereinafter cumulatively referred to as "the Premises"); and

WHEREAS, incident to the conveyance of the Premises by WF to Grantor, the Grantor has agreed to grant and convey to

THIS INSTRUMENT PREPARED BY:

Paul E. Rosenthal, Esq.
Foley & Lardner, van den Berg,
Gay, Burke, Wilson & Arkin
16 South Magnolia Avenue
Post Office Box 2193
Orlando, FL 32802-2193
(305) 423-7656

Return to:

LARRY B. ALLARD
P.O. DRAWING
WEST PALM BEACH, FL 33402

Grantee a non-exclusive perpetual easement for drainage purposes over, across and upon those certain lands located in Brevard County, Florida, as more particularly described in Exhibit "B" attached hereto and made a part hereof (hereinafter the "Easement Property"), said easement being for the specific and limited purposes hereinafter set forth.

NOW, THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) and other good and valuable consideration not herein recited but hereby receipted for, the sufficiency of which consideration is hereby acknowledged, the parties hereto agree as follows:

1. The Recitals set forth above are true and correct and are incorporated herein by reference and made a part hereof as fully as if set forth herein verbatim.
2. Grantor hereby gives, grants, bargains, sells and conveys to Grantee a non-exclusive perpetual easement over, under, upon, across and through the Easement Property for the exclusive purpose of the drainage of lands adjacent to or nearby the Premises which are owned by Grantee as of the date hereof (hereinafter referred to as "the Benefited Lands") together with the non-exclusive right to use any and all flow-ways and structures now or hereafter existing, put or placed in or upon the Easement Property for the purpose of discharging water into the flow-ways situated upon Easement Property; provided, however, that all such discharging of water shall be subject to and in accordance with all applicable governmental statutes, ordinances, rules and regulations and all permits issued in accordance therewith, including but not limited to such permits as may from time to time be issued by the St. Johns River Water Management District. Grantor shall make such modifications necessary to maintain said flow-ways and structures on the Easement Property to the extent required to carry the legally authorized discharge from the Benefitted Lands which discharge and drain through the Easement Property so that such flow-ways will have a conveyance

capacity such that the water level at the point of discharge east of the Easement Property will not exceed by more than one-half (.5) foot the water level immediately west of the eastern boundary of the Easement Property.

3. In the event Grantor builds a new levee across the flow-ways within or adjacent to the Premises or any portion thereof, Grantor covenants that it will properly design a conveyance system to accommodate through any such new levee the legally authorized discharge from all land whose water drains through such flow-ways, or portions thereof as of the date hereof, such flow-ways having a conveyance capacity through such new levee such that the water level at the point of discharge east of any such new levee will not exceed by more than one-half (.5) foot the water level immediately west of such new levee.

4. To the extent necessary to comply with the easements, covenants and agreements set forth in this Easement Agreement, Grantor agrees, at its expense, to clean and maintain the flow-ways and any structures now existing or hereafter erected on the Easement Property in order to accommodate the legally authorized discharge from all land whose water drains through such flow-ways or portions thereof as of the date hereof so that such flow-ways will have a conveyance capacity such that the water level at the point of discharge east of the Easement Property will not exceed by more than one-half (.5) foot the water level immediately west of the eastern boundary of the Easement Property.

5. Nothing contained in this Easement Agreement shall be construed as a waiver of or contract with respect to the regulatory and permitting authority of Grantor as it now or hereafter exists under applicable laws, rules and regulations.

6. Grantee shall be entitled to enforce the terms of this Easement Agreement by action for specific performance (or an action for injunctive relief) in the event Grantor

fails to comply with any of the covenants and agreements herein contained. To the extent permitted by law, Grantee shall also be entitled to recover from Grantor for all damages together with reasonable attorneys' fees and costs, which are suffered by Grantee as a result of Grantor's failure to comply with any of the covenants and agreements herein contained.

IN WITNESS WHEREOF, the parties named herein as Grantor and Grantee have executed and delivered this instrument and have intended the same to be and become effective as of the date and year first above written.

Signed, sealed and delivered
in the presence of:

GRANTOR

ST. JOHNS RIVER WATER MANAGEMENT
DISTRICT

By: Ralph E. Simmons
Ralph E. Simmons, Chairman

ATTEST: Lynn C. Capehart
Lynn C. Capehart, Secretary

(SEAL)

LEGAL FORM AND CONTENT APPROVED:

FOLEY & LARDNER, van den BERG,
GAY, BURKE, WILSON & ARKIN,
Board Counsel

By: Paul E. Rosenthal
Paul E. Rosenthal, Esq.



James Sartori
Eleanor Brawner

GRANTEE

James Sartori (SEAL)
JAMES SARTORI, individually

WILLOWBROOK COAL COMPANY, d/b/a
WILLOWBROOK FARMS

James Sartori
Eleanor Brawner

By: James Sartori (SEAL)
James Sartori, General Partner

James Sartori
Eleanor Brawner

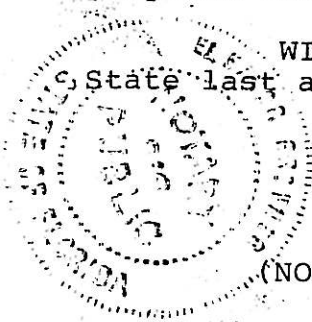
By: David Sartori (SEAL)
David Sartori, General Partner

STATE OF FLORIDA)

COUNTY OF Orange)

I HEREBY CERTIFY that on this day, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared JAMES SARTORI, well known to me to be a General Partner of WILLOWBROOK COAL COMPANY, doing business in Florida as WILLOWBROOK FARMS, and who, as such General Partner as well as in his individual capacity, executed the foregoing instrument and he acknowledged before me that he executed the same (individually and as such General Partner) for the uses and purposes therein expressed.

WITNESS my hand and official seal in the County and State last aforesaid this 26 day of September, 1985.



(NOTARIAL SEAL)

Eleanor Browner
Notary Public - State of Florida
My commission expires:

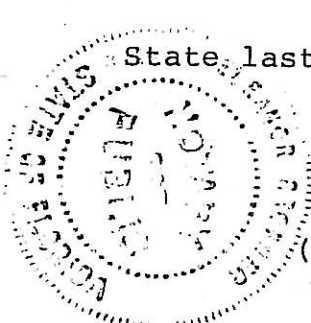
STATE OF FLORIDA)

COUNTY OF Orange)

~~NOTARY PUBLIC STATE OF FLORIDA~~
MY COMMISSION EXPIRES NOV 5 1986
BONDED THRU GENERAL INSURANCE UND

I HEREBY CERTIFY that on this day, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared DAVID SARTORI, well known to me to be a General Partner of WILLOWBROOK COAL COMPANY, doing business in Florida as WILLOWBROOK FARMS, and who, as such General Partner executed the foregoing instrument and he acknowledged before me that he executed the same for the uses and purposes therein expressed.

WITNESS my hand and official seal in the County and State last aforesaid this 26 day of September, 1985.



(NOTARIAL SEAL)

Eleanor Browner
Notary Public - State of Florida
My commission expires:

STATE OF FLORIDA)

COUNTY OF Putnam)

SS:

~~NOTARY PUBLIC STATE OF FLORIDA~~
MY COMMISSION EXPIRES NOV 5 1986
BONDED THRU GENERAL INSURANCE UND

PERSONALLY APPEARED, before me that undersigned authority, Ralph E. Simmons, well known to me and known to me to be the Chairman of the Governing Board of the ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, and acknowledged before me that he executed the foregoing document on behalf of the Governing Board of the ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, as its true act and deed and that he was authorized so to do.

WITNESS my hand and official seal this 25th day of September, 1985.



(NOTARIAL SEAL)

Christine F. Dale
Notary Public
My Commission Expires:

NOTARY PUBLIC, STATE OF FLORIDA
My Commission Expires Feb. 2, 1986

OFF. REC:

2636

- 5 -

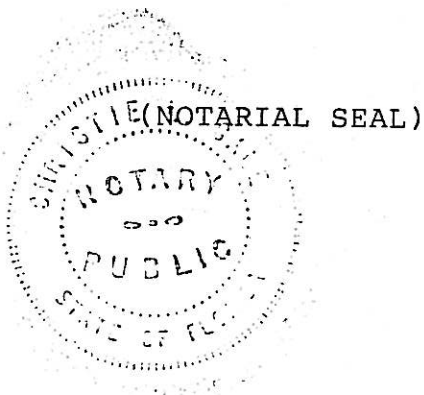
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STATE OF FLORIDA)
) ss:
COUNTY OF Putnam)

PERSONALLY APPEARED, before me the undersigned authority, Lynne C. Capehart, well known to me to be the Secretary of the Governing Board of the ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, and acknowledged before me that she executed the foregoing document on behalf of the Governing Board of the ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, as its true act and deed and that she was authorized so to do.

WITNESS my hand and official seal this 25th day of September, 1985.



Christie L. Gale
Notary Public

My Commission Expires:

NOTARY PUBLIC, STATE OF FLORIDA
My Commission Expires Feb. 2, 1986

EXHIBIT "A"
(Page 1 of 3)

PARCEL "C":

A parcel of land lying in the Ammoniate Products Corporation's Subdivision of unsurveyed Township 30 South, Range 36 East, according to the plat thereof as recorded in Plat Book 5, page 11, Public Records of Brevard County, Florida, and also being a portion of a parcel described in Official Records Book 2237, page 0362, Public Records of Brevard County, Florida, including canals and road right-of-ways lying within the following described lots, and being described as follows:

A portion of the North one half (N 1/2) of the said Ammoniate Products Corporation's Subdivision, also described as;

Lots 100, 101, 200, 201, 300, 301, 400, 401, 500, 501, 600, 601, 700, 701, 800, 801, 900, 901, 1000, 1001, 1100, 1101, 1200, and 1201, all inclusive.

And the North 1/2 of a roadway adjoining the South boundary of lots 1200 and 1201.

The above-described parcel contains 984.64 acres, more or less.

Boundary as shown on attached maps.

This description prepared by Tommy C. Walters, Surveying Supervisor, St. Johns River Water Management District October 2, 1984.

Revised 11/8/84 (TCW)

Revised 12/6/84

EXHIBIT "A"
(Page 2 of 3)

PARCEL "D":

A parcel of land lying in the Ammoniate Products Corporation's Subdivision of unsurveyed Township 30 South, Range 36 East, according to the plat thereof as recorded in Plat Book 5, page 11, Public Records of Brevard County, Florida, and also being a portion of a parcel described in Official Records Book 2237, page 0362, Public Records of Brevard County, Florida, including canals and road right-of-ways lying within the following described lots, and being described as follows:

A portion of the North one half (N 1/2) of the said Ammoniate Products Corporation's Subdivision, also described as;

Lots 102, 103, 202, 203, 302, 303, 402, 403, 502, 503, 602, 603, 702, 703, 802, 803, 902, 903, 1002, 1003, 1102, 1103, 1202, and 1203, all inclusive.

And the North 1/2 of a roadway adjoining the South boundary of lots 1202 and 1203.

The above-described parcel contains 975.07 acres, more or less.

Boundary as shown on attached maps.

This description prepared by Tommy C. Walters, Surveying Supervisor, St. Johns River Water Management District October 2, 1984.

Revised 11/8/84 (TCW)
Revised 12/6/84

EXHIBIT "A"
(Page 3 of 3)

PARCEL "E":

A parcel of land lying in the Ammoniate Products Corporation's Subdivision of unsurveyed Township 30 South, Range 36 East, according to the plat thereof as recorded in Plat Book 5, page 11, Public Records of Brevard County, Florida, and also being a portion of a parcel described in Official Records Book 2237, page 0362, Public Records of Brevard County, Florida, including canals and road right-of-ways lying within the following described lots, and being described as follows:

A portion of the North one half (N 1/2) of the said Ammoniate Products Corporation's Subdivision, also described as;

Lots 104, 105, 204, 205, 304, 305, 404, 405, 504, 505, 604, 605, 704, 705, 804, 805, 904, 905, 1004, 1005, 1104, 1105, 1204, and 1205, all inclusive.

And the North 1/2 of a roadway adjoining the South Boundary of lots 1204 and 1205.

Less and except the portions of said roadways and the approximate East half (E 1/2) of Lots 105, 205, 305, 405, 505, 605, 705, 805, 905, 1005, 1105, and 1205, lying east of the westerly edge of an existing canal, said easterly boundary of the above real property lying along the west edge of said canal extending from the centerline of a roadway adjoining the South boundary of Lot 1205 to the North boundary of Lot 105.

The above-described parcel contains 843.59 acres, more or less.

Boundary as shown on attached maps.

This description prepared by Tommy C. Walters, Surveying Supervisor, St. Johns River Water Management District October 2, 1984.

Revised 11/8/84 (TCW)

Revised 12/6/84

MAP FOR
EXHIBIT "A"

AMMONIATE PRODUCTS CORP.
OF
UNSURVEYED TOWNSHIP 30 SOUTH
IN BREYARD COUNTY, ST
Scale 2000 feet to 1 inch

Sur



729.5
Twp. 30 S.
R. 35 E.
T. 30 S.



PROPOSED
ACQUISITION

PARCEL NO. 83-8
WILLOWBROOK FARM
(SARTORI EAST)

THE SOUTH
BOUNDARY
BEING THE C
OF ROADWAY

100	101	102	103	104	105	106	107	108	109	110	111	112
200	201	202	203	204	205	206	207	208	209	210	211	212
300	301	302	303	304	305	306	307	308	309	310	311	312
400	401	402	403	404	405	406	407	408	409	410	411	412
500	501	502	503	504	505	506	507	508	509	510	511	512
600	601	602	603	604	605	606	607	608	609	610	611	612
700	701	702	703	704	705	706	707	708	709	710	711	712
800	801	802	803	804	805	806	807	808	809	810	811	812
900	901	902	903	904	905	906	907	908	909	910	911	912
1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012
1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112
1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212
1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312
1400	1401	1402	1403	1404	1405	1406	1407	1408	1409	1410	1411	1412
1500	1501	1502	1503	1504	1505	1506	1507	1508	1509	1510	1511	1512
1600	1601	1602	1603	1604	1605	1606	1607	1608	1609	1610	1611	1612

MAP FOR
EXHIBIT "A"

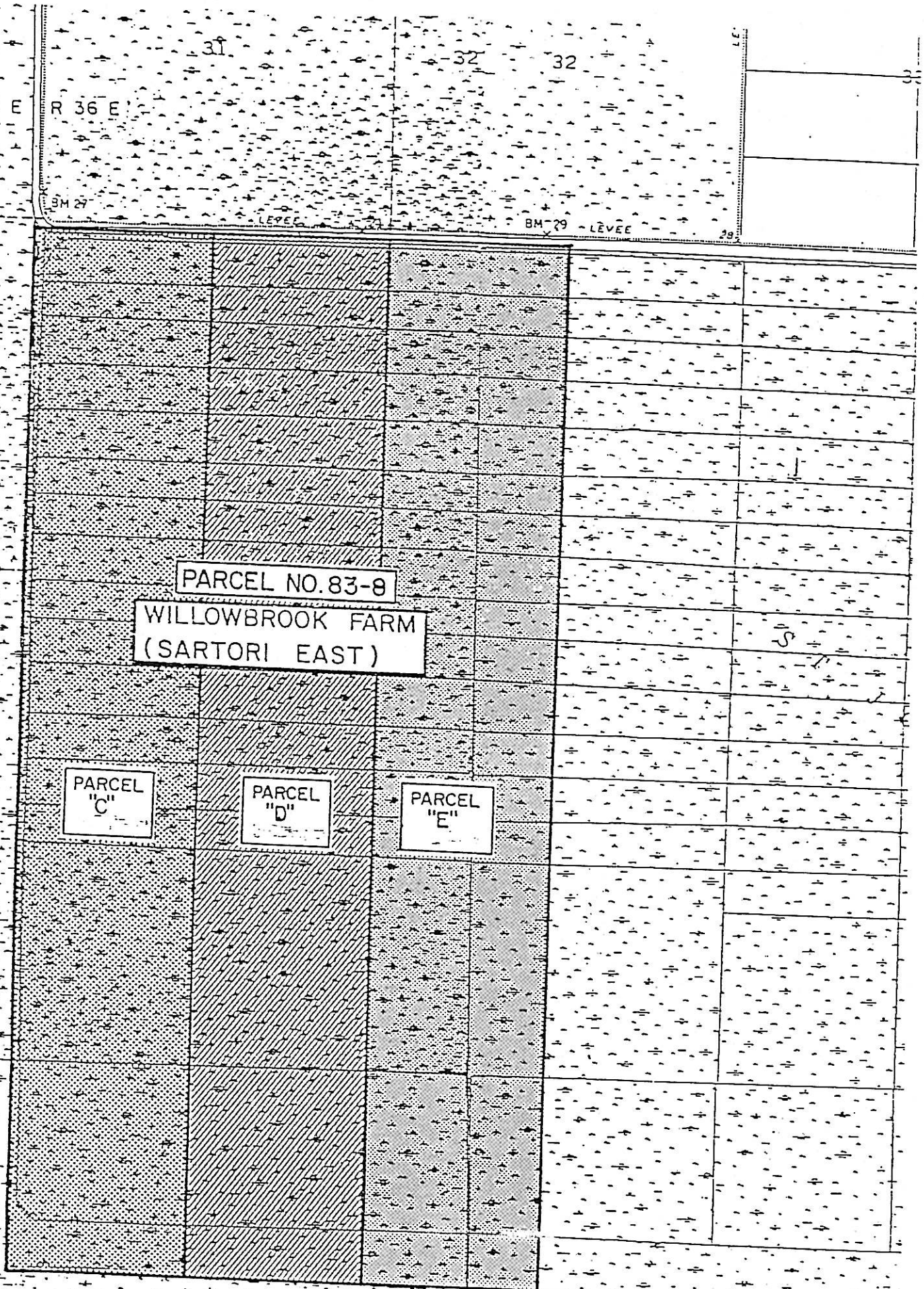


EXHIBIT "B"
(EASEMENT PROPERTY)

The currently existing east-west Flow-way located within and contiguous to the northerly boundary of the Premises and the currently existing east-west Flow-way located within and contiguous to the southerly boundary of the Premises. As used herein, the term "Premises" shall mean that certain real property described in Exhibit "A" to this Agreement.

OFF. REC.

2636

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0872

11.2.3 Contract 20376



Florida Fish & Wildlife Conservation Commission Contract/Agreement Routing Review Form

1. TYPE: ☒ New ☐ Amendment # ☐ Task Assignment # ☐ Renewal/Extension ☐ Modification ☐ Expenditure Contract ☐ Expenditure Grant ☐ MOA/MOU ☐ Revenue Generating			
2. Contract Number: 20376		3. Contract Manager's Name/Telephone Number: Dylan Haase 850-487-9102	
4. Project Manager: Dylan Haase		Date: 05/19/21	Telephone #: 850-487-9102 Division/Office: HSC
5. ☐ Financial ☒ Non-Financial Method of Procurement: 42-Leases with federal agencies and other State/Local q Solicitation #:			
6. Project Title/Contract Description: Thomas M. Goodwin Waterfowl Management Area Intergovernmental Agreement between the St. Johns River Water Management District and the FWC covering 3,682 acres			
7. Original Contract Amount		Increase Amount	Decrease Amount
\$ 0.00		\$ 0.00	\$ 0.00
8. Contract Begin Date: Execution		Original End Date: 20yrs from Execution New End Date:	
9. Vendor Name: St. Johns River Water Management District Telephone#: 386-643-1973			
10. Vendor's Contact Name: Brent Bachelder		11. Vendor/Tax ID# Seq.#	
12. Cost/Price Analysis Required? ☐ Yes ☒ No		13. Risk Assessment Required? ☐ Yes ☒ No	
14. Administrative Review/Signature			
Reviewed <i>If Reviewed Electronically, check box to indicate "Reviewed" and include the continuous email of approvals. If Reviewed in Hard Copy, please initial under "Reviewed", Print Name, Date and indicate if edits are required.</i>			
☒	Contract Manager Name: Dylan Haase		Digitally signed by Dylan Haase Date: 2021.05.19 13:11:02 -04'00'
	If not applicable, indicate with "N/A"		Date: 5/19/21 FCCM #:
	Budget Reviewer Name:		Date: N/A Edits: ☐ Yes ☐ No
☒	Div/Off Director or Delegate: David B. Johnson		Digitally signed by David B. Johnson Date: 2021.05.20 16:53:55 -04'00'
	If not applicable, indicate with "N/A"		Date: 5/20/21 Edits: ☐ Yes ☒ No
	Chief Information Officer:		Date: N/A Edits: ☐ Yes ☐ No
☒	FBO Contract Admin.: Bryan Tucker		Digitally signed by Bryan Tucker Date: 2021.05.21 11:37:55 -04'00'
	If not applicable, indicate with "N/A"		Date: 5/21/2021 Edits: ☐ Yes ☒ No
☒	General Services Section Leader: Jon C. Creamer		Digitally signed by Jon C. Creamer Date: 2021.05.21 14:17:30 -04'00'
	If not applicable, indicate with "N/A"		Date: 5/21/2021 Edits: ☐ Yes ☒ No
15. Contract Execution (Only The Vendor and Final Execution MUST be Hard Copy Reviewed/Signatures) If not executed for any reason, please notify FBO Contract Administration and the Contract Manager			
Legal Signature: Anthony Pinzino		Digitally signed by Anthony Pinzino Date: 2021.06.25 13:53:56 -04'00'	
Print Name:		Date:	
Return to the Contract Manager for Vendor Signature			
Date Sent to Vendor: 6-30-2021		Date Received Back from Vendor: 7-2-2021	
By signature, the Contract Manager Confirms no changes were made after Legal review during initial routing and review.			
Contract Manager Signature: Dylan Haase		Digitally signed by Dylan Haase Date: 2021.06.28 13:53:13 -04'00'	
Print Name:		Date:	
If changes were made after Legal review, attach a documented list of changes and route back to Legal prior to proceeding with any further approvals or execution.			
Legal Signature:		Date:	
Print Name:		Date:	
If not applicable (under \$500k or less than 5 years or does not require OED Execution), indicate with "N/A"			
**Chief Operating Officer Signature: Jon C. Creamer		Digitally signed by Jon C. Creamer Date: 2021.06.28 12:59:33 -04'00'	
Print Name: Jon C. Creamer		Date: 6/28/2021	
Executive Director or Designee Signature: Thomas H. Eason		EXECUTION DATE: (Date Signed by Ex. Dir. or Designee)	
Print Name: THOMAS H. EASON, PH.D., ASST. EX. DIRECTOR		6/29/21	
FBO Contract Admin. Signature:		Date Entered into FACTS:	
Date Received:		Print Name:	

**Contract Attestation, if anticipated expenditures of \$500,000 or more: I confirm that this contract or purchase order contains or complies with the requirements of FBO Memorandum 2016-01.

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

CONFLICT OF INTEREST CERTIFICATION

As set forth in Section 112.313, Florida Statutes, employees of the Florida Fish and Wildlife Conservation Commission (FWC/Commission) may not have any interest, financial or otherwise, direct or indirect; engage in any business transaction or professional activity; or accept any obligation of any kind which is in conflict with the proper conduct of their duties in the public interest. Therefore, I hereby certify that I have no present conflict of interest and that I will recuse myself from any capacity in taking part in the solicitation, development, or selection criteria for evaluation; the evaluation process and the decision making, approval, disapproval, or recommendation of any consultant/contractor for selection on any contract; or management of any contract if I have a conflict of interest or a potential conflict of interest.

I realize that violation of the above-mentioned statute would be punishable in accordance with Section 112.317, Florida Statutes, and may result in disciplinary action by the Commission.

90106

FWC Grant Agreement/Contract #

Dylan Haase

Print Name

Dylan Haase

Digitally signed by Dylan Haase
Date: 2021.05.06 10:31:02
-04'00'

Signature

Date

**FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
DIVISION OF HABITAT AND SPECIES CONSERVATION**

MEMORANDUM

Date: May 10, 2021

To: Contract Reviewers

From: Dylan Haase
HSC/WHM/Land Conservation and Planning

RE: Intergovernmental Agreement (FWC Contract #90106), Renewal, between the St. Johns River Water Management District (SJRWMD) and FWC, Covering 3,682 Acres, of the Thomas M. Goodwin Waterfowl Management Area (WMA), Brevard County, Florida

For review and execution is a 20-year renewal to the Thomas M. Goodwin WMA Intergovernmental Agreement between the SJRWMD and FWC. This WMA is owned by the SJRWMD and leased to the FWC for management. The original agreement, in place since 1991, expired on May 7, 2021. This agreement renewal only has minor updates to the previous agreement. For more information on these updates, or should there be any questions or concerns, please contact me at (850) 487-9102. Upon each party completing its review, please return to me and cc Rachael Welsh at Rachael.Welsh@MyFWC.com.

Your prompt attention to this matter would be greatly appreciated. Thank you.

INTERGOVERNMENTAL AGREEMENT
Between
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
And
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
For
C-54 RETENTION AREA
BREVARD COUNTY

THIS INTERGOVERNMENTAL AGREEMENT (hereinafter called the "AGREEMENT"), made and entered into this 29th day of June, 2021, (EFFECTIVE DATE) by and between The St. Johns River Water Management District, a public body existing under Chapter 373 of the Florida Statutes, whose mailing address is 4049 Reid Street, Palatka, Florida 32177 (hereinafter called the "DISTRICT"), and the Florida Fish and Wildlife Conservation Commission, a public body created pursuant to Section 9, Article IV, of the Florida Constitution, whose mailing address is 620 South Meridian Street, Tallahassee, FL 32399-1600, (hereinafter referred to as "COMMISSION");

W I T N E S S E T H:

WHEREAS, the DISTRICT is the fee simple owner of certain real property referred to as the C-54 Retention Area as depicted in Exhibit "A" attached hereto and by reference made a part hereof (hereinafter referred to as the "PROPERTY"); and

WHEREAS, beginning May 8, 1991, the COMMISSION has leased the C-54 Retention Area from the DISTRICT for a thirty (30) year term, managing it as T.M. Goodwin Waterfowl Management Area (LEASE); and

WHEREAS, following the May 7, 2021 expiration of the LEASE, the COMMISSION is desirous of continuing to manage the C-54 Retention Area for the purpose of operating the T.M. Goodwin Waterfowl Management Area; and

WHEREAS, over 200,000 acres of wetlands have been lost in the upper basin of the St. Johns River, waterfowl populations have been declining due to loss of habitat, and the quality of remaining waterfowl habitat, and the quality of remaining waterfowl habitat can be increased through management; and

WHEREAS, the waterfowl management area will provide a diversity of wintering and breeding habitats for various waterfowl species, as well as benefiting many species of wading and shore birds, and a number of endangered species; and

WHEREAS, the waterfowl management area will provide significant public recreational benefits, including hunting, birding, fishing, and environmental education.

WHEREAS, the T.M. Goodwin Waterfowl Management Area is adjacent to, and hydrologically interconnected to, the DISTRICT and U.S. Army Corps of Engineers' Upper St. Johns River Basin Project (USJRBP).

NOW THEREFORE, for and in consideration of the above premises, which are made a part of this Agreement, and the mutual covenants, terms and conditions hereinafter contained, and for other good and valuable consideration, the receipt of which is hereby acknowledged, the DISTRICT and the COMMISSION, each intending to be legally bound, do hereby agree as follows:

1. Agreement. The parties agree that the PROPERTY will be managed by the COMMISSION in accordance with the terms and conditions stated herein. During the term of this AGREEMENT, the COMMISSION shall act as the lead manager for the PROPERTY and shall provide for the conservation, protection, multiple-use management, and enhancement of natural and cultural resources on the PROPERTY and for compatible public recreation within the PROPERTY consistent with this AGREEMENT and the Land Management Plan (LMP) for T.M. Goodwin Waterfowl Management Area.
2. Term. The initial term of the Agreement shall be for a period of twenty (20) years commencing on June 29, 2021, and terminating on June 28, 2041. Thereafter, the AGREEMENT shall automatically renew for additional five (5) year terms unless said AGREEMENT is terminated as set forth herein.

Purpose.

- A. The DISTRICT and the COMMISSION agree that the PROPERTY shall be used for the purpose of the operation of the waterfowl management area and associated wildlife management, habitat management, recreational, research, educational activities, and other compatible uses as mutually agreed upon by both parties (hereinafter referred to as the "PROJECT"):
 - B. Notwithstanding any provision contained herein to the contrary, this AGREEMENT is subject to:
 - i. The terms, conditions, restrictions and limitations set forth in the AGREEMENT; and
 - ii. All applicable federal laws, state statutes, local ordinances and the rules and regulations pertaining thereto which may be applicable to the PROJECT.
3. Limiting Conditions of Agreement. Notwithstanding any provision contained herein to the contrary, this AGREEMENT is subject to the following terms and conditions:
- A. The C-54 Retention Area is a DISTRICT owned property that lies adjacent to the Upper St. Johns River Basin Central and Southern Florida Flood Control Project. Uses of the C-54 Retention Area contemplated herein by COMMISSION shall be consistent with DISTRICT goals and needs for water storage, flood control, water quality treatment and conveyance. When considering options for changing water storage or flows into the C-54 Retention Area, the DISTRICT shall make a good faith effort to consider and, to the extent feasible, accommodate the interests of the COMMISSION hereunder.
 - B. The DISTRICT and COMMISSION agree that the primary purpose of the C-54 Retention Area is water storage, flood control, water quality treatment and conveyance; and all other uses, including intensive habitat management for waterfowl and other wetland wildlife, will be secondary.
 - C. The COMMISSION recognizes and accepts that the water conditions on the PROJECT may be affected by the District Water Control strategies (or plans) for flood control, water supply, water quality or natural systems. In developing or modifying DISTRICT water control strategies (or plans) the DISTRICT shall make a good faith effort to consider and, to the extent feasible, accommodate the interests of the COMMISSION hereunder. In addition, the DISTRICT will use its best effort to minimize the frequency, depth and duration of flooding on the PROPERTY as long as such minimization is consistent with DISTRICT water storage needs and the defined purpose and utilization of said PROPERTY. If the DISTRICT desires to alter the hydrologic regime of the C-54 Retention Area, the COMMISSION will be notified immediately of the plans and be given adequate time to make appropriate adjustments to the interior water control structures. In the event of any emergency situation affecting the PROPERTY as determined by the DISTRICT, the DISTRICT will make every reasonable effort to provide immediate notice of the emergency situation to the COMMISSION at its 24-hour dispatch center, at (407) 275-4150 or the Regional Office in Ocala, at (352) 732-1225.
 - D. The DISTRICT cannot guarantee availability of water to the PROJECT, and the COMMISSION should rely on water storage and management within the area to insure water supply for the PROJECT. However, the DISTRICT will use its best efforts to provide water for the PROPERTY which is consistent with the defined purpose and utilization of said PROPERTY and the adjacent USJRB.
 - E. The Mary A culverts, as shown in Exhibit "B", on the NW corner of the PROPERTY that discharge water from the PROPERTY will be maintained and operated by the DISTRICT to regulate high water stages within the C-54 Retention Area. Discharges from the PROPERTY, which are desired by the COMMISSION, will be made only after prior written approval is given by the DISTRICT. The DISTRICT, however, will not unreasonably withhold such approval.
 - F. If modifications to the PROPERTY are considered by the DISTRICT to maximize water storage and/or alter flow into or out of the area, a good faith effort will be made by the DISTRICT and the COMMISSION to coordinate and resolve any conflicts which may arise therefrom.
 - G. COMMISSION covenants and agrees that the PROJECT will be designated, constructed, operated, and maintained in an environmentally acceptable manner, and in accordance with good management practices.

- H. The COMMISSION shall submit a Master Site Plan to the DISTRICT for approval. The Master Site Plan shall include GIS data documenting existing locations of all levees/berms, ditches, culverts, roads, boat ramps, kiosks, observation towers, recreational amenities, structures, water control structures, office and maintenance buildings, and any additional improvements necessary for the operation of the PROJECT. Any modifications to the Master Site Plan shall be subject to prior approval in writing by the DISTRICT. The design and construction of any structures, buildings, or improvements on the PROPERTY shall be subject to the prior written approval of the DISTRICT, which approval will not unreasonably be withheld.
 - I. COMMISSION acknowledges and agrees that the DISTRICT may use a portion of the PROPERTY to obtain borrow material. Any overburden associated with removal of the borrow material may be used by the COMMISSION for waterfowl management area development. In obtaining borrow material from the PROPERTY, the DISTRICT shall make a good faith effort to consider, and to the extent feasible, accommodate the interests of the COMMISSION.
4. Non-Waiver of DISTRICT's Regulatory Powers.
- A. Except with respect to the specific rights and duties set forth herein, nothing contained in the Agreement shall be construed as a waiver of or contract with respect to the regulatory or permitting authority of the DISTRICT as it now or hereafter exists under applicable laws, rules and regulations.
 - B. It shall be the responsibility of the COMMISSION, at its sole cost and expense, to obtain or renew any and all permits or authorizations and complete necessary reporting which may be required by the DISTRICT, the State of Florida Department of Environmental Protection, or other applicable governmental agencies for activities conducted by the COMMISSION hereunder.
5. Covenants and Obligations. The COMMISSION and DISTRICT hereby mutually agree as follows:
- A. The COMMISSION shall maintain a current LMP, which shall address the goals, objectives, operational policies and management procedures of the PROJECT. The LMP format and content shall comply with the applicable Florida Statutes (F.S.), including sections 373.1391 and 373.591 (F.S.). The LMP shall be updated every ten (10) years. When updating the LMP, the DISTRICT shall have three months to review and provide input to the COMMISSION. The COMMISSION may propose amendments to the LMP with respect to the PROPERTY, but such amendments shall not be incorporated into the LMP until the DISTRICT provides the COMMISSION with the DISTRICT's written concurrence. Although final decisions on resolutions of conflicts will rest with the DISTRICT, a reasonable effort will be made to resolve such conflicts with the COMMISSION.
 - B. The COMMISSION shall have the right to manage the habitat on the PROPERTY for waterfowl and other wetland wildlife and take specific management actions including, but not limited to, construction of office and maintenance facilities, improving internal levees and ditch system, installation of internal water control facilities, on site water level manipulation, prescribed burning, discing, planting, vegetation management, and mowing as consistent with the LMP; provided, however, that the construction and installation of internal water control facilities shall be subject to the provisions of Paragraph 3.H. herein. The COMMISSION shall receive DISTRICT approval in writing before conducting management actions not prescribed in the LMP.
 - C. The COMMISSION shall have the right to regulate public use of the PROPERTY including establishment of hunting regulations and management areas for management purposes. The COMMISSION shall consult with the DISTRICT regarding changes to public access to the PROPERTY.
 - D. The COMMISSION shall provide to the DISTRICT an annual report of activities and accomplishments on the PROPERTY. The report shall include at a minimum: expenses, revenues, construction and management activities, results of surveys and on-going research, harvest and hunter use information, visitor use, water conditions (rainfall, water levels, discharges, etc.), as specified in the LMP, and future management and research plans. The annual report shall be submitted to the DISTRICT no later than November 30th of each year. Included with the annual report, the COMMISSION shall provide an annual update of GIS Master Site Plan data described in Paragraph 3.H. herein.
 - E. All major signage, brochures, and pamphlets prepared by the COMMISSION relating to the PROJECT shall include the name "C-54 Retention Area" and shall contain a prominent statement concerning the primary purpose of the PROJECT, and the probability of periodic adverse water conditions negatively affecting the PROJECT.

- F. The DISTRICT reserves the right to establish environmental educational facilities and programs on the PROPERTY which are consistent with the LMP and may include information on the USJRBP.
- G. The DISTRICT shall be responsible for the following maintenance and associated costs, as shown in Exhibit "B":
 - 1. All perimeter levees, roads and canals.
 - 2. Water control structures and pumps which are necessary for the required operation of the C-54 Retention Area as specified in the DISTRICT'S water management plan.
 - 3. The access road to the PROJECT.
 - 4. Other such work as specifically contracted between the DISTRICT and COMMISSION.
- H. The COMMISSION shall be responsible for the following maintenance and associated costs, as shown in Exhibit "B":
 - 1. All interior water control structures and pumps, which shall include, but not be limited to, levees, dikes, ditches, and canals, except those associated with the DISTRICT'S borrow area located on the PROPERTY.
 - 2. Invasive species management – COMMISSION will provide maintenance control for invasive plants and animals identified as being priorities by the COMMISSION and/or the Florida Exotic Pest Plant Council.
 - 3. All interior roads, structures, buildings, and improvements identified in the Master Site Plan [or LMP].
- I. The COMMISSION will not, as part of its management program, introduce or encourage any exotic species of plants including, but not limited to, hydrilla on the PROPERTY. Notwithstanding the foregoing, exotic species of agricultural plants commonly used for wildlife management purposes as specified in the LMP may be introduced by the COMMISSION.
- J. The COMMISSION shall not, as part of its management program, introduce or encourage any exotic species of animal.
- K. The DISTRICT will allow public access to the PROJECT for the duration of the AGREEMENT. Notwithstanding the foregoing, the DISTRICT reserves the right to temporarily restrict or prohibit public access to the PROPERTY due to emergencies, construction, or for any other reason which the DISTRICT determines, at its sole discretion, is necessary to protect the public or the PROPERTY. In the event the DISTRICT deems it necessary to restrict or prohibit public access to the PROPERTY, the DISTRICT will provide reasonable notice of the restriction or prohibition to the COMMISSION.
- L. COMMISSION shall pay all lawful debts incurred by it with respect to the PROPERTY and shall satisfy all liens of contractors, subcontractors, mechanics, laborers, and materialmen in respect to any construction, alteration, improvements or repair in or on the PROPERTY authorized by the COMMISSION, its agents or employees. To the extent provided by and subject to the limitations specified in Section 768.28, F.S., COMMISSION shall indemnify the DISTRICT for all legal costs and charges, including reasonable attorney's fees on appeal, in any suit involving claims, liens, judgments or encumbrances suffered by the DISTRICT as a result of the use or occupancy of the PROPERTY by the COMMISSION, its agents or employees. Furthermore, the COMMISSION shall have no authority to create any mortgages on the PROPERTY, and in any contract pertaining to work to be performed on the PROPERTY, the contractor shall be notified that they and any subcontractors, laborers or materialmen must look to the COMMISSION only to secure the payment of any bill or account for work done, materials furnished, or money owed during the term of the AGREEMENT.
- M. All structures, improvements or personal property placed upon, or moved in or upon the PROPERTY shall be at the risk of the COMMISSION, and the DISTRICT shall not be liable for any damage to said personal property, structures or improvements unless each such damage results from the negligent or wrongful acts of the DISTRICT. The COMMISSION and the DISTRICT agree that the flooding of the property by the DISTRICT shall not be construed or interpreted as negligent or wrongful acts or omissions of the DISTRICT.
- N. All structures or improvements placed upon or moved in or upon the PROPERTY shall be deemed personal property of COMMISSION and shall not be considered attached to the land as a fixture.
- O. COMMISSION through its agents, consultants and employees shall be authorized to enter upon the PROPERTY for the purposes of surveying, operation and maintenance of any COMMISSION structures and utilities on the PROPERTY, activities in connection with all permits, licenses and regulatory agency mandated actions, and for such other purposes as are reasonably consistent with the conditions established by this AGREEMENT. Any agents, consultants or employees of COMMISSION and the DISTRICT shall be responsible to promptly close and lock any gates through which they pass in the exercise of such right of entry.
- P. COMMISSION takes possession of the PROPERTY with full knowledge of the existing condition of the PROPERTY. COMMISSION agrees that it has inspected the PROPERTY and accepts the PROPERTY in

"as is" condition. The DISTRICT makes no representations or warranties as to the fitness of the PROPERTY for any particular use.

- Q. COMMISSION shall not assign or transfer this AGREEMENT without prior written consent of the DISTRICT.
- R. The COMMISSION is a public agency of the State of Florida. As such, it is self-insured by the Florida Casualty Insurance Risk Management Trust Fund (FUND) pursuant to Section 768.28 and Chapter 284, Part II, Florida Statutes. The COMMISSION shall acquire and maintain throughout the term of this AGREEMENT such liability, workers' compensation, and automobile insurance as required by its current rules and regulations. The DISTRICT shall receive thirty (30) days written notice of any change or cancellation of the FUND of any of the required coverage, including the liability coverage.
- S. COMMISSION shall maintain the PROPERTY in the following manner:
 - 1. COMMISSION may construct fences around the perimeter of the PROJECT site as determined in site plan review.
 - 2. COMMISSION, at its sole cost and expense, may install such utilities (communications, electrical, water, sewage, etc.) as are needed on the PROPERTY for the operation of the PROJECT. Provided however, that there must be prior DISTRICT approval as to the location of such utilities.
 - 3. COMMISSION shall make every reasonable effort to protect the PROPERTY from uncontrolled fires (structural and woodland-brush fires) by employing appropriate management practices as specified in the approved LMP.
 - 4. COMMISSION shall perform law enforcement services as needed for the PROPERTY to insure protection from vandalism and trespassers to the best of their ability, subject to fiscal and resource constraints.
- T. COMMISSION acknowledges that the AGREEMENT granted herein does not convey to COMMISSION fee title to the PROPERTY nor any interests, rights, or privileges other than those specified herein.
- U. The DISTRICT shall bear no financial cost, expense or obligation to COMMISSION as a result of this AGREEMENT, except as otherwise specified herein. The COMMISSION shall be responsible for the payment of all taxes, fees or special assessments, if any, levied or assessed against the PROPERTY by reason of the COMMISSION'S use or occupancy of same during the term of this AGREEMENT.
- V. Each party is responsible for all personal injury and property damage attributable to the negligent acts or omissions of that party, its officers, employees, and agents. The parties and any other governmental entities involved in management-related activities on the PROPERTY shall, throughout the term of this AGREEMENT, maintain in force a program of insurance or self-insurance covering their liabilities, as prescribed by section 768.28, F.S. Nothing in this AGREEMENT shall be construed or interpreted as denying to any party any remedy or defense available under the laws of the state of Florida, nor as a waiver of any party's sovereign immunity in excess of the waiver set forth in section 768.28, F.S., as it may be amended, or any other provision of law. The DISTRICT's liability is further limited by recreational use immunity to the extent set forth in section 373.1395, F.S., and nothing contained in this AGREEMENT shall be construed as a limitation upon the DISTRICT's right to assert such immunity. It is the intention of the DISTRICT and the COMMISSION that in the event the COMMISSION seeks to charge a fee for the use of the PROPERTY, the DISTRICT shall be entitled to recreational use immunity pursuant to section 373.1395(3), F.S. In such event, the COMMISSION, as a state agency, may assert any immunity it may have as to public recreational use of state lands under Florida law.

6. Termination and Surrender.

- A. In the event of default of this AGREEMENT by the COMMISSION, the DISTRICT may, at its option, declare this AGREEMENT terminated; provided however, that DISTRICT shall give the COMMISSION written notice of the default and allow COMMISSION sixty (60) days from receipt of such notice to cure the default. After notice and failure of COMMISSION to cure the default, DISTRICT shall have the right, without further notice, to enter upon and take possession of the PROPERTY and, thereupon, this AGREEMENT and everything contained herein under DISTRICT's behalf to be done and performed shall cease and be null and void. In addition to the foregoing remedy, DISTRICT reserves to itself all other remedies provided at law or in equity to which the DISTRICT may be legally entitled by reason of COMMISSION'S default.
- B. In the event of default of this AGREEMENT by the DISTRICT, the COMMISSION may, at its option, declare this AGREEMENT terminated, provided however, that COMMISSION shall give the DISTRICT written notice of the default and allow DISTRICT sixty (60) days from receipt of such notice to cure the default. After notice and failure of DISTRICT to cure the default, without further notice, this

AGREEMENT and everything contained herein under COMMISSION'S behalf to be done and performed shall cease and be null and void. In addition to the foregoing remedy, COMMISSION reserves to itself all other remedies provided at law or in equity to which the COMMISSION may be legally entitled by reason of DISTRICT's default.

- C. All personal property, equipment and improvements owned by COMMISSION and located on or about the PROPERTY and not removed within one hundred-twenty (120) days after the termination of this AGREEMENT shall, at the option of DISTRICT, become the property of DISTRICT.
 - D. In the event of termination of this AGREEMENT, COMMISSION shall deliver possession of the PROPERTY to DISTRICT in substantially the same condition as originally existed prior to the execution of this AGREEMENT, reasonable wear and tear and alterations pursuant to the approved Master Site Plan and LMP excepted.
 - E. In the event that the COMMISSION'S ability to meet their objectives for this PROJECT are jeopardized by constraints imposed by DISTRICT plans to modify water storage, the COMMISSION may terminate the AGREEMENT without default.
7. DISTRICT'S Right of Entry. COMMISSION shall deposit with the DISTRICT a duplicate key for each lock barring access to any part of the PROPERTY other than structures for storage of the equipment, materials and supplies in order for the DISTRICT or its duly authorized agents to have access to inspect the PROPERTY. Should any lock be added, changed, replaced or removed, COMMISSION shall immediately notify the DISTRICT in writing, and forward to the DISTRICT the new duplicate key.
8. Notices. All notices, consents, approval, waivers and elections which any party is required or desires to make under this AGREEMENT shall be in writing and shall be deemed sufficiently made or given: (i) when mailed by Certified Mail, postage prepaid, return receipt requested; (ii) by hand delivery to the named individuals representing the party to be notified; (iii) by private parcel delivery services for which receipt is provided to the notifying party; (iv) by facsimile transmission, or (v) by e-mail, receipt of which is acknowledged by the notified party. Notices shall be deemed to have been given and received on the date of the mailing, or if hand delivered, on the date of such delivery, or the date of receipt of facsimile transmission or e-mail. Notices shall be addressed or transmitted to the addresses set forth below or such other address that a party may designate.

DISTRICT: ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
P.O. Box 1429
PALATKA, FL 32078-1429
ATTENTION: DIRECTOR
DIVISION OF WATER AND LAND RESOURCES

COMMISSION: FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
620 S. MERIDIAN STREET
TALLAHASSEE, FL 32399-1600
ATTENTION: DIRECTOR
DIVISION OF HABITAT AND SPECIES CONSERVATION

9. Entire Agreement, Amendment. This AGREEMENT contains the complete agreement between the COMMISSION and the DISTRICT and, as of the EFFECTIVE DATE hereof, shall supersede all other agreements; communications or representations, either verbal or written, between the COMMISSION and the DISTRICT. The COMMISSION and the DISTRICT stipulate that neither of them has made any representations except such representations as are specifically contained within this AGREEMENT and each party acknowledges reliance on its own judgement in entering into this AGREEMENT. The COMMISSION and the DISTRICT further acknowledge that any payments or any representations that may have been made outside of those specifically contained herein are of no binding effect and have not been relied upon by either party in its dealings with the other in entering into this AGREEMENT.
10. Governing Law. This AGREEMENT shall be construed and interpreted according to the laws of the State of Florida.

11. Construction of Agreement. This AGREEMENT shall not be construed more strictly against one party than against the other merely by virtue of the fact that it may have been prepared by Counsel for one of the parties, it being recognized that both the DISTRICT and COMMISSION have contributed substantially and materially to the preparation hereof.
12. EFFECTIVE DATE. For all purposes of this AGREEMENT, the EFFECTIVE DATE hereof shall mean the date when the last of the COMMISSION or the DISTRICT has executed the same, and that date shall be inserted at the top of the first page hereof.
13. The COMMISSION'S obligations under this AGREEMENT are subject to legislative appropriation and availability of funding.
14. The DISTRICT and COMMISSION reserve the right to unilaterally cancel this AGREEMENT for refusal by either to allow public access to all documents, papers, letters, or other material subject to the provisions of chapter 119, Florida Statutes, and made or received by the DISTRICT and the COMMISSION in conjunction with this AGREEMENT.
15. As a condition of this AGREEMENT the DISTRICT and COMMISSION hereby covenant and agree not to 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 pursuant to the AGREEMENT.

IN WITNESS WHEREOF, the parties hereto have duly executed this AGREEMENT, on the date and year first above written. This AGREEMENT may be executed in separate counterparts, which shall not affect its validity.

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT


Ann B. Shortelle, Ph.D., Executive Director

Date: May 6, 2021

ATTEST:


Mary Ellen Winkler, General Counsel

Approved as to form and legality:


Karen Ferguson, Asst. General Counsel

FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION

Thomas H. Sutton
b Eric Sutton, Executive Director

Date: 6/29/21

ATTEST:

Linda Henderson

EXHIBIT "A"

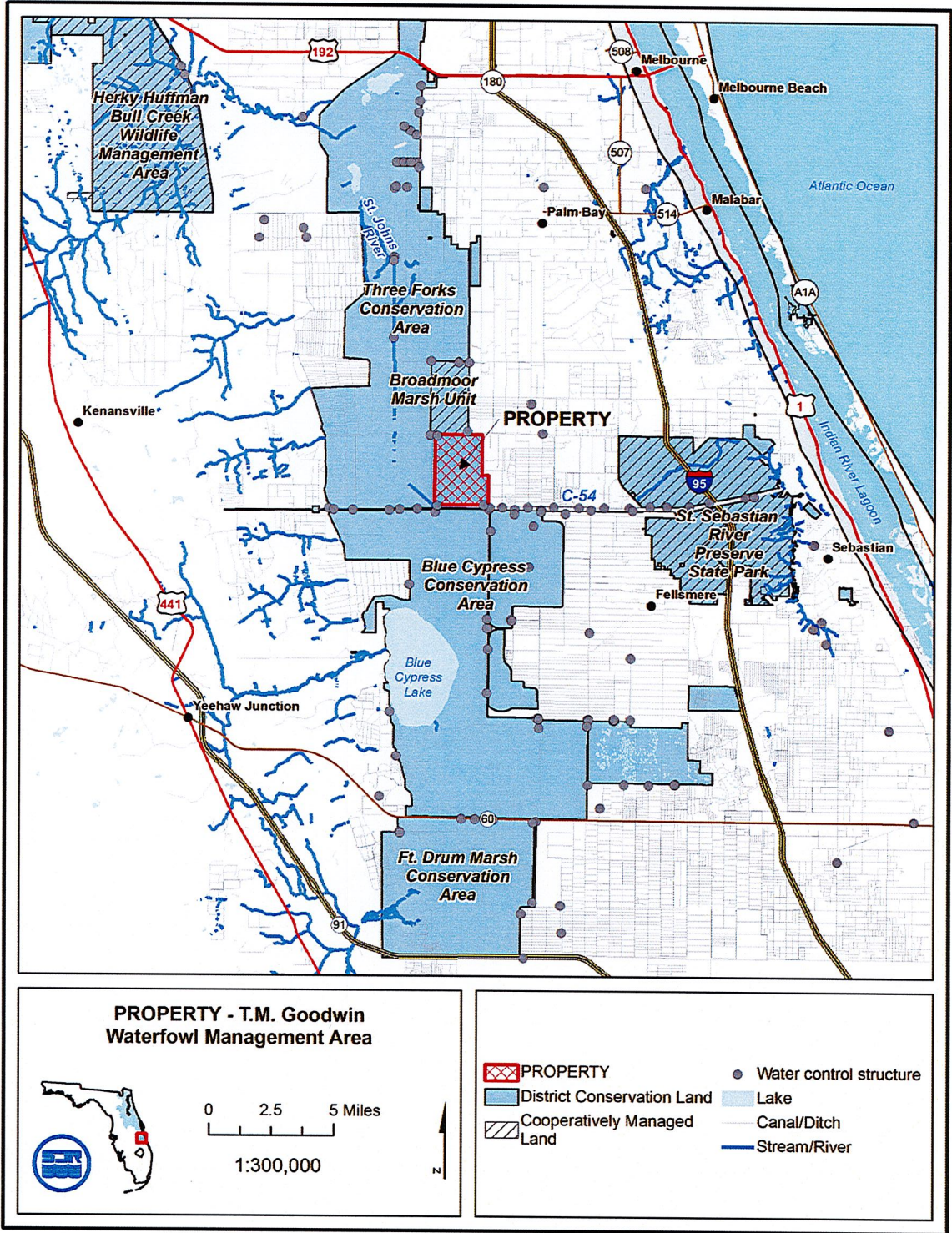
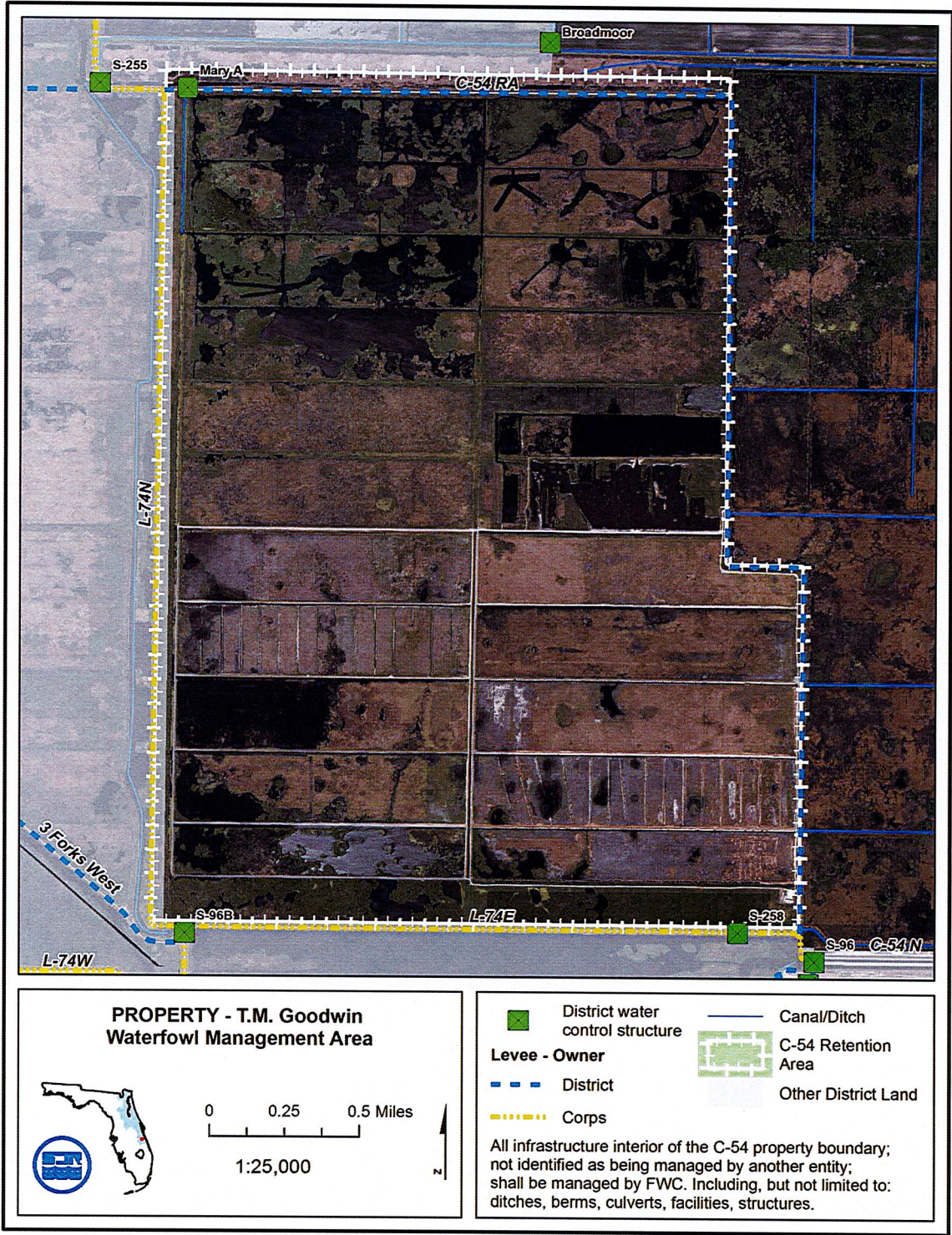


EXHIBIT "B"



11.3 Public Hearing Notice, Advertisements, and Press Release

11.3.1 Public Hearing Notice

NOTICE

Florida Fish and Wildlife Conservation Commission

Announces a

PUBLIC HEARING

for the

T.M. GOODWIN

Waterfowl Management Area

Management Plan

Brevard County, Florida

6:00 P.M. Tuesday, April 29th, 2025

Brevard County UF IFAS Extension Office

3695 Lake Drive

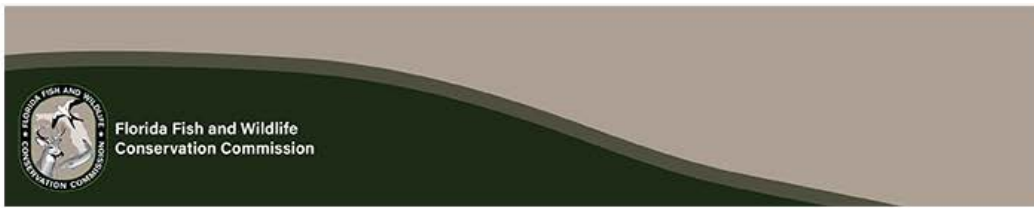
Cocoa, Florida 32926

PURPOSE: To receive public comment regarding considerations for the FWC ten-year Land Management Plan for the T.M. Goodwin Waterfowl Management Area (TMGWMA). This hearing is being held **EXCLUSIVELY** for discussion of the T.M. Goodwin WMA Management Plan, which outlines environmental and recreation management on the area. This Management Plan will not address hunting or fishing regulations, which are handled through a separate rule and regulation development process. For more information about the rule and regulation development process, go online to: <http://myfwc.com/about/rules-regulations/>

For a copy of the draft Management Plan, please contact Savannah Atwell via telephone at (850) 487-9588, via email at Savannah.Atwell@MyFWC.com, or via mail at Florida Fish and Wildlife Conservation Commission, Land Conservation and Planning, 620 South Meridian Street, Tallahassee, Florida 32399-1600.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this meeting should notify the agency at least five calendar days before the meeting by calling 850-488-6411 or contact the agency using the Florida Relay Service at 800-955-8771 (TDD) or 800-955-8770 (Voice), if you are hearing or speech impaired. If you believe that you have been discriminated against in any program, activity, or facility, or if you need more information, contact the Florida Fish and Wildlife Conservation Commission at: FWC, Office of Human Resources, 620 S Meridian Street, Tallahassee, FL 32399, 850-488-6411. Or write to: Office of Diversity, Inclusion & Civil Rights, Department of the Interior, 1849 C Street, NW, Washington, D.C. 20240.

11.3.2 Regional FWC Press Release



Help plan the future of the T.M. Goodwin WMA

Florida Fish & Wildlife Conservation Commission sent this bulletin at 04/22/2025 03:44 PM EDT

For immediate release: April 22, 2025

Contact: Ryan Sheets, Ryan.Sheets@MyFWC.com

[Photos available](#)

Suggested post: Join @MyFWC staff on April 29 in Cocoa to make your voice heard on the management of T.M. Goodwin WMA.

<https://content.govdelivery.com/accounts/FLFFWCC/bulletins/3dd2352> #Florida #WMAzing



Help plan the future of the T.M. Goodwin WMA

The Florida Fish and Wildlife Conservation Commission (FWC) will present draft materials for T.M. Goodwin Waterfowl Management Area's 10-year Land Management Plan at a public hearing in Brevard County on Tuesday, April 29.

The public hearing will be held at 6 p.m. at the Brevard County UF/IFAS Extension Office, 3695 Lake Dr., in Cocoa. The public is encouraged to attend and will have the opportunity to comment and ask questions regarding the Land Management Plan for the FWC-managed Waterfowl Management Area.

T.M. Goodwin WMA encompasses approximately 6,482 acres in Brevard County. It is an important piece of the conservation lands that protect the upper St. Johns River Basin, providing important flood control and floodplain protection for the St. Johns River. Species including the wood stork, the roseate spoonbill and the Everglade snail kite are known to occur in the area, indicating the vital connection that the T.M. Goodwin WMA represents to surrounding conservation lands. The T.M. Goodwin WMA also offers many opportunities for public recreation, including hunting, fishing, wildlife watching, hiking and biking.

"T.M. Goodwin WMA was purchased to ensure the preservation of habitat for waterfowl and other wetland wildlife, flood storage, and to provide fish- and wildlife-focused outdoor recreation opportunities to the public," said **Savannah Atwell, FWC Land Conservation Planner**. "This management plan will specify how we intend to accomplish that goal."

"T.M. Goodwin WMA is an incredible example of successful partnerships in conservation across organizations," said **Christina Omran, FWC Biological Administrator**. "At the FWC, we're collaborating with the St. Johns River Water Management District, Brevard County, Ducks Unlimited and other organizations to manage and restore the habitats supporting many migrating waterfowl and an array of imperiled species."

For more information regarding this and other [upcoming public hearings](#), visit [MyFWC.com/Conservation](#), then click "Terrestrial Conservation" and "Management." Hunting and fishing regulations are not included in this plan or public hearing; they are addressed through a separate public process.

Visit [MyFWC.com/Hunting](#) or [MyFWC.com/Fishing](#) to learn more about hunting and fishing regulations.

To obtain a copy of the draft elements of the Management Plan for T.M. Goodwin WMA, call Savannah Atwell 850-487-9588 or email Savannah.Atwell@MyFWC.com.

Pursuant to Chapters 253 and 259, Florida Statutes, all lands purchased with public funds must have a [Land Management Plan](#) that ensures the property will be managed in a manner that is consistent with the intended purposes of the purchase.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this meeting should notify the agency at least 5 calendar days before the meeting by calling 850-488-6411 or contacting the agency using the Florida Relay Service at 800-955-8771 (TDD) or 800- 955-8770 (Voice), if you are hearing or speech impaired. If you believe that you have been discriminated against in any program, activity or facility, or if you need more information, contact the Florida Fish and Wildlife Conservation Commission at:

FWC, Office of Human Resources
620 S Meridian Street,
Tallahassee, FL 32399, 850-488-6411

Or write to:

Office of Diversity, Inclusion & Civil Rights
Department of the Interior
1849 C Street, NW
Washington, D.C. 20240

11.3.3 Newspaper

COLUMN SOFTWARE, PBC

STATE OF FLORIDA

COUNTY OF BREVARD COUNTY

Before the undersigned authority personally appeared Enrique Diaz, who on oath says that he or she is an authorized agent of Column software, PBC; that the attached copy of advertisement, being a legal advertisement or public notice in the matter of 2025-04-29 FFWCC Public Hearing, was published on the publicly accessible website of Brevard County County, hosted by Column Software, PBC on
Mar. 22, 2025

Affiant further says that the website complies with all legal requirements for publication in chapter 50, Florida Statutes.

PUBLICATION DATES:

Mar. 22, 2025

Notice ID: mpjt60XvENEsroBFUeZ

Notice Name: 2025-04-29 FFWCC Public Hearing

PUBLICATION FEE: \$0.00

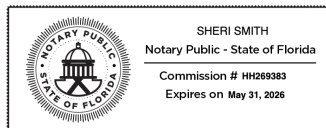
Signed by:

Enrique Diaz

_____, as authorized signatory of Column
Software, PBC

VERIFICATION

State of Florida
County of Broward



Signed or attested before me on this: 03/26/2025

S. Smith

Notary Public
Notarized remotely online using communication technology via Proof.



NOTICE
Florida Fish and Wildlife Conservation Commission
Announces a
PUBLIC HEARING
for the
T.M. GOODWIN

Waterfowl Management Area

Management Plan
Brevard County, Florida
6:00 P.M. Tuesday, April 29th, 2025
Brevard County UF IFAS Extension Office
3695 Lake Drive
Cocoa, Florida 32926

PURPOSE: To receive public comment regarding considerations for the FWC ten-year Land Management Plan for the T.M. Goodwin Waterfowl Management Area (TMGWMA). This hearing is being held **EXCLUSIVELY** for discussion of the T.M. Goodwin WMA Management Plan, which outlines environmental and recreation management on the area. This Management Plan will not address hunting or fishing regulations, which are handled through a separate rule and regulation development process. For more information about the rule and regulation development process, go online to: <http://myfwc.com/about/rules-regulations/>

For a copy of the draft Management Plan, please contact Savannah Atwell via telephone at (850) 487-9588, via email at Savannah.Atwell@MyFWC.com, or via mail at Florida Fish and Wildlife Conservation Commission, Land Conservation and Planning, 620 South Meridian Street, Tallahassee, Florida 32399-1600.

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For public notices online, go to <http://brevardfl.column.us>

11.3.4 Florida Administrative Register Ad

Notice of Meeting/Workshop Hearing

FISH AND WILDLIFE CONSERVATION COMMISSION

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

DATE AND TIME: Tuesday, April 29, 2025, 6:00 P.M.

PLACE: Brevard County UF IFAS Extension Office, 3695 Lake Drive, Cocoa, FL 32926

GENERAL SUBJECT MATTER TO BE CONSIDERED:

The purpose of this meeting is to receive public comment regarding considerations for the FWC's ten-year Management Plan for the FWC Lead Managed Portions of the T.M. Goodwin Waterfowl Management Area (TMGWMA). This hearing is being held EXCLUSIVELY for discussion of the DRAFT T.M. Goodwin WMA Management Plan, otherwise referred to as the Management Prospectus. This meeting will not address area hunting or fishing regulations. For more information on the process for FWC rule and regulation development visit our Proposed Rules Changes webpage at <https://myfwc.com/about/rules-regulations/proposed-rule-changes/>.

A copy of the agenda may be obtained by contacting: Savannah Atwell by mail at the Florida Fish and Wildlife Conservation Commission, 620 South Meridian Street, Tallahassee, Florida 32399-160; by telephone at (850) 487-9588; or by email at Savannah.Atwell@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 3 days before the workshop/meeting by contacting: The ADA Coordinator at (850)488-6411. 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).

11.4 Public Input

11.4.1 Management Advisory Group Meeting Results

T.M. Goodwin Waterfowl Management Area (TMGWMA) Management Advisory Group (MAG) Consensus Meeting Results

February 26th, 2025, in Palm Bay, Florida

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. FWC does this by asking spokespersons for these stakeholders 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 *February 26th, 2025* at the St. Johns River Water Management District Palm Bay Office in Palm Bay, Florida in Brevard County. The ideas found below were provided by stakeholders for consideration in the 2025 - 2035 Management Plan (MP) with priority determined by vote. 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 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.

Numbers to the left of **bold-faced ideas** listed below represent the total number of votes and the score of each idea. Rank is first determined by the number of votes (vote cards received for each idea) and then by score. Score is used to break ties when two or more ideas have the same number of votes. A lower score indicates higher importance because each voter's most important idea (recorded on card #1) received a score of 1, and their fifth most important idea (recorded on card #5) received a score of 5. Ideas not receiving any votes are listed, and were considered during the development of the MP, but carry no judgment with regard to priority.

Statements following the bold-faced ideas represent a synopsis of the clarifying discussion of ideas as transcribed and interpreted by the FWC recorder at the meeting. As indicated above, the ideas below are presented in priority order:

<u>Rank</u>	<u># of Votes</u>	<u>Score</u>	<u>Idea</u>
1.	[6]	[11]	27. Develop the infrastructure necessary to carry out management plan. Pumps and everything on the area, we've had continued issues with the South pump, we're hoping to have a pole barn on the east side by the office. We are looking at an automated gate which could allow for longer access hours, not having to have a staff person manually opening the gate all the time. Assess design and integrity of levees and water control structures.

<u>Rank</u>	<u># of Votes</u>	<u>Score</u>	<u>Idea</u>
2.	[6]	[23]	32. Where necessary, manage and control invasive species. We try to eradicate all invasives, but TMGWMA is unique because we try to manage them, not eradicate them, because it's an important food source. Hog management: You need to hire a professional if it's really a problem. Consider a youth hunt special opportunity for hogs, to help teach future conservationists, teach them some responsibility etc. There is a problem with hogs, so we need to address it somehow, and we could do it by teaching the next generation about it. It could be a mentored hunt, they could make a weekend out of it, kind of like in Sand Lakes. Youth hunts would take up public access days.
3.	[5]	[15]	23. Changing vehicular access hours to 7 am. Add additional vehicular access days. Get earlier vehicular access for both units.

Two items of equal rank:

4.	[5]	[17]	21. Have uniform access times across all open days. Vehicular access. Thursdays and Sundays should be the same hours, so we can reduce confusion.
4.	[5]	[17]	30. Assess staffing, equipment, and operational needs for management. Develop a plan to rotationally improve and/or replace necessary equipment. The equipment is aging. The tractor is now 10-12 years old, and there needs to be a plan that sequesters money every year, to be able to replace highly specialized pieces of equipment. Where is that money going to come from. We need proper budgeting for these expensive pieces of equipment.

<u>Rank</u>	<u># of Votes</u>	<u>Score</u>	<u>Idea</u>
5.	[5]	[18]	15. Expand and manage for a greater biodiversity of species. Using management tools to address different needs for different types of species. Leave it up to biologists with what the specifics would be. When managing for waterfowl you naturally create better habitat for other species, so stating it as an objective to make sure these things happen would be beneficial. Working pumps, cutting cattails in the reservoir area would be very helpful. Once or twice a year would make it a lot easier for the birders out there. Issue with hogs and other invasives plays into this too. Maintain and improve imperiled species habitats and populations. Incorporate management objectives relating to colonial wading birds. Having some cells that gradually draw down from that January-May period. Make sure there's areas with food and places to forage on site.
6.	[3]	[11]	3. Changing access to the Broadmoor Reservoir to non-motorized access December and January, except during hunt days. It's a public small game area, and there are many stakeholders that use the area. Anything that disrupts or interferes with waterfowl hunting is against what the area is designed for. Having motorized vessels (boats) in there on a Thursday disturbs birds and moves them off the area. The hunt is Saturday, so it is counter productive to what the mission of what TMGWMA is, having motorized vessels in there on Thursday.
7.	[2]	[3]	17. Incorporate managing water levels compatible with other upper basin management objectives. The district supports management for all species here, but there are other integral parts to consider, like sharing water, and other perspectives included. Continuing reuse of surface water and water storage agreement with adjacent landowner.

Three items of equal rank:

8.	[2]	[4]	1. Improve existing habitat and restore disturbed areas. Certain areas aren't as functional, and a lot of that has to do with the water. Continue working on making the not-so-good areas better. Contain invasives and enhance habitat.
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<u>Rank</u>	<u># of Votes</u>	<u>Score</u>	<u>Idea</u>
8.	[2]	[4]	7. Continued coordination with SJRWMD for the existing management agreement.
8.	[2]	[4]	25. Expanding the area through buffers, land acquisitions, or private partnerships. Further explore coordinated management options with adjacent landowners. Water quality aspects, biosolids, affect this property and others. Having more easements adjacent to the area would help. Ducks Unlimited can help with this. It's a broader effort. Adjacent watersheds as well.
9.	[2]	[5]	6. Develop prescriptive plan for managing each cell in short term and long term. Staff are doing a fantastic job. Their ideas of how to manage for that high quality habitat is mostly in their minds. This is a matter of getting it on paper, to have goals for each cell. I think we have the same ideas; controlling invasives etc. Getting specific target performance measures on paper will help us develop a rotational strategy, and it helps with staff turnover, to have a collective mission regardless of who's there. It helps to assess budget needs and equipment needs. And you can have a basic monitoring plan for that. You make sure you cover water, invasive species, bird populations, etc. Develop a basic monitoring plan using performance measures. You have targets you're shooting for. You don't monitor it in a basic sense. It doesn't have to be complex or expensive. Photo points, very simple cheap way of monitoring. Can get more advanced with vegetation transects etc. The bird crew is collecting your data for you, you can look at E-bird, people regularly use that data for scientific papers. Most of what you're concerned about here is waterfowl, you can monitor that through birders. If you have a plan for each cell, then you can truly understand how your prescription is working.
10.	[2]	[7]	13. Protect water quality and quantity and improve hydrologic function. Being able to move water like we need to. A lot of that is related to the structures. Improve the ability to move water.
11.	[2]	[8]	31. Continue to provide hunting and wildlife viewing opportunities.

<u>Rank</u>	<u># of Votes</u>	<u>Score</u>	<u>Idea</u>
12.	[1]	[1]	8. Protect the environment and the water quality from introduced nitrogen. Get rid of and ban biosolids in the area. Biosolids, and any things that humans do that are bad for the environment. Enforce these things. Nitrogen limitation, especially in the summer when you're not supposed to put out fertilizer. Many people are putting out fertilizer, and they say they're just putting iron out, so there needs to be better enforcement of rules and regulations.
13.	[1]	[2]	5. Expand functionality of the waterfowl management area. Look at it as a broader system, and make good management decisions with all the surrounding properties. Take advantage of wetland mitigation properties. What makes this area special is that it is managed for waterfowl. Expanding areas in the St. Johns basin for waterfowl management, like having shallow water, anything that is needed for waterfowl management. There is some competition with other uses, so I want to advocate for managing for waterfowl.

Two items of equal rank:

14.	[1]	[3]	2. Hardening or developing a secondary ability to move water. We've had numerous pump failures out there that continually happen and affect the ability to properly manage the area. So we need a secondary ability, like portable pumps that can be operated off a tractor.
14.	[1]	[3]	14. Adding additional permits to the Broadmoor unit, by readjusting the size of certain cells at the discretion of the area biologist. Areas 5 and 3 are about 200 acres a piece. Previously, before serpentine levees were put in, those areas were cut in half. And when they put the levees in, they left those very large cells. They could add three additional permits to alleviate some of the demand. The area has become very popular. There were 100 people that showed up for leftover permits with only 7 available. Adding permits would increase functionality. They could split 1 South 3 South and 5 South in half. Most other impoundments are either 55 or 100 acres.

<u>Rank</u>	<u># of Votes</u>	<u>Score</u>	<u>Idea</u>
15.	[1]	[4]	29. Maximizing passive access to the site, rather than motorized. Minimize motorized access. The noise, the impacts to wildlife and hunters. More access that's passive and conducive to the management of the area.
16.	[1]	[5]	11. Improve the brochure. With vessels, times, locations, etc.

**T.M. Goodwin Waterfowl Management Area
MAG Meeting Participants**

Name

Affiliation

Active Participants

Steve Glass	FWC District Biologist
Lieutenant Dustin Lightsey	FWC Law Enforcement
Jonny Baker	St. Johns River Water Management District
Jeff Beal	Ducks Unlimited
Thad Altman	Brevard County Commissioner District 5
Steve Spillers	Florida Forest Service
David Simpson	Birders
James Sartori	Adjacent Landowner (Willowbrook Farms)
Richard Ayers	Anglers
Joe Richter	Hunters
Richard Baker	Pelican Island Audubon

Supportive Participants

Mathew Hortman	FWC Habitat and Species Conservation (HSC), NE Regional Biologist
Jess Rodriguez	FWC NE Region Conservation Biologist
Katherine Burke	FWC Office of Public Access Services Office (PASO)
Tom M. Matthews	FWC PASO
Ben Rangel	FWC PASO
Matheu Woodall	FWC PASO
CKrystal Stokes	FWC PASO
Joel Andreas	FWC NE Regional Aquatic Habitat Conservation
Paul Jacobs	FWC NE Regional Volunteer Coordinator
Steve Palmquist	Pelican Island Audubon
Richard Sartori	Adjacent Landowner (Willowbrook Farms)
Captain Peter Gaudion	FWC Law Enforcement
Larame Ferry	FWC Land Conservation and Planning (LCP) Program
Dean Cox	FWC LCP Program
Ashley Holton	Brevard County District Aide

Invited but Unable to Attend

Jason O'Donoughue	Division of Historical Resources
Frank Price	Florida Natural Areas Inventory (FNAI)
Kim Alexander	FNAI
Mike Knight	Brevard County Parks and Recreation
Raleigh Berry	Natural Resources Management Department
Aaron Watkins	Department of Environmental Protection
Adam Fryska	Florida Trail Association
Dee Brown	Equestrians
Valerie Anderson	Florida Native Plant Society
Beth Shephard	Brevard County UF IFAS Extension

FWC Planning Personnel

Savannah Atwell
Elizabeth Norregaard
Christina Omran

Facilitator
Recorder
Recorder

11.4.2 Public Hearing Report

**PUBLIC HEARING REPORT
FOR
T.M. GOODWIN WATERFOWL MANAGEMENT AREA
MANAGEMENT PLAN
HELD BY THE
T.M. GOODWIN WATERFOWL MANAGEMENT AREA MANAGEMENT ADVISORY GROUP
AND THE
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION**

APRIL 29, 2025 – BREVARD COUNTY

The following report documents the public input that was received at the T.M. Goodwin Waterfowl Management Area (TMGWMA) Management Advisory Group's (MAG) public hearing for the update to the Management Plan for TMGWMA that was held from 6:00-8:00 PM, on April 29th at the Brevard County University of Florida's Institute of Food and Agricultural Sciences Extension Office in Cocoa, Florida.

TMGWMA Management Advisory Group Introduction:

The meeting was introduced by Mr. Joe Richter, a TMGWMA MAG participant, who represented the TMGWMA MAG. Mr. Richter indicated that he was one of 12 stakeholders that attended the Florida Fish and Wildlife Conservation Commission (FWC) facilitated TMGWMA MAG meeting held on February 26th, 2025. Mr. Richter stated that the elements of the Draft Management Plan were being presented tonight by FWC staff, and that hardcopies of the overview, management prospectus and the TMGWMA MAG meeting report were available at the front door for the public's review. Mr. Richter thanked everyone for attending and then introduced Ms. Atwell, Land Conservation Planner, FWC, to facilitate and coordinate the presentation of an overview of TMGWMA, FWC's planning process, and the draft components of the TMGWMA Draft Management Plan.

Presentation on an Overview of TMGWMA and the FWC Planning Process:

Ms. Atwell welcomed everyone and thanked the public for their attendance. Ms. Atwell 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 TMGWMA, and not hunting and fishing regulations, indicating there is a separate public input process for FWC rule and regulation development. Ms. Atwell then described the materials that were available at the door for public review, including the TMGWMA Management Prospectus and the MAG Meeting Report. Ms. Atwell then presented the agenda for the public hearing and facilitated the introduction of all FWC staff in attendance to the audience. Ms. Atwell then presented an overview and orientation of

TMGWMA, including a description of the natural communities, data about TMGWMA 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 FWC's planning process for the management of the public conservation land and asked if there were any questions regarding that process.

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

Ms. Atwell 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. Atwell again emphasized that the exclusive purpose for the public hearing was to collect public input regarding the elements of the Draft Management Plan for TMGWMA, and not to discuss area hunting, fishing and use regulations since, as was noted earlier, FWC has a separate process for input on hunting and fishing regulations.

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

Presentation of the TMGWMA Draft Management Plan:

At this point, Ms. Atwell and FWC's Steve Glass began the presentation of the TMGWMA Draft Management Plan. Ms. Atwell then completed and concluded the presentation of the TMGWMA Draft Management Plan.

Questions and Comments on the TMGWMA Draft Management Plan Presentation:

Ms. Atwell asked if there were any comments or questions from the public regarding the Draft Management Plan and encouraged everyone to fill out a speaker card for public testimony. She informed them that all comments, questions, and public testimony will be duly considered equally by FWC.

Public Question #1: An unidentified member of the audience provided the following comments and questions:

Yes, I'm curious about the balance of how much chemical spraying is done versus mechanical harvesting. Is it mostly spraying or mechanical and other strategies to reduce the amount of chemicals that are used?

FWC Response: Mr. Steve Glass, District Biologist, responded:

It probably leans more towards chemical on a yearly basis. We do a lot of cookie cutter harvesting on the actual reservoirs where there's actually deep enough water for the equipment to get in there. But much of the other area we do aerial spraying.

Public Response: The same unidentified member of the audience continued this line of comments and questions:

Do you have a goal of reducing the chemicals?

FWC Response: Mr. Glass, District Biologist, responded:

I don't know if there is any way to control it. The para grass and cogon grass are just so aggressive.

FWC Response: Mr. Matt Hortman, Regional Biologist, responded:

Most of what we aerial treat is in impoundments that are drawn down annually. So it's not over aquatic species most of the time. It's really treating the para grass and other things that we can't treat because they grow back so fast. So, the harvesting that we do is in the reservoir via cookie cutting, that's the most economical and quickest way to treat that stuff. So, we will continue to look at ways to reduce our chemical treatments, but right now it is the most cost-effective means that we have.

Public Response: The same unidentified member of the audience continued this line of comments and questions:

What is cookie cutting?

FWC Response: Mr. Jon Webb, Waterfowl and Small Game Biologist, responded:

Essentially, they have a large aluminum barge with a diesel tractor engine on it that controls two hydraulic pumps that are on the front that spin counter-rotating props. What they do is they pull up to plant material called Cuban bull rush that forms a mud tussock and can grow woody vegetation over time. Those propellers come into contact with it, it shreds that material up, allows it to oxidize and decompose versus spraying with herbicide and allowing that material to still be there. So, over the years, I think it's been going on since 2016, we have been able to open up around 300 acres of habitat that was formally tussock into open water with other aquatic vegetation suitable for fish and wildlife as well as recreational use.

Public Response: The same unidentified member of the audience continued this line of comments and questions:

And is cookie cutting considered mechanical?

FWC Response: Mr. Hortman, Regional Biologist, responded:

It is mechanical. They're not actually removing the material from the property, like Jon said, they're cutting it up and letting it oxidize.

Public Response: The same unidentified member of the audience continued this line of comments and questions:

Is there part of your plan that has your more, like, performance measures? Like specific we want to reduce this by this percentage by this date. The presentation presents a lot of information about what you guys do and what the goals and objectives are for the area but they're not really specific. So do you have another place where you say we want to reach out to 4 agencies and get, you know. I'm always looking for things that are more tangible and that you can come back to next year. So far it seems like you had the most amount of specificity under the capital facilities plan but is that part of your objective?

FWC Response: Ms. Atwell, Conservation Planner, responded:

Well, what was presented are the objectives. We do have it broken down into short-term and long-term. Short-term are things that we plan to get done in the next two years after the plan is approved, long-term is the next 10 years, you know, until the management plan expires. So that is how we have it broken down timeline-wise.

FWC Response: Mr. Tom Matthews, Public Access Services Office, responded:

Having done these for a long time, the specificity kind of shifts back and forth depending on what the Division of State Lands and the Legislature want and right now, we've swung away from a lot of hard numbers in the plan. But who knows when it's going to swing back the other way?

FWC Response: Mr. Glass, District Biologist, responded:

We used a lot of specifics. We're going to burn this many acres, we're going to chop this many acres, but as Tom said, we don't do that anymore. I've been here long enough that we used to be very number-oriented in these plans.

FWC Response: Mr. Hortman, Regional Biologist, responded

We now set a lot of our goals annually. We look at what our budget is, what our manpower is, we look at what the property needs are for the year. We do it on an annual basis.

Public Response: The same unidentified member of the audience continued this line of comments and questions:

Do the annual goals get posted?

FWC Response: Mr. Hortman, Regional Biologist, responded

I don't know of anywhere that it actually gets posted online. But we do keep it all in house.

FWC Response: Ms. Christina Omran, Senior Planner, responded:

I had something to add regarding the purpose of the plan and the structure of tonight's meeting and speaking to, you know, measurable outcomes. So, the plan specifically is the Land Management plan, so the goals, objectives, the challenges and strategies and the overview that we're providing tonight, that's the guiding document for the area managers and everything to do what they need to do. But, regarding what the Legislature collects, those annual and biannual reports, which are published and that information you can find online for conservation lands and non-conservation lands, is in the DMS dashboard available online. This actually is a separate process, and these plans aren't related to that in any way. So, we produce these, again, to guide and inform the area managers and technicians and the individuals. It has to do with the land management activities that will occur on T.M. Goodwin. And we do have annual work plans and that aligns with the fiscal year and the fiscal year budgets are available in the CFO's portal. That's where you can find the annual workplan, a breakdown of the FWC's budget, what is and is not allocated and all that will be finalized next month. And that will be by category code. So, you can see specifically the category code and activity and the amount allocated. There's even drawdown rates which are published online, and you can see the performance from there.

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

Public Testimony on the TMGWMA Draft Management Plan:

One member of the public audience submitted speaker card(s) indicating their intention to provide formal public testimony. Ms. Atwell again emphasized that the public hearing was for taking input regarding the TMGWMA Draft Management Plan and called the first speaker to the podium.

Public Testimony #1: Kristin Lortie provided the following public testimony:

My name is Kristin Lortie and I'm going to make comment on a specific topic regarding the engagement process. But as far as my interest in being here tonight, I am the Chief of Staff for our District 1 County Commissioner covering the north part of Brevard and we got the invitation through our office. I am also a citizen advocate, and I started an online group called Brevard Care Citizens Coalition and I started a separate group called Cocoa Care Citizens Coalition because I believe it is so important that citizens get engaged in the process and in relevant ways, and that they get informed enough to get engaged in the process. So that's my personal interest before even getting involved with the Commissioner's office. The Commissioner is also very involved in citizen engagement, so that made me more interested in working together with her and helping promote that process. So, I came tonight to see what the process was like. We received an invitation. The reach out was on March 20th, and I wrote and requested the draft management plan, and I just got that on April 25th. And the question that I always ask myself is, can a member of the public get reasonably engaged in the process without having to do too much effort? In our Commission office, we actually hired a communications person to come in

and help make postings and try to do what we can to help the public get engaged. So, with this process I would have liked to have seen more members of the public here, and I believe that the more work we do on the front end of the marketing, putting the brochures, making sure we have a website where it's really easy to find so that people can comment on the plan and review it and come to the meeting with their comments about what they may like to see or what their feedback is. This presentation was helpful so if that had been made available to the public, that could have been interesting to do. But like I said, I really am an advocate for members of the public to be able to come in but in order to do that we have to be informed of the timeline, of the place, how long we have, how long the engagement process is, when everything is due and all that. So, one of my goals in being involved in the Commission office is to try to promote that, to try to let everybody who does deal with members of the public know that. I personally with that everybody was incentivized that we gave you a bonus for how many members of the public were in the chairs. And that we somehow got the idea that let's get people here that already have the information so that they can come and comment on our plans. So that's really what I wanted to share. To really encourage and advocate for relevant processes where we actually get more people than just me coming in the speaker time. And on this, it's just hard. There's a lot to digest, you know, in a little bit of time and I didn't have enough time to review all the draft.

Adjournment:

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

No other speakers offered further comments.

Then Ms. Atwell declared the public hearing adjourned.

11.5 Native Plant and Wildlife Species Lists

11.5.1 Native Plants

<u>Scientific Name</u>	<u>Common Name</u>
<i>Acer rubrum</i>	Red maple
<i>Amaranthus</i> sp.	Amaranth
<i>Andropogon</i> sp.	Bluestem
<i>Axonopus furcatus</i>	Big carpetgrass
<i>Azolla filiculoides</i>	American waterfern
<i>Baccharis halimifolia</i>	Groundsel tree
<i>Bacopa</i> sp.	Waterhyssop
<i>Bidens</i> sp.	Beggarticks
<i>Boehmeria cylindrica</i>	False nettle
<i>Cabomba caroliniana</i>	Carolina fanwort
<i>Carex albolutescens</i>	Greenwhite sedge
<i>Cephalanthus occidentalis</i>	Common buttonbush
<i>Ceratophyllum demersum</i>	Coontail
<i>Cicuta maculata</i>	Spotted water hemlock
<i>Cladium jamaicense</i>	Jamaica swamp sawgrass
<i>Commelina erecta</i>	Whitemouth dayflower
<i>Cyperus compressus</i>	Poorland flatsedge
<i>Cyperus odoratus</i>	Fragrant flatsedge
<i>Cyperus polystachyos</i>	Manyspike flatsedge
<i>Cyperus surinamensis</i>	Tropical flatsedge
<i>Diodia virginiana</i>	Virginia buttonweed
<i>Diplachne</i> sp.	Sprangletop
<i>Echinochloa</i> sp.	Cockspur
<i>Eclipta prostrata</i>	False daisy
<i>Eleocharis vivipara</i>	Viviparous spikerush
<i>Erechtites hieraciifolius</i>	Fireweed
<i>Eremochloa</i> sp.	Centipede grass
<i>Eupatorium capillifolium</i>	Dogfennel
<i>Ficus aurea</i>	Strangler fig
<i>Galium tinctorium</i>	Stiff marsh bedstraw
<i>Habenaria repens</i>	Waterspider false rein orchid
<i>Hydrocotyle umbellata</i>	Manyflower marshpennywort
<i>Hydrocotyle verticillata</i>	Whorled marshpennywort
<i>Hypericum</i> sp.	St. John's wort
<i>Juncus effusus</i> ssp. <i>solutus</i>	Soft rush

<i>Kosteletzkya pentacarpos</i>	Virginia saltmarsh mallow
<i>Limnobiium spongia</i>	Frog's-bit
<i>Lycopus rubellus</i>	Taperleaf waterhorehound
<i>Lythrum</i> sp.	Loosestrife
<i>Melothria pendula</i>	Creeping cucumber
<i>Morella cerifera</i>	Wax myrtle
<i>Myriophyllum laxum</i>	Loose water milfoil
<i>Najas guadalupensis</i>	Southern waternymph
<i>Najas marina</i>	Spiny waternymph
<i>Nelumbo lutea</i>	American lotus
<i>Nuphar advena</i>	Yellow pondlily
<i>Nymphaea mexicana</i>	Yellow waterlily
<i>Nymphaea odorata</i>	White waterlily
<i>Panicum dichotomiflorum</i>	Fall panicgrass
<i>Panicum hemitomom</i>	Mountain panic
<i>Paspalidium geminatum</i>	Egyptian paspalidium
<i>Paspalum</i> sp.	Crowngrass
<i>Persicaria hydropiperoides</i>	Swamp smartweed
<i>Persicaria pensylvanica</i>	Pennsylvania smartweed
<i>Persicaria punctata</i>	Dotted smartweed
<i>Phyla nodiflora</i>	Turkey tangle fogfruit
<i>Pluchea odorata</i>	Sweetscent
<i>Pontederia cordata</i>	Pickerelweed
<i>Ptilimnium capillaceum</i>	Mock bishopsweed
<i>Rhexia virginica</i>	Handsome Harry
<i>Sabal palmetto</i>	Sabal palm
<i>Sacciolepis striata</i>	American cupscale
<i>Sagittaria lancifolia</i>	Bulltongue arrowhead
<i>Sagittaria latifolia</i>	Common arrowhead
<i>Salix caroliniana</i>	Coastalplain willow
<i>Scirpus</i> sp.	Bulrush
<i>Sesbania herbacea</i>	Danglepod
<i>Setaria parviflora</i>	Knotroot foxtail
<i>Spirodela polyrhiza</i>	Common duckweed
<i>Sporobolus</i> sp.	Dropseed
<i>Taxodium distichum</i>	Bald cypress
<i>Thelypteris</i> sp.	Maiden fern
<i>Typha domingensis</i>	Southern cattail
<i>Typha latifolia</i>	Broadleaf cattail

<i>Utricularia floridana</i>	Florida yellow bladderwort
<i>Utricularia</i> sp.	Bladderwort
<i>Vallisneria americana</i>	Tapegrass
<i>Vigna luteola</i>	Hairypod cowpea
<i>Wolffiella oblonga</i>	Saber mudmidget

11.5.2 Native Wildlife

Scientific Name	Common Name
Birds	
<i>Fulica americana</i>	American coot
<i>Pelecanus erythrorhynchos</i>	American white pelican
<i>Mareca americana</i>	American wigeon
<i>Tyto alba</i>	Barn owl
<i>Dendrocygna autumnalis</i>	Black-bellied whistling-duck
<i>Himantopus mexicanus</i>	Black-necked stilt
<i>Spatula discors</i>	Blue-winged teal
<i>Bucephala albeola</i>	Bufflehead
<i>Hydroprogne caspia</i>	Caspian tern
<i>Spatula cyanoptera</i>	Cinnamon teal
<i>Gallinula chloropus</i>	Common moorhen
<i>Caracara plancus [Polyborus plancus audubonii]</i>	Crested caracara
<i>Laterallus jamaicensis jamaicensis</i>	Eastern black rail
<i>Rostrhamus sociabilis plumbeus</i>	Everglade snail kite
<i>Antigone canadensis pratensis</i>	Florida sandhill crane
<i>Dendrocygna bicolor</i>	Fulvous whistling-duck
<i>Mareca strepera</i>	Gadwall
<i>Plegadis falcinellus</i>	Glossy ibis
<i>Ardea herodias</i>	Great blue heron
<i>Butorides virescens</i>	Green heron
<i>Anas crecca</i>	Green-winged teal
<i>Lophodytes cucullatus</i>	Hooded merganser
<i>Aythya affinis</i>	Lesser scaup
<i>Aramus guarauna</i>	Limpkin
<i>Anas fulvigula</i>	Mottled duck
<i>Zenaida macroura</i>	Mourning dove
<i>Colinus virginianus</i>	Northern bobwhite
<i>Anas acuta</i>	Northern pintail
<i>Anas clypeata</i>	Northern shoveler

<i>Falco peregrinus</i>	Peregrine falcon
<i>Porphyrio martinicus</i>	Purple gallinule
<i>Aythya americana</i>	Redhead
<i>Aythya collaris</i>	Ring-necked duck
<i>Callonetta leucophrys</i>	Ringed teal
<i>Platalea ajaja</i>	Roseate spoonbill
<i>Oxyura jamaicensis</i>	Ruddy duck
<i>Anser caerulescens</i>	Snow goose
<i>Elanoides forficatus</i>	Swallow-tailed kite
<i>Egretta tricolor</i>	Tricolored heron
<i>Zenaida asiatica</i>	White-winged dove
<i>Gallinago delicata</i>	Wilson's snipe
<i>Aix sponsa</i>	Wood duck
<i>Nyctanassa violacea</i>	Yellow-crowned night-heron
Fish	
<i>Micropterus salmoides</i>	Florida bass
Mammals	
<i>Odocoileus virginianus</i>	White-tailed deer
Reptiles	
<i>Alligator mississippiensis</i>	American alligator
<i>Nerodia fasciata</i>	Banded water snake
<i>Apalone ferox</i>	Florida softshell turtle

11.6 FNAI Natural Inventory Ranking System and Definitions

Elements and Element Occurrences

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

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

Element Ranking and Legal Status

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

FNAI GLOBAL ELEMENT RANK

- G1** = Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
- G2** = Imperiled globally because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
- G3** = Either very rare and local throughout its range (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
- G4** = Apparently secure globally (may be rare in parts of range).
- G5** = Demonstrably secure globally.
- GH** = Of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker).
- GX** = Believed to be extinct throughout range.
- GXC** = Extirpated from the wild but still known from captivity or cultivation.
- G#?** = Tentative rank (e.g., G2?).
- G#G#** = Range of rank; insufficient data to assign specific global rank (e.g., G2G3).
- G#T#** = Rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1).
- G#Q** = Rank of questionable species - ranked as species but questionable whether it is species or subspecies; numbers have same definition as above (e.g., G2Q).
- G#T#Q** = Same as above, but validity as subspecies or variety is questioned.
- GU** = Unrankable; due to a lack of information no rank or range can be assigned (e.g., GUT2).
- GNA** = Ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
- GNR** = Element not yet ranked (temporary).
- GNRTNR** = Neither the element nor the taxonomic subgroup has yet been ranked.

FNAI STATE ELEMENT RANK

- S1** = Critically imperiled in Florida because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
- S2** = Imperiled in Florida because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
- S3** = Either very rare and local in Florida (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
- S4** = Apparently secure in Florida (may be rare in parts of range).
- S5** = Demonstrably secure in Florida.
- SH** = Of historical occurrence in Florida, possibly extirpated, but may be rediscovered (e.g., ivory-billed woodpecker).
- SX** = Believed to be extirpated throughout Florida.
- SU** = Unrankable; due to a lack of information no rank or range can be assigned.
- SNA** = State ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
- SNR** = Element not yet ranked (temporary).

FEDERAL LEGAL STATUS

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

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

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

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

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

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

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

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

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

PE = Species proposed for listing as endangered.

PS = - An infraspecific taxon or population has federal status but the entire species does not - status is in only a portion of the species range.

PT = Species proposed for listing as threatened.

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

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

DL = Delisted.

UR = Under review.

STATE LEGAL STATUS

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

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

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

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

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

FXN = Federal listed as an experimental population in Florida

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

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

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

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

Plants: Definitions derived from Sections 581.011, 581.185 and 581.185(2), Florida Statutes, and the Preservation of Native Flora of Florida Act, 5B-40.001. FNAI does not track all state-regulated plant species; for a complete list of state-regulated plant species, call Florida Division of Plant Industry, 352-372-3505 or see: <https://www.flrules.org/gateway/ChapterHome.asp?Chapter=5B-40>.

E = Endangered: species of plants native to Florida that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue; includes all species determined to be endangered or threatened pursuant to the U.S. Endangered Species Act.

T = Threatened: species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in number as to cause them to be Endangered.

CE = Commercially exploited: species native to the state which are subject to being removed in significant numbers from native habitats in the state and sold or transported for sale.

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

Element Occurrence Ranking

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

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

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

FNAI also uses the following EO ranks:

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

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

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

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

11.7 Soil Series Descriptions

Map Unit Description

Brevard County, Florida

[Minor map unit components are excluded from this report]

Map unit: 11 - Canova mucky peat, undrained

Component: Canova, undrained (90%)

The Canova, undrained component makes up 90 percent of the map unit. Slopes are 0 to 1 percent. This component is on flood plains, marine terraces on coastal plains. The parent material consists of loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 55 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 5 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: 32 - Micco mucky peat, drained

Component: Micco, drained (90%)

The Micco, drained component makes up 90 percent of the map unit. Slopes are 0 to 1 percent. This component is on marshes on marine terraces on coastal plains. The parent material consists of organic material over sandy and loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is 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 June, July, August, September, October. Organic matter content in the surface horizon is about 73 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: 33 - Micco mucky peat, frequently flooded

Component: Micco, flooded (90%)

The Micco, flooded component makes up 90 percent of the map unit. Slopes are 0 to 1 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of organic material over sandy and loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is frequently 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 73 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: 34 - Everglades mucky peat, drained

Component: Everglades, drained (90%)

The Everglades, drained component makes up 90 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. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very high. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during June, July, August, September, October. Organic matter content in the surface horizon is about 73 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 Description

Brevard County, Florida

Map unit: 40 - Oldsmar sand, 0 to 2 percent slopes

Component: Oldsmar (85%)

The Oldsmar 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 (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Map unit: 89 - Canova muck, drained

Component: Canova, drained (90%)

The Canova, drained component makes up 90 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 loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during June, July, August, September, October. Organic matter content in the surface horizon is about 55 percent. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 5 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: 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.

11.8 Land Management Review

Management Review Team Annual Report for Fiscal Year 2019–2020

T.M. GOODWIN WATERFOWL MANAGEMENT AREA

The District, in coordination with FWC, held an MRT meeting at T.M. Goodwin Waterfowl Management Area on March 10, 2020. Nine representatives from nine stakeholder groups participated in the review team: an adjacent private land manager (Mary A Mitigation Bank), Brevard County, Brevard Soil and Water Conservation District, FDEP, FFS, FWC, and United Waterfowlers (Figure 4). One District and six FWC staff members facilitated the review.

Management review team findings:

The review team evaluated 83 objectives from the 2015 T.M. Goodwin Waterfowl Management Area Management Plan. The review team had positive feedback about the management activities at the site and determined that the site is being managed in compliance with the approved land management plan. The following are suggestions made by the team for future management:

- Consider implementing passive interpretation to help educate public on staff's behalf.

FWC Response: Currently, FWC staff are planning to install a new kiosk on the T.M Goodwin Waterfowl Management Area (TMGWMA) to educate visitors about the natural resources found on the area. Also, an area specific website is maintained to provide educational information, as well as information about recreational opportunities on the area. The TMGWMA management plan is currently scheduled to begin development in 2023, the FWC will continue to examine the need for expanding environmental education and additional interpretative signage opportunities at TMGWMA as feasible and appropriate. Additionally, a Recreation Master Plan was completed for the TMGWMA in 2016 and includes several goals and objectives to provide the public with interpretative signage and material. FWC staff will continue to work towards accomplishing the outline objectives as feasible.

- Allowing access to Broadmoor Reservoir during the hunting season is not compatible with waterfowl hunting.

FWC Response: The FWC is aware that there may be some user conflicts in regard to public use on the Broadmoor Reservoir. FWC staff are currently assessing potential modifications to user access to reduce user conflict during the waterfowl season on the Broadmoor Marsh Unit.

Among the commendations received, one stakeholder stated, “Impressive management of water levels within the area’s impoundments to maintain and enhance habitat for waterfowl, wading birds, and shorebirds.”



Figure 4: Jon Webb, FWC Area Biologist, discusses hydrologic and waterfowl habitat management at T.M. Goodwin Management Area.

11.9 Management Plan Terms

Management Plan Goals and Objectives

Terms and Definitions

Assessment: Assessment—when a historic resource professional determines the possible effects—positive or negative—that an action or inaction may have on a historical 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 is a description of the land or resource conditions that are believed necessary if management goals and objectives are fully achieved. Desired Future Condition 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 exotic 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 exotic 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, road and trails to proper condition after damage or failure.

Restoration underway: restoration planning/design, executing, evaluating and reporting.

Restored/Maintenance condition: (refers to natural community) - 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 exotic plants or animals are absent or at levels requiring minimal recurring treatments, and prescribed fire rotations are within target intervals. Refers to Natural Communities. 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 exotics 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, chemical, 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.

11.10 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

November 15, 2021

Dylan Hasse, Senior Conservation Planner
Land Conservation and Planning Subsection
Florida Fish and Wildlife Conservation Commission
Tallahassee, FL

Dear Dylan,

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 Map Package to FWC on a quarterly basis
- The FNAI GIS data will be available to FWC staff for reference and incorporation as required in management plan review and preparation with the following restrictions.
- FWC will limit spatial reference to Element Occurrence locations in public documents to the Management Area level (i.e., EOs will not be displayed on public maps to protect sensitive resources, habitats, and data sources)
- For Management Areas less than 160 acres in size, FWC will not list occurrences of resources (i.e., species and natural communities) coded as Data Sensitive. If desired, these sensitive resources can be included in a table as a count of occurrences and resource (e.g., three additional occurrences of two species/resources are coded as sensitive)
- When possible, FWC should use the FNAI provided Element Occurrence polygons, and consider the Representational Accuracy and Locational Uncertainty of each record, when determining which species occur on a Management Area

The FNAI Data Manager currently provides this update to FWC staff on a quarterly basis. Current FWC contacts are Rene Baumstark, Christi Santi, Steven Nicholl, Kristal Walsh, Kristen Sella, and yourself. We are pleased to continue this beneficial collaboration with the Florida Fish and Wildlife Conservation Commission.



Florida Resources
and Environmental
Analysis Center

Institute of Science
and Public Affairs

The Florida State University

Sincerely,

Frank Price
Assistant Director
Florida Natural Areas Inventory

Tracking Florida's Biodiversity

11.11 Land Management Uniform Accounting Council Categories

Land Management Uniform Cost Accounting Council and FWC Activity Code Groupings

Resource Management

Invasive and Nuisance Species Control

- 210 Invasive and nuisance species control
- 211 Invasive and nuisance plant control (mechanical)
- 212 Invasive and nuisance 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

- 194 Lake restoration
- 215 Hydrology management
- 216 Dams, dikes, levees
- 217 Canals
- 218 Water level management

Other

- 185 GIS
- 200 RESOURCE MANAGEMENT
- 203 Tree and shrub planting
- 213 Wildlife management
- 214 Listed Species management
- 219 Upland restoration
- 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
275	Permits and authorizations
276	Commission rule development and review
281	Technical assistance
282	Herbaceous seeding
283	Clearings
284	Feeding/watering
285	Nest structures
286	Population control
287	Stocking enhancements/population augmentation
288	Nuisance animal complaints 282 Herbaceous seeding
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
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

101 Project inspection C field inspections of projects.

209 Land Management Reviews

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
- 226 Human dimensions surveys
- 721 Geospatial analysis techniques

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
- 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

11.12 Operation Plan Fiscal Year 2023-2024

Results for (7601) Goodwin FY 2023-2024

Activity 103 - Meetings

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	5.00	\$1,198.40	\$99.20	\$1,000.00	\$2,297.60	0.00	

Accomplishments

Attend interagency meetings, workshops, and conferences.

Amount	Org Code	EO	Category	Description
\$1,000.00	77352050100	29	100340	Travel related expenditures.

Activity 104 - Budget/purchasing/accounting

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	5.00	\$1,198.40	\$99.20	\$0.00	\$1,297.60	0.00	

Accomplishments

Prepare and monitor budget, purchasing card transactions, and purchase orders.

Amount	Org Code	EO	Category	Description
\$0.00				

Activity 128 - New Vehicle and Equipment Purchases

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	0.00	\$0.00	\$0.00	\$35,000.00	\$35,000.00	0.00	NFR

Accomplishments

Purchase equipment to aid in WMA activities, including replacement implements. Replace utility trailer #42736.

Amount	Org Code	EO	Category	Description
\$25,000.00	77352050100	29	100340	Replace utility trailer.
\$10,000.00	77352050100	29	100340	Purchase small equipment to complete management activities.

Activity 140 - Report writing/editing/manuscript prepar

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	5.00	\$1,198.40	\$99.20	\$0.00	\$1,297.60	0.00	

Accomplishments

Write, edit, and complete revisions on reports.

Amount	Org Code	EO	Category	Description
\$0.00				

Activity 150 - Personnel management

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	10.00	\$2,396.80	\$198.40	\$101,049.57	\$103,644.77	0.00	

Accomplishments

Hire and supervise seasonal and full time OPS and volunteers. Purchase uniforms and attend training.

Amount	Org Code	EO	Category	Description
\$5,000.00	77352050100	29	100340	Uniforms, travel related expenditures and registrations for trainings.
\$96,049.57	77352050100	99	100340	Two OPS Plus F&W Technicians.

Activity 185 - GIS

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	5.00	\$1,198.40	\$99.20	\$0.00	\$1,297.60	0.00	

Accomplishments
Develop GIS coverages for WMA enter management activities into LMIS.

Amount	Org Code	EO	Category	Description
\$0.00				

Activity 200 - Resource Management

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	45.00	\$10,785.60	\$892.80	\$16,792.00	\$28,470.40	0.00	

Accomplishments
Manage resources and fulfill objectives in Management Plan, purchase fuel.

Amount	Org Code	EO	Category	Description
\$16,792.00	77352050100	22	102229	Purchase fuel for equipment.

Activity 204 - Resource planning

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	5.00	\$1,198.40	\$99.20	\$2,000.00	\$3,297.60	0.00	

Accomplishments
Prepare and review planning documents, routine paperwork, prepare correspondence, office, and secretarial duties.

Amount	Org Code	EO	Category	Description
\$2,000.00	77352050100	29	100340	Purchase office supplies for management planning and projects.

Activity 206 - Prescribed burning - growing season

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	20.00	\$4,793.60	\$396.80	\$500.00	\$5,690.40	500.00 Acres	

Accomplishments
Conduct approximately 500 acres of growing season prescribed burns.

Amount	Org Code	EO	Category	Description
\$500.00	77352050100	29	100340	Purchase prescribed burn supplies.

Activity 207 - Prescribed burning - dormant season

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	20.00	\$4,793.60	\$396.80	\$500.00	\$5,690.40	500.00 Acres	

Accomplishments

Conduct approximately 500 acres of dormant season prescribed burns.

Amount	Org Code	EO	Category	Description
\$500.00	77352050100	29	100340	Purchase prescribed burn supplies.

Activity 212 - Exotic plant control (chemical)

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	50.00	\$11,984.00	\$992.00	\$100,000.00	\$112,976.00	1,200.00 Acres	

Accomplishments

Chemically treat exotic plant infestations, including cogon grass, para grass, Cuban bulrush, water hyacinth, Brazilian pepper and other exotic plant species. Survey and treat approximately 1,200 acres.

Amount	Org Code	EO	Category	Description
\$100,000.00	77352050100	29	100340	Exotic control treatments, purchase herbicide.

Activity 216 - Dams, dikes, levees

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	25.00	\$5,992.00	\$496.00	\$40,000.00	\$46,488.00	10.00 Miles	

Accomplishments

Rent equipment to clear up to 10 miles of ditches and remove excessive vegetation. Mow ditches and levees.

Amount	Org Code	EO	Category	Description
\$40,000.00	77352050100	29	100340	Rent equipment to clear ditches and levees.

Activity 218 - Water level management

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	25.00	\$5,992.00	\$496.00	\$30,000.00	\$36,488.00	3,242.00 Acres	

Accomplishments

Monitor water levels and manage 3240 acres of impoundments through water manipulation. Replace culverts and risers as needed, repair and replace pumps.

Amount	Org Code	EO	Category	Description
\$10,000.00	77352050100	29	100340	Materials and supplies to aid in water level management.
\$20,000.00	77352050100	22	102229	Repair pumps and water control structures.

Activity 221 - Animal surveys

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	10.00	\$2,396.80	\$198.40	\$0.00	\$2,595.20	1.00 Number	

Accomplishments

Conduct opportunistic wildlife surveys and enter observations into SaMP.

Amount	Org Code	EO	Category	Description
\$0.00				

Activity 235 - Vegetation and plant surveys

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	5.00	\$1,198.40	\$99.20	\$0.00	\$1,297.60	0.00	

Accomplishments

Monitor changes in vegetation and conduct plant surveys.

Amount	Org Code	EO	Category	Description
\$0.00				

Activity 289 - Native vegetation management (mechanical

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	47.00	\$11,264.96	\$932.48	\$55,201.00	\$67,398.44	500.00 Acres	

Accomplishments

Rollerchop approximately 500 acres of impoundments for vegetation control. Cookie cut impoundments to remove tussocks.

Amount	Org Code	EO	Category	Description
\$25,000.00	77352050100	29	100340	Cookie Cutting
\$30,201.00	77352050100	26	109940	Cookie cutting

Activity 294 - Program coordination and implementation

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	2.00	\$479.36	\$39.68	\$0.00	\$519.04	0.00	

Accomplishments

Participate on issue teams and coordinate with other agency programs.

Amount	Org Code	EO	Category	Description
\$0.00				

Activity 350 - Customer service support

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	5.00	\$1,198.40	\$99.20	\$0.00	\$1,297.60	0.00	

Accomplishments

Assist visitors and respond to information requests from the public.

Amount	Org Code	EO	Category	Description
\$0.00				

Activity 910 - New facility construction -- buildings/s

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	4.00	\$958.72	\$79.36	\$100,000.00	\$101,038.08	1.00 Number	NFR
Accomplishments							
Construct new pole barn to house area equipment.							

Amount	Org Code	EO	Category	Description
\$100,000.00	77352090400	29	100340	Construct pole barn.

Activity 920 - FEM -- buildings/structures

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	6.00	\$1,438.08	\$119.04	\$40,000.00	\$41,557.12	0.00	NFR
Accomplishments							
Repair and maintain office, equipment sheds, and other structures on the property. Replace portable shed. Construct ADA improvements at boat ramp.							

Amount	Org Code	EO	Category	Description
\$10,000.00	77352050100	29	100340	Replace portable storage building.
\$30,000.00	77352090400	29	100340	Upgrade boat ramp for ADA access.

Activity 921 - FEM -- utilities

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	0.00	\$0.00	\$0.00	\$8,000.00	\$8,000.00	0.00	
Accomplishments							
Utilities for equipment shed, office, and other facilities.							

Amount	Org Code	EO	Category	Description
\$8,000.00	77352050100	29	100340	Pay utilities.

Activity 923 - FEM -- vehicles/equipment

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	65.00	\$15,579.20	\$1,289.60	\$50,000.00	\$66,868.80	0.00	
Accomplishments							
Routine and preventative maintenance on vehicles, heavy equipment, implements, and ATVs. Repair other equipment as needed.							

Amount	Org Code	EO	Category	Description
\$30,000.00	77352050100	29	100340	Equipment and vehicle maintenance and repairs.
\$20,000.00	77352050100	22	102229	Repair area equipment.

Activity 926 - FEM -- roads/bridges

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9200) All wildlife	20.00	\$4,793.60	\$396.80	\$0.00	\$5,190.40	33.00 Miles	
Accomplishments							

Grade and maintain 33 miles of roads. Add new road material to levees to stabilize and repair damage.

Amount	Org Code	EO	Category	Description
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Activity 295 - Biological data collection, analysis, an

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9210) Game wildlife	41.00	\$9,826.88	\$813.44	\$0.00	\$10,640.32	1.00 Number	

Accomplishments

Collect data on managed waterfowl hunts.

Amount	Org Code	EO	Category	Description
\$0.00				

Activity 341 - Public use administration (hunting)

Species	Man Days	Salary	Fuel Cost	Other	Total	Units	Not Fed
(9210) Game wildlife	5.00	\$1,198.40	\$99.20	\$3,000.00	\$4,297.60	0.00	

Accomplishments

Manage public hunts. Submit harvest reports. Provide portable toilets to hunters.

Amount	Org Code	EO	Category	Description
\$3,000.00	77352050100	29	100340	Check station materials and rental of portable toilets.

Project Totals

Man Days	Salary	Fuel Cost	Other	Project Total
430.00	\$103,062.40	\$8,531.20	\$583,042.57	\$694,636.17

Detailed Breakdown

ORG / EO / CAT	Total	Income Total	Unit Total
77352050100 22 102229	\$56,792.00	\$0.00	5,988.00
77352050100 29 100340	\$270,000.00		
77352050100 26 109940	\$30,201.00		
77352050100 99 100340	\$96,049.57		
77352090400 29 100340	\$130,000.00		

11.13 Prescribed Burn Plan

Thomas M. Goodwin Waterfowl Management Area

Prescribed Fire Management Plan

June 2025



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Introduction

Purpose

Fires, whether naturally occurring or anthropogenic, are an integral part of the ecology of pine flatwoods, scrub, and wetlands throughout Florida. Periodic burning has maintained fire-dependent plant communities in the southeast for thousands of years. However, the exclusion of fire or disruption of the natural frequency can lead to mesophication of once pyrogenic natural communities, such as hardwood hammocks, encourages non-native plants to thrive, causes less nutrient recycling, leads to high fuel loads within the system, and allows development of a closed canopy system. In wetlands, lack of fire can promote the growth of shrubs and other woody vegetation in predominately grassy wetlands and marshes. Early successional habitat and open water in wetland communities are vital to wetland dependent species, such as migrating waterfowl, shorebirds, and wading birds.

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. It is a recommended tool for management of wetland habitats that are used by a variety of wetland dependent species. Prescribed burns stimulate fruit and seed production in plants and can lead to higher yields and increased quality of palatable plants which in turn promotes a varied wildlife population. Additionally, prescribed burning helps improve recreational and aesthetic values.

Description of Area

Centered within a broad expanse of conservation lands that protect the upper St. Johns River Basin, the Thomas M. Goodwin Waterfowl Management Area (TMGWMA) provides important flood control and floodplain protection for the St. Johns River. It also aids in providing important water quality protection functions for both the St. Johns River and Indian River Lagoon systems. Conservation of this landscape of riverine floodplain marsh lands, which includes TMGWMA, provides important wildlife habitat for migrating waterfowl and an array of imperiled wildlife (wildlife species listed as endangered or threatened) along with other wildlife.

Comprising approximately 6,482 acres, the TMGWMA is located in the upper St. Johns River Basin in southern Brevard County (Figure 1). Approximately 3,000 acres of the area are intensively managed as impoundments, with the remaining acreage being maintained as open marsh habitat. As a result of this intensive management, the area provides important habitat to a robust population of migrating waterfowl and wading birds, the area is renowned for both its duck hunting and birding opportunities.

The TMGWMA is owned by the St. Johns River Water Management District (SJRWMD) and leased to the Florida Fish and Wildlife Conservation Commission (FWC) for management as a waterfowl management area and public small game hunting area along with other compatible fish and wildlife based public outdoor recreational uses.

In May 1991, the SJRWMD leased the property to the FWC for the purpose of establishing a waterfowl management area, under the name the C-54 Retention Area. The FWC began developing the area in 1990 as a joint project between the SJRWMD, Ducks Unlimited (DU) through their Matching Aid to Restore States Habitat (MARSH) program, and the North American Wetlands Conservation Council. Project construction was completed in the fall of 1995, and in December of 1995, the area was established by FWC as a Public Waterfowl Area. The Broadmoor Marsh Unit was added to the area in

2002. The TMGWMA comprises the T.M. Goodwin Unit (3,682 acres) and the Broadmoor Marsh Unit (2,800 acres), collectively referred to as the TMGWMA and, where appropriate, independently referred to as the Goodwin Unit and the Broadmoor Marsh Unit of TMGWMA.

In many ways, management of the TMGWMA mimics what were the natural floodplain marsh fluctuations of the St Johns River. A system of strategically designed and hydrologically engineered ditches, canals, and numerous water control structures are used to manipulate the area's water levels to accomplish floodplain and waterfowl management goals. The resulting impoundments contain a mosaic of habitats including open water, aquatic bed, emergent marsh, and shrub marsh. Thus, the TMGWMA is managed by the FWC to provide a diversity of wintering and breeding habitats for various waterfowl and wading birds.

Prescribed Burning Program

Prescribed Fire Objectives

Prescribed burning will be used on the TMGWMA as a habitat management tool in conjunction with mechanical treatments, herbicide treatments, and water level management to achieve a variety of objectives. Management of TMGWMA relies heavily on water level management to promote favorable moist soil vegetation. Prescribed burning in conjunction with other management methods will help achieve the following objectives:

- Improve and maintain habitat for wildlife, including wetland dependent species.
- Reduce fuel accumulation and minimize wildfire hazards.
- Increase diversity of native flora and fauna.
- Improve recreational access.
- Enhance aesthetics.
- Control non-native vegetation.
- Promote nutrient cycling.

Burn Units and Firelines

TMGWMA is divided into 2 management units, the Broadmoor Marsh Unit and the T.M. Goodwin Unit with 33 burn units total. Each management unit is divided up into burn units that correlate to the identified impoundments in the area hunt brochure map (Figure 2). For example, impoundment 1 at T.M. Goodwin would also be burn unit 1, impoundment 2 would be burn unit 2, etc. Burn units range between 100 acres (smallest impoundment) and 880 acres (Broadmoor Reservoir), with average impoundment size of around 150 acres.

The T.M. Goodwin Unit is divided into 22 separate impoundments/burn units, 10 of which are in the southern half of the unit. These 10 impoundments/burn units are managed as shallow water impoundments and is where the majority of the burning takes place. These impoundments can be seasonally dry or flooded depending on management needs of the impoundment. If dry they can be sprayed, burned, chopped or disked. Each impoundment has ditches around them; these ditches are used by area staff as holding lines during prescribed burns. The 12 northern impoundments/burn units are in the Goodwin reservoir. This area is inundated with water year-round so area staff rarely burn in these units, however on occasion areas of dense vegetation or floating tussocks may be burned to achieve habitat management/improvement objectives. When the reservoir area is burned, no additional control lines are needed because the vegetation is surrounded by water.

The Broadmoor Marsh Unit is divided into 10 separate impoundments/burn units and a reservoir. Much like Goodwin, the Broadmoor impoundment number corresponds to the burn unit. For example, Broadmoor impoundment 1S would be burn unit 1S, Broadmoor impoundment 7N or 7S would be burn unit 7, etc. These 10 impoundments/burn units are managed as shallow water impoundments and are where the majority of the burning takes place. These impoundments can be seasonally dry or flooded depending on management needs of the impoundment. If dry, they can be sprayed, burned, chopped or disked. Each impoundment has ditches around them; these ditches are used by area staff as holding lines during prescribed burns. The reservoir in Broadmoor is its own burn unit, unlike Goodwin. This area is also inundated with water all year and requires no additional holding lines for prescribed fire. When the reservoir is burned, typically it is cattail islands post herbicide treatment. They burn down to the water surface quickly and extinguish.

Return Intervals / Rotations

The freshwater marsh habitat that T.M. Goodwin impoundments mimic has a 3-5 year fire return interval. The impoundments/burn units on the area have a varied fire return interval depending on management strategy. Mechanical and chemical treatment are often used to set back succession in the impoundments when fire is not utilized. Due to the structure (non-continuous fuels) of vegetation in the impoundments, fire will not always carry across a unit making prescribed fire use ineffective. Prescribed fire is frequently preceded by herbicide application or mechanical treatment.

Firing Technique

Ground ignition by drip torch or ATV-mounted torch will be the primary form of ignition. Aerial ignition, using small unmanned aerial systems (sUAS), will be implemented as practicable. The burn unit, weather conditions, fuel load, burning objectives, and smoke management guidelines at the time of fire will dictate firing technique. In general, fires are started on the downwind side of units and allowed to back until the manager determines that there is sufficient distance from the fireline to allow further ignition with low risk of spot-over. The remainder of the unit is spot- or strip-headed while keeping the flanks even with or ahead of the main fire. In cases where the downwind boundary is a completely flooded impoundment or reservoir, the backing fire can be omitted, and a head fire can be the dominate firing technique.

Season and Time of Day

Prescribed burns on the TMGWMA are conducted during daylight hours. Burns typically begin between 0930 and 1000, however they have also started around noon depending on wind conditions, dew, and humidity. TMGWMA conducts the majority of the burns in the spring to early summer months to follow the dry season. TMG staff also occasionally conduct burns in the fall and early winter to create open water habitat for waterfowl and wading birds.

Optimal Weather Conditions

Because TMGWMA is a freshwater marsh habitat, burning the area effectively requires some extreme conditions. These conditions typically come during the growing season in spring and early summer. Burn managers desire higher wind and lower humidity than typical upland prescribed burns. Burns at TMGWMA will be conducted when weather conditions allow for unit objectives to be met. In general, burn managers will be looking for the following parameters:

1. Relative Humidity $\geq 29\%$
2. Mixing height ≥ 1700
3. Surface wind speed < 20 mph
4. Transport winds > 9 mph

5. Dispersion index ≥ 30 .

Burns will be conducted outside of these parameters when unit objectives can be met while ensuring safety of staff, property, and the public. Due to the nature of the area and habitats being managed, weather conditions leading up to a prescribed burn are often extended periods of little to no rain. Impoundments must be dry for equipment and personnel to access the units safely or must be flooded to a level that an airboat can safely access the units. The use of sUAS may allow for an increase in prescribed burn use on the area since equipment and personnel access to the unit can be minimized. Staff will work with the local Forest Areas Supervisor with the Florida Forest Service to help him/her understand the area's conditions and objectives in order to obtain authorization on days that are suitable for TMGWMA when other restrictions may be in place.

Smoke Management

TMGWMA is located in a remote area, however residential areas are being developed northeast of the WMA. There are no known smoke sensitive areas around the WMA. Burns can be safely conducted under any wind direction, with fair to good dispersion.

Personnel and Equipment

All personnel and equipment participating in any prescribed burning activity on TMGWMA will adhere to the Division of Habitat and Species Conservation's internal policy, "Prescribed Burning and Wildfire Suppression Standards." This policy covers training and personal protective equipment (PPE) requirements.

The number of personnel to be used on each burn will be determined by the burn manager. The burn manager will be a certified burn boss as required by the FFS and FWC. TMGWMA prescribed burns are carried out using a wide array of equipment; the burn boss will determine equipment needs based on the unit being burned. Equipment could include, but is not limited to, airboats, ATVs, sUAS, type VI engine, ATV/UTV mounted water tanks and torches, drip torches, water pumps, etc. All personnel will meet the minimum training requirements as outlined in policy for the equipment they are assigned to operate.

Permits and Notification

Prescribed burn authorizations will be obtained from the FFS on the morning of the burn and recorded on the burn plan as required. Notification of a prescribed burn will be emailed to FWC Northeast Region Office, FWC Law Enforcement, and, when appropriate, notification will be given to adjacent landowners that may be impacted by smoke.

Evaluation of Burns

The certified burn manager will note fire behavior, flame length, fire intensity, and smoke dispersion. Initial evaluation of the fire will be conducted with special consideration of these observations when determining if the burn met established objectives. Based on the burn evaluation, modifications to techniques and acceptable conditions will be adjusted for future burns if needed. During the ignition and burnout phases of each burn, weather parameters and fire behavior will be continually observed for compliance with the prescribed parameters. A contingency plan will be a part of every burn plan that will inform decision making and actions should weather conditions or fire behavior become unfavorable at any point during the burn. Post burn monitoring will involve evaluating the results of the burn to determine if the measurable burn objectives were met and then comparing these results against the prescribed parameters.

Special Considerations

WMA boundary units will require additional planning and need to 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. All infrastructure (e.g. offices, shop building, picnic shelters, pole barns, power lines, etc.) within and adjacent to burn units need to be protected.

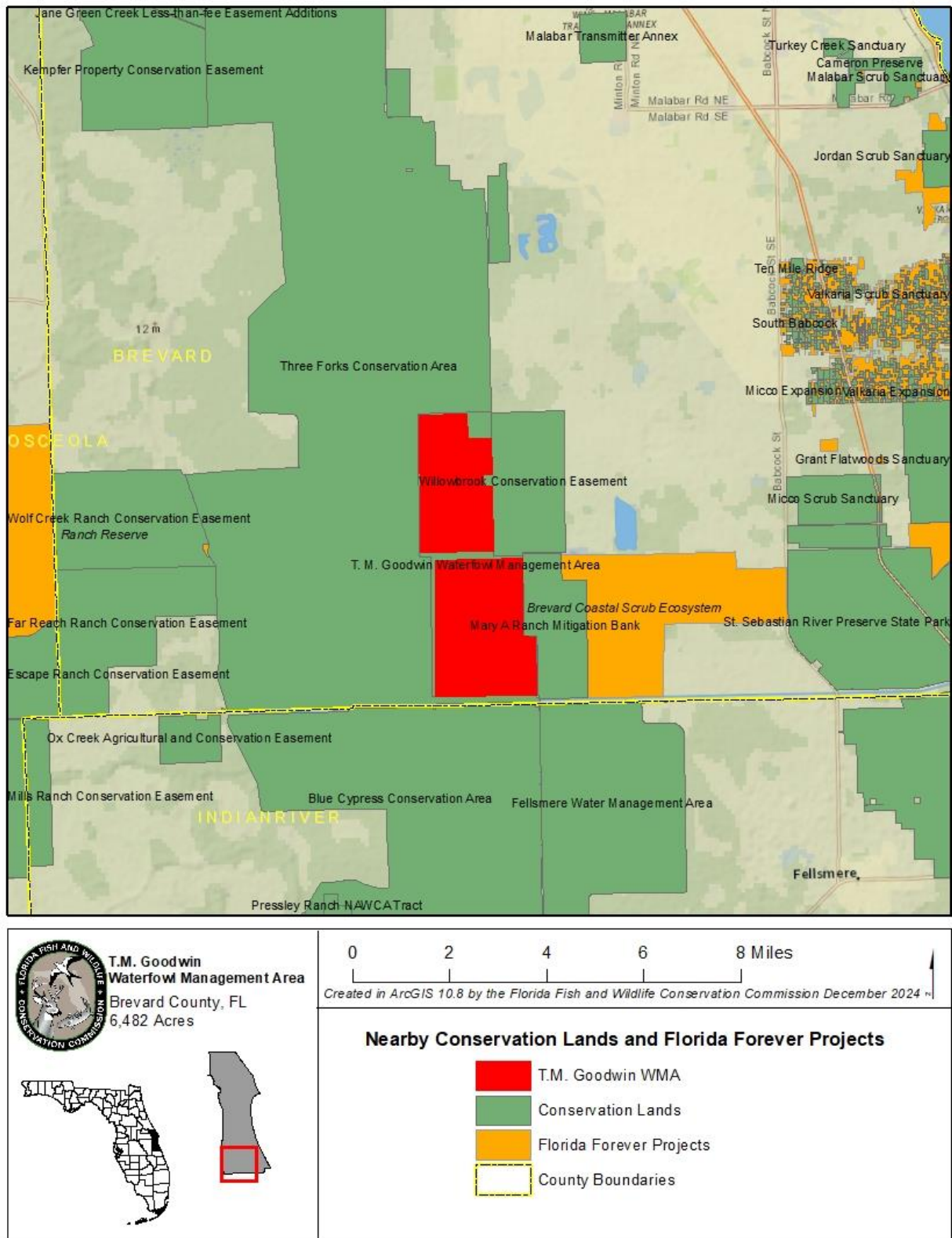


Figure 1. Location and Nearby Conservation Lands

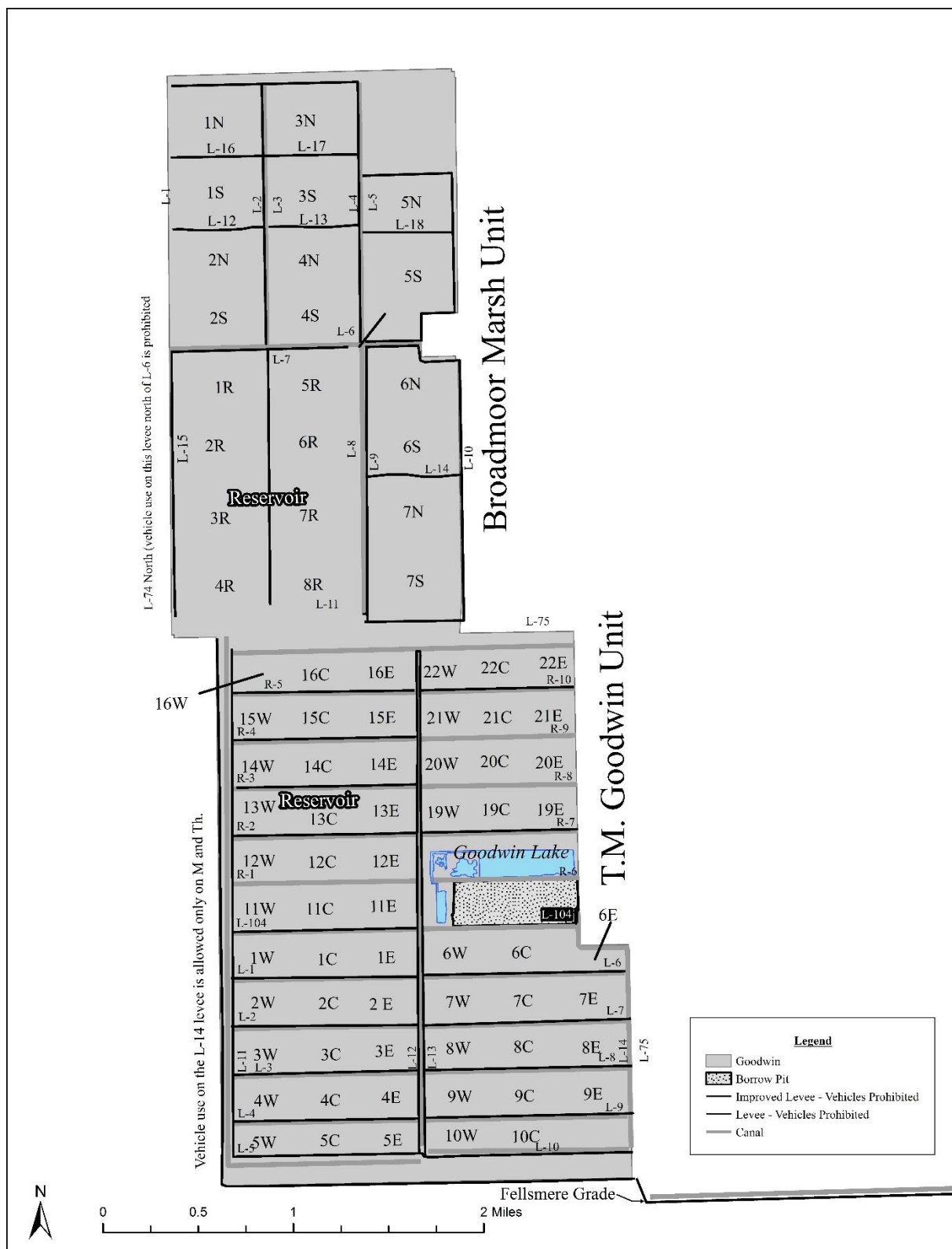


Figure 2. T.M. Goodwin Waterfowl Management Area

11.14 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 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

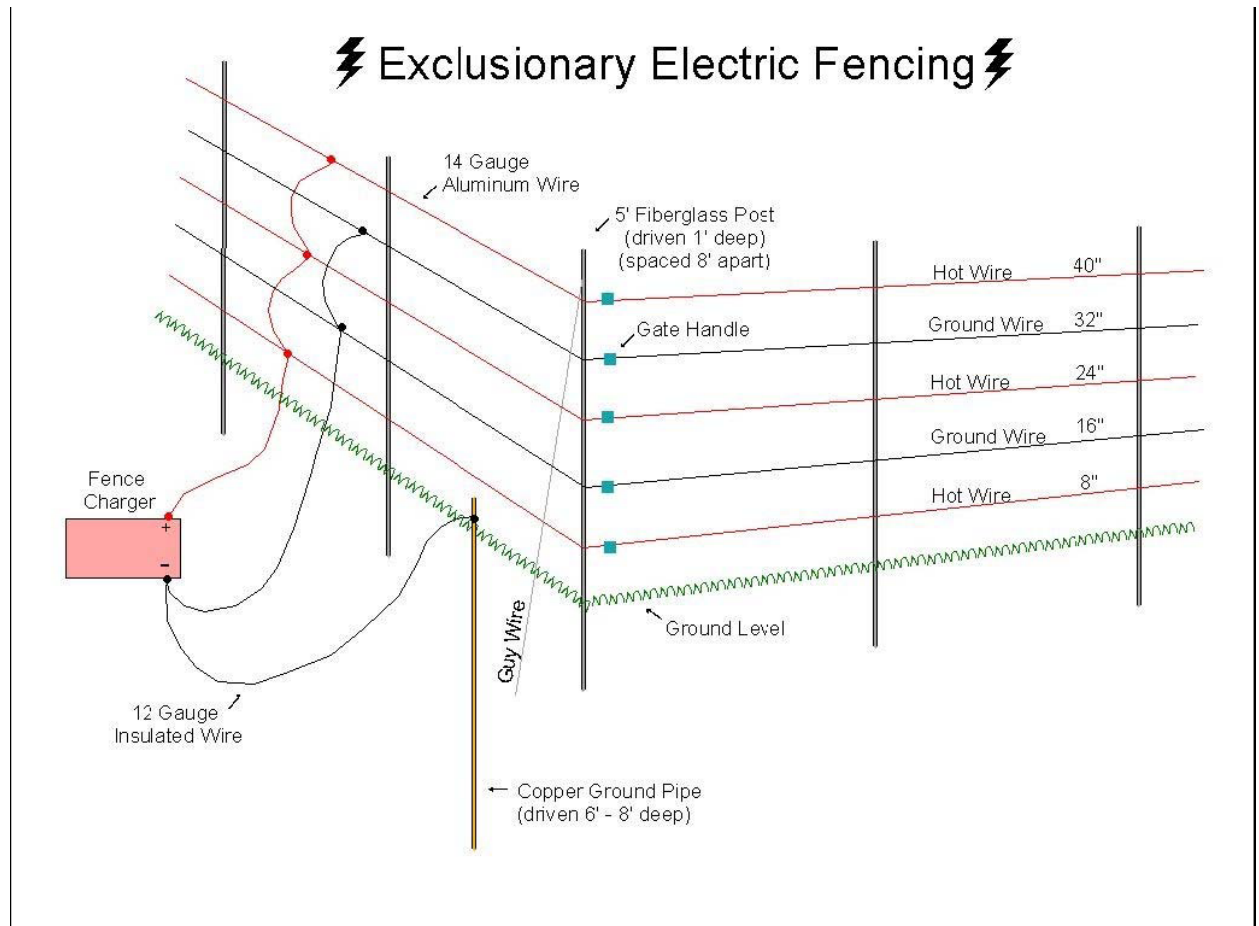
corresponding loop on the first corner post. Drive in the remaining 16 posts to the same depth at 8-foot intervals between corner posts. Secure each of the five wires to each of the posts with additional wire. Attach four plastic electric fence signs (one on each side) to the top wire of the fence. Attach 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.

11.15 Arthropod Control Plan



WILTON SIMPSON
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

Return to:

Mosquito Control Program
3125 Conner Blvd., Bldg. 6,
Tallahassee, FL 32399-1650

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: T.M. Goodwin Waterfowl Management Area

Also known as "TMGWMA."

Is Control Work Necessary: ☒ Yes ☐ No

Location: 3200 TM Goodwin Rd., Fellsmere, FL 32948

Land Management Agency: Florida Fish and Wildlife Conservation Commission (FWC)

Are Arthropod Surveillance Activities Necessary? ☒ Yes ☐ No

If "Yes", please explain:

According to the Florida Administrative Code 5E-13, surveillance shall be conducted to determine the species and numbers of both pestiferous mosquitoes and disease bearing arthropods.

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: Other traps may be used besides light traps, such as CO2 and gravid traps if approved by the FWC. When recommended, the County will request in writing access to install traps on the TMGWMA in approved locations.

Arthropod Species for Which Control is Proposed: Over 40 mosquito species have been documented in Brevard County, Florida, many of which have long flight ranges and may pose a public health risk well away from breeding habitats. Control is proposed for all mosquito species.

Proposed Larval Control: _____

Proposed larval monitoring procedure: Inspector observations and dip counts (larvae present in 10%).

Are post treatment counts being obtained: ☒ Yes ☐ No

Biological Control of Larvae: Bti, a naturally occurring bacteria, may be used as a larvicide, if approved.

Might predacious fish be stocked: ☒ Yes ☐ No

Other biological controls that might be used: _____

Only Gambusia holbrooki obtained from the Beecher Unit National Fish Hatchery near Crescent City, FL or Gambusia holbrooki from Brevard Mosquito Control's hatchery will 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:

Chemical or Common name: Bacillus thuringiensis subspecies israelensis, a biological control

☒ Ground

☒ Aerial

Rate of application: In accordance with each product's label rates for the site specific conditions.

Method of application: Liquid, dunks, and pouches will be by ground application. Granules will be by aerial or ground application. Surveillance will be completed to establish a baseline data set prior to any control work being done. Control work and access to the property will be reviewed and approved by the FWC.

Proposed Adult Mosquito Control:

Aerial adulticiding ☐ Yes ☒ No

Ground adulticiding ☐ Yes ☒ No

Please specify the following for each adulticide:

Chemical or common name: No chemicals will be applied to the TMGWMA.

Rate of application: No chemicals will be applied to the TMGWMA.

Method of application: No chemicals will be applied to the TMGWMA.

Proposed Modifications for Public Health Emergency Control: Arthropod control agency may request special exception to this plan during a threat to public or animal health declared by State Health Officer or Commissioner of Agriculture.

Aerial ultra low volume application of adulticides during an official arbovirus emergency pursuant to Sec. 388.45, F.S. and the FWC will receive written notice prior to application.

Proposed Notification Procedure for Control Activities: Brevard Mosquito Control District will contact FWC Regional Biologist or designee to recommend treatment based on data from surveillance methods listed above and only conduct treatment upon FWC's approval or request.

Records:

Are records being kept in accordance with Chapter 388, F.S.:

☒ Yes ☐ No

Records Location: Brevard Mosquito Control District, 800 Perimeter Rd., Titusville, FL 32780

How long are records maintained: 5 years

Vegetation Modification:

What trimming or altering of vegetation to conduct surveillance or treatment is proposed? None

Proposed Land Modifications:

Is any land modification, i.e., rotary ditching, proposed: No

Include proposed operational schedules for water fluctuations: None; however, Brevard Mosquito Control District recommends stocking impoundment cells with Gambusia holbrooki when cells are being flooded.

List any periodic restrictions, as applicable, for example peak fish spawning times.
None

Proposed Modification of Aquatic Vegetation:

None

Land Manager Comments: See attachment.

Arthropod Control Agency Comments: Exemptions to this plan only authorized in accordance with F.S. 388.45, such as a Public Health emergency declared by the Health Department, and emergencies will be communicated to the FWC regional biologist or designee in writing.

James C Conner III
Digitally signed by James C Conner III
Date: 2025.07.25 14:45:10 -04'00'

Signature of Lands Manager or Representative Date

Faella, Joseph
Digitally signed by Faella, Joseph
Date: 2025.08.15 17:05:40 -04'00' 08/15/25

Signature of Mosquito Control Director / Manager Date

T.M. Goodwin Waterfowl Management Area Arthropod Control Form Attachment

Land Manager Comments: Treatments will only be authorized under specific conditions, including public health emergency, excessively high surveillance counts, etc. TMGWMA is managed as a waterfowl management area with a management goal of providing quality habitat and favorable conditions for waterfowl and other wetland dependent species. Many waterfowl and wetland species rely on invertebrates (including mosquito larvae) as a dietary resource. Care must be taken to avoid negative impacts to invertebrate populations that could impact other species.

11.16 Brevard County Letter of Compliance with Local Government Comprehensive Plan



Planning & Development Department

2725 Judge Fran Jamieson Way
Building A, Room 114
Viera, Florida 32940

BOARD OF COUNTY COMMISSIONERS

July 14, 2025

Ms. Savannah Atwell, Land Conservation Planner
Division of Habitat and Species Conservation
Florida Fish and Wildlife Conservation Commission
3900 Commonwealth Boulevard, MS 235
Tallahassee, Florida 32399

SUBJECT: T.M. Goodwin WMA Management Plan

Dear Ms. Atwell:

We have reviewed the Management Plan and find it to be consistent with the policies of the Brevard County Comprehensive Plan and other applicable statutes and regulations. The WMA is designated as Public Conservation on the Future Land Use Map and is zoned GU General Use and AU Agricultural Residential.

The T.M. Goodwin WMA is an asset to Brevard County in that it provides quality fish and wildlife resource-based public recreational opportunities. The Management Plan provides for restoring and maintaining wetland habitat for various waterfowl species, as well as benefiting wading and shorebirds, and various wildlife species.

Thank you for the opportunity to participate in the development of the update to the T.M. Goodwin WMA Management Plan. Please feel free to contact me if I may be of additional assistance.

Sincerely,

Trina Gilliam

Trina Gilliam
Planning and Zoning Manager
321-350-8273

11.17 DHR Management Procedures and Guidelines

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

(revised June 2021)

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

A. Historic Property Definition

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

B. Agency Responsibilities

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

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

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

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

C. Statutory Authority

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

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

D. Management Implementation

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

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

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

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

E. Archaeological Resource Management (ARM) Training

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

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

F. Matrix for Ground Disturbance on State Lands

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

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

G. Human Remains Treatment

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

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

H. Division of Historical Resources Review Procedure

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

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

* * *

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

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

StateLandsCompliance@dos.myflorida.com

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