

FLORIDA DEPARTMENT OF Environmental Protection

Marjory Stoneman Douglas Building 3900 Commonwealth Boulevard Tallahassee, FL 32399 Ron DeSantis Governor

Jeanette Nuñez Lt. Governor

Shawn Hamilton Secretary

February 13, 2023

Mr. Christopher Kinslow Division of Water and Land Resources St. Johns River Water Management District P.O. Box 1429 Palatka, Florida 32178-1429

RE: Deep Creek Conservation Area – Lease No. 4524

Dear Mr. Kinslow,

On **February 10, 2023**, the Acquisition and Restoration Council (ARC) recommended approval of the **Deep Creek Conservation Area** management plan. Therefore, Division of State Lands, Office of Environmental Services (OES), acting as agent for the Board of Trustees of the Internal Improvement Trust Fund, hereby approves the **Deep Creek Conservation Area** management plan. The next management plan update is due February 10, 2033.

Pursuant to s. 253.034(5)(a), F.S., each management plan is required to "describe both short-term and long-term management goals and include measurable objectives to achieve those goals. Short-term goals shall be achievable within a 2-year planning period, and long-term goals shall be achievable within a 10-year planning period." Upon completion of short-term goals, please submit a signed letter identifying categories, goals, and results with attached methodology to the Division of State Lands, Office of Environmental Services.

Pursuant to s. 259.032(8)(g), F.S., by July 1 of each year, each governmental agency and each private entity designated to manage lands shall report to the Secretary of Environmental Protection, via the Division of State Lands, on the progress of funding, staffing, and resource management of every project for which the agency or entity is responsible.

Pursuant to s. 259.032, F.S., and Chapter 18-2.021, F.A.C., management plans for areas less than 160 acres may be handled in accordance with the negative response process. This process requires small management plans and management plan amendments be submitted to the Division of State Lands for review, and the Acquisition and Restoration Council (ARC) for public notification. The Division of State Lands will approve these plans or plan amendments submitted for review through delegated authority unless three

Mr. Christopher Kinslow Page 2 February 13, 2023

or more ARC members request the division place the item on a future council meeting agenda for review. To create better efficiency, improve customer service, and assist members of the ARC, the Division of State Lands will notice negative response items on Thursdays except for weeks that have State or Federal holidays that fall on Thursday or Friday. The Division of State Lands will contact you on the appropriate Friday to inform you if the item is approved via delegated authority or if it will be placed on a future ARC agenda by request of the ARC members.

Pursuant to s. 259.036(2), F.S., management areas that exceed 1,000 acres in size, shall be scheduled for a land management review at least every 5 years.

Conditional approval of this land management plan does not waive the authority or jurisdiction of any governmental entity that may have an interest in this project. Implementation of any upland activities proposed by this management plan may require a permit or other authorization from federal and state agencies having regulatory jurisdiction over those particular activities. Pursuant to the conditions of your lease, please forward copies of all permits to this office upon issuance.

Sincerely,

Deborah Burr Office of Environmental Services Division of State Lands

DEEP CREEK CONSERVATION AREA

LAND MANAGEMENT PLAN

PUTNAM AND ST. JOHNS COUNTY, FLORIDA



ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

February 14, 2023

ACQUISITION AND RESTORATION COUNCIL FEBRUARY 2023



LAND MANAGEMENT PLAN EXECUTIVE SUMMARY

LEAD AGENCY: St. Johns River Water Management District (District) COMMON NAME OF PROPERTY: Deep Creek Conservation Area (DCCA or Property) LOCATION: Putnam and St. Johns counties

ACREAGE TOTAL: 5,953 acres

ACREAGE BREAKDOWN:

Natural Community	Acres	Natural Community	Acres
Floodplain swamp	4,687	Dome swamp	6
Mesic flatwoods	381	Wet prairie	6
Wet flatwoods	326	Sandhill	5
Baygall	58	Altered Land	Acres
Blackwater stream	39	Agriculture	217
Mesic hammock	33	Stormwater Facility	101
Scrubby flatwoods	28	HWCTT Facility	66

LEASE/MANAGEMENT AGREEMENT No.: Board of Trustees Lease #4524

USE: Single:	Management Respo	nsibilities:	
Multiple: X	Agency	<u>Responsibilit</u>	ies
Distri	ict	Lead Manager	
Depa	rtment of		
	Environment I	Protection (FDEP)/Trustees	Co-owner

DESIGNATED LAND USE: Conservation

SUBLEASES: Subleases on the District owned parcels include an intergovernmental management agreement with St. Johns County for management of the Deep Creek West Stormwater Treatment Facility, an intergovernmental lease with Florida Department of Agriculture and Consumer Services (FDACS) for operation of a Hybrid Wetland Chemical Treatment Technology Facility and a ground lease and management agreement with the University of Florida's Institute of Food and Agricultural Sciences Hastings Agricultural Extension Center for expansion of research and extension in the tri-county agricultural area. No subleases affect the Board of Trustees' lease area.

ENCUMBRANCES: Two utility easements, three access easements and one drainage easement. **TYPES OF ACQUISITION:** Ad Valorem, Florida Forever, and Florida Department of Transportation (FDOT) mitigation donations and funds.

UNIQUE FEATURES: Over two miles of St. Johns River frontage. Natural communities include floodplain swamp, mesic flatwoods, wet flatwoods, basin swamp, baygall, blackwater stream, mesic hammock, scrubby flatwoods, dome swamp, wet prairie and sandhill.

CULTURAL AND HISTORICAL RESOURCES: One documented cultural site (burial mound) within the Conservation Area.

MANAGEMENT NEEDS: Habitat restoration and enhancement, and invasive species management, public access, and recreation management.

ACQUISITION NEEDS/ACREAGE: Approximately 1,900 acres surrounding DCCA have been identified as potential acquisitions. If neighboring parcels become available which increase continuity between the two tracts, provide additional protection to Deep Creek or the St. Johns River, or allow for restoration of impacted land they will be evaluated for acquisition by District staff.

SURPLUS LANDS/ACREAGE: Since the 2006 Land Management Plan, the entire 212-acre Edgefield Parcel was transferred to Putnam County as a regional stormwater treatment facility (RSTF) and 166 acres of the Masters Parcel was transferred to St. Johns County for a RSTF. No land within the Board of Trustee's Lease was transferred or exchanged.

PUBLIC INVOLVEMENT: Management Advisory Group meeting and Public Hearing.

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

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

Land Management Plan Compliance Checklist

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	1
2	The land acquisition program, if any, under which the property was acquired.	18-2.018 & 18-2.021	3
3	Degree of title interest held by the Board, including reservations and encumbrances such as leases.	18-2.021	3,6
4	The legal description and acreage of the property.	18-2.018 & 18-2.021	1
5	A map showing the approximate location and boundaries of the property, and the location of any structures or improvements to the property.	18-2.018 & 18-2.021	2
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	25, 26
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</i> <i>map</i> .	18-2.021	33, 34
8	Identification of adjacent land uses that conflict with the planned use of the property, if any.	18-2.021	8
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	24
10	Proximity of property to other significant State, local or federal land or water resources.	18-2.021	6, 7

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	24
12	A description of past and existing uses, including any unauthorized uses of the property.	18-2.018 & 18-2.021	24
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	24
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	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	33, 37
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	41

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	32
18	A finding regarding whether each planned use complies with the 1981 State Lands Management Plan, particularly whether such uses represent "balanced public utilization," specific agency statutory authority and any other legislative or executive directives that constrain the use of such property.	18-2.021	32
19	Letter of compliance from the local government stating that the LMP is in compliance with the Local Government Comprehensive Plan.	BOT requirement	Appendix B
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	18, 32
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	10
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	17, 32
23	A statement regarding incompatible use in reference to Ch. 253.034(10).	253.034(10)	24, 25

*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 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	8
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	Appendix D
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</i> <i>affiliations, as well as the date and location of the advisory group</i> <i>meeting.</i>	259.032	8, Appendix C

27	Summary of comments and concerns expressed by the advisory group for parcels over 160 acres	18-2.021	Appendix C
28	During plan development, at least one public hearing shall be held in each affected county. Notice of such public hearing shall be posted on the parcel or project designated for management, advertised in a paper of general circulation, and announced at a scheduled meeting of the local governing body before the actual public hearing. <i>Include</i> <i>a copy of each County's advertisements and announcements</i> (meeting minutes will suffice to indicate an announcement) in the management plan.	253 034 & 259 032	8. Appendix D
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	19, Appendix I
30	Summary of comments and concerns expressed by the management review team, if required by Section 259.036, F.S.	18-2.021	Appendix I
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 I

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. Use brief descriptions and include USDA maps when available.	18-2.021	8, 10 Appendix E
33	Insert FNAI based natural community maps when available.	ARC consensus	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	11
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	17, 18
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	17
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, 30
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	11
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	24,33
42	Habitat Restoration and Improvement	259.032 & 253.034	26, 35

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 lande ware acquired		26.25
	Provide a detailed description of both short (2-year planning period)	Ļ	26, 35
42 - B.	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.		35-38
42-C.	The associated measurable objectives to achieve the goals.		35-38
42-D.	The related activities that are to be performed to meet the land management objectives and their associated measures. <i>Include fire</i> management plans - they can be in plan body or an appendix.		35-38, Appendix J
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.		39, 43
43	***Quantitative data description of the land regarding an inventory of forest and other natural resources and associated acreage. <i>See</i> <i>footnote.</i>	253.034	11, 17
44	Sustainable Forest Management, including implementation of prescribed fire management		17, 33, 35, Appendix J
44-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).		17, 33, 35, Appendix J
44-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		27, 32, 35
44-C.	Measurable objectives (see requirement for #42-C).		27, 32, 35, Appendix J
44-D.	Related activities (see requirement for #42-D).		27, 32, 35, Appendix J
44-E.	Budgets (see requirement for #42-E).	18-2.021, 253.034 & 259.032 ↓	39, 44
45	Imperiled species, habitat maintenance, enhancement, restoration or population restoration	259.032 & 253.034	26, 30, 31, 35, 36
45-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	Ļ	26, 30, 31, 35, 36
45-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		35, 36
45-C.	Measurable objectives (see requirement for #42-C).		35, 36
45-D.	Related activities (see requirement for #42-D).		35, 36
45-Е.	Budgets (see requirement for #42-E).		39, 40, 44
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	31
45-G	Economic feasibility of establishing a gopher tortoise recipient site, including the initial cost, recurring management costs and the revenue projections.	259.105	31
46	***Quantitative data description of the land regarding an inventory of exotic and invasive plants and associated acreage. <i>See footnote</i> .	253.034	31

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	35, Appendix L
48	Exotic and invasive species maintenance and control	259.032 & 253.034	31
48-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	Ļ	31
48-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		31
48-C.	Measurable objectives (see requirement for #42-C).		36
48-D.	Related activities (see requirement for #42-D).		36
48-E.	Budgets (see requirement for #42-E).		39, 44

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</i> <i>appropriate managing agencies that have been notified of the</i>		
	proposed plan.	18-2.018 & 18-2.021	18
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		0.10
	Outstanding Florida Water under Rule 62-302./00, F.A.C.	18-2.021	9, 18
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	11
52	***Quantitative description of the land regarding an inventory of hydrological features and associated acreage. <i>See footnote</i> .	253.034	11, 18
53	Hydrological Preservation and Restoration	259.032 & 253.034	32
53-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	Ļ	36
53-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		36
53-C.	Measurable objectives (see requirement for #42-C).		36
53-D.	Related activities (see requirement for #42-D).		36
53-Е.	Budgets (see requirement for #42-E).		39

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</i> <i>resources except Native American sites, unless such sites are major</i> <i>points of interest that are open to public visitation.</i>	18-2.018, 18-2.021 & per DHR's request	No map due to sensitive nature of site
55	***Quantitative data description of the land regarding an inventory of significant land, cultural or historical features and associated acreage.	253.034	33, 37

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	33
57	Cultural and Historical Resources	259.032 & 253.034	24, 33
57-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	Ļ	33, 37
57-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		33, 37
57-C.	Measurable objectives (see requirement for #42-C).		33
57-D.	Related activities (see requirement for #42-D).		33
57-E.	Budgets (see requirement for #42-E).		39

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

Section G: Facilities (Infrastructure, Access, Recreation)			
Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
58	*** Quantitative data description of the land regarding an inventory of infrastructure and associated acreage. <i>See footnote</i> .	253.034	1, 6, 24, 33
59	Capital Facilities and Infrastructure	259.032 & 253.034	24, 33, 37, Appendix F
59-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	Ļ	24, 33, 37, Appendix F
59-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		24, 33, 37, Appendix F
59-C.	Measurable objectives (see requirement for #42-C).		24, 33, 37, Appendix F
59-D.	Related activities (see requirement for #42-D).		24, 33, 37, Appendix F
59-E.	Budgets (see requirement for #42-E).		39, 44
60	*** Quantitative data description of the land regarding an inventory of recreational facilities and associated acreage.	253.034	24, 32, 36
61	Public Access and Recreational Opportunities	259.032 & 253.034	24, 32, 36
61-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	Ļ	24, 32, 36
61 - B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		32, 36
61 - C.	Measurable objectives (see requirement for #42-C).		32, 36
61 - D.	Related activities (see requirement for #42-D).		32, 36
61 - E.	Budgets (see requirement for #42-E).		39, 44

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	V
63	Place the Executive Summary at the front of the LMP. Include a physical description of the land.	ARC and 253.034	iii
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	41
65	Key management activities necessary to achieve the desired outcomes regarding other appropriate resource management.	259.032	35-38
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 statemanaged 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	39, 40, 44
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	39, 40, 44
68	A statement of gross income generated, net income and expenses.	18-2.018	43

*** = 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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1. Introduction and General Information

The Deep Creek Conservation Area (DCCA or Property) comprises approximately 5,953 acres mostly in St. Johns County, with a small portion of the Property located in Putnam County. DCCA is comprised of two disjunct tracts, referred to as Deep Creek North and Deep Creek Yarborough. The Deep Creek Yarborough will be renamed Deep Creek South as part of this Land Management Plan update. Many natural communities can be found on DCCA, with a majority of the Property consisting of pristine floodplain swamp associated with Deep Creek and the St. Johns River (Figure 1). These natural areas provide important habitat for a diverse assemblage of plants and animals. Recreational opportunities include hiking, bicycling, photography, fishing, boating, paddling, and wildlife viewing.

The DCCA is managed by the St. Johns River Water Management District (District) for the conservation and protection of natural and cultural resources as well as nature-based public outdoor recreation. A wide range of resource management actions are conducted on DCCA each year including prescribed burning, habitat restoration and enhancement, invasive species maintenance and control, recreation management, and cultural resources monitoring and protection.

This document provides guidelines for land management activities to be implemented at DCCA over the next ten years. In 2006, the District's Governing Board approved two land management plans – one for DCCA North and one for DCCA Yarborough and Edgefield Tracts. This document combines the two land management plans into one plan covering both tracts. The Edgefield tract was transferred in 2019 to Putnam County, who now manages the Dog Branch RSTF, which encompasses that tract.

1.1 Location

DCCA lies within portions of Sections 29, 30, 31, and 32 of Township 8 South, Range 28 East, and Sections 5, 6, 7, 8, 9, 15, 16, 21, 22, 26, 27, 34, 37, and 38 of Township 9 South, Range 28 East. DCCA is located within the Lower St. Johns River Basin and lies almost entirely within St. Johns County. The western tip of the Property lies within Putnam County. DCCA nearly surrounds Hastings and is 14 miles west of Crescent Beach. The Property is situated in and around the floodplain swamp associated with Deep Creek and the St. Johns River. DCCA North is located off CR-13 and includes over two miles of frontage along the St. Johns River and over three miles of Deep Creek. Access to DCCA North is off CR-13 and leads to a two-mile multiuse trail. DCCA South is located off George Miller Rd., between CR-13 and SR-206. Access to DCCA South is gained either at George Miller Rd. or at Cowpen Branch Rd., which leads to a two and a quarter mile multiuse trail.



Figure 1: Deep Creek Conservation Area Aerial Imagery

1.2 Acquisition

Acquisition of DCCA began in 1988, and currently consists of eleven parcels totaling 5,953 acres (Figure 2). Since the 2006 land management plans, the Edgefield parcel (212 acres), Land Acquisition number 2001-032-P1, was offered for transfer by the District to Putnam County. This parcel contains the Dog Branch RSTF, which was constructed by the District in 2006-2007 to assist the Tri-County Agriculture Area with meeting nutrient reduction goals for the St. Johns River. In 2019, the District transferred its 100% fee interest in this parcel to Putnam County by Quit Claim Deed to assist the County in meeting its FDEP Lower St. Johns River Mainstem Basin Management Action Plan (BMAP) credit requirements. The District and County entered into a Memorandum of Agreement (MOA) in December of 2018, describing management responsibilities and general requirements by the County. In the event the County is in material non-compliance with the MOA for six months after the District's written notice of non-compliance, the District has the option to require the County to transfer ownership of the Property, including the RSTF, and the BMAP water quality credits associated with the RSTF, back to the District in accordance with the Fee Reverter clause in the Deed.

The eleven parcels that currently comprise DCCA are listed below, and all acreage reported is derived from GIS calculations.

<u>Mitchell</u>: This acquisition consisted of two separate parcels totaling 3,194 acres. The parcels were purchased on May 24, 1988, for \$914,500 using ad valorem funds.

Wonderlic: The District acquired this 565-acre parcel on May 24, 1989, for \$162,250 using ad valorem funds.

<u>Yarborough Deep Creek</u>: The District acquired this 1,101-acre parcel on January 16, 1998, with \$12,952 in ad valorem tax funds, and \$1,014,599 in Florida Department of Transportation (FDOT) mitigation funds. Approximately 100 acres of the property are being utilized in the Deep Creek West RST. To offset wetland losses from the widening of State Road 207, FDOT funded the \$3.8 million RST Facility, which has been in operation since 2006. The facility will be referred to as Deep Creek West RSTF throughout this management plan. 66 acres of this parcel are subject to an intergovernmental lease agreement with the FDACS who built and manages a hybrid stormwater treatment facility within the lease area. 80 acres of this parcel are subject to a revenue generating lease with the University of Florida's Hasting Agriculture Extension Center to facilitate its research and extension mission. The remainder of the parcel is managed as a traditional conservation area.

<u>Rosalind Norfleet</u>: This 21-acre parcel was a mitigation donation acquired on October 15, 2001. The value of the property was assessed at \$19,950 at closing.

<u>Lambert</u>: The 727-acre Lambert parcel was acquired by the Board of Trustees of the Internal Improvement Trust Fund (Trustees) on August 18, 2005. The \$2,000,000 acquisition was purchased with Florida Forever funds and the parcel is managed by the District under Trustees Lease 4524.

<u>Board of Trustees Parcel</u>: This 2.25-acre parcel was acquired by the Trustees in 2008, and DCCA Trustees Lease 4524 was amended to include this parcel under District management.

<u>Masters, Lawrence</u>: The original Masters parcel totaled 272 acres, and was acquired by the District on March 12, 2008, for \$4,455,289 with Florida Forever and FDOT Mitigation funds. Survey adjustments added 1.88 acres on August 29, 2008, for an additional \$30,775, and 5.21 acres on May 8, 2009, for \$85,288, using Florida Forever funds. On April 2, 2010, the District offered for transfer approximately 166 acres to St. Johns County for \$2,162,810 for installation of a RSTF. Total funding amount for this parcel after the survey adjustments and transfer is \$2,408,543. Current acreage for this parcel is 113 acres.

<u>Deep Creek Addition</u>: This acquisition consisted of two adjacent parcels totaling 158 acres. The parcels were purchased on December 31, 2009, for \$609,062 using FDOT Mitigation funds.

<u>Jennifer Masters</u>: This 26-acre parcel was donated to the District as part of an FDOT mitigation project for the First Coast Expressway on August 28, 2019.

<u>Leonard and Linda Freeman</u>: This 35-acre parcel was donated to the District as part of an FDOT mitigation project for the First Coast Expressway on August 28, 2019.

<u>Michael R and Heather C Styduhar</u>: This 11-acre parcel was donated to the District as part of an FDOT mitigation project for the First Coast Expressway on August 28, 2019.



Figure 2: Deep Creek Conservation Area Acquisition History

1.3 Title Interest and Encumbrances

The Lambert parcel as well as the Board of Trustee's parcel are owned 100% full fee by the Trustees. An Intergovernmental Agreement (Lease #4524) was signed in 2006 between the Trustees and the District designating the District as lead manager (Appendix A). All other parcels that comprise DCCA are owned in full fee by the District.

Leases on the District owned parcels include an intergovernmental management agreement with St. Johns County for management of the Deep Creek West RSTF, an intergovernmental lease with FDACS for operation of a Hybrid Wetland Chemical Treatment Technology Facility and a ground lease and management agreement with the University of Florida's Institute of Food and Agricultural Sciences Hastings Agricultural Extension Center for expansion of research and extension in the tri-county agricultural area. At the time of writing, an invitation to bid is being solicited for a regional revenue generating apiary lease with two sites on DCCA. Encumbrances on the Property include two utility easements, three access easements and one drainage easement.

1.4 Proximity to Other Public Lands

There are more than 110 publicly owned lands (>277,000 acres) located within 25 miles of DCCA (Figure 3). These include federal, state, local government-owned lands as well as some privately-owned lands with conservation easements to governmental entities. The largest of these include the Guana-Tolomato-Matanzas National Estuarine Research Reserve, Guana River Wildlife Management Area, Ocala National Forest, Marjorie Harris Carr Cross Florida Greenway State Recreation and Conservation Area, and Twelve Mile Swamp Conservation Area. DCCA is not located within an Aquatic Preserve or an Area of Critical State Concern (section 380.05, Florida Statutes (F.S.)).



Figure 3: Deep Creek Conservation Area Regional Significance

1.5 Adjacent Land Uses

Current zoning classifications for properties surrounding DCCA include Open Rural and Residential. The current future land use designations include Agriculture, Residential, Rural Silviculture, and Public. There are no land uses that conflict with the planned use of the Property as shown in documentation provided by St. Johns County (Appendix B).

1.6 Public Involvement

This plan was prepared with input from the DCCA Management Advisory Group (MAG). This meeting was conducted on June 22, 2022. A summary of this meeting is in Appendix C.

A noticed public meeting was held on July 27, 2022 (Appendix D). The objective of the public meeting was to receive public input regarding the draft management plan.

The Acquisition and Restoration Council (ARC) public hearing and meeting provide an additional forum for public input and review.

The District's Governing Board will also be approving this management plan. This will be the third forum for the public to provide input to the plan.

2. Natural and Cultural Resources

2.1 Physiography

a. Physiography/Mineral Resources

There are no known outstanding mineral resources on this Property.

b. Topography

The highest elevations occur on the eastern half of DCCA South in the flatwoods, which have a history of extensive draining of water from the area for agricultural use. Elevations on DCCA range from sea level to approximately 20 ft. (NAVD88). See Figure 4 for a digital elevation model map.

c. Soils

The U.S. Department of Agriculture, Natural Resources Conservation Service recognizes 16 different soil series within DCCA. The soils on DCCA North have received relatively little disturbance in recent history, based on historical imagery. Soils on DCCA South have received a significant amount of disturbance from past agricultural use. A soils map is contained in Figure 5.

Pomano, and Eau Gallie fine sands are associated with the flatwoods areas. Terra Ceia muck is the predominant soil type for the floodplain swamp areas.

Appendix E contains soil descriptions from the St. Johns County Soil Survey.



Figure 4: Deep Creek Conservation Area Topography



Figure 5: Deep Creek Conservation Area Soils

2.2 Natural Communities

The 5,953 acres that comprise DCCA consist primarily of floodplain swamp (Figure 6). The natural communities at DCCA were mapped by District staff utilizing a combination of historic and recent aerials, soils, and field verification. The general natural community descriptions are characterized using descriptions published in the Florida Natural Areas Inventory's (FNAI) 2010 *Guide to the Natural Communities of Florida*. The following is a brief description of the communities and the general management objectives for each.

a. Floodplain swamp (4,687 acres)

Floodplain swamp communities typically occur on flooded soils along stream channels and within river floodplains. The floodplain swamp communities within DCCA are associated with Deep Creek and the St. Johns River and is the dominant community type. The floodplain swamp communities within the Property are largely intact and functional.

Soils that support floodplain swamp communities are variable, but may include a mixture of sand, organic, and alluvial material. The most important physical factor associated with the shaping and maintenance of the floodplain swamp is the hydroperiod. Extended periods of inundation, which may last for most of the year, are common in the floodplain swamp environment. Since this community type is maintained by hydrologic regimes, it is not fire dependent; however, fires may occur during times of drought.

The canopy is dominated by bald cypress (*Taxodium distichum*), red maple (*Acer rubrum*), Carolina ash (*Fraxinus caroliniana*), water hickory (*Carya aquatica*), and swamp tupelo (*Nyssa biflora*). Other typical plants include chain fern (*Woodwardia sp.*), cinnamon fern (*Osmunda cinnamomea*), dogwood (*Cornus sp.*), and lizard's tail (*Saururus cernuus*). Active management will be limited in these areas and will focus on invasive species management. No management action is suggested at this time.

b. Wet flatwoods (326 acres)

Soils that support wet flatwoods communities are generally very poorly drained sandy soils that may have a mucky texture in upper horizons. Wet flatwoods occur as ecotonal areas between the drier mesic flatwoods and wetland areas. They may also occur in broad, low flatlands embedded within these communities.

Well-maintained wet flatwoods exhibit a relatively open-canopy forest of scattered longleaf pine (*Pinus palustris*), slash pine (*Pinus elliottii*), loblolly pine (*Pinus taeda*), or pond pine (*Pinus serotina*) or cabbage palms (*Sabal palmetto*) with either a thick shrubby understory and sparse groundcover or sparse understory with dense groundcover. Understory species of the subcanopy and shrub layers may include sweetbay (*Magnolia virginiana*), loblolly bay (*Gordonia lasianthus*), and saw palmetto (*Serenoa repens*) and other shrubs. The groundcover layer may include species such as wiregrass (*Aristida stricta*), blue maidencane (*Amphicarpum muhlenbergianum*), and numerous hydrophytic species. The variations in structure and composition may be attributed to subtle edaphic differences as well as differences in hydrologic and fire regimes. The wet flatwoods at DCCA are located primarily on the South tract, west of Cowpen Branch Road. Since acquisition, dormant season burns have been implemented by District staff to reduce heavy fuel loads to manageable levels. Growing season fires will be introduced as fuel levels decrease. The wet flatwoods plant community is fire dependent, and the District targets return intervals ranging from one to three years, which is consistent with FNAI 2010 descriptions. Fire will be the primary management tool used by the District in restoring and maintaining this natural community.

c. Mesic flatwoods (381 acres)

Soils that support mesic flatwoods communities are generally poorly drained, acidic, and sandy soils deposited on ancient, shallow sea-beds. Many flatwoods communities have a clay or organic hardpan. Hardpan soils become saturated during the rainy season causing the accumulation of surface water. These soils are often droughty during dry periods. The presence of the hardpan translates to extreme seasonal fluctuations in the amount of water available to support plant life. These seasonal hydroperiods are essential in the maintenance of the flatwoods system.

Intact mesic flatwoods typically have a layered appearance, with a distinct, high, discontinuous canopy, low shrub layer, and diverse herbaceous layer. The canopy densities are variable and may include (depending on location), longleaf, loblolly, slash, or pond pine. The shrub layer may include a mixture of species or be dominated by species such as saw palmetto, wax myrtle (*Morella cerifera*), and numerous ericaceous plants. The herbaceous coverage may be dominated by wiregrass, however species abundance and diversity are often dictated by the openness of both shrub and canopy layers.

The mesic flatwoods at DCCA have a predominately longleaf pine and slash pine canopy. The amount of saw palmetto cover varies with the associated soils. Past wildfires on both DCCA North and South have resulted in large open areas with a diverse and intact groundcover layer. Management in these areas will focus on the continued use of prescribed fire and or other appropriate restoration techniques, such as thinning or roller-chopping. Roller-chopping operations will be conducted in a manner to minimize lasting ground disturbance.

Fire is an important physical factor associated with the shaping and maintenance of this community type. The District targets natural fire frequency intervals of approximately two to four years within the mesic flatwoods, which is consistent with the FNAI 2010 description. Fires in well-maintained mesic flatwoods tend to burn quickly and at relatively low temperatures. Areas of prolonged fire exclusion altered hydrology, or hardwood encroachment typically have higher soil and fuel moistures and may require more extreme conditions to facilitate a fire. Most natural fires historically occurred during the lightning season, and growing season fires are more effective in maintaining the health of flatwoods. Growing season fires will be incorporated into fire rotations as fuel levels become reduced.

d. Scrubby flatwoods (28 acres)

Scrubby flatwoods are characterized as an open canopy forest of widely scattered pine trees with a sparse shrubby understory and numerous areas of barren white sand. Scrubby flatwoods often occupy broad transitions or ecotones between scrub and/or sandhill and mesic flatwoods. Typical plants of this community type, documented within the conservation area, include saw palmetto, rusty lyonia (*Lyonia ferruginea*), sand live oak (*Quercus geminata*), longleaf pine, and wiregrass.

Scrubby flatwoods are a pyric plant community. Fire is a dominant factor in maintaining the ecological components of this community type. The fire return interval is between every five to fifteen years. Lower fire return intervals may occur or may be necessary when burning in conjunction with other plant communities. Fire will be the primary management tool used by the District in restoring and maintaining this natural community.

e. Baygall (58 acres)

Baygall is an evergreen, forested wetland of bay species situated at the base of a slope or in a depression. Baygalls have organic/peat soils, are acidic, and are typically dominated by a dense overstory of bay trees. This natural community does not burn often, as the peat soils stay relatively wet. When soils dry out, baygalls will readily burn. Within DCCA, baygall occurs in the northeastern section of the DCCA North.

f. Blackwater stream (39 acres)

Blackwater streams are perennial or intermittent seasonal watercourses originating in deep sandy lowlands where extensive wetlands with organic soils function as reservoirs, collecting rainfall and discharging it slowly to the stream. The tea-colored waters of these streams are typically acidic, with limited vegetation. Typical plants include golden club (*Orontium aquaticum*) and various grasses and sedges. Examples of this community type within DCCA include Deep creek and other side channels of the St. Johns River.

g. Mesic Hammock (33 acres)

Mesic hammock is a well-developed evergreen hardwood forest on soils that rarely inundate. The canopy is typically closed and dominated by live oak and includes a cabbage palm, southern magnolia, and pignut hickory component. The shrub layers may vary in density and include a mix of saw palmetto, American beautyberry (*Calicarpa americana*), and Vacciniums. Herbaceous layers tend to be sparse or patchy, but may consist of numerous graminoids including panic grasses, as well as various ferns and forbs.

Soils that support mesic hammocks are typically sands mixed with organic matter and often include a thick layer of leaf litter. These soils, although well-drained, maintain high moisture through heavy shading and the accumulation of litter. Although mesic hammocks are not generally considered fire-adapted, some areas may experience low-intensity ground fires.

h. Dome swamp (6 acres)

Dome swamp communities typically occur embedded within well-maintained pyric plant

communities such as flatwoods. The dome swamp communities within DCCA occur primarily within the mesic flatwoods. Dome swamps are typically found on flat terraces, where they develop when the overlying sand has slumped into a depression in the limestone underlayment. Soils that support dome swamp communities are variable but may include a layer of peat that thickens towards the center. The peat layer is typically underlain with acidic sands or marl and then limestone or a clay lens. An important physical factor associated with the shaping and maintenance of the dome swamp is the hydroperiod. Water levels in dome swamps fluctuate seasonally with rainfall changes. Normal dome swamp hydroperiods are from 180–270 days per year (FNAI, 2010).

Typical of the dome swamp system, many of the examples of this community type within the conservation area include a dome-shaped profile created by the presence of smaller trees growing in the shallow waters of the outer edge with the large trees growing in the deeper center. The canopy of hydrophytic trees is dominated by cypress.

Without frequent fire, cypress may become less dominant, being replaced by hardwood or bay species, and may exhibit an increase in peat accumulation. Fire frequency within these communities is greatest around the edges. The longer hydroperiods within the center of most dome swamps will restrict the advance of most fires under normal conditions. Thus, the fire return interval for dome swamps may range from 3 to 5 years along the edges and may be as great as 100 to 150 years in the center (FNAI, 2010).

i. Wet prairie (6 acres)

Wet prairies are characterized as treeless plains with a sparse to dense ground cover of grasses and herbs. These natural communities typically occur on low, flat, poorly drained areas within the coastal plain and have sandy soils with substantial clay or organic components.

Typical plant species found in wet prairie communities, recorded on the conservation area include wiregrass, hooded pitcher plants (*Sarracenia minor*), and star rush whitetop (*Rhynchospora colorata*).

The most important physical factors in the shaping of the wet prairie natural community are fire and hydrology. Fire is essential for the maintenance of this community type with the most frequent return intervals of 2 to 3 years. Wet prairie communities within DCCA occur on the North tract and are largely intact.

j. Sandhill (5 acres)

Sandhills are characterized as a forest of widely spaced pine trees with a sparse understory of deciduous oaks and a dense groundcover of grasses and herbs on rolling hills of sand. The most typical associations are dominated by longleaf pine, turkey oak (*Quercus laevis*), and wiregrass. Sandhills occur on crests and slopes of rolling hills and ridges with steep or gentle topography. Soils are deep, marine-deposited, often-yellowish sands that are well drained and largely infertile.

The sandhill plant community is a fire climax community. Fire is a dominant factor in the ecology of this community and frequent fires are necessary to reduce hardwood

competition and to perpetuate pines and grasses. Fire return intervals within sandhill communities range from one to three years. In addition to fire frequency, intensity and season are important fire characteristics that greatly influence the species structure and composition within sandhills. Optimally, sandhills are maintained through frequent, low-intensity, growing season fires. The sandhills within DCCA are located within the North tract and are degraded, resulting primarily from prolonged fire exclusion. Though suppressed, wiregrass is a common component in the groundcover, and regeneration of longleaf pine is occurring despite shading. Turkey oak has become a dominant species in these sandhills. Regular application of prescribed fire should reduce the amounts of turkey oak in the sandhills over time.

Altered Land Types

I. Active Agricultural; UF-IFAS lease (41 acres)

This site located in the northeast portion of DCCA South is currently in agriculture production under a lease with the UF-IFAS. Staff from IFAS's nearby Hastings Facility are researching topics related to agricultural management techniques that improve water and nutrient use efficiency. This five-year lease began in 2021 and has the option to renew for two additional five-year terms, for a total of 15 years. The lease provides a 30-day review period before each term renewal. This site was formally a pre-merchantable slash pine stand.

m. Former Agricultural Fields (176 acres)

These altered sites are found on the DCCA South and have little remnant vegetation from their historic natural communities. Several seral species are present including broomsedge (*Andropogon virginicus*), saltbush (*Baccharis halimifolia*), and blackberry (*Rubus sp.*). Pines and various hardwoods are scattered in low density throughout. Sites are flat with drainage ditches running east and west. Some of these sites have received prescribed fires in the past 10 years as well as mechanical treatments. There have been several broadcast and spot herbicide treatments to control invasive species, principally cogongrass.

n. Deep Creek West Regional Stormwater Treatment Facility (101 acres)

Located on the west side of the DCCA South, this site includes a wet detention pond and treatment wetland system designed to treat agricultural runoff from a 1,196-acre watershed. The site is operated by St. Johns County. The 28-acre wet detention pond is surrounded by a berm vegetated with bahia grass. The 38-acre treatment wetland is comprised of a shrub component, mainly Carolina willow (*Salix caroliniana*) as well as a forested component of cypress and red maple. The mowing, security and recreation are the County's responsibility while invasive species monitoring and treatment are the District's responsibility as outlined in the RSTF Operation and Maintenance Plan (Appendix F).

o. Hybrid Wetland/Chemical Treatment Technology (HWCTT) Facility (66 acres)

Located on the east side of the DCCA South, this site is comprised of a series of vegetated and non-vegetated wet detention ponds and mowed berms. There are two trails which lead to Deep Creek itself from the facility for water inflow and outflow infrastructure. Operation and maintenance for the site is conducted by the FDACS.



Figure 6: Deep Creek Conservation Area Natural Communities

2.3 Plant and Animal Species

DCCA has a diverse assemblage of natural communities providing significant habitat for a variety of floral and faunal species. Bald eagles (*Haliaeetus leucocephalus*) are known to have nested within the conservation area as recently as 2016. The area provides habitat for the Florida black bear (*Ursus americanus floridanus*) as well. Numerous species of wading birds occur in the wetland portions of the conservation area.

The Florida Fish and Wildlife Conservation Commission (FWC) has documented a wading bird rookery within the DCCA North's floodplain swamp. The rookery has been active since the 1980s with a size range of 500-1000 birds. Species sighted include anhinga (*Anhinga anhinga*), great egret (*Ardea alba*), cattle egret (*Bubulcus ibis*) and white ibis (*Eudocimus albus*). Its remote location within the floodplain swamp limits any impacts from management activities.

Plant, insect and animal lists are contained in Appendix G. Lists were compiled using observations gathered on site visits by District staff, FWC and FNAI species occurrence data as well as crowd-sourced biological data websites. DCCA will be managed to improve natural community diversity and quality, resulting in diverse wildlife habitat.

2.4 Listed Species

To date, 18 listed species have been recorded at DCCA, including hooded pitcher plant, wood stork (*Mycteria americana*), Gopher Tortoise (*Gopherus polyphemus*), and Florida wild indigo (*Baptisia calycosa*). There are four commercially exploited species which occur on DCCA as well, including saw palmetto (*Serenoa repens*) and pink azalea (*Rhododendron canescens*). Appendix H contains a list of listed species recorded on DCCA.

Rather than manage for a single species or a small suite of species, it is the goal of the District to manage the natural communities within DCCA for optimal health and biodiversity. This includes varying the timing and intensity of prescribed fire from year to year.

2.5 Forest Resources

Section 253.036, F.S, requires the lead agency of state lands to prepare a forest resource analysis, "...which shall contain a component or section...which assesses the feasibility of managing timber resources on the parcel for resource conservation and revenue generation purposes through a stewardship ethic that embraces sustainable forest management practices if the lead management agency determines that the timber resource management is not in conflict with the primary management objectives of the parcel." Due to the low overall acreage of forest resources on DCCA, timber management will be a component of management but not a principal management tool.

A detailed forest inventory has not been completed for DCCA as the timber resources encompassed within DCCA are insufficient in size to warrant an inventory. However, within the scope of this plan, District staff will evaluate timber management as needed and an inventory will be conducted to establish a baseline of DCCA's timber resources. All forest resource work on DCCA is restorative in nature and is designed to aid in the promotion of species diversity and overall natural community health and vigor. The District applies all revenue generated through these forest management activities toward the District's land management budget to offset management costs for the Property. Forest management activities anticipated during the scope of this plan may include forest inventory evaluations, reforestation, afforestation, and pine thinning. After any reforestation/afforestation activities, seedling survival monitoring will be conducted to assess the need for replanting an area through the determination of the number of target trees per acre. Reforestation/afforestation projects may be preceded by various site preparation techniques including mechanical treatments such as roller chopping and mowing, herbicide applications, and prescribed fire. These techniques may be used singularly or in combination as site conditions warrant. In addition, the District uses forest management techniques such as thinning, shelterwood, and clearcuts. Clearcuts are typically utilized by the District in areas where a species conversion is the management objective.

Specific forest management activities that may occur within the scope of this plan is the afforestation on 195 acres of the former agricultural fields on the western portion of the DCCA South adjacent to George Miller Rd. Pine thinning operation on the east portion of the DCCA South off Cowpen Branch Rd. may also take place if timber market conditions warrant.

The District will abide by Florida Silviculture Best Management Practices (BMPs), Florida Forestry Wildlife BMPs for State Imperiled Species and target the achievement of appropriate overstory species in proper stand densities as described in the District Forest Management Plan. In addition to planned forest management activities, the District will remove trees as needed in the case of insect infestations, disease, and damage from severe weather, wildfire, or other occurrences that could jeopardize the health of natural communities.

2.6 Native Landscapes

The native landscapes at DCCA include mesic, scrubby, and wet flatwoods, floodplain swamp, basin swamp, baygall, blackwater stream, mesic hammock, dome swamp, wet prairie, and sandhill. They are all described in more detail in the Natural Communities section (Section 2.2).

2.7 Water Resources

This section describes the surface and ground water within DCCA

a) Surface Water

DCCA does not include any Outstanding Florida Water Bodies and is not located within an Aquatic Preserve or an Area of Critical State Concern (section 380.05, F.S.). Over two miles of DCCA's western boundary is the St. Johns River and includes the mouths of Deep Creek and Moccasin Branch. DCCA encompasses nearly eight miles of Deep Creek as well as two miles of Cracker Branch and several unnamed tributaries. The confluence of Deep Creek and Sixteen Mile Creek occurs on the southern portion of the DCCA South (Figure 7). The area surrounding DCCA is primarily agriculture, termed the Tri-County Agricultural Area (TCAA), as well as flatwoods and wetland habitats.

The majority of the Property is located within the Deep Creek Planning Unit of the Lower St. Johns River Basin. This planning unit covers 149 square miles. A small portion of the Property (170 acres) adjacent to the St. Johns River is within the South Mainstream Planning Unit of the Lower St. Johns River Basin. There are several Section 303(d)

impaired waterbodies within Deep Creek Planning Unit, all of which interact with DCCA, including Cracker Branch and Deep Creek. Impairments include nutrient loading, low dissolved oxygen, fecal coliform, and iron. Total maximum daily loads (TMDL) have been established for these impaired waterbodies which include 90% implementation rate of agriculture BMPs and a 30% reduction of the current total nitrogen and phosphorus loads coming from the TCAA (Livingston-Way, 2010).

There are two stormwater treatment wetlands located on the Property, both on DCCA South. These are operated under intergovernmental management agreements with St. Johns County (for management of the Deep Creek West Stormwater Treatment Facility) and FDACS (for operation of a Hybrid Wetland Chemical Treatment Technology Facility). These facilities, in conjunction with agriculture BMPs and Water Quality Cost-Share Programs, aim to achieve the nutrient reductions required in the TMDL and BMAP for the St. Johns River.

Water Chemistry

The District monitors surface water quality at over 200 long-term sampling stations at rivers, streams, lakes, canals, and estuaries throughout the 18-county service area. Water quality status is an indication of the condition of a water body. The District's 2021 Status and Trends Report is a 15-year assessment of data from January 1, 2006 to December 31, 2020. These trends show whether a water quality parameter is increasing or decreasing over time. (SJRWMD, 2022 https://floridaswater.maps.arcgis.com).

Basic water chemistry data are collected at 6 surface water sites connected to the DCCA watershed:

- (1) SRP, located in the St. Johns River upstream of DCCA;
- (2) MOB, located at Moccasin branch on SR 13 just east of DCCA;
- (3) DCR, located on Deep Creek adjacent to the SR 207 bridge;
- (4) 3F07GMR, located in canal flowing into Deep Creek at George Miller Rd;
- (5) 3F05YARS, located in tributary branch off Deep Creek; and
- (6) 16MCRK, located in 16 Mile Creek, which converges with Deep Creek (Figure 7).

Water chemistry data was collected monthly at SRP, DCR, and 3F07GMR and on a bimonthly basis at MOB, 3F05YARS, and 16MCRK. Field data including water temperature, pH, specific conductivity, and dissolved oxygen were collected, as well as grab samples analyzed for nutrients, minerals, and metals. Water chemistry parameters discussed in this section include total nitrogen (nitrogen), total phosphorus (phosphorus), specific conductivity, salinity, dissolved oxygen (DO), potential of hydrogen (pH), and chlorophyll-a (Chl-a).


Figure 7: Deep Creek Conservation Area Regional Hydrology

The following parameters are discussed in relative terms for the past 15-year period as described in the 2021 Status and Trends Report.

St. Johns River at Racy Point (SRP)

Phosphorus is in the mid-range and increasing at 1.7% per year. Nitrogen is in the mid-range and stable. Salinity and specific conductivity are in the mid-range and decreasing at 2% change per year. DO, pH and Chl-a are in the high-range and stable.

Moccasin Branch on SR 13 (MOB)

Phosphorus is in the high-range and stable. Nitrogen is in the high range and increasing at 3.9% per year. Chl-a is in the low-range and stable. DO and salinity are in the mid-range and stable. pH and specific conductivity are in the mid-range and decreasing at 0.5% and 5.3% per year, respectively.

Deep Creek at SR 207 (DCR)

This station was not evaluated in the 2021 Status and Trends Report but was analyzed separately using the same methods. DO, pH, and Chl-a are in the low range and stable. TP and TN are stable and in the high and mid ranges, respectively.

Tributary to Deep Creek (3F07GMR)

Phosphorus and nitrogen are in the high-range and stable. Chl-a is in the mid-range and increasing at a rate of 5.7% per year. DO and pH are in the low-range and stable. Specific conductivity and salinity are in the mid-range and stable.

Tributary to Deep Creek (3F05YARS)

Phosphorus and nitrogen are in the high-range and stable. Chl-a, pH, DO, and specific conductivity are in the mid-range and stable. Salinity is in the mid-range and is decreasing at 4.7% per year.

16 Mile Creek (16MCRK)

Phosphorus and nitrogen are in the mid-range and stable. Specific conductivity, salinity, DO, pH, and Chl-a are also in the mid-range and stable.

The United States Geological Survey (USGS) monitors continuous surface water elevation (NAVD88), and discharge at the Deep Creek Railroad Bridge (Hydron No.:12047039). Figure 8 displays these two variables since monitoring began on December 6, 2019 to April 4, 2022. Mean flow rate during this time was 70 ft3/s from Deep Creek into the St Johns River. Daily averages were occasionally negative (shown in red), indicating net flow from the river into the creek during these periods. These events were often concurrent with water elevations below zero at the same site due to tidal fluctuations on the St. Johns River.



Figure 8: USGS Continuous Surface Water Elevation (NAVD88), and discharge at the Deep Creek Railroad Bridge

b) Ground Water

The District maintains active groundwater monitoring wells within DCCA, which are identified as SJ0395 (surficial aquifer system (SAS)) and SJ0408 (Upper Floridan Aquifer (UFA)). Historic water levels for both sites are depicted in Figure 9. Both the SAS and the UFA water levels are plotted together to show the relative elevations (NAVD 1988) of the water levels in each aquifer. The water elevations are higher in the SAS than in the UFA at DCCA. These water level elevations indicate downward flow from the SAS towards the UFA.



Figure 9: Deep Creek Conservation Area Groundwater Observation Well Site SJ 0395 & SJ 0408

c) Geomorphology

DCCA lies within the Palatka Anomalies/Hastings Plain subdistrict of the Eastern Flatwoods physiographic district (Brooks, 1981). The district originated as a sequence of barrier islands and lagoons during Plio-Pleistocene and Recent time.

The broad subdistrict of the Palatka Anomalies includes several subdivisions. DCCA is encompassed by the Hastings Plain subdivision. The Palatka Anomalies are a complex area associated with limestone solution, stream diversion and possibly faulting. The Hastings Plain subdivision developed from an area of estuarine and lagoonal deposits of Late Pleistocene age. The silty sand soils are poorly drained. For the most part, the land is less than 20 feet in elevation. The associated tidal inlet was just north of what is presently St. Augustine. Flatwoods and swamp forests are prevalent.

2.8 Beaches and Dunes

There are no beaches or dunes within DCCA.

2.9 Mineral Resources

There are no known mineral resources within DCCA.

2.10 Cultural Resources

There is one documented Florida Master Site located on DCCA. This site is identified as a burial mound. The District will consult with the Department of State Division of Historical Resources (DHR) before taking actions that may adversely affect archeological or historical resources.

The District will conduct land management activities in a manner that will provide protection for this site and serve to reduce the potential for adverse impacts. If District staff discover any additional sites, staff will document and report those sites to the DHR. Additionally, detrimental activities discovered on these sites will also be reported to the DHR and appropriate law enforcement agencies. Florida Public Archaeology Network (FPAN) was consulted on the conservation of the site due to its sensitive location. The location of the sites is not identified on public maps.

2.11 Scenic Resources

The pristine floodplain swamp community associated with Deep Creek and the St. Johns River at DCCA provide for significant scenic resources in an area surrounded by agriculture.

3. Uses of the Property

3.1 Previous Use and Development

This Property has seen use and habitation since prehistoric times. There is one recorded cultural site on the Property. More recent past uses of DCCA include agriculture, limited silviculture, and cattle operations.

3.2 Purpose for Acquisition

The parcels within DCCA were acquired to help meet the goals of the Lower St. Johns River Basin Projects set forth in the District's Land Acquisition and Management Five Year Plan. DCCA is in the TCAA that, for decades, has been farmed intensively. As a result, both Deep Creek and the St. Johns River are experiencing a degrading trend in water quality from years of sedimentation and chemical contamination. To reduce the amounts of sediment and nutrients that reach the river, the District designed the Deep Creek West and Dog Branch/ Edgefield RSTF. Pollutant-laden runoff is diverted to and captured in constructed treatment ponds, where sediment settles to the bottom. The water is then pumped to created wetlands, where nutrients are absorbed by vegetation before the water is released to return to the creeks. This should, over time, improve water quality and reduce the amounts of runoff that reach Deep Creek or the St. Johns River.

3.3 Single or Multiple-Use Management

The potential of DCCA to accommodate multiple uses was analyzed in accordance with subsection 253.034(5), F.S. DCCA is managed under the multiple-use concept. Apiary leasing, timber harvesting and wildland fuels treatments as part of natural community management and restoration activities can be done in a manner that does not interfere with the primary purpose of conservation. Extraction of mineral resources is incompatible with conservation land uses.

Recreation opportunities are afforded at DCCA by the development of over five miles of multiuse trails throughout the Conservation Area. This aligns with the District's dispersed use

method of recreation management.

Areas within the DCCA have been identified for RSTFs. These facilities aid in achieving the TMDL reductions for the impaired waterbodies that are within and surround DCCA as required in the Lower St. Johns River Mainstem BMAP. These facilities were sited on former agricultural lands and did not impact intact natural communities. These facilities are operated by local governments under agreements with, and oversight by, the District.

All of the current uses and activities within DCCA are in accordance with the purposes of acquisition, the District's mission, and the Conceptual State Lands Management Plan.

3.4 Surplus Acreage

In 2009, the District entered into a sale agreement with St. Johns County for 166 acres of the Masters parcel. This parcel was originally purchased by the District with the intention of developing an agricultural stormwater facility. The County approached the District with a plan to construct the facility to provide nutrient removal credits needed for a portion of St. Johns County's obligation under the Lower St. Johns River Basin (LSJRB) Mainstem Nutrient TMDL, and for mitigating water quality and wetland impacts from the planned CR 305 extension project. The County also wanted to utilize fill from the treatment facility excavation for constructing the CR 305 extension project. The District accepted these plans and in exchange for \$2,162,810, provided a Quit Claim Deed to St. Johns County for the 166-acres.

In 2012, the District's Governing Board approved a Lands Assessment Implementation Plan. Recommendations from this plan included donation of 200 acres of Edgefield property, including the Dog Branch RSTF to Putnam County, and transfer for sale/exchange a 140-acre area.

Ownership of the Edgefield Property, including the RSTF, was transferred to Putnam County in 2019 to assist the County in meeting its FDEP Lower St. Johns River Mainstem Basin TMDL credit requirements, adopted by Secretarial Order in October 2008.

The aforementioned 140-acre area identified for sale/exchange is now encumbered by two leases: an intergovernmental agreement with FDACS as well as a revenue lease with the University of Florida's IFAS.

Pursuant to section 373.139, F.S., occasionally the District may explore and pursue the transfer of portions of its land ownership. The District's interest in transferring land may arise from a variety of considerations, including but not limited to:

- Property purchased as part of a larger acquisition and transfer portion is not needed for District purposes but was required to complete the larger acquisition.
- Original project for which the property was purchased was ultimately not built.
- Property is part of a patchwork of conservation ownership, managed by another agency or local government and the intent is to transfer the ownership to the entity managing the property.
- Actions by adjacent owners which lower the property's conservation values or increase management costs.

When transferring property, the District commonly retains a conservation easement over the property and/or the deed contains a reverter clause. This provides for the future conservation of the property and the ability for the District to regain ownership if conservation or preservation is threatened in the future.

As with all decisions associated with land ownership, any transfer of District property requires the approval of the District's Governing Board. If the property in question was originally purchased for conservation purposes, the Governing Board shall determine that the land is no longer needed for conservation purposes and may then dispose of the land by two thirds vote (§ 373.089, F.S.).

There are no surplus lands identified, nor did any surplus action take place, on land owned by the Board of Trustees.

4. Management Activities and Intent

The following section describes how the District has managed and plans to continue managing the diverse natural and cultural resources at DCCA. The general goals guiding management of DCCA include:

- Maintain water quality, natural hydrological regimes, and flood protection by preserving important wetland areas.
- Restore, maintain, and protect native natural communities and diversity.
- Maintain and protect cultural resources.
- Provide opportunities for recreation where compatible with the above listed goals.

4.1 Land Management Review (Management Review Team)

The District has conducted two Management Review Teams (MRT) since the 2006 land management plans: March 2011 and March 2020. The consensus for both MRTs was that DCCA is being managed for the purposes for which it was acquired, it is being managed in accordance with its approved management plans, and the current management plans provide sufficient protection to the Property's natural and cultural resources. The results of the 2020 MRT, as well as the land manager's response, are contained in Appendix I.

4.2 Habitat Restoration and Improvement

The DCCA South is in an area that has received a tremendous amount of disturbance from agricultural activity. Aerial imagery from the 1940s indicates that the agricultural fields surrounding the parcels were well established at the time the photographs were taken. To provide improved growing conditions for potatoes and cabbage, numerous canals were installed within and around the agricultural fields. In 2020, a project was completed to restore hydrology by plugging 6,600 liner feet of canals.

To offset the consequences of long-term agricultural activity, the District designed or assisted in the design of the RSTF for the region. These facilities aid in meeting the TMDL requirements for the watershed.

Other habitat restoration and improvement activities include the application of prescribed fire, mechanical vegetation treatments and invasive species treatments.

4.3 Prescribed Fire and Fire Management

Fire is a vital factor in managing the character and composition of vegetation in many of the natural communities in Florida. The District's primary use of fire is to mimic natural fire regimes to encourage the amelioration of native pyric natural communities and dependent wildlife. Additionally, the application of fire aids in the reduction of fuels and minimizes the potential for catastrophic and damaging wildfires. All the upland natural communities within DCCA are (or historically were) fire adapted, making prescribed fire an important tool for use in the restoration and maintenance of natural communities within the conservation area.

Since 2007, District staff have applied prescribed fire to 721 acres within DCCA. Table 1 describes the prescribed fire history at DCCA since 2007. Figure 10 depicts the fire management units (FMU) and the number of prescribed fires applied to each unit since 2007. Fifteen of the DCCA's 33 FMU's have received at least one prescribed fire application.

There are approximately 731 acres of fire-maintained natural communities within DCCA (12% of the conservation area). With the target of a three-year burn rotation for the 15 FMU's which have received fire within the past ten years, the goal is to burn at least 122 acres a year at DCCA, which is half the ecological objective of the entire conservation area at 244 acres annually. For FMU's which have two or more burns applied to them within the past ten years, timing of future prescribed fires should focus on growing season application but not exclude any opportunity to conduct a prescribed fire during our typical prescribed fire season of December to August.

A system of condition class measures was originally developed by The Nature Conservancy and the U.S. Forest Service in 2003 as an effort to assess ecosystem health. It was designed as Fire Regime Condition Class (FRCC) and is based on a relative measure describing the degree of departure from the historical natural fire regime of a given system. This departure results in changes to one or more of the following ecological components: species composition, structural stages, stand age, canopy closure, or mosaic pattern. The District adapted the system in 2008 to measure ecosystem health and, therefore, land management effectiveness.

Annually, each burn zone is assigned a condition class score based upon the most recent disturbance and the fire frequency recommended for that natural community by FNAI. If FNAI recommends a fire return interval of 3-5 years, a natural community that has benefited from disturbance in the past 5 years is in condition class 1. If it has been more than 5 years but less than 10 years, or two cycles, the zone is in condition class 2. If it has been more than two times the fire return interval, but can still be recovered by fire, it would fall into condition class 3. If the natural community has gone without disturbance so long that fire alone can no longer restore the area, it is in condition class 4. The District staff will make annual condition class assessments and incorporate them into annual burn planning and work planning processes. In 2021, the condition class 3. No areas within DCCA fell within Condition Class 4 (Figure 11).

All implementation of prescribed fire within DCCA will be conducted in accordance with the District's Fire Management Plan, the DCCA Fire Management Plan (Appendix J), and the annual burn plan for the Property.

Table 1 Prescribed Fire Histor	y
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Fire Management Unit #	Acreage	Burn Dates
8113	23	12/18/07
8114	64	4/3/08; 4/24/14
8115	18	4/3/08; 4/24/14
8116	6	4/3/08; 4/24/14
8117	39	12/18/07
8118	21	12/18/07
8124	36	3/16/11
8126	20	3/16/11
8127	9	3/16/11
8129	26	3/16/11
8130	18	4/3/08; 4/24/14
8231	100	4/9/08; 1/26/18
8232	11	4/9/08
8233	55	4/9/08; 1/26/18
8238	7	4/9/08; 1/26/18



Figure 10: Deep Creek Conservation Area Fire Management Units



Figure 11: Deep Creek Conservation Area Condition Class Report for years 2015-2021

4.4 Listed Species

DCCA has a diverse assemblage of natural communities providing significant habitat for a variety of floral and faunal species. To date, 18 listed species have been recorded at DCCA. A short discussion follows for the notable species documented on DCCA. Appendix H contains a list of listed species recorded on DCCA. The District will utilize FWC Species Action Plan management guidelines when conduction habitat management activities that may impact imperialism and listed species.

Florida wild indigo

Florida wild indigo (*Baptisia calycosa* var. *calycosa*), is a state Endangered plant species that occurs within DCCA. This indigo is endemic to Clay and St. Johns counties. It occurs on the poorly drained sands of the Tocoi series. It is a mid-sized forb, 12" to 18" tall, with a yellow flower typical of the <u>Fabaceae</u> family. Management activities in the population area will include minimizing soil disturbance and maintaining the fire regimes of its surrounding natural communities.

Gopher tortoise

The gopher tortoise (*Gopherus polyphemus*), a state Threatened species occurs within DCCA. In 2001, in the eastern portions of its range (Florida, Georgia, and South Carolina), the gopher tortoise was included on the U.S. Fish and Wildlife Service register as a candidate for listing. However, the USFWS determined in 2022 that listing the gopher tortoise as an endangered or a threatened species is not warranted. This species is typically found in dry upland habitats, such as sandhill, scrub, and pine flatwoods. Gopher tortoises excavate deep burrows and are

considered a keystone species because their burrows provide refuge for more than 300 animal species. Management activities within the pine flatwood communities of DCCA will focus on restoring species composition and natural fire return intervals, which will benefit the gopher tortoise.

DCCA is not suitable as a gopher tortoise recipient site. While not in conflict with the conservation management purpose of DCCA, the Property's poorly drained soils do not provide adequate habitat following FWC's Gopher Tortoise Permitting Guidelines (FWC 2020).

West Indian manatee

The West Indian manatee, Florida subspecies, (*Trichechus manatus latirostris*) is a Federally threatened species that occurs in the waters of Deep Creek proper, within DCCA. This large, herbivorous, aquatic mammal forages and winters in the St. Johns River and its tributaries. Evidence of this animal occurring on DCCA is derived from FWC manatee carcass recovery data (FWC-FWRI, 2017). Land management actions and impact with regard to the West Indian manatee will be limited, although assistance with research and recovery efforts may be asked of staff.

Wood stork

The wood stork (*Mycteria americana*) is a state and Federally threatened species that occurs within DCCA. This large wading bird forages in the verity of wetlands found on DCCA. The conservation of these wetlands through acquisition, hydrologic restoration efforts and water quality improvement facilities provide opportunities for the wood stork to continue to recover in northeast Florida. Currently, there are no wood stork nesting colonies found on DCCA and the Property is not within a core foraging area.

4.5 Exotic and Invasive Species Management and Control

District staff perform periodic site surveys on DCCA to identify and control populations of invasive plant species. Populations identified include cogongrass (*Imperata cylindrica*), camphor tree (*Cinnamomum camphora*) and Japanese climbing fern (*Lygodium japonicum*). Invasive species control is necessary to inhibit the continued proliferation of invasive plants and integral in the maintenance and restoration of natural plant communities. District staff use a variety of techniques including fire, mechanical, biological and chemical treatments. Herbicide is applied per label rates using the most appropriate method of application for the target species.

While it is unlikely that the District will entirely eradicate invasive or exotic plants within the Property, maintaining or achieving maintenance control of such species is targeted within the scope of this plan. All known occurrences of Florida Exotic Pest Plant Council (FLEPPC), now known as the Florida Invasive Species Council, Category I and II invasive plants at DCCA are currently at a maintenance level (2020 FLEPPC List of Invasive Species). Since 2007, District staff and contractors have treated 1,250 acres of invasive vegetation within the Property (acres treated include acres that have received multiple treatments). The average annual treatment acreage for the past five years is 35, showing an overall decrease in invasive plant coverage.

Invasive wildlife species known to occur within DCCA include feral hogs (*Sus scrofa*), brown anoles (*Anolis sagrei*), and nine-banded armadillos (*Dasypus novemcinctus*). The District currently utilizes feral hog removal agents through a Special Use Authorization (SUA) process to assist in the control of feral hogs. The District keeps records of hog removal from the Property.

Since 2009, when the SUA program began at DCCA, 294 hogs have been removed from the Property.

4.6 Public Access and Recreational Opportunities

Hiking, biking, photography and wildlife viewing are allowed uses on DCCA. Horseback riding is not prohibited but infrastructure to allow horse trailer parking has not been developed. Three public parking areas serve as recreation access points on DCCA. An access point on County Road 13 connects to a 1.8-mile multiuse trail traversing the uplands within DCCA North. An access point on Cowpen Branch Rd. connects to a 2.2-mile multiuse trail within DCCA South. An access point on George Miller Road connects to a 1.1-mile multiuse trail that surrounds the Deep Creek West RSTF, which is maintained by St. Johns County.

Fishing, boating and paddling opportunities are available on Deep Creek; however, there are no boat launches located on the Property.

Fishing is not allowing at the Deep Creek West RSTF per the operation and management plan developed by St. Johns County and the District. The treatment ponds receive agricultural runoff including pesticides, herbicides, fertilizers, and other pollutants which could pose a health hazard if the fish are consumed. The facility is posted with signage stating that fishing is prohibited.

Entering DCCA into a FWC Wildlife Management Area (WMA) to allow limited hunting opportunities is being considered at the time of writing. Access would likely be walk-in at the existing access points as well as by watercraft via Deep Creek. The creation of a WMA on DCCA will continue to be discussed internally as well as with FWC and external stakeholders.

4.7 Hydrological Preservation and Restoration

The acquisitions that comprise DCCA provide for significant hydrological preservation by protecting over two miles St. Johns River frontage, eight miles of Deep Creek, two miles of Cracker Branch, Moccasin Branch, and several unnamed tributaries. The confluence of Deep Creek and Sixteen Mile Creek occurs on the southern portion of the DCCA South.

There are several canals located within the former agricultural fields on DCCA South. In 2020, 6,600 liner feet of these canals were plugged using FDOT mitigation funds to restore hydrology in that portion of DCCA.

4.8 Forest Resource Management

A detailed forest inventory has not been completed for DCCA as the timber resources within DCCA are insufficient in size to warrant an inventory. However, within the scope of this plan, District staff will evaluate timber management as needed and an inventory will be conducted to establish a baseline of DCCA's timber resources. All forest resource work on DCCA is restorative in nature and is designed to aid in the promotion of species diversity and overall natural community health and vigor. Any forest management action will be undertaken after consultation with the District forester.

Approximately 195 acres of former agricultural fields located on the western portion of DCCA South will be afforested as part of the restoration and ecological enhancement of those sites. The process will include mechanical and chemical site preparation. Slash pine is the selected species for this project due to the poorly drained soil types of the site.

4.9 Cultural Resources

There is one documented Florida Master Site located on DCCA. This site is identified as a burial mound. The District will consult with the DHR before taking actions that may adversely affect archeological or historical resources. If District staff discover any additional sites, staff will document and report those sites to the DHR. Additionally, detrimental activities discovered on these sites will also be reported to the DHR and appropriate law enforcement agencies. The location of the sites is not identified on public maps. The District will follow the management procedures outlined in "Management Procedures of Archaeological and Historical Sites and Properties on State-owned or Controlled Lands" (Appendix K). The DHR will be contacted regarding any significant ground-disturbing activity or any new sites.

On July 11, 2022 District staff and a member of the Florida Public Archelogy Network (FPAN) completed a monitoring visit of the DCCA site. The condition was unchanged since the last recorded site visit in 1997. FPAN has updated the site file to reflect this monitoring effort.

4.10 Capital Facilities and Infrastructure

The facilities on DCCA include three unpaved parking lots, two RSTFs and two groundwater monitoring sites. The parking lots and wells are maintained by District staff and contractors. The RSTFs are managed by FDACS and St. Johns County.

There is a pole barn located on DCCA South that was onsite prior to acquisition. Depending on its future condition and feasibility of usage, the pole barn may be demolished.

4.11 Optimal Boundary

Approximately 1,900 acres surrounding DCCA have been identified as potential acquisitions (Figure 12). If neighboring parcels become available which increase continuity between the two tracts, provide additional protection to Deep Creek or the St. Johns River, or allow for restoration of impacted land, they will be evaluated for acquisition by District staff.



Figure 12: Deep Creek Conservation Area Optimal Boundary

4.12 Research Opportunities

The District has in place an SUA process (rule 40C-9.360, F.A.C.) for research projects and other uses. Among the things an applicant must provide to obtain an SUA is reasonable assurance that the proposed use is consistent with the Land Management Plan and will not harm the natural and cultural resources of the Property.

Recent scientific work on the Property includes plant and bat surveys as well as the UF-IFAS agriculture lease site to support the research and extension mission of the University.

4.13 Soil Conservation

DCCA provides significant soil and water resource protection benefits. These include flood protection to the surrounding area and water quality protection for Deep Creek and the St. Johns River.

The District will follow all soil erosion and forestry best management practices at DCCA.

4.14 Cooperating Agencies

The District is the lead agency for the primary management of DCCA. The two RSTFs that are located on DCCA are administered through an intergovernmental agreement with St. Johns County for the Deep Creek West Facility and a lease to FDACS for the HWCTT facility.

The District cooperates with the DHR regarding the management of cultural resources and FWC regarding the management of wildlife resources and law enforcement.

4.15 Arthropod Control Plan

DCCA falls within the Anastasia Mosquito Control District. An Arthropod Control Plan has not been developed for the Property with the mosquito control district, though DCCA is included within the District wide operating for public safety (Appendix L).

5. Resource Management Goals and Objectives

The resource management goals described below are meant to be broad statements aimed at achieving desired future outcomes at the DCCA. The stated time period for short term goals is less than two years and for long term goals is up to ten years. There are both short- and long-term goals in this plan.

5.1 Habitat Restoration and Improvement

Goal: Maintain, improve, or restore natural communities.

Short Term

- a. Conduct at least 122 acres of prescribed fire annually.
- b. Develop a restoration and ecological enhancement plan for the former agricultural fields on DCCA South.

Long Term

- a. Maintain 731 acres of fire-adapted natural communities within a 2 to 4-year fire return interval.
- b. Conduct habitat/natural community improvement, utilizing mechanical methods or herbicides in pine flatwoods to increase the number of acres managed annually by the most natural means, prescribed fire.

5.2 Listed Species Management

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

Short Term

a. Continue to make vegetative management decisions that will help the Florida wild indigo and other listed plant species populations thrive.

Long Term

- a. Monitor for population changes in listed animal and plant species.
- b. Contract with FNAI to conduct natural community imperiled species mapping

5.3 Public Access and Recreational Opportunities

Goal: Provide public access and recreational opportunities.

Short Term

a. Begin process for establishing a Wildlife Management Area on DCCA.

Long Term

a. Continue to maintain public access and recreational opportunities.

5.4 Hydrological Preservation and Restoration

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

Short Term - None

Long Term

- a. To maintain and enhance natural hydrological functions, install and maintain low water crossings and culverts as appropriate.
- b. Look for opportunities to plug additional irrigation ditches on former agricultural fields.

5.5 Exotic and Invasive Species Maintenance and Control

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

Short Term

a. Treat at least 35 acres of invasive plants annually.

Long Term

- a. Maintain a database on locations of invasive plant species.
- b. Treat invasive species, as they are located and prevent further infestation.
- c. Monitor Property wide trends of invasive species population size.
- d. Continue to monitor the feral hog population and maintain SUAs for the feral hog trapping program.

5.6 Capital Facilities and Infrastructure

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

Short Term

a. Evaluate any maintenance needs at the Cowpen Branch Rd. access point.

Long Term

- a. Maintain the existing parking area/kiosk.
- b. Maintain the approximately seven miles of roads.
- c. Maintain, improve, or repair the four miles of District maintained trails.
- d. Provide law enforcement utilizing security contractor.

5.7 Cultural Resources

Goal: Protect and maintain the cultural resources of the DCCA.

Short Term

a. Monitor, protect, and preserve the one documented site in accordance with DHR procedures.

Long Term

- a. Ensure all known sites are recorded in the DHR Master Site file.
- b. Work with the DHR and the FPAN to document any new sites.

5.8 Research Opportunities

Goal: Explore and pursue cooperative research opportunities.

Short Term - None

Long Term

- a. Continue to cooperate with researchers and universities as appropriate.
- b. Continue to assess the need for and pursue research and environmental education partnership opportunities as appropriate.
- c. Maintain the lease with University of Florida Hasting Agricultural Extension Center to provide a site to conduct experiments and demonstrations projects in support of its extension and research mission.

5.9 Outreach

Goal: Provide information to the public regarding management activities.

Short Term - None

Long Term

- a. Ensure activities that occur on DCCA are reported at the annual Recreational Public Meeting and provide the public an opportunity for comment.
- b. Convene a MRT every 5 years to ensure the land management plan is being followed.

GOAL 5.1	Maintain, improve, or restore natural communities	MEASURE	PLANNING PERIOD	ESTIMATED COST (per year)	ESTIMATED COST (10 year)
Objective A	Conduct at least 122 acres of prescribed fire annually	Acres burned	ST	Included in Objective C	Included in Objective C
Objective B	Develop a restoration and ecological enhancement plan for the former agricultural fields on the DCCA South	Plan developed	ST	\$6,200	\$62,000
Objective C	Maintain 731 acres of fire-adapted natural communities within a 2 to 4-year burn return interval	Acres burned	LT	\$7,320	\$73,200
Objective D	Conduct habitat/natural community improvement in mesic flatwoods to increase the number of acres maintained by prescribed fire	Acres treated	LT	\$6,000	\$60,000
GOAL 5.2	Maintain, improve, or restore listed species populations and habitats.	MEASURE	PLANNING PERIOD	ESTIMATED COST (per year)	ESTIMATED COST (10 year)
Objective A	Continue to make vegetation management decisions that will help the Florida wild indigo and other listed populations on the DCCA	Acres of suitable habitat	ST	-	-
Objective B	Monitor for population changes in listed animal and plant species	Chance for changes	LT	-	-
Objective C	Contract with FNAI to conduct natural community and imperiled species mapping	Mapping conducted	LT	\$1,200	\$12,000
GOAL 5.3	Provide public access and recreational opportunities.	MEASURE	PLANNING PERIOD	ESTIMATED COST (per year)	ESTIMATED COST (10 year)
Objective A	Begin process for establishing a WMA on DCCA.	Acres established	ST	-	-
Objective B	Continue to maintain public access and recreational opportunities.	Sites maintained	LT	-	-
GOAL 5.4	Protect water quality and quantity, restore hydrology, and maintain the restored condition.	MEASURE	PLANNING PERIOD	ESTIMATED COST (per year)	ESTIMATED COST (10 year)
Objective A	Install and maintain low water crossings and culverts as appropriate.	Features installed and/or maintained	LT	\$2,000	\$20,000
Objective B	Look for opportunities to plug additional irrigation ditches on former agricultural fields.	Liner feet plugged	LT	\$600	\$6,000
GOAL 5.5	Remove invasive plants and animals and conduct needed maintenance/control	MEASURE	PLANNING PERIOD	ESTIMATED COST (per year)	ESTIMATED COST (10 year)
Objective A	Treat at least 35 acres of invasive plants annually.	Acres treated	ST	Included in Objective C	Included in Objective C
Objective B	Maintain a database on any locations of invasive plant species	Database maintained	LT	-	-
Objective C	Treat all invasive plant species and prevent further infestations	Acres treated	LT	\$1315	\$13,150
Objective D	Monitor Property wide trends of invasive species population size.	Change in acres treated	LT	-	-
Objective E	Continue to monitor the hog population and institute control measures on feral hogs, where needed using Special Use Authorizations	Number of hogs removed	LT	-	-

6. Ten-year Implementation Schedule, Measures, and Cost Estimates

GOAL 5.6	Develop and maintain the capital facilities and infrastructure necessary to meet the goals and objectives of this management plan.	MEASURE	PLANNING PERIOD	ESTIMATED COST (per year)	ESTIMATED COST (10 year)
Objective A	Evaluate any maintenance needs at the Cowpen Branch Rd. access point	Facility maintained	ST	-	-
Objective B	Maintain existing parking lots and entrance points	Facilities maintained	LT	\$100	\$1,000
Objective C	Maintain the approximately 7 miles of roads.	Miles maintained	LT	\$700	\$7,000
Objective D	Maintain, improve, or repair 4 miles of District maintained trails.	Trails maintained	LT	\$1,100	\$11,000
Objective E	Provide law enforcement utilizing security contractor.	Enforcement hours	LT	\$2,500	\$25,000
GOAL 5.7	Protect, preserve, and maintain the cultural resources of the Preserve.	MEASURE	PLANNING PERIOD	ESTIMATED COST (per year)	ESTIMATED COST (10 year)
Objective A	Continue to monitor, protect, and preserve the one documented site in accordance with DHR procedures.	Sites protected	ST	-	-
Objective B	Ensure all known sites are recorded in the DHR Master Site file.	All sites recorded	LT	-	-
Objective C	Work with FPAN to document new sites	Site protected	LT	-	-
GOAL 5.8	Explore and pursue cooperative research opportunities.	MEASURE	PLANNING PERIOD	ESTIMATED COST (per year)	ESTIMATED COST (10 year)
Objective A	Continue to cooperate with researchers and universities as appropriate.	Issue appropriate authorization	LT	-	-
Objective B	Continue to assess the need for, and pursue research and environmental education partnership opportunities, as appropriate.	Partnerships created	LT	-	-
Objective C	Maintain lease with University of Florida Hasting Agricultural Extension Center to provide a site to conduct experiments and demonstrations projects in support of its extension and research mission.	Lease terms extended	LT	-\$1,349.20	-\$13,492.00
GOAL 5.9	Provide information to the public regarding management activities, particularly prescribed burns.	MEASURE	PLANNING PERIOD	ESTIMATED COST (per year)	ESTIMATED COST (10 year)
Objective A	Ensure activities that occur on DCCA are reported at the annual Recreational Public Meeting and provide the public an opportunity for comment.	Number of Recreational Public Meeting completed	LT	-	-
Objective B	Convene a MRT every 5 years to ensure the land management plan is being followed	Number of Management Review Teams completed	LT	-	-
	ESTIMATED COST TO	TALS		\$27,686	\$276,858

7. Resource Management Challenges and Strategies

The greatest resource management challenge at DCCA is the extent and persistence of invasive species on site as well as ability to apply prescribed fire consistently at DCCA. Due to past cultural practices, invasive species have established a strong foothold despite repeated control efforts, particularly in the former agricultural fields on the DCCA South. The District will continue to focus on control of invasive species as well as develop a restoration plan for the most heavily infested areas. An additional challenge is limited land management personnel having to cover multiple counties, conservation areas and duties. This extended coverage results in opportunities not being capitalized upon concerning fire, invasive species and recreation management. This was a common concern in the 2020 Management Review where participants cited that additional land management personnel would result in improvements at DCCA.

8. Analysis/description of other managing agencies and private land managers, if any, which could facilitate the restoration or management of the land.

The District contracts and oversees private vendors to accomplish fuels management, timber harvest, invasive species control and recreation maintenance objectives. FWC is a potential management partner if DCCA is established as a WMA. We will continue to seek partnerships for the management of any additional RSTFs as needed.

Resource Management Goals and Objectives	Progress
WATER RESOURCE PROTECTION	
Maintain pump stations at RSTF.	St. Johns County – 100%
Regularly inspect roads and crossings for erosion problems.	100%, on-going
Recontour entrance road to DCCA North to reduce potential for erosion.	100%, complete
FIRE MANAGEMENT	
Introduce dormant season burns in areas where fire has been excluded.	100%, on-going
Continue to conduct dormant season burns until fuel reduction goals are met.	75%, on-going
Introduce growing season burns in areas with reduced fuels.	75%, on-going
Determine appropriate species for abandoned agricultural fields.	25%, on-going
Install additional firebreaks, as necessary.	100%, complete
FOREST MANAGEMENT	
Utilize preseribed fire as a forest management tool	100% on going

9. Accomplished Objectives from 2006 Management Plans

Utilize prescribed fire as a forest management tool.	100%, on-going
Monitor forested areas for disease or insect infestations.	100%, on-going
Conduct a detailed inventory of timber resources on the Property.	0%, insufficient forest
	resources to inventory

INVASIVE PLANTS and ANIMALS

Continue to monitor for invasive plant species and treat, as necessary.	100%, on-going
Continue coordination with hog trapper.	100%, on-going
Evaluate need to utilize a hog trapper for removal of feral hogs on North tract.	100%, complete

CULTURAL RESOURCES

Identify and report any new sites to DHR.	100%, on going
Protect existing cultural and historical sites.	100%, on going

WILDLIFE

Continue to restore natural communities.	50%, on going
Continue to maintain ecotones between natural communities.	100%, on going

SPECIAL MANAGEMENT STRATEGIES

Determine appropriate species for abandoned agricultural fields.	25%, on going
Replant or direct seed in conjunction with natural regeneration when	0%, forest resources
necessary.	not evaluated

Land Use Management

ACCESS

Maintain fencing, boundary markers, roads, crossings, and parking areas.	100%, on going
Maintain limited access points and roads necessary for resource management activities.	100%, on going
Maintain informational signage near trailheads and RSTF areas	100%, complete
Repair entrance road on DCCA North to provide improved access for land management activities.	100%, complete
Install and maintain parking area on DCCA North.	100%, complete
Pursue legal upland access to southeastern portions of DCCA North.	0%, in progress

RECREATION

100%, complete; Dog Branch Edgefield now Putnam Co. responsibility
100%, complete
100%, complete
100%, complete
100%, complete
100%, on going
100%, on going
75%, on going
75%, on going
100%, on going
100%, on going
100%, complete
100%, on going

10. Compliance with Federal, State, and Local Government Requirements

Management of the Property under the multiple-use concept complies with the State Lands Management Plan. This plan also complies with the definition of Parks and Open Space classification within the St. Johns County 2025 Comprehensive Plan, adopted August 2010.

11. Revenue and Expenses

In an average year, the revenue generated by this Property is approximately \$1,549 and the expenses, including District staff time, are approximately \$37,646. Table 2 summarizes the projected expenses and revenue over the next ten years incurred by the District.

Table 2 - Projected Expenses and Revenue at Deep CreekConservation Area 2023-2032

PROJECTED EXPENSES

Activity	Unit	Total Expense Over 10 Years	Agency Responsibility
Invasive plant management	350 acres	\$13,150	District
Prescribed Fire	2,440 acres	\$73,200	District
Afforestation of former agriculture fields	195 acres	\$62,000	District
Natural Community and Imperiled Species Mapping	Entire property	\$12,000	District
Security contractor	500 hours	\$25,000	District
Road Maintenance and Mowing	7 miles	\$7,000	District
Hydrologic improvement/ maintenance	Culverts/low water crossings installed/ maintained	\$20,000	District
Recreation Maintenance	4 trail miles/3 parking areas	\$12,000	District
Fuel Reduction Mowing	200 acres	\$60,000	District
Agriculture Ditch Hydrologic Restoration	1 mile	\$6,000	District
Staff time	3,000 hours	\$86,119	District
Total		\$376,469	

PROJECTED REVENUE

Activity	Unit	Total Revenue Over 10 Years	Agency Responsibility
UF Hastings Agricultural Lease	Annual Lease Payment	\$13,492	District
Apiary Lease	Annual Lease Payment	\$2,000	District
Total		\$15,492	

12. References

Brooks, H., 1981, *Guide to the Physiographic Division of Florida*. Institute of Food and Agricultural Sciences. Gainesville: University of Florida.

Florida Fish and Wildlife Conservation Commission, 2020, *Gopher Tortoise Permitting Guidelines*. <u>https://myfwc.com/media/11854/gt-permitting-guidelines.pdf</u> Accessed September 13, 2022.

Florida Fish and Wildlife Conservation Commission-Fish and Wildlife Research Institute, 2017. *Manatee Carcass Recovery Locations in Florida*. FWC GIS Database. Accessed April 27, 2022.

Florida Natural Areas Inventory, 2001, *Field Guide to the Rare Animals of Florida*, Tallahassee, FL.

Florida Natural Areas Inventory, 2010, *Guide to the Natural Communities of Florida*. Tallahassee, FL.

Goodell, H. G., and Yon, J. W., Jr. 1960, The Regional Lithostratigraphy of the post-Eocene Rocks of Florida: Southeastern Geological Society, 9th Field Trip Guidebook, p. 75-113.

Green, R. C., Williams, C. P., Bambach, P. W., Apolinar, Brianne, Hannon, L. M., and White, K. M., 2016. Geologic Map of the USGS Jacksonville 30 x 60 minute quadrangle, Northeast Florida. Florida Geological Survey Open-File Map series 105.

Livingston Way, P.K. 2010, *Development of a Functional, Best Management Practice Program in the Tri-County Agricultural Area of Northeast Florida*. St. Johns River Water Management District Technical Publication SJ2010-2.

Official Soil Series Descriptions - USDA-NRCS Soil Survey Division.

St. Johns River Water Management District, 2022, 2021 Status and Trends Report https://floridaswater.maps.arcgis.com. Accessed April 2, 2022

Appendix A – Trustees Lease

SAL3

725.11 Acres

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

LEASE AGREEMENT

DEEP CREEK CONSERVATION AREA (LAMBERT PARCEL)

Lease Number 4524

This lease is made and entered into this <u>8th</u> day of <u>August</u>, 2006, between the BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA, hereinafter referred to as "LESSOR", and the ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, hereinafter referred to as "LESSEE".

WITNESSETH:

WHEREAS, the BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA holds title to certain lands and property being utilized by the State of Florida for public purposes, and

WHEREAS, the BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA is authorized in Section 253.03, Florida Statutes, to enter into leases for the use, benefit and possession of public lands by agencies that may properly use and possess them for the benefit of the people of the State of Florida;

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

 <u>DELEGATIONS OF AUTHORITY</u>: LESSOR'S responsibilities and obligations herein shall be exercised by the Division of State Lands, Department of Environmental Protection.

 <u>DESCRIPTION OF PREMISES</u>: The property subject to this lease is situated in the County of St. Johns, State of Florida and is more particularly described in Exhibit "A" attached hereto and hereinafter called the "leased premises".

3. <u>TERM</u>: The term of this lease shall be for a period of fifty years, commencing on <u>August 8, 2006</u> and ending on <u>August 7, 2056</u>, unless sooner terminated pursuant to the provisions of this lease.

 <u>PURPOSE</u>: LESSEE shall manage the leased premises only for the conservation and protection of natural and historical resources and resource based public outdoor recreation which is

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compatible with the conservation and protection of these public lands, as set forth in subsection 259.032(11), Florida Statutes, along with other related uses necessary for the accomplishment of this purpose as designated in the Management Plan required by paragraph 7 of this lease.

5. <u>QUIET ENJOYMENT AND RIGHT OF USE</u>: LESSEE shall have the right of ingress and egress to, from and upon the leased premises for all purposes necessary to the full quiet enjoyment by said LESSEE of the rights conveyed herein.

 <u>UNAUTHORIZED USE</u>: LESSEE shall, through its agents and employees, prevent the unauthorized use of the leased premises or any use thereof not in conformance with this lease.

7. MANAGEMENT PLAN: LESSEE shall prepare and submit a Management Plan for the Leased premises, in accordance with Section 253.034, Florida Statutes, and subsection 18-2.021(4), Florida Administrative Code. The Management Plan shall be submitted for approval to the Department of Environmental Protection, Division of State Lands, Office of Environmental Services, Mail Station 140, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000. The leased premises shall not be developed or physically altered in any way other than what is necessary for security and maintenance of the leased premises without the prior written approval of LESSOR until the Management Plan is approved. The Management Plan shall emphasize the original management concept as approved by LESSOR at the time of acquisition, which established the primary public purpose for which the leased premises were acquired. The approved Management Plan shall provide the basic guidance for all management activities and shall be reviewed jointly by LESSEE and LESSOR. LESSEE shall not use or alter the leased premises except as provided for in the approved Management Plan without the prior written approval of LESSOR. The Management Plan prepared under this lease shall identify management strategies for exotic species, if present. The introduction of exotic species is prohibited, except when specifically authorized by the approved Management Plan.

 <u>RIGHT OF INSPECTION</u>: LESSOR or its duly authorized agents shall have the right at any and all times to inspect the leased premises and the works and operations thereon of LESSEE, in any matter pertaining to this lease.

9. INSURANCE REQUIREMENTS: LESSEE shall procure and maintain fire and extended risk insurance coverage, in accordance with Chapter 284, F.S., for any buildings and improvements located on the leased premises by preparing and delivering to the Division of Risk Management, Department of Insurance, a completed Florida Fire Insurance Trust Fund Coverage Request Form and a copy of this lease immediately upon erection of any structures as allowed by paragraph 4 of this lease. A copy of said form and immediate notification in writing of any erection or removal of structures or other improvements on the leased premises and any changes affecting the value of the improvements shall be

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submitted to the following: Bureau of Public Land Administration, Division of State Lands, Department of Environmental Protection, Mail Station 130, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000.

10. <u>LIABILITY</u>: LESSEE shall assist in the investigation of injury or damage claims either for or against LESSOR or the State of Florida pertaining to LESSEE'S respective areas of responsibility under this lease or arising out of LESSEE'S respective management programs or activities and shall contact LESSOR regarding the legal action deemed appropriate to remedy such damage or claims.

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

 EASEMENTS: All easements including, but not limited to, utility easements are expressly prohibited without the prior written approval of LESSOR. Any easement not approved in writing by LESSOR shall be void and without legal effect.

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

14. SURRENDER OF PREMISES: Upon termination or expiration of this lease LESSEE shall surrender the leased premises to LESSOR. In the event no further use of the leased premises or any part thereof is needed, written notification shall be made to the Bureau of Public Land Administration, Division of State Lands, Department of Environmental Protection, Mail Station 130, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, at least six months prior to the release of all or any part of the leased premises. Notification shall include a legal description, this lease number and an explanation of the release. The release shall only be valid if approved by LESSOR through execution of a release of lease instrument with the same formality as this lease. Upon release of all or any part of the leased premises or upon expiration or termination of this lease different improvements, including both physical structures and modifications to the leased premises, shall become the property of LESSOR, unless LESSOR gives written notice to LESSEE to remove any or all such improvements at the expense of LESSEE. The decision to retain any improvements upon termination of this lease shall be at LESSOR's sole discretion. Prior to surrender of all or any part of

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the leased premises, a representative of the Division of State Lands shall perform an on-site inspection and the keys to any buildings on the leased premises shall be turned over to the Division. If the leased premises and improvements located thereon do not meet all conditions set forth in paragraphs 19 and 20 herein, LESSEE shall pay all costs necessary to meet the prescribed conditions.

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

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

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

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

19. PLACEMENT AND REMOVAL OF IMPROVEMENTS: All buildings, structures, improvements, and signs shall be constructed at the expense of LESSEE in accordance with plans prepared by professional designers and shall require the prior written approval of LESSOR as to purpose location, and design. Further, no trees, other than non-native species, shall be removed or major land alterations done without the prior written approval of LESSOR. Removable equipment placed on the leased premises by LESSEE which do not become a permanent part of the leased premises will remain the property of LESSEE and may be removed by LESSEE upon termination of this lease.

20. <u>MAINTENANCE OF IMPROVEMENTS</u>: LESSEE shall maintain the real property contained within the leased premises and any improvements located thereon, in a state of good condition, working order and repair including, but not limited to, keeping the leased premises free of trash or litter, maintaining all planned improvements as set forth in the approved Management Plan, meeting all building and safety codes in the location situated and maintaining any and all existing roads, canals, ditches, culverts, risers and the like in as good condition as the same may be at the date of this lease;

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provided, however, that any removal, closure, etc., of the above improvements shall be acceptable when the proposed activity is consistent with the goals of conservation, protection, and enhancement of the natural and historical resources within the leased premises and with the approved Management Plan. 21. <u>ENTIRE UNDERSTANDING</u>: This lease sets forth the entire understanding between the parties and shall only be amended with the prior written approval of LESSOR and LESSEE.

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

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

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

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

26. <u>DAMAGE TO THE PREMISES</u>: (a) LESSEE shall not do, or suffer to be done, in, on or upon the leased premises or as affecting said leased premises or adjacent properties, any act which materially damages or depreciates the value to the leased premises or adjacent properties, or any part thereof. (b) LESSEE shall not generate, store, produce, place, treat, release or discharge any contaminants, pollutants or pollution, including, but not limited to, hazardous or toxic substances, chemicals or other agents on, into, or from the leased premises or any adjacent lands or waters in any manner not permitted by law. For the purposes of this lease, "hazardous substances" shall mean and include those elements

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or compounds defined in 42 USC Section 9601 or which are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency (EPA) and the list of toxic pollutants designated by the United States Congress or the EPA or defined by any other federal, state or local statute, law, ordinance, code, rule, regulation, order or decree regulating, relating to, or imposing liability or standards of conduct concerning any hazardous, toxic or dangerous waste, substance, material, pollutant or contaminant. "Pollutants" and "pollution" shall mean those products or substances defined in Chapters 376 and 403, Florida Statutes, and the rules promulgated thereunder, all as amended or updated from time to time. In the event of LESSEE'S failure to comply with this paragraph, LESSEE shall, at its sole cost and expense, promptly commence and diligently pursue any legally required closure, investigation, assessment, cleanup, decontamination, remediation, restoration and monitoring of (1) the leased premises, and (2) all off-site ground and surface waters and lands affected by LESSEE'S such failure to comply, as may be necessary to bring the leased premises and affected off-site waters and lands into full compliance with all applicable federal, state or local statutes, laws, ordinances, codes, rules, regulations, orders and decrees, and to restore the damaged property to the condition existing immediately prior to the occurrence which caused the damage. LESSEE'S obligations set forth in this paragraph shall survive the termination or expiration of this lease. Nothing herein shall relieve LESSEE of any responsibility or liability prescribed by law for fines, penalties and damages levied by governmental agencies, and the cost of cleaning up any contamination caused directly or indirectly by LESSEE'S activities or facilities. Upon discovery of a release of a hazardous substance or pollutant, or any other violation of local, state or federal law, ordinance, code, rule, regulation, order or decree relating to the generation, storage, production, placement, treatment, release or discharge of any contaminant, LESSEE shall report such violation to all applicable governmental agencies having jurisdiction, and to LESSOR, all within the reporting periods of the applicable governmental agencies.

27. <u>PAYMENT OF TAXES AND ASSESSMENTS</u>: LESSEE shall assume full responsibility for and shall pay all liabilities that accrue to the leased premises or to the improvements thereon based on LESSEE'S use thereof during the term of the lease, including any and all drainage and special assessments or taxes of every kind and all mechanic's or materialman's liens which may be hereafter lawfully assessed and levied against the leased premises.

28. <u>RIGHT OF AUDIT</u>: LESSEE shall make available to LESSOR all financial and other records relating to this lease and LESSOR shall have the right to audit such records at any reasonable time. This right shall be continuous until this lease expires or is terminated. This lease may be terminated by

Lease No. 4524

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LESSOR should LESSEE fail to allow public access to all documents, papers, letters or other materials made or received in conjunction with this lease, pursuant to Chapter 119, Florida Statutes.

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

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

31. <u>TIME</u>: Time is expressly declared to be of the essence of this lease.

 <u>GOVERNING LAW</u>: This lease shall be governed by and interpreted according to the laws of the State of Florida.

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

34. <u>ADMINISTRATIVE FEE</u>: LESSEE shall pay LESSOR an annual administrative fee of \$300. The initial annual administrative fee shall be payable within thirty days from the date of execution of this lease agreement and shall be prorated based on the number of months or fraction thereof remaining in the fiscal year of execution. For purposes of this lease agreement, the fiscal year shall be the period extending from July 1 to June 30. Each annual payment thereafter shall be due and payable on July 1 of each subsequent year.

35. SPECIAL CONDITIONS: The following special conditions shall apply to this lease: None.

36. <u>FUNDING</u>: Any reference in this Lease to funding or payment of costs or expenses to be borne by the LESSEE shall be contingent upon the availability of funds by LESSEE for such purpose.

Lease No. 4524

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

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

Woodard Print/Type Witness Name

Poll.

RITA Robbins Print/Type Witness Name DIVISION OF STATE LANDS, DEPARTMENT OF ENVIRONMENTAL PROTECTION

By: LOUG C. MUSON (SEAL) GLORIA C. NELSON, OPERATIONS AND MANAGEMENT CONSULTANT

MANAGER, BUREAU OF PUBLIC LAND ADMINISTRATION,

"LESSOR"

STATE OF FLORIDA COUNTY OF LEON

The foregoing instrument was acknowledged before me this <u>84h</u> day of <u>Quarts+</u> 2000, by Gloria C. Nelson, as Operations and Management Consultant Manager, Bureau-of Public Land Administration, Division of State Lands, Florida Department of Environmental Protection, acting as agent on behalf of the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida.

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0 Notan Public, State of Florida

Print\Type Notary Name

Commission Number:

Sylvia S. Roberts Commission # DD468884 Expires September 6, 2009 Based Bary Family Research Inc. 2003851119

Commission Expires:

Approved/as to Form and L By: DEP Attorney

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

B By: t 13 74 Kirby B. Green III, Executive Director

Kirby B. Green III, Executive Director By authority of Section 373.083 (5) Florida Statutes and DISTRICT Policy Number 90-16, Cooperative Agreements revised September 13, 2000

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William J.B. Miller Print/Type Witness Name Starozt ar Witness

"LESSEE"

SHAPONG. CARCIN) Print/Type Witness Name

STATE OF FLORIDA COUNTY OF Jufuan

The foregoing instrument was acknowledged before me this 31 day of Quly 2006, by Kirby B. Green III, Executive Director, on behalf of the Governing Board fifthe St Johns River Water Management District. He is personally knows to me.



taroy ar Notary Public, State of Florida

<u>Selfield G. CARCIN</u> Print/Type Notary Name

Commission Number: DD336830 Commission Expires: 16/29/08

Approved Form and Le dun By: 10

fur Stan Nego, Senior Assistant General Counsel Office of General Counsel

Lease No. 4524

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EXHIBIT "A"

LEGAL DESCRIPTION OF THE LEASED PREMISES

The Northwest ¼ of the Northwest ¼ lying South and West of State Road 13 and the Northwest ½ of the Southwest ¼ and the Southwest ¼ of the Southwest ¼, all in Section 28; and all of Section 29, Township 8 South, Range 28 East, all lying and being in St. Johns County, Florida.

LESS:

A parcel of land lying in Section 29, Township 8 South, Range 28 East, St. Johns County, Florida, being more particularly described as follows:

Commence at the Northeast Corner of Section 29, Township 8 South, Range 28 East, St. Johns County, Florida; thence on the North line of said section 29, N 89°14'43" E, a distance of 796.03 feet to the Point of Beginning; thence departing said North line, S 00°45'17" E, a distance of 30.98 feet; thence S 89°14'43" W, a distance of 2997.64 feet; thence N 00°45'17" W, a distance of 30.98 feet to the North line of aforesaid Section 29; thence on said North line N 89°14'43" E, a distance of 2997.64 feet to the Point of Beginning.

AND LESS:

A parcel of land lying in Section 28, Township 8 South, Range 28 East, St. Johns County, Florida, being more particularly described as follows:

Commence at the Northwest Corner of Section 28, Township 8 South, Range 28 East, St. Johns County, Florida; thence on the West line of said Section 28, S 01°06'53" E, a distance of 1316.91 feet to the Southwest Corner of the Northwest ¼ of the Northwest ¼ of said Section 28; thence departing said West line and on the South line of the Northwest ¼ of the Northwest ¼ of said Section 28, N 89°19'05" E, a distance of 269.43 feet to the Point of Beginning; thence departing said South Line, N 00°40'55" W, a distance of 40.06 feet; thence N 89°19'05" E, a distance of 40.06 feet; thence N 89°19'05" E, a distance of 40.06 feet to the South Line of the Northwest ¼ of the Northwest ¼ of a foresaid Section 28; thence on said South Line, S 89°19'05" W, a distance of 40.59 feet to the Point of Beginning.

Lease No. 4524

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EXHIBIT "B"

3/2/2001

LIST OF ARC/DIVISION OF STATE LANDS APPROVED INTERIM MANAGEMENT ACTIVITIES

The attached list describes activities that an agency may initiate on state-owned uplands without either review of the Acquisition and Restoration Council (ARC) or any further approval from the Division of State Lands (DSL). This list applies to agencies that have either executed a lease with the Board of Trustees, or have submitted an executed Interim Management Letter for new acquisitions. These activities are considered approved in concept by Chapter 253, Florida Statutes, and are accepted as necessary for routine custodial care and maintenance of a site between its acquisition and approval of its land management. In some cases, the applicable water management district, the Florida Natural Areas Inventory (FNAI), or the ARC representative from either the Department of State's Division of Historical Resources (DHR) or the Department of Environmental Protection (DEP) may review a proposed activity prior to its initiation. The agency requiring such additional review has been indicated following the activity. Where a specific water management district has requested review, that district has also been indicated. (District review applies only when land subject to the interim management activity list is located within the jurisdiction of the requesting district.) Each interim management activity has been designated as follows:

A No review required.
B DEP, WMD, DHR, or FNAI review required.

Any activity not specifically listed must be submitted to both the DSL and ARC for review.

- Posting
 A Posting areas that are deemed by the manager to be potentially hazardous to the public, and posting those areas where public use may result in damage to state-owned lands.
- Law Enforcement and Protection
 A Providing appropriate law enforcement and resource protection.
- Management Pan Development A Developing a property's land management plan.

Lease No. 4524

4. Bridge or Culvert Replacement and/or Repair

B Repair or replacement of any wooden trestle bridge or poured culvert, regardless of age, or any bridge built after 1945 (WMD).

B Repair or replacement of any other bridges or culverts (DHR/WMD).

5. Road Repairs

A Repairing existing roadbeds, when such repairs are minor and necessary to assure safe and reasonable public. <u>Upgrading roads (widening, paving, etc.) is not authorized by this letter.</u>

6. Establishing Parking Areas

A Establishing temporary parking areas along existing access ways when a disturbed area is available and subsurface ground disturbance will not exceed 6 inches. Such parking should represent the minimum square footage necessary to provide public access.

B Establishing temporary parking locations along existing access ways when a disturbed area is available and subsurface ground disturbance will exceed 6 inches (DHR). Such parking should represent the minimum square footage necessary to provide public access.

7. Exotic or Off-site Species Control

A Controlling invasive, exotic, or off-site species using methods that do not require ground disturbance, such as prescribed burning, girdling, sale, or herbicide injection. (Note: removal of exotic pasture grasses represents an approved exception to the ground disturbance prohibition.)

8. Prescribed Burning

A Implementing prescribed burning using existing fire lines. Improvement of existing lines is limited to reworking with a re-work harrow.

B Implementing prescribed burning using new fire lines (DHR/DEP/WMD/FNAI).

9. Fences and Gates

A Installing fences and gates or removing deteriorated or unneeded fences, gates or signs.

10. Removal of Structures

B Removal of old, deteriorated, or unsafe structures (DHR).

11. Replacing Existing Water Control Structures or Devices:

B Removing or replacing existing water control structures, including culverts, wellheads, flashboard risers, etc. provided that the activity is properly permitted and clearly consistent with the project assessment or design documents prepared during the land acquisition process (WMD).

12. Wildlife Habitat Enhancement

A Enhancing wildlife habitat using methods that do not include alteration of native habitat. Such activities shall include installing nest structures or towers for raptors such as osprey or eagles. <u>Installation of food plots is not authorized</u>.

13. Trash

A Removal of trash and debris.

14. Personnel

A Establishing personnel on site in existing facilities.

Lease No. 4524

Activities requiring review by the DHR should be directed to:

Susan Harp, Historic Preservation Planner Department of State Division of Historical Resources R. A. Gray Building, Room 423 Tallahassee, Florida 32399 (850) 487-2333.

Activities requiring review by the FNAI should be directed to:

Carolyn Kindell Florida Natural Areas Inventory 1018 Thomasville Road, Suite 200-C Tallahassee, Florida 32302 (850) 224-8207

Activities requiring review by the DEP should be directed to:

Keith Singleton Office of Environmental Services Division of State Lands Department of Environmental protection Mail Station 140 3900 Commonwealth Blvd. Tallahassee, Florida 32399 (850) 487-1750

Activities requiring review by a water management district should be sent to the senior land resources planner in that water management district.

Please provide copies of all correspondence to:

Keith Singleton Office of Environmental Services Division of State Lands Department of Environmental Protection Mail Station 140 3900 Commonwealth Boulevard Tallahassee, Florida 32399-3000 (850) 487-1750

The authority granted herein in no way waives the authority or jurisdiction of any governmental entity. Implementation of upland activities may require permits or authorizations from other federal or state agencies with jurisdiction over those particular activities. Please forward a copy of all permits for our files upon issuance.

Lease No. 4524

ATL1

2.25 Acres

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

AMENDMENT NUMBER ONE TO LEASE NUMBER 4524 DEEP CREEK CONSERVATION AREA

THIS LEASE AMENDMENT is entered into this 13th day of <u>may</u>, 2008, by and between the BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA, hereinafter referred to as "LESSOR" and the ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, hereinafter referred to as "LESSEE";

MAT 2 2 2008

WITNESSETH

WHEREAS, LESSOR, by virtue of Section 253.03, Florida Statutes, holds title to certain lands and property for the use and benefit of the State of Florida; and

WHEREAS, on August 8, 2006, LESSOR and LESSEE entered into Lease Number 4524; and

WHEREAS, LESSOR and LESSEE desire to amend the lease to add land to the leased premises.

NOW THEREFORE, in consideration of the mutual covenants and agreements contained herein, the parties hereto agree as follows:

1. The legal description of the leased premises set forth in Exhibit "A" of Lease Number 4524 is hereby amended to include the real property described and depicted in Exhibit "A," attached hereto, and by reference made a part hereof.

2. It is understood and agreed by LESSOR and LESSEE that in each and every respect the terms of the Lease Number 4524, except as amended, shall remain unchanged and in full force and effect and the same are hereby ratified, approved and confirmed by LESSOR and LESSEE.

3. It is understood and agreed by LESSOR and LESSEE that this Amendment Number ONE to Lease Number 4524 is hereby binding upon the parties hereto and their successors and assigns. IN WITNESS WHEREOF, the parties have caused this lease amendment to be executed on the day and year first above written.

Witness

DAVE FEWELL Print/Type Witness Name

in Witness 36 indu Said Print/Type Witness Name

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

By: <u>Hour</u> (Seal) GLORIA C. BARBER, OPERATIONS AND MANAGEMENT CONSULTANT MANAGER, BUREAU OF PUBLIC LAND ADMINISTRATION, DIVISION OF STATE LANDS, STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

"LESSOR"

STATE OF FLORIDA COUNTY OF LEON

The foregoing instrument was acknowledged before me this <u>13</u>th day of <u>13</u>th day of <u>13</u>th day of <u>13</u>th day of <u>13</u>th consultant Manager, Bureau of Public Land Administration, Division of State Lands, State of Florida Department of Environmental Protection, as agent for and on behalf of the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida. She is personally known to me.



Notary Public, State of Florida

Print/Type Notary Name

Commission Number:

Commission Expires:

Approved as to Form and Legality By: DEP Attorney

Page 2 of 4 Pages Amendment Number ONE to Lease No.4524

EXHIBIT "A"

LEGAL DESCRIPTION OF THE LEASED PREMISES

Part of SE 4 of NE 4 of NW 4 of Section 18, Township 09 South, Range 28 East, as shown in DB 13, Page 239, Williams S/D Hastings District, Town of Hastings, St. Johns County, Florida.



Amendment Number ONE to Lease No. 4524

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

William J.B. Miller Print/Type Witness Name

(SEAL) By

Kirby B. Green III, Executive Director

St. Johns River Water Management District

"LESSEE"

Witness

SHARONG. CARLIN

Print/Type Witness Name

STATE OF FLORIDA

COUNTY OF PUTNAM

The foregoing instrument was acknowledged before me this 2 day of , 2008, by Kirby B. Green III, Executive Director, on behalf of the Governing Board of the St. Johns River Water Management District. He/she is personally known to me.

SHARON G. CARLIN MY COMMISSION # DD 306800 EXPIRES: October 29, 2008

Laron artis

Notary Public, State of Florida

SHARON G. CARLIN)

Print/Type Notary Name

Commission Number: DD336830

Commission Expires: /

Approved as to Form and Legality: lu By:

William Abrams, Asst. General Counsel

St. Johns River Water Management District

Page 3 of 4 Pages Amendment Number ONE to Lease No.4524

Appendix B – Land Use Consistency Letter



St. Johns County Board of County Commissioners

Growth Management Department

July 8, 2022

Christopher Kinslow, CF, Land Resource Specialist Bureau of Land Resources Division of Water and Land Resources St. Johns River Water Management District P.O. Box 1429 Palatka, FL 32178 <u>ekinslow@sjrwmd.com</u>

RE: Confirmation Letter Request (CLTR 2022-173) Deep Creek Conservation Area

Dear Mr. Kinslow:

This letter is in response to your e-mail request dated June 30, 2022, requesting confirmation the 2022 update Deep Creek Conservation Area Management Plan is consistent with the St. Johns County Comprehensive Plan. The request was reviewed by the Planning and Zoning Division and Environmental Division of the Growth Management Department.

Planning and Zoning Division: The Deep Creek Conservation Area is designated Parks and Open Space, Agriculture-Intensive, and Residential-B on the Future Land Use Map and zoned Open Rural. St. Johns County Comprehensive Plan Policy A.1.11.1.k provides:

Parks and Open Space shall mean active and passive recreation areas, or lands permanently maintained as open space. Permitted uses shall include: active and passive parks and recreational facilities, together with permitted accessory uses; and Public safety government facilities such as police, fire, and emergency medical facilities; and Uses and activities allowed by an approved Federal, State, regional or local Management Plan governing activities allowed on such public lands.

Agriculture-Intensive allows one unit per 20 acres. Residential-B allows residential density up to two units per net acre. All of the Deep Creek Conservation Area is within public ownership.

Environmental Division: The majority of the lands within the St. Johns River Water Management District (SJRWMD) Deep Creek Conservation area property is located within designated land use categories of Park/Recreation, Agriculture and one 23-acre portion within Residential-B (2001 Roselind Norfleet parcel, west of St. Johns County Deep Creek ROMA Tatum tract and northeast of Hastings). The zoning category within the entirety of the Deep Creek Conservation area property is Open Rural. The update to the SJRWMD Deep Creek land management plan does not interfere with land management objectives of the adjacent regional offsite mitigation lands (Deep Creek ROMA) owned and managed by St. Johns County, but in fact coincides with and enhances these objectives.

The 2022 update Deep Creek Conservation Area Management Area Plan is consistent with the Comprehensive Plan, Future Land Use Map and Zoning.

Sincerely,

Teresa Bishop, AICP Planning Division Manager

<u>Appendix C – Management Advisory Group Summary</u>

On June 22, 2022, a meeting of the Deep Creek Conservation Area Management Advisory Group (MAG) was convened at the St. Johns River Water Management Headquarters in Palatka, FL. The attendees and their affiliations are as follows: Wade Brenner, Florida Fish and Wildlife Conservation Commission; Chris Clauson, Florida Parks Service; Jeff Darr, Florida Forest Service; Rianna Elliot, North Florida Land Trust; Fletcher Hallett, All Florida/Backcountry Hunters and Anglers; Danny Johns, Blue Sky Farms; Chad Smitherman, Florida Forest Service; Terry Turner, Putnam County Board of County Commissioners. Sarah Arnold and Henry Dean of the St. Johns County Board of County Commissioners as well as the Putnam-St. Johns Soil and Water Conservation District were invited but were unable to attend. After a presentation including the overview of the land management plan and the goals and objectives, a roundtable discussion was held with the members of the MAG. A summary of their statements as well as District responses *in italics* during the roundtable discussion are as follows:

- All Florida reopening gate on Cowpen Branch Rd. Some vegetation clearing as well as earthwork is needed; aiming for late 2022 early 2023 for reopening
- Blue Sky evaluate feasibility/partnerships to clear hydrologic obstructions within channel of Deep Creek. *The District will try to facilitate where appropriate, though the scope of the land management plan focuses on the management of the upland and wetland portions of the Property above the mean high-water line of Deep Creek. Any restoration efforts undertaken by the District will evaluate the impacts to Deep Creek.*
- FWC what are interest/resources available for public hunts? Are all uplands accessible? *We intend* to include the entire Conservation Area within the potential WMA except for the Deep Creek West and FDACS treatment facilities. The FDACS facility may be included for limited opportunity hunts such as mentored youth hunts.
- Putnam Co. look into legislative appropriation to clear debris in Deep Creek possibly ARPA funds available from St. Johns County. *Noted; the District will try to facilitate where appropriate*
- Blues Sky maintain/improve drainage in Deep Creek including sedimentation and vegetative growth permitting (USACE) is challenging working between growers, County, and all other interested stakeholders South of 13 bridge. *Noted; the District will try to facilitate where appropriate*
- FPS will reforestation be conducted for forestry or natural system restoration? *Site appropriate species will be planted, options for natural system restoration are available, former agricultural fields are a challenge for invasive management. As with all the District's forest management, we try to balance both, particularly where there is a market for timber products.*
- All Florida like to see Conservation Area be included in WMA system water access opportunity is great hunters would likely help maintain open water in Creek channel south of 207. *Noted, WMA establishment is one of our short term goals*
- NFLT include slash pine plantings into burn acreage improve rx burn rotation intervals. *Noted and will include once established*
- FFS consider feasibility of planting longleaf, inventory of forest resources, consider thinning/timber harvest where feasible. *Noted and will aim to conduct an inventory during the scope*

of this plan

- FFS pay attention to smoke management, be mindful of surrounding community. *Understood and will do.*
- FWC is there a schedule for monitoring? consider updating imperiled species mapping/surveys. *Noted and will aim to conduct an imperiled species survey during the scope of this plan*
- Blue Sky identify interested parties relative to maintaining Creek. *Noted; the District will try to facilitate where appropriate*
- FPS Park Service is interested in partnering to help with Rx burns. *Thank you and we will take you up on that*
- Fletcher community in Hastings has parties interested in working on Creek drainage issue, consider walk-in access from various points within potential future WMA. *Three potential access points are being considered; one of North and two on south*
- NFLT maintain parking areas with pervious surfaces. *We commonly use limerock. Pavement is normally not used*
- FWC if area is added to WMA system money is available for habitat restoration/improvement and access improvements, FWC resources to help with burning in WMA system. *Thank you for the information. FWC funds have been helpful at several properties*
- Fletcher consider treatment area for possible future youth hunts, if allowed by lease language. *Will investigate*
- NFLT provide information to NFLT regarding structure of apiary leases. Will provide
- FFS FFS is fully staffed and willing to help with future Rx burning. *Thank you!*
- Blue Sky nice farming photo on kiosk We'll work on that!
- Fletcher what's plan for former ag fields on 13? *Area is in site prep phase for upcoming pine planting*

Appendix D – Public Meeting Summary

On July 27, 2022, a public meeting was held from 6:00 to 8:00 at the St. Johns County Equestrian Center 8200 Smith Rd, Hastings, FL to solicit input as well as provide a question-and-answer session regarding the Deep Creek Conservation Area land management plan update. Five members of the public and four staff members from the District attended. After a presentation including the overview of the land management plan and the goals and objectives, a comment period was convened followed by a question-and-answer session. The District also received several comments via email. A summary of the comments and questions as well as District responses *in italics* during the comment and question and answer period are provided below. The notices, posted in newspapers, posted on site and the announcements at public meeting as provided within this appendix as well.

In person comments and questions:

- Where is the burial mound located? On the North tract but the actual location is not to be disclosed to the public
- Potential cultural site in an area on the Northwest region of the Property; WW2 crashed fighter plane. *Interesting, thank you for the information*
- What important wildlife or wildlife habitat exists within DCCA? We have several important species on DCCA including white tail deer, Osceola turkey, bald eagle, black bear, gopher tortoise. A full list of species can be found in Appendix G of the plan. DCCA is mostly wetlands which provide habitat for a variety of wildlife species. Please see the natural the natural communities map within the plan
- Are there any plans to address potential obstacles within DCCA which may obstruct the flow of the creek? Obstructions on Deep Creek itself are beyond the scope of this plan. Issue came up in the MAG as well at a Board of County Commissioners announcement. I contacted the U.S. Army Corps. of Engineers and they provided information on the continued authorization program which can assist other agencies with projects such as this.

Emailed comments and questions:

- There seems no regular recurring testing for the presence of herbicides, pesticides, heavy metals and such poisons; suggest such testing ought to be mandatory. *Water quality testing is described within the plan, but the plan's main purpose is to guide management of lands owned by the District. I can provide the Basin Management Action Plan which can address these concerns appropriately.*
- I did not locate any reference to participation in the EPA "Healthy Watersheds Protection" program including creation of a Watershed Health Assessment. The index includes review of Landscape Condition, Hydrology, Geomorphology, Habitat, Biological Condition, and Water Quality" recognizing Watershed vulnerability indicators. Participation in the Clean Waters Act compliance program seems logical. *Looking at the healthy watersheds protection program, it appears very similar to Florida Department of Environmental Protection's (FDEP) Basin Management Action Plan. Each state is the administrator for compliance with the Clean Water's Act. FDEP in conduction with several cooperators, is the administrator. DCCA provides watershed protection by its acquisition as conservation land.*
- It is exciting to see that a WMA in cooperation with the FWC is considered. I am generally in favor of increased hunting opportunities. Either way I am happy as long as paradise isn't paved. *The WMA should a great addition Deep Creek. It will be limited to walk-in/boat-in and will be a quota draw permit.*
- I see all positive things detailed as Short Term and Long-Term Resource Management Goals and Objectives, especially in regards to Habitat Restoration and Improvement through prescribed fire,

Public Access and Recreational Opportunity and Listed Species Management. As a recreator of DCCA, local hunter, kayaker & Public Land Owner I am particularly excited to see plans in conjunction with FWC to establish DCCA as a Wildlife Management Area. On behalf of the Florida Chapter of Backcountry Hunters & Anglers and Myself, we support the goals outlined in this Draft Land Management Plan for DCCA. *Thank you! Thanks for your work with Backcountry Hunters & Anglers! If you ever have any questions about Deep Creek or any other District land, please feel free to reach out.*

STATE OF FLORIDA

County of Putnam

The undersigned personally appeared before me, a Notary Public for the State of Florida, and deposes that the Palatka Daily News is a daily newspaper of general circulation, printed in the English language and published in the City of Palatka in said County and State; and that the attached order, notice, publication and/or advertisement:

The St. Johns River Water Mana

Was published in said newspaper 4 times with said being made on the following dates:

06/25/2022, 07/02/2022, 07/09/2022, 07/16/2022

The Palatka Daily News has been continuously published as a daily newspaper, and has been entered as second class matter at the post office at the City of Palatka, Putnam County, Florida, each for a period of more than one year next preceding the date of the first publication of the above described order, notice and/or advertisement.

Sworn to and subscribed to before me this 16th day of July, 2022 by Debra Whitaker, Administrative Assistant, of the Palatka Daily News, a Florida corporation, on behalf of the corporation.

Jeannette Eveland, Notary Public My commission expires: April 30, 2025

Notary Seal Seal of Office:

JEANNETTE EVELAND MY COMMISSION # HH 089526 EXPIRES: April 30, 2025 Bonded Thru Notary Public Underwriters



Personally known to me, or Produced identification: Did take an oath

Palatka Daily News Public Notice

PUBLIC NOTICE

The St. Johns River Water Manage-ment District (District) announces a public hearing for the Deep Creek Con-servation Area (DCCA) located in Hast-ings, Florida. The neeting is scheduled for 6:00 to 8:00 P.M. on Wednesday July 27th 2022, and will be held at the St. Johns County Equestrian Center 8200 Smith Rd, Hastings, FL. The pur-pose of this meeting is to receive pub-lic comment regarding considerations for the District's ten-year Land Man-agement Plan for the Preserve.

Comments may be presented orally o in writing at the hearing. Written com-ments may also be submitted via mai or electric mail to P.O. Box 1429 Palatka/FL 32178-1429 to the atten-tion of chis kinsiow or ckinsiow@sjiw-md.com, respectively. Comments should be malled to arrive at the office prior to the date of the public hearing.

A Management Prospectus and/or the Draft Land Management Plan for Deep Creek Conservation Area is available upon request from Chris Kinslow at Kinslow wesirwmd.com or by phone at (386) 643-1939.

Legal No. 00089948 06/25, 07/02, 07/09, 07/16/22

LOCALiQ

FLORIDA

PO Box 631244 Cincinnati, OH 45263-1244

The St. Johns River Water Manage-

ment District (District) announces a

public hearing for the Deep Creek

Conservation Area (DCCA) located

in Hastings, Florida. The meeting is

scheduled for 6:00 to 8:00 P.M. on Wednesday, July 27th, 2022, and will be held at the St. Johns County

Equestrian Center 8200 Smith Rd,

Hastings, FL. The purpose of this

comment regarding considerations

for the District's ten-year Land

Management Plan for the Preserve.

Comments may be presented orally

or in writing at the hearing. Written comments may also be submitted

via mail or electronic mail to P.O.

Box 1429, Palatka, FL 32178-1429 to the attention of Chris Kinslow or

tively. Comments should be mailed to arrive at the office prior to the

A Management Prospectus and/or the Draft Land Management Plan for Deep Creek Conservation Area is available upon request from Chris Kinslow at <u>ckinslow@sirwmd.com</u> or

receive

public

respec-

is to

ckinslow@sirwmd.com,

date of the public hearing.

by phone at (386) 643-1939. SAR 6/26, 7/3, 7/10, & 7/17/22

meeting

PROOF OF PUBLICATION

St Johns River Water St Johns River Water PO BOX 1429 PALATKA FL 32178

STATE OF FLORIDA, COUNTY OF ST JOHNS

The St Augustine Record, a daily newspaper published in St Johns County, Florida; and of general circulation in St Johns County; and personal knowledge of the facts herein state and that the notice hereto annexed was Published in said newspapers in the issues dated or by publication on the newspaper's website, if authorized, on:

06/26/2022, 07/03/2022, 07/10/2022, 07/17/2022

and that the fees charged are legal. Sworn to and subscribed before on 07/17/2022

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PO #:



Page 1 of 1

St. Augustine Record Public Notice





Onsite postings at the three access points on DCCA



St. Johns County Board of County Commissioners

Public Hearing - Deep Creek Conservation Area Land Management Plan

- Wednesday, July 27 | 6:00 p.m. 8:00 p.m.
- St. Johns County Equestrian Center | 8200 Smith Road, Hastings, Florida
 - Topic | SJRWMD ten-year Land Management plan for the Preserve

For more information, email <u>ckinslow@sjrwmd.com</u> Or call 386.64<u>3</u>-1020

St. Johns County GTV Announcement

Subscribe to Water News 🕴 🌶 🕨 🖉 🎯								
St. Johns River Water Management District		Menu	Permittin	ng Newsroom	About Us	Core missions	Careers	् Enter your search
Meetings and announcements								
Public	Public Hearing - Deep Creek Conservation Area Draft Land Management Plan							
July 27	7 The St. Johns River Water Management District will hold a publi	ic hearing for	the a	nd productive experie erform routine hardw	ence. At times, v are and softwa	ve will need to re maintenance		
6-8 p.n	Deep Oreek. Conservation Area (UCA) action area in Maximgs, FL, comment regarding considerations in orderation in Area interval, and the action of the District 19 year Lar Plan for the conservation area. The meeting will be held at the SE Equestrian Center 8200 Smith Road, Hastings, FL. Comments m orally or in writing at the hearing. Written comments may also b mail or electronic mail to PD. Box 1429, Platka, FL 32178-1422 of Chris Kinslow or ckinslow@jerymd.com, respectively. Comm mailed to arrive at the office prior to the date of the public hearing and the other prior to the date of the public hearing mailed to arrive at the office prior to the date of the public hearing and the other prior to the date of the public hearing and the other prior to the date of the public hearing and the other prior to the date of the public hearing and the other prior to the date of the public hearing and the other prior to the date of the public hearing and the other prior to the date of the public hearing and the other prior to the date of the public hearing the prior to the date of the public hearing the pub	to receive put ad Manageme St. Johns Cou nay be presen e submitted v 0 to the attent nents should t ng.	nt ti nty ir ted te ia W ion fr be	that may cause some areas of the site to be intermittently off-line. We do apologize for this temporary but necessary, inconvenience. We are working diligently to quickly restore complete functionality to the site. Next scheduled outage:				
	Meeting agenda includes a summary of the plan, question and and opportunity for public comment. A Management Prospectu Land Management Plan for Deep Creek Conservation Area is aw request from Chris Kinslow at ckinslow@sjmmd.com or by pho 1939.	answer sessio is and/or the l vailable upon one at 386-64:	n Draft 3-	District servers will 6 p.m. until 10 p.m. During this time por unavailable. We apo inconvenience and a	undergo mainte , Wednesday, Ju tions of the site logize for this to ask that you visi	nance between ine 29, 2022. may be emporary t again later.		

St. Johns River Water Management District website announcement

June 28, 2022

Commissioner Rawls asked Mr. Nimitz to provide him with information regarding a plan if there was a full staff in the mowing department.

Commissioner Harvey thanked the Public Works Department for their hard work.

Commissioner Pickens thanked Mr. Nimitz and the Public Works Department for getting back on track with the mowing.

On a Motion made by Commissioner Harvey, Seconded by Commissioner Turner, the Board unanimously approved the ROW Mowing Budget Transfer, \$150,000 (Resolution 2022-052), as recommended.

(See Supplementary File for a copy of Information)

CLERK OF COURT

Matt Reynolds, Clerk of Court and Comptroller, Wished everyone a safe and Happy 4^{th} of July.

APPOINTMENTS

There were no appointments made.

PUBLIC COMMENT-MISCELLANEOUS

Craig Kennedy, A Citizen, discusses his concerns regarding road paving in Satsuma. He said there is currently paving being done on Walt Ln and Cypress. He suggested Ridgeline be included to be paved.

Commissioner Turner said there is a process by which roads are paved. He further explained the process of paving roads.

A brief discussion ensued on MSBU roads.

Chris Kinslow, St. Johns River Water Management District, said the St. Johns River Water Management District would hold a public hearing for the Deep Creek Conservation Area in Hastings, FL. He said the purpose of the public hearing is to receive public comment regarding considerations for the District's 10-year Land Management Plan for the conservation area. He noted that the meeting would be held at the St. Johns County Equestrian Center, Hastings, FL, from 6-8 p.m.

William Morris, A Citizen, discussed his concerns regarding a property he purchased from a tax deed sale.

A brief discussion ensued regarding the lean against the property that was purchased.

Page **6** of **8**

Putnam County Board of County Commissioners June 28th Regular Meeting. Link to full minutes

Yea: Arnold, Dean, Whitehurst, Blocker, Waldron Nay: None

(06/21/2022 - 17 - 11:26 a.m.)

12. CONSIDER AN APPOINTMENT TO THE PONTE VEDRA ZONING AND ADJUSTMENT BOARD. CURRENTLY THERE IS ONE VACANCY ON THE PONTE VEDRA ZONING AND ADJUSTMENT BOARD (PVZAB). THE VACANCY IS DUE TO THE EXPIRED TERM OF HARRY GRAHAM. AN ADVERTISEMENT WAS PLACED AND RAN FOR THIRTY DAYS. PLEASE FIND FOR YOUR REVIEW AND CONSIDERATION, A RECOMMENDATION FROM THE BOARD AND SIX APPLICATIONS. (NATALIA PLYAM - DIST 5, EUGENE WILSON - DIST 4, C.F. CHIP GREENE III - DIST 4, THOMAS BAKER -DIST 4, J DAVID NARDON - DIST. 4, AND KATHLEEN FLORYAN - DIST. 5)

Joanne Spencer, Assistant to the Board of County Commissioners, presented the details of the vacancy.

(11:27 a.m.) Motion by Blocker, seconded by Waldron, carried 5/0, to appoint C. F. Chip Greene, to the Ponte Vedra Zoning and Adjustment Board for a full four-year term, scheduled to expire June 21, 2026.

Yea: Blocker, Dean, Whitehurst, Waldron, Arnold Nay: None

(06/21/22 - 17 - 11:27 a.m.) PUBLIC COMMENT

Sherry Badger, 2772 South Collins Avenue, reference photos and voiced her concerns with flooding and commercial vehicles on South Collins Avenue, *Exhibit A*.

(11:31 a.m.) Dean responded to Badger's concerns and requested staff to follow up or provide a brief presentation regarding the concerns on South Collins Avenue.

(11:33 a.m.) Chris Kinslow, Land Resource Specialist, 7775 Baymeadows Way, Jacksonville, Florida, invited all to attend the St. Johns River Water Management District public hearing for the Deep Creek Conservation Area (DCCA) on July 27, 2022, from 6 until 8 p.m., located in Hastings, Florida. He also displayed his contact information, *Exhibit B*.

(11:36 a.m.) B.J. Kalaidi, 8 Newcomb Street, requested to move public comment to the beginning of the meeting, and urged to vote "no" on the sale tax increase displaying a button that stated "No Tax Hike," Exhibit C.

(06/21/22 - 17 - 11:38 a.m.) COMMISSIONERS' REPORTS

Commissioner Blocker

No report.

Commissioner Waldron

(11:38 a.m.) Waldron wished everyone a safe Fourth of July and suggested to read the "Declaration of Independence."

06/21/22 BOARD OF COUNTY COMMISSIONERS REGULAR MEETING Page 17

St. Johns County Board of County Commissioners June 21st Regular Meeting. Link to full minutes

Appendix E - Soil Descriptions

The following soil series descriptions correspond with soil names found in Figure 5 and are taken directly from the USDA-NRCS using the online query tool.

BLUFF- The Bluff series consists of very deep, very poorly drained, slowly permeable soils in marshes and on broad low terraces along rivers. They formed in thick beds of alkaline loamy marine sediments. Near the type location, the mean annual temperature is about 72 degrees F., and the mean annual precipitation is about 59 inches. Slopes range form 0 to 2 percent.

These soils are primarily used for woodland or wildlife habitat. The native vegetation consists of swamp white oak, tupelo gum, swamp maple, cypress, and palm, with scattered loblolly pine some areas. The understory vegetation consists of several bluestem species, hairy panicum, longleaf uniola, vines, and forbs.

EAUGALLIE- The EauGallie series consists of very deep, very poorly or poorly drained, slowly permeable soils in flats, sloughs and depressional areas in the Southern Florida Flatwoods and to a lesser extent in the Atlantic Coast Flatwoods, the South Central Florida Ridge, and the Southern Florida Lowlands. They formed in sandy and loamy marine sediments in Peninsula Florida. Near the type location, the man annual temperature is about 72 degrees F., and the man annual precipitation is about 55 inches. Slopes range from 0 to 2 percent.

Many areas of EauGallie soils are used for citrus, truck crops, and pastureland. The natural vegetation consists of longleaf pine, South Florida slash pine, slash pine, fetterbush. The understory vegetation includes running oak, saw palmetto, inkberry, gallberry, wax myrtle, southern bayberry and pineland threeawn.

ELLZEY- The Ellzey series consists of poorly drained, moderately permeable soils that formed in thick deposits of sandy marine sediments. These soils are on broad cultivated areas of the flatwoods in the Coastal Plain of Florida. Slopes are less than 2 percent.

Most areas are cleared and drained and used for truck crops. Native vegetation consists of slash pine, longleaf pine, inkberry, waxmyrtle, few sawpalmetto, and few small cypress. Native grasses include pineland threeawn, chalky bluestem, and maidencane.

FLORIDANA- The Floridana series consists of very deep, very poorly drained, slowly to very slowly permeable soils on low broad flats, flood plains, and in depressional areas. They formed in thick beds of sandy and loamy marine sediments. Near the type location, the mean annual temperature is about 74 degrees F., and the mean annual precipitation is about 55 inches. Slopes range from 0 to 1 percent.

Many areas of Floridana soils have been cleared and used for pasture. Where water control is adequate, it is used for growing truck crops and citrus. Natural vegetation consists of sand cordgrass, cabbage palmetto, myrtle, and pineland threeawn. In depressional areas, most of the soil has a sparse to dense cover of cypress. In flood plains, the vegetation is mostly sweetgum, blackgum, red maple, and cypress.

<u>MULAT</u>- The Mulat series consists of poorly drained soils that formed in loamy and acid marine sediments. These soils occur on low-lying and flatwood areas of the lower coastal plain. Slopes are 0 to 2 percent. Most areas are in woodland or open flatlands. A few drained areas are used for crops and pasture. The natural vegetation is slash and longleaf pine, inkberry (gallberry), wax myrtle, pineland threeawn, dwarf huckleberry, and bluestems. Some of the wetter areas contain bald cypress and pitcher plants.

PLACID- Th Placid series consists of very deep, very poorly drained soils that formed from sandy marine sediments. These soils occur in low broad flats, depressions, drainageways and floodplains. Slopes are 0 to 2 percent.

Most areas where these soils occurs are utilized in water quality, forestry, rangeland, and wildlife habitat. Some areas are used for truck crops, citrus, and pasture. The dominate vegetation is maidencane, sand cordgrass, pickerelweed, giant cutgrass, wax myrtle, sedges, and rushes. Scattered cypress, bay, pond pine, black gum, tupelo, and cabbage palm occur in some areas.

<u>POMONA-</u> The Pomona series consists of very deep, poorly and very poorly drained soils that formed in sandy and loamy marine sediments. Pomona soils are on flats and flatwoods on marine terraces. Slopes range from 0 to 2 percent. The mean annual temperature is about 72 degrees F, and the mean annual precipitation is about 55 inches.

Under natural conditions Pomona soils are used for water quality and wildlife habitat. Cultivated areas are used for truck crops and tame pasture. Potential native vegetation consists of slash pine, longleaf pine, and south Florida slash pine with an understory of saw palmetto, waxmyrtle, gallberry, creeping bluestem, chalky bluestem, indiangrass, and pineland threeawn.

<u>RIVIERA</u>- The Riviera series consists of very deep, poorly drained, very slowly permeable soils on broad, low flats, flatwoods and in depressions in the Southern Flatwoods and the Southern Florida Lowlands. They formed in stratified sandy and loamy marine sediments. Near the type location, the mean annual temperature is about 75 degrees F., and the mean annual precipitation is about 62 inches. Slopes range from 0 to 2 percent.

When drained, Riviera soils are used for citrus, winter truck crops, and improved pasture. Native vegetation consists of slash pine, cabbage, and saw palmetto, scattered cypress, maidencane, and pineland threeawn.

<u>SMYRNA</u>- The Smyrna series consists of very deep, poorly to very poorly drained soils formed in thick deposits of sandy marine materials. Permeability is rapid in the A, E and C horizons and moderate or moderately rapid in the Bh horizons. Slopes range from 0 to 2 percent.

Natural vegetation consists of longleaf and slash pines with an undergrowth of saw palmetto, running oak, gallberry, waxmyrtle, and pineland threeawn. Most areas are used for forest and range. Large areas are used for tame pasture.

<u>SPARR</u>- The Sparr series consists of very deep, somewhat poorly drained, moderately slowly to slowly permeable soils on uplands of the coastal plain. They formed in thick beds of sandy and loamy marine sediments. Near the type location, the mean annual temperature is about 72 degrees F., and the mean annual precipitation is about 55 inches. Slopes range from 0 to 8 percent.

Most areas of Sparr soils are used for corn, citrus, peanuts, watermelons, truck crops, and tame pasture. Native vegetation consists of longleaf pine, slash pine, loblolly pine, magnolia, dogwood, hickory, and live oak, laurel oak, and water oak. **TERRA CEIA**- The Terra Ceia series consists of very deep, very poorly drained, rapidly permeable soils in fresh water marshes Southern Florida Flatwoods, and to a lesser extent in the South Central Florida Ridge, Southern Florida Lowlands, Atlantic Coast Flatwoods, Eastern Gulf Coast Flatwoods and the Florida Everglades and Associated Areas. They formed in more than 50 inches of well decomposed, hydrophytic, herbaceous plant remains. Near the type location, the mean annual precipitation is about 61 inches and the mean annual temperature is about 75 degrees F. Slopes are 0 to 1 percent.

Drained areas are used for truck and bulb crops, sugarcane, and improved pasture. Large undeveloped areas are used for water storage and as wildlife habitat. The natural vegetation consists of sawgrass, lilies, sedges, reeds, maidencane, spikerush, and other aquatic plants. Wooded plant species include cypress, blackgum, cabbage palm, carolina ash, loblolly bay, red maple, sweetbay, and pond pine. American and white mangrove trees are dominant in tidal areas.

TOCOI- The Tocoi series consists of very deep, poorly drained, moderately rapidly permeable soils on broad flats in the lower Coastal Plain. They formed in thick beds of sandy marine sediments. Near the type location, the mean annual temperature is about 74 degrees F., and the mean annual precipitation is about 56 inches. Slopes range from 0 to 2 percent.

Tocoi soils are used mainly for woodland. Some areas have been cleared and used for improved pasture or growing vegetables. Native vegetation consists of slash pine, longleaf pine, waxmyrtle, sawpalmetto, greenbrier, inkberry, bluestems, and pineland threeawn.

WABASSO- The Wabasso series consists of very deep, very poorly and poorly drained, that formed in sandy and loamy marine sediments. Wabasso soils are on flatwoods, low broad flats, sloughs, depressions, and flood plains. Slopes are linear to concave and range from 0 to 2 percent. Near the type location, the mean annual precipitation is about 55 inches, and the mean annual temperature is about 72 degrees F.

Most areas of Wabasso soils are in natural vegetation and used for native range. Areas with adequate water control measures are used for citrus, truck crops, and tame pasture. The natural vegetation consists of longleaf pine, slash pine, cabbage palm, live oak, with an understory of sawpalmetto, laurel oak, waxmyrtle, chalky bluestem, creeping bluestem, indiangrass, little bluestem, Florida paspalum, running oak, south Florida slash pine and pineland threeawn.

WINDER- The Winder series consists of very deep, poorly drained, slowly to very slowly permeable soils on broad, low flats and depressional areas. They formed in loamy marine sediments on the Lower Coastal Plain. Near the type location, the mean annual temperature is about 73 degrees F., and the mean annual precipitation is about 55 inches. Slopes range from 0 to 2 percent.

Most areas of Winder soils are in native vegetation and used for wildlife habitat. With adequate water control, some areas are used for citrus, winter truck crops, and improved pasture. Natural vegetation consists of cordgrass, maidencane, cabbage palmetto, saw palmetto, and pineland threeawn.

Appendix F – Deep Creek West RSTF Agreement; Operation and Maintenance Plan

COOPERATIVE AGREEMENT

Deep Creek West Regional Stormwater Treatment Facility Yarborough Parcel

Res 2010-199

THIS COOPERATIVE AGREEMENT ("Agreement") is made as of the <u>5</u> day of <u>Advert</u>, 2010, 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 P.O. Box 1429, Palatka, Florida 32178-1429 (hereinafter called the "District") and ST. JOHNS COUNTY, a political subdivision of the state of Florida, whose address is 500 San Sebastian View, St. Augustine, FL 32084 (hereinafter called the "County").

WITNESSETH

Whereas, the District holds title to certain lands known as the Deep Creek West Regional Stormwater Treatment Facility ("RST Facility"), located approximately 4.5 miles east of the St. Johns River, south of County Road 206, south east of Hastings, in St. Johns County, as depicted on Exhibit "A" attached hereto and by this reference made a part hereof; and

Whereas, the District has initiated the development of the RST Facility, which includes a combination of catchbasins and vegetative filtration systems designed specifically to address nutrient and agricultural runoff issues associated with regional agricultural activities; and

Whereas, the County has the personnel and experience necessary to provide for the management and maintenance of natural, cultural, and recreational resources, nuisance and exotic plants, and components of the RST Facility; and

Whereas, the District, has the personnel and experience necessary to provide for the monitoring and maintenance of the water quality sampling equipment, nuisance and exotic plants, and components of the RST Facility; and

Whereas, by this Agreement, the District and the County desire to provide for the joint management of the RST Facility; and

Whereas, by this Agreement, the District licenses the County to enter upon the RST Facility for the purposes set forth herein; and

Whereas, the Operation and Management Plan ("O&M Plan") agreed upon by the parties, attached as Exhibit B and by reference incorporated herein, provides detailed information on the operation and management of the RST Facility and equipment. It identifies roles and responsibilities of key divisions within the District and the County to ensure that the RST Facility maximizes the intended benefits of the stormwater project and meets the goals of the District; and

Whereas, the District enters into this Agreement pursuant to Section 373.083(5) Florida Statutes, and Policy Number 90-16 (Cooperative Agreements), and

NOW, THEREFORE, in consideration of the premises above, which are hereby incorporated into the body of this Agreement and adopted as Findings of Fact, and the mutual covenants, terms, and conditions below, the parties hereby agree as follows:

- The initial term of this Agreement is for a period of four (4) years, commencing on October 1, 2010. Thereafter, this Agreement will automatically renew in five (5) year increments, unless otherwise terminated as set forth herein.
- 2. The parties shall undertake their specified responsibilities set forth in the O&M Plan.
- 3. In addition to the activities set forth in the O&M Plan, the parties agree as follows:
 - The County shall secure electrical services in the County's name and assume all associated costs for such service.
 - b. The County shall provide natural resource-based recreational opportunities, excluding fishing, and as consistent with the O&M Plan, within only those portions of the RST Facility depicted in Exhibit A.
 - c. The County shall provide other services, including general management, as necessary to guarantee appropriate access and public, health, safety and welfare; e.g., electrical maintenance, firelines and roadways.
- 4. The parties mutually agree that any use or development of the RST Facility shall be subject to the following conditions:
 - a. The function of the RST Facility with respect to water management will be to serve as a regional stormwater treatment facility.
 - b. Any development of the RST Facility shall be set forth in the O&M Plan. No deviation from the O&M Plan shall occur without prior written approval of both parties.
 - c. No amendment to the O&M Plan shall be effective unless it is set forth in writing, signed by both parties, and made an amendment to this Agreement.
 - d. Historical and archaeological resources shall be preserved.
- 5. The County may enter into agreements with third parties to develop and implement the O&M Plan or to subcontract day-to-day management responsibilities to environmental, educational or governmental organizations and agencies consistent with the approved O&M Plan; provided, however, that any such third party agreements shall be subject to the prior written approval of the District, and such third parties shall agree to comply with the terms and conditions of this Agreement. The District shall not unreasonably withhold approval of such third party agreements.

- 6. The County shall pay all lawful debts incurred by it with respect to the RST Facility and shall satisfy all liens of contractors, sub-contractors, mechanics, laborers, and materialmen regarding any maintenance, management, construction, alteration and repair ordered by it in and on the RST Facility and any improvements thereon. Furthermore, the County shall not have authority to create any mortgages on the RST Facility or liens for labor or material on or against the RST Facility. All persons contracting with the County for the construction or removal of any structure or for the erection, installation, alteration or repair of any structure or improvement on the RST Facility, including materialmen, contractors, mechanics and laborers involved in such work, shall be notified that they must look to the County only to secure the payment of any bill or account for work done, material furnished, or money owed during the term of this Agreement.
- 7. The parties and any other governmental agencies or organizations involved in management-related activities on the RST Facility shall, through the term of this Agreement, provide, maintain, and keep in force a program of insurance or selfinsurance covering its liabilities as prescribed by Section 728.28, Florida Statutes. The District's liability is further limited by the provisions of Section 373.1395, Florida Statutes. Nothing in this Agreement shall be construed as a waiver of the District's or the County's sovereign immunity in excess of the waiver under Section 768.28, Florida Statutes, or any other provision of law.
- 8. Any non-governmental agencies, organizations, or companies involved in managementrelated activities on the RST Facility shall be required to maintain general liability insurance in an amount not less than one million dollars covering its liabilities in the event of personal injury or death to persons or damage to property resulting from use or management of the RST Facility.
- 9. This Agreement and any and all rights and privileges contained herein are for the sole use of the parties and shall not be assigned or transferred to a third party without the written consent of the other party.
- 10. The District reserves the right for itself, its agents, consultants and employees, to enter upon the RST Facility for purposes of sampling, monitoring, and inspecting the RST Facility and determining compliance with the terms of this Agreement any other purpose set forth herein. The District, its agents, consultants or employees, shall be responsible for promptly closing and locking any gates through which they may pass in the exercise of such right of entry.
- 11. Either party may terminate this Agreement, with or without cause, at any time upon ninety (90) days written notice to the other party. In the event of termination, all improvements that are affixed to the realty shall become the property of the District.

- 12. The access to, disclosure, non-disclosure, or exemption of records, data, documents, correspondence, and/or materials associated with this Agreement shall be subject to the applicable provisions of the Florida Public Records Law (Chapter 119, Florida Statutes) and other applicable State or Federal law. Access to such records may not be blocked, thwarted, and/or hindered by placing the public records in the possession of a third party or an unaffiliated party.
- 13. 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 party:

DISTRICT:	ST. JOHNS RIVER WATER MANAGEMENT DISTRICT PO BOX 1429 PALATKA, FL 32178-1429 ATTENTION: DIRECTOR, DIVISION OF LAND MANAGEMENT
COUNTY:	ST. JOHNS COUNTY 500 SAN SEBASTIAN VIEW ST. AUGUSTINE, FL 32 00 84 ATTENTION: Michael Wanchick, Administrator

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.

- 14. Wherever used herein, the terms "District" and "County" include the parties to this Agreement, their respective employees, and the heirs, legal representatives, successors, and assigns.
- 15. If any word, phrase, sentence, part, subsection, or other portion of this Agreement, or any application thereof, to any person or circumstance is declared void, unconstitutional, or invalid for any reason, then such word, phrase, sentence, part, subsection, other portion, or the proscribed application thereof, shall be severable, and the remaining portions of this Agreement, and all applications thereof, not having been declared void, unconstitutional, or invalid shall remain in full force, and effect.
- 16. This Agreement constitutes the entire agreement of the parties. 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 or their authorized representatives.

- 17. This Agreement shall be construed and interpreted according to the laws of the state of Florida. Venue for any administrative action arising under this Agreement shall be in Putnam County, Florida. Venue for any civil action arising under this Agreement shall be in St. Johns County, Florida.
- 18. 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 or the County as they now or hereafter exist under applicable laws, rules and regulations.
- 19. Nothing in this Agreement shall create any rights for the benefit of any persons not a party to this Agreement.
- 20. To the extent that either the District or the County needs to obtain/acquire and maintain permits, certificates, licenses and/or approvals in order to undertake the tasks set forth in this Agreement or the attached and incorporated O&M Plan, then the District or County shall be responsible for securing, obtaining/acquiring, and maintaining, at the District or County's sole expense, any and all permits, certificates, licenses, and/or approvals required by federal state, and/or county law, rule, regulation, or ordinance.

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

By: Kirby B. Green III, Executive Director

Dal.D. Date :

APPROVED AS TO LEGAL FORM AND CONTENT:

anle Stanley J. Niego

Office of General Counsel, SJRWMD

ST. JOHNS COUNTY

By: _ Michael D. Wanchick County Administrator Title: 9 Executed on 2010 ر

ATTEST; By: Title: Depute Cler

APPROVED BY:

W 1 9/08/0

COUNTY ATTORNEY



EXHIBIT B

Operation and Management Plan

Deep Creek West (Yarborough) Regional Stormwater Treatment Facility St. Johns County, Florida





St. Johns River Water Management District April 2010

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Appendix B: Treatment Pond Pump and Electrical Standard Maintenance Requirements and Pump Station Operation and Maintenance Manual Appendix C: Treatment Wetland Design and Monitoring Document

Appendix D: Biological Assessment Appendix E: Site and Design Technical Memorandum (CDM, Inc.) Appendix F: Ecological Risk Evaluation

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1.0Introduction

The purpose of this document is to provide information on the operation and management (O & M) of the Deep Creek West (Yarborough Tract) Regional Stormwater Treatment (RST) facility. In addition, this document will identify the roles and responsibilities of key divisions within the St. Johns River Water Management District (District) and St. Johns County (County) to ensure that the facility maximizes the intended benefits of the project and meets the goals of the District. It also provides some background on the reason for the project and its anticipated benefits.

Operation and management of the Deep Creek West RST facility is a cooperative effort between the District and the County. Close coordination between these units is essential to ensuring that the treatment system is successful in achieving nitrogen, phosphorus, and total suspended solids (TSS) reduction goals. Nutrient reductions are needed to meet the Total Maximum Daily Loads (TMDLs) for the impaired waters of the freshwater section of the St. Johns River as listed on the Florida Department of Environmental Protection's 303(d) list and as mandated by the Clean Water Act.

This document identifies responsibilities according to major project components and identifies the organizational units having lead responsibility for O & M of each component. It also identifies which units should be consulted under different circumstances. The primary divisions involved along with contact information are listed in Section 7. The responsibilities of these groups are described in connection with the following major project components: Water Quality Monitoring, Invasive Vegetation Monitoring, Fish Kill Contingency Plan, Pump and Forebay Management, Treatment Pond Management, Treatment Wetland Management, and General Maintenance.

This plan reflects the dynamic nature of these RST projects. As the project matures this plan will require modification to reflect lessons learned through time. It is the goal of the project team to consistently review and amend this document as needed. To facilitate this it will be stored in Portable Document Format (.pdf) within a program folder on the District's server. Any changes to the original Word document should be authorized by the Basin Program Manager prior to modification.

Additionally, this O & M plan will be placed on the project team site once project web access is enabled by the District.

O & M plans will be reviewed at least once per calendar year between January and March. If a team member determines that a change is warranted at other times, they may provide their suggested changes to the Basin Program Manager. The Program Manager will then present the suggested change to the project team, as applicable.

2.0 Project Purpose and Background

The lower St. Johns River (LSJR) is a blackwater, tidal estuary that extends approximately 100 miles from the confluence of the Ocklawaha River to the mouth of the St. Johns River, where it empties into the Atlantic Ocean at Mayport. The LSJR can be divided into four ecological zones based on flow patterns, average salinity regime, and morphological characteristics: a freshwater riverine zone which extends from the city of Welaka north to Black Creek near Green Cove Springs; a predominantly oligohaline, lacustrine zone extending from Black Creek northward to the city of Orange Park; a mesohaline lacustrine zone reaching from Orange Park to the Fuller Warren Bridge in Jacksonville; and a polyhaline riverine zone downstream to the mouth of the river. Algal blooms that peak during spring and summer can be particularly severe in the freshwater lacustrine zone of the river, degrading water quality, decreasing dissolved oxygen concentrations, and prohibiting light from reaching submerged grasses.

The Tri-County Agricultural Area (TCAA), located in Flagler, Putnam, and St. Johns counties, encompasses 380,500 acres within the LSJR. Approximately 10% of the TCAA watershed acreage, or 31,000 acres, is irrigated cropland; predominately potato, cabbage, and sod farms according to a 2006 land use update. Row crop agriculture contributes 82% of the existing total nitrogen and 72% of the phosphorus loads in the TCAA watershed. Early spring production of irrigated vegetables grown on flat and poorly drained soils, with standard agricultural management practices of fertilization, irrigation and drainage, effectively conveys nutrient-rich stormwater to the freshwater zone of the river through a network of canals and ditches.

The objective of the District's regional stormwater system initiative is to design, construct and operate site-specific regional treatment systems to improve water quality in the receiving surface waters and mainstem of the Lower St. Johns River. This is achieved by

removing nutrients in the form of dissolved and particulate material from drainage waters from priority agricultural basins before water is discharged to surface waters at the basin outlet. The Deep Creek West RST facility was the first facility constructed in the TCAA.

Since 1998, best management practices (BMPs) designed to reduce nutrient-rich runoff have been implemented in the TCAA, primarily through growers voluntarily participating in the St. Johns River Water Management District's TCAA Water Quality Protection Cost-Share Program. Annual reductions of nitrogen and phosphorus through implementation of in-field agricultural BMPs have been estimated to reduce watershed nitrogen loading by 24% and phosphorus loading by 14%, based on 2000 land use data for row crop acreage. However, the reduction in nutrients through implementation of current in-field BMPs is not sufficient to meet nitrogen and phosphorus reductions required for the TMDLs for the freshwater section of the river, as mandated by the Clean Water Act for the Florida Department of Environmental Protection's 303(d) listed impaired waters. In order to meet the TMDL for the freshwater lacustrine zone of the LSJR, the TCAA must implement BMPs on all of the row crop acreage in order to meet the required 37% reduction in nitrogen and 15% reduction in phosphorus from the watershed. If these reductions are not met, then other public works projects must be implemented to achieve the TMDL reduction. These goals are based on the Basin Management Action Plan (BMAP) dated October 2008.

In an effort to meet nutrient reductions required by the TMDL, the District purchased the Yarborough Tract for construction of an RST facility to treat nutrient-laden runoff from the Deep Creek sub-basins that eventually discharges into the Deep Creek tributary of the LSJR. The Deep Creek sub-basin is a high priority sub-basin comprised of 22,806 acres with 95% agricultural land use, 65% of which is row crop agriculture.

During the life span of each treatment component (pond and wetland) of the RST facility, the primary monitoring objective will be to maintain the optimum performance of each treatment component, and its ability to reduce nutrients and sediments from agricultural runoff that is conveyed through the system during base flow and storm flow conditions. The secondary objective will be to maintain the physical and biological health of the system itself. To accomplish these objectives, various parameters will be monitored by the District's Division of Environmental Sciences and will include base flow and storm flow water quality, fish tissue analyses, seasonal vegetation mapping, soil oxidation/reduction conditions, wildlife surveys, and

land use surveys. The complete monitoring plan is included within Appendix C. Monitoring parameters are based on information compiled during the Biological Assessment Report (Appendix D), Site and Design Technical Report (Appendix E), and the Ecological Risk Evaluation (Appendix F).

3.0 Project Location

The District purchased the entire Yarborough Tract in 1998, consisting of 1,103 acres. The Deep Creek West facility is located on a portion of the acreage purchased, approximately 93 acres, located in southwest St. Johns County, Florida (Section 21 of Township 9 South, Range 28 East) approximately 1.5 miles from Hastings, Florida within the Deep Creek sub-basin (Figure 1).


Figure 1. Location of the Deep Creek West RST Facility

4.0 Project Design

The Deep Creek West RST facility is a BMP treatment train consisting of a 0.1-acre sediment forebay, a 15-acre wet detention pond and a 38-acre treatment wetland system designed to treat agricultural runoff from a 1,196-acre watershed; George Miller Road separates the wet detention pond and the treatment wetland (Figure 2). The wet pond bottom elevation is -6 ft NGVD and the pond side slope is 4:1. Wet pond water flows through a weir at the pond outfall. The wet pond weir crest is 7.39 ft NGVD. The wet pond maintains a permanent pool at approximately 7.5 ft NGVD with the depth of the permanent pool at 13.5 ft.

A 15-acre wetland mitigation area, within the 38-acre wetland, for the State Road 207 widening in St. Johns County by the Florida Department of Transportation is shown in Figure 4. Environmental Sciences staff is the contact for the wetland mitigation area.

Agricultural drainage water is pumped from the confluence of Hastings Drainage District (HDD) canals No. 1 and No. 2, located at the north end of the wet detention pond into the wet detention facility. The pump station is equipped with two 10-cfs pumps and the telemetry is set up to continuously pump canal base flow (average 1.5 cfs) as well as storm runoff (maximum 20 cfs into the system). The pump station is designed for 90% capture of flow conveyed in HDD canals No.1 and No. 2. Pond-treated water exits and gravity flows continuously to the wetland through a weir structure and a siphon culvert under George Miller Road (Figure 3). Facility construction was completed in 2005 and the entire system became operational in April 2006 with the wetland consistently functional in July 2006.

Additional design documentation is attached and are listed in the Appendix. The final engineering plans are on file at the District and available upon request.









5.0 Monitoring

5.1 Water Quality and Hydrologic Monitoring

District Environmental Sciences staff will operate and maintain the automated water quality sampling stations that are located at the canal inflow of the treatment system, outflow of the pond, and outflow of the wetland to collect water associated with storm events. Storm event samples are collected by ISCO Avalanche automated refrigerated sampling units powered by AC power at the canal inflow and pond outflow, and a solar-charged battery system at the wetland outflow. Automated samplers are triggered by water level increases representative of storm events and then continue sampling for seven days once triggered. Samples are collected every 8 minutes for the first 2 hours to capture the rising limb of the storm hydrograph and "first-flush" nutrient effect, succeeded by sampling in equal time intervals for the remainder of the first day of the storm, and then every 3 hours for the next 6 days. Monitoring is conducted so that both

spatial and temporal trends can be measured and evaluated. These measurements allow project managers to make decisions regarding site-specific operational changes for maintaining and/or improving performance of the Deep Creek West RST facility. District Environmental Sciences staff assess treatment performance of the RST facility to reduce nutrients and sediments from agricultural runoff that is conveyed through the system. Treatment performance will be determined for the pond independent of the wetland, the pond and wetland collectively, and watershed nutrient reductions achieved. Environmental Sciences staff will develop bi-annual water quality update reports and annual treatment performance reports.

Hydrologic monitoring will include a combination of stage, flow, and rainfall measurements for calculating a water budget. One stage recorder is used to measure water level in the canal, an additional stage recorder measures water level in the pump basin, and two stage recorders are used to measure water levels within the pond. One stage recorder is placed at the inflow of the pond for measuring water level at the emergency overflow structure and the second recorder is located at the outflow structure of the pond. Two additional stage recorders measure headwater and tail water levels, respectively at the wetland outflow structure.

Flow volumes into the pond will be measured by recording pump run times and static head. Static head is developed from the elevation differences in the sump and in the discharge end. Flow volumes are calculated by multiplying pump run time duration by the pump discharge flow rate. Flow volumes exiting the pond are calculated using stage levels and a weir equation. A rain gauge is also located at the inflow of the pond. The rain gauge measures the volume of rainfall that is contributed to the water budget of the pond and wetland through atmospheric deposition.

A data logger (Figure 5), which is considered the "base station" located at the pond inflow is used to record and store all the data points collected electronically by the monitoring equipment located at each station. The data logger is housed within the existing fenced discharge station for security purposes. All operations are controlled by Campbell Scientific equipment, specifically a CR1000 in the base station, supported by CR 206 units at the outflow stations and inflow canal. All information is transmitted to District HQ via an *AirLink* telemetry system, which communicates to Environmental Sciences staff via the Campbell software, *Loggernet*. All associated data files are downloaded and analyzed by staff as necessary to

monitor and adjust project performance. The base station houses the radio and antenna, phone modem for telemetry access of the collected data, and a solar-charged battery system.

Data logger programming has been developed by an outside contractor, Aqua Flora Instrumentation, Inc. of Lakeland, FL. Any alterations to the programming system should be conducted by authorized personnel. This programming follows an operational decision tree intended to give readers and programmers a clear illustration of the matrix of commands the telemetry equipment must execute as project water levels and conditions change. Programmed water levels in the pump basin that activate operation of pump 1, pump 2, and deactivate pumps, should not be altered without first notifying the Division of Environmental Sciences. Additionally, AC power at the pump station should not be turned off without first contacting the Division of Environmental Sciences. Interruption of AC power will directly interfere with autosampler operation at the canal and pond stations. Pond operations should be coordinated with the District Division of Engineering.

Figure 4. FDOT Wetland Mitigation Area





Figure 5. CR1000 Base Station Data logger at Forebay/Treatment Pond

The following Operational Decision Tree (Figure 6) is provided to concisely display the matrix of all possible courses of action the inflow system must recognize and act upon.

Figure 6. Operational Decision Tree – Inflow Pumping System





The following Operational Decision Tree (Figure 7) is provided to concisely display the matrix of all possible courses of action that the inflow canal system must recognize and act upon.

Figure 7. Operational Decision Tree – Inflow Canal Sampling System



The following Operational Decision Tree (Figure 8) is provided to concisely display the matrix of all possible courses of action that the retention pond system must recognize and act upon.

Figure 8. Operational Decision Tree – Retention Pond Sampling System



Similar to the hydrologic monitoring at the pond, monitoring at the wetland outflow structure will include a combination of stage and flow measurements, which are connected via telemetry through a wireless connection to the base station. The radio and antenna for telemetry access of the hydrologic and water quality data is located at the wetland outflow site, as well as a power supply with a charging system. The District's Division of Environmental Sciences conducts water quality monitoring at the outflow of the wetland including storm event sampling by an automated refrigerated sampling unit powered by a solar-charged battery system.

The suction line and strainer associated with the sampling unit is located on the water control structure at the weir crest elevation. The autosampler is programmed to collect time-weighted composite samples during storm events at a specified water level height above the weir crest. During storm events, water levels will stage up at the outflow structure. The stage level recorder on the upstream side of the water control structure monitors the rise in water elevation. The increase in water level is recorded by the data logger. The data logger is programmed to initiate water sampling by the ISCO refrigerated sampling unit once the water level exceeds a specified level above the weir crest elevation. Samples are collected every 8 minutes for the first 2 hours to capture the rising limb of the storm hydrograph and "first-flush" nutrient effect, succeeded by sampling in equal time intervals for the remainder of the first day of the storm, and then every 3 hours for the next 6 days (refer to Figure 9).

Hydrologic monitoring by the District includes a combination of stage and flow measurements for calculating a water budget. Two stage recorders measure water levels at the outflow structure of the wetland. One recorder is placed upstream of the outflow structure and the second recorder is located downstream of the outflow structure of the wetland for measuring headwater and tail water levels, respectively. Flow volumes exiting the wetland will be calculated using stage level and a weir crest equation.

The following Operational Decision Tree (Figure 9) is provided to concisely display the matrix of all possible courses of action the wetland outflow system must recognize and act upon. Additional information regarding the design and monitoring of the wetland is included in Appendix C.



Figure 9. Operational Decision Tree – Wetland Outflow System

5.2 Exotic and Invasive Vegetation Monitoring

5.2.1 Pond Perimeter Invasive Vegetation Survey

District Environmental Sciences staff will monitor vegetation around the perimeter of the pond to identify invasive exotic plants for land management purposes. The District will monitor invasive exotic plants quarterly, and the pond perimeter will be traversed by foot. The location of all plants considered exotic and invasive is collected via GPS, and the species names and locations are plotted in an ArcMap project for quarterly and/or annual evaluation by the District.

5.2.2 Pond Hydrilla Survey

In addition to the invasive plant survey, the District's Division of Environmental Sciences began a quarterly *Hydrilla* survey in January 2007 to ensure that *Hydrilla* densities do not obstruct flow through the pond. Initial monitoring consisted of five transects across the pond, and bottom samples were collected every 10m with a Petite Ponar to assess presence/absence of *Hydrilla*, along with associated density. After one year of data collection, results indicated that while *Hydrilla* may become established in the littoral zone of the pond, at approximately 1.5m depth, the combination of dark water (average color 60 cpu, range of 20-200 cpu) and an anoxic flocculent substrate prevents the plant from expanding out from the littoral zone. As such, methods were altered so that only the littoral zone was monitored for *Hydrilla* presence at the ten points around the perimeter of the pond where the initial transects had occurred. For each quarterly survey performed by the District, near shore densities are estimated at each of the ten points and entered into an ArcMap project for quarterly and/or annual evaluation.

5.2.3 Wetland Vegetation Survey

The District's Environmental Sciences staff monitors the wetland vegetation twice per year in order to 1) evaluate species transition and equilibration, and 2) assess vegetation composition in order to verify wetland performance. The wetland was initially divided into a 45m x 45m grid (sixty points), and those points are sampled twice per year. Samplers navigate to the sample location with GPS, and identify all vegetation occurring within a 1m radius of the point, recording water depth and each species, with associated percent cover and average canopy height. Data are then entered into a database and loaded to ArcMap for temporal and spatial analysis.

5.3 Fish Kill Contingency Plan

The County and District staff are both responsible to immediately notify the other party in the event of a fish kill. The Biological Assessment (BA) submitted to the U.S. Fish and Wildlife Service (USFWS) requires that in the event of a fish kill, an attempt will be made to identify the cause of the kill. It is the responsibility of the District's Division of Environmental Sciences to identify the cause of the kill. A dichotomous key from the Field Manual for the Investigation of Fish Kills will be used to assist in identifying the cause of the event. Specific evidence of a possible acute hazard to birds may include timing of the fish kill (January-June, normal agricultural growing season), dead fish upstream, evidence of toxicity among other vertebrates, or pectoral fins of the fish thrust to an extreme forward position.

If such evidence is detected, USFWS will be notified of the kill within 24 hours. Any notification to USFWS is to occur through the District's Water Resource Department, Environmental Resource Coordinator. Since fish in this situation could pose an acutely toxic risk to birds, hazing will be instituted until dead fish have been removed. Hazing and clean-up will be the responsibility of the County. The clean-up effort in this situation will be focused on removing fish larger than 2 inches and those that are floating at or near the surface, or would otherwise be easy prey items. The method of removing the fish is at the discretion of the County. Collected fish will be disposed of at the County landfill where they will be covered to prevent scavenging. The District will collect samples of the dead fish to be analyzed by the District's Division of Environmental Sciences for Organochlorine and Organophosphate/Carbamate pesticides.

If there is no evidence of an acute hazard to birds or there is clear evidence that the fish kill is associated with low dissolved oxygen (DO) levels (such as DO data from immediately prior to the kill), USFWS will be notified by the District's Water Resource Department, Environmental Resource Coordinator. The District's Division of Environmental Sciences will collect and freeze a small, representative sample(s) of the fish to be analyzed should additional problems arise. If, after 30 days, consensus still indicates low DO as the cause of the kill, the sample(s) may be discarded. If the fish kill is a large-scale kill (over 15,000 dead fish), an attempt to remove as many fish as possible needs to be made, focusing on the largest fish. While not a requirement from USFWS, removal of these fish will contribute to nitrogen and phosphorus removal for the facility. Focusing on the larger fish allows for greater nutrient

removal, and fish removal should be ongoing for three days, as the fish will begin to sink after that time. Should a fish kill smaller than 15,000 occur, the District's Division of Environmental Sciences will return daily to the site for three days to ensure additional fish do not die, tripping the clean-up threshold.

6.0 Operation and Management

6.1 Pump and Forebay Management

6.1.1 Pump Station Maintenance

The County will routinely maintain the two 25-horsepower electrical pumps located at the inflow of the pond. Basic operation for non-storm event conditions has the pumps set to alternate pumping the base flow from HDD canals No. 1 and No. 2 into the wet detention pond. The County will check the pumps after every significant rainfall event or at a minimum monthly in addition to routine maintenance items. The pump and electrical standard maintenance requirements are presented in Appendix B, in addition to the complete pump station operation and maintenance manual. A maintenance log is located in the electrical cabinet at the pump station that should be completed after each maintenance check or repair. The County will be responsible for electrical repairs by a District approved electrician or contractor. District Engineering staff will be available upon request to provide input if necessary. If it is necessary to shut off electrical power to the pumps for maintenance purposes, the County should contact the District Environmental Sciences representative prior to the electrical outage, if possible. Water quality autosampling equipment at the canal inflow and pond outflow is powered by the main electrical power at the pump station.

If both pumps are manually activated to run concurrently during a routine maintenance event, please contact the District Environmental Sciences representative so that water quality samples that may be collected by the automated samplers are not analyzed as storm events. District staff will report any needed maintenance issues to the County who will have 24 hours to respond and address the issue.

6.1.2 Operation of Pond Inflow System and Pond Water Levels

The County will monitor operations on a regular basis with weekly on site observations. District staff will also monitor and operate the treatment pond inflow and outflow systems. This

is coordinated between the District's Division of Environmental Sciences, Division of Engineering, and the County. If the District observes problems with pump or other system components it will report them to the County who will respond within 24 hours.

Sump elevation inside the pump station activates operation of two pumps. The majority of flows will be base flow conditions where one lead pump will be activated to pump waters into the pond system, until the sump elevation drops to the pumps off level. Circuitry in the electrical control panel will then shift the lead pump status to the other pump such that the next pumping cycle will run that pump, thus keeping usage more or less even between both pumps. When the water level height and incoming flows from the drainage canals to the forebay area are such that one pump cannot lower the level to the pumps off elevation then a "storm event" is present. In this condition both pumps will be activated in an attempt to discharge all the forebay waters to the pond and bring the incoming flows down to the pumps-off level. Programmed water levels in the pump basin that activate operation of pump 1, pump 2, and deactivate pumps, should not be altered without first notifying the Division of Environmental Sciences.

6.1.3 Pump Intakes and Forebay Vegetation Removal

The County will control Hydrilla and other vegetative overgrowth with herbicidal treatment in the forebay (or by mechanical removal), pond emergency overflow structures, and around the pond outflow structure to prevent blockage of the structure and interruption of flow. The current stock of Hydrilla throughout the pond will not be controlled at this time by mechanical removal or herbicidal treatment; however, District's Environmental Sciences staff will continue to monitor Hydrilla growth. If the Hydrilla has the potential to negatively impact system functioning, or if it is determined Hydrilla is being released from the treatment facility outflow located at the wetland, the project team will discuss management options for controlling Hydrilla growth that will minimize release of stored nutrients in Hydrilla vegetative tissues.

6.2 Treatment Pond Management

6.2.1 Development Phase of Pond Inflow Pumping Schedule

District Environmental Sciences staff are responsible for water quality monitoring needed by the District Engineering staff to develop and verify the modeled maximum treatment performance of the pond independent of the treatment wetland, and the pond and treatment

wetland collectively. Modeling efforts are based on existing canal inflow water quality data and hydrologic data. Once these modeled maximum treatment performances are determined and verified by stormwater monitoring, a permanent pumping schedule for canal inflow into the treatment system will be implemented to achieve maximum treatment performance.

However, in the interim, a pond inflow pumping schedule for storm events will be implemented to target a 14-day residence time in the pond. This will be achieved by programming storm flow pumping (i.e., pumps 1 and 2 running simultaneously) to not exceed 72 hours of pumping or total volume pumped in a 14-day period not to exceed the permanent pool volume. After this condition is met, only base flow pumping will occur with pumps 1 and 2 alternating in pumping sequence. After a total of 14 days, the regular pumping schedule will resume until the next potential storm event.

Verification of the modeled maximum treatment performance results will be implemented by the District by collecting storm water quality data using refrigerated automated sampling units deployed at the canal inflow, pond outflow, and wetland outflow.

6.2.2 Vegetation Removal Near Pond Structures

The County will control Hydrilla and other vegetative overgrowth with herbicidal treatment (or by mechanical removal) around the pond emergency overflow structures and around the pond outflow structure to prevent blockage of the structure and interruption of flow. The current stock of Hydrilla throughout the pond will not be controlled at this time by mechanical removal or herbicidal treatment; however, District's Environmental Sciences staff will continue to monitor Hydrilla growth. If the Hydrilla has the potential to negatively impact system functioning, or if it is determined Hydrilla is being released from the treatment facility outflow located at the wetland, the project team will discuss management options for controlling Hydrilla growth that will minimize release of stored nutrients in Hydrilla vegetative tissues.

6.2.3 Exotic and Invasive Plant Management

District Environmental Sciences staff will report species observed during quarterly vegetation monitoring, that appear on the Florida Exotic Pest Plant Council Invasive Plant List, to the County and Division of Land Management. Vegetation species and locations will be provided to the County.

They County will be responsible for monitoring and implementing herbicidal treatment of specific exotic invasive vegetation species in and around the pond. Should herbicidal treatment of targeted species within or around the pond be necessary, the work may be done using a combination of off-road vehicles, spot spraying by foot travel, or by boat.

6.2.4 Inspection of Pond Outlet and Discharge Pipe System

The County will perform routine pump maintenance events on the pond outlet structure and discharge piping system, including the structure on the wetland side of George Miller Road. These will be visually checked for blockage or unanticipated structural damage. The County will inspect and make appropriate corrections as needed, such as cleaning of debris from the weir and/or skimmer and stabilization of the bank flanking the structure. District staff will report any needed maintenance issues to the County who will have 48 hours to respond with a plan for addressing the issue.

6.3 Treatment Wetland Management

6.3.1 Operation and Management of the Treatment Wetland

The 38-acre treatment wetland receives pond-treated water, gravity fed through culverts under George Miller Road. The flow into the wetland is determined by the volume of water pumped from the canal into the pond, and subsequent water level rise within the pond. Pondtreated water is discharged into the wetland through open discharge header ditches, approximately 5 feet wide and 2 feet deep with 3:1 side slopes, located along portions of the southern and western perimeter of the wetland. A concrete weir control structure equipped with a sluice gate at the northeast corner of the wetland is used to regulate water levels in the wetland and along perimeter berms by manually opening and closing the gate using a wheel apparatus. The weir crest elevation is 4.0 ft NGVD. Water is expected to saturate the soils through lateral surface and sub-surface flow from the header ditches. Surface flooding from the header ditches in lower elevations of the wetland will also occur.

Hydrologic monitoring at the wetland outflow structure will include a combination of stage and flow measurements, all connected via telemetry to District Environmental Sciences recording apparatus. Instantaneous water level data will allow District Environmental Sciences staff to make decisions on opening or closing of the outlet structure gate. Water table

observation wells were installed throughout the wetland to monitor subsurface hydrologic conditions.

6.3.2 Removal of Vegetation In Wetland Header Ditch

The County will conduct weekly inspections of the header ditch inflow grate for obstructions that have the potential to interrupt the flow of water into the header ditch. These inspections can be performed along with weekly cleaning of structures as required in other sections of this Plan. The south and west header ditches (Figure 3) may become heavily vegetated with *Typha latifolia* (i.e., cattail) and *Hydrilla verticillata* (i.e., Hydrilla). Cattail and Hydrilla will be removed by the County by mechanical means from these areas in December of each year. However, the County may elect to use herbicidal treatment on the Hydrilla approximately 8 days prior to the mechanical removal to maximize the mechanical removal benefit. Additionally, the County may elect to apply aggressive methods of herbicidal treatment in the header ditch to control Hydrilla if deemed necessary. If an increase in the frequency of mechanical removal is deemed necessary, a work order from the District's Environmental Sciences staff will be submitted to the County requesting the additional removal activity.

Complete removal of the vegetation from the ditch is necessary to avoid release of nutrients from decomposing vegetation. Removed vegetation will be deposited along the header ditch slopes allowing vegetation to dry. Dried vegetation will be spread on the adjacent District pastureland. The County will provide herbicidal maintenance control of Hydrilla between scheduled mechanical removals.

6.3.3 Wetland Outlet Structure Operation

The County will routinely inspect and maintain the concrete weir control structure, security fencing, and bank stabilization adjacent to the structure, so long as repairs are considered minor by not requiring the use of heavy equipment. The need for other repairs will be evaluated by the District's Departments of Water Resources and Operations and Land Resources. The concrete weir control structure equipped with a sluice gate at the northeast corner of the wetland is used to regulate water levels in the wetland and along perimeter berms by manually opening and closing the gate using a wheel apparatus. The weir crest elevation is 4.0 ft NGVD. District staff monitor hydrology at the wetland outflow structure with a combination of stage and flow measurements, all connected via telemetry to Environmental Sciences recording apparatus. Instantaneous water

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level data will allow staff to make decisions on opening or closing of the outlet structure gate. Operation of the wetland outflow structure should be coordinated with the Division of Environmental Sciences.

6.3.4 Wetland Header Ditch Bypass Structure

The County will maintain the bypass structure located in the header ditch on the south edge of the wetland in operational condition and periodically inspected to ensure that significant amounts of water are not being discharged to the bypass canal (Figure 3). Bypass structure failure should be repaired as soon as possible and considered a priority. Large volumes of water released through the bypass structure can alter hydrologic conditions in the wetland and treatment efficiency. The purpose of the bypass structure is to aid in drying of the wetland if repairs or maintenance require dry conditions; otherwise, the bypass structure should remain closed at all times. District staff will report any noted issues related to the bypass structure to the County who will have 24 hours to respond and address the issue.

6.3.5 Wetland Header Ditch Drainage Pipe

District Engineering staff should be contacted if it is necessary to drain the wetland header ditch using the 12" PVC drainage pipe located below ground from the east end of the header ditch to the field perimeter ditch at the east end of the access road to the berm (Figure 3). The pipe has a gate valve that must be operated with a valve wrench. The valve is in a standard valve box with a cover at the top of the slope at the end of the header ditch. There are also two cleanouts in the line that are equally spaced and also have a cover for access. The pipe should remain closed at all times, but can be used to drain the header ditch if necessary.

6.3.6 Wetland Vegetation Harvesting

Over time, the wetland may reach a maximum assimilation of nutrients as vegetative nutrient uptake mechanisms diminish. In order to reinvigorate the nutrient uptake within the system, it may be desirable to remove the existing vegetation. While fire and mowing can reinvigorate the vegetation, both methods result in a release of the nutrients that have been stored over time; therefore, harvesting the vegetation from the site is preferred. However, harvesting the vegetation may be difficult because: 1) the soils retain moisture and will only support equipment during periods of extreme drying; however, sufficient drying could possibly be achieved by opening the wetland bypass structure and the sluice gate on the outlet control

structure; 2) harvesting equipment available today exists for logging trees or harvesting hay, but there is no equipment that can remove established communities of both herbaceous and woody vegetations; and 3) only 23 acres of the 38 acre wetland could be harvested to remain in compliance with the 15 acre mitigation plan. Included in the 23 acres that would be available for potential harvest are woody species of black gum, cypress and red maple trees that were planted to encourage habitat and long-term storage of nutrients.

In the future, tools and markets may be developed that simplify the harvest of the vegetation, especially in light of the interest in biofuels; therefore, specific harvesting details will not be presented at this time. If harvesting becomes a consideration in the future, staff from the District's Divisions of Environmental Sciences and Land Management and St. John's County will work cooperatively to determine the most effective method.

6.3.7 Wetland Exotic and Invasive Plant Management

District Environmental Sciences staff will report species observed during quarterly vegetation monitoring, that appear on the Florida Exotic Pest Plant Council Invasive Plant List, to the Division of Land Management. Vegetation species and locations will be provided to Division of Land Management.

District's Land Management staff will be responsible for monitoring and implementing herbicidal treatment of specific exotic invasive vegetation species at the wetland property. Should herbicidal treatment of targeted species within the wetland proper be necessary, the use of off-road vehicles used in treatment activities should be minimized. Spot spraying by foot travel is preferred inside the wetland proper. The use of off-road vehicles should be discussed with District Environmental Sciences prior to mobilization.

6.3.8 Wetland Soil Amendments

Future soil amendment applications are not likely to be required; however, amendments may be considered by District Environmental Sciences staff if the wetland exceeds assimilative capacity for uptake of nutrients and soils begin to release nutrients. Aerial application of soil amendments, such as dry alum or ferric water treatment residuals or liquid alum injection may be considered, as these application methods would minimize disturbance of established vegetation.

6.4 General Maintenance

6.4.1 Ditch, Canal, and Wetland Structure Maintenance

The County will inspect and clean weekly, and following significant rainfall events, the intake grate in the canal, the pump station forebay and the intake grate located in the pond forebay of garbage and debris. A buildup of debris and/or leaf litter on the intake grate in the canal or the drainage ditch will decrease the volume of water entering the facility for treatment, and debris or leaf litter on the intake grate located in the pond forebay will cause erratic operation of the pumps, potentially resulting in damage to the system. During this cleaning procedure, the County will also monitor, and clean where needed, the wetland header ditch inflow grate for obstructions that have the potential to interrupt the flow of water into the header ditch.

6.4.2 Mowing

The County will be responsible for routine mowing. Routine mowing occurs monthly during the growing season, approximately April through December, and includes mowing levee tops and slopes surrounding the pond, pump station, and wetland treatment area. This also includes mowing and "weed eating" around water quality monitoring stations. Specifically, weed eating should occur at the canal inflow around the monitoring platform, inside the fenced monitoring stations at the pond inflow (base station) and the pond outflow, and around the gated wetland berm entrance located at the southeast end of the property. Mowing should never occur within the wetland boundaries or in the header ditch of the wetland.

6.4.3 Cleanup Along the East Wetland Berm

The County shall keep the east wetland berm cleared of fallen tree branches blocking access along the berm and will verify access is clear following significant storm events. Fallen branches should be cleared from the berm entrance at the southeast end of the property to the wetland outfall structure.

6.4.4 Fencing and Security

The County will be responsible for fencing and security. Fencing, gates and locks should be maintained at both the pond and wetland. Gates should be kept closed and locked. Locks will be lubricated as needed. The County will coordinate with District Engineering staff if locks need

to be replaced. The District will set the combination for appropriate locks and will notify the County prior to changing any combinations.

6.4.5 Parking and Roadways

The County will maintain the parking surface and roadways on both the pond and wetland properties. Pot holes in asphalt or excessive rutting in graded areas will be repaired by the County in a timely manner per typical County standards.

6.4.6 Public Access

The County shall monitor access to the site. Public access by foot is allowed around the pond and the perimeter of the treatment wetland. Public access is not allowed at the weir outflow structure located at the wetland. Access is controlled by winged fencing at the entrance to the east berm leading to the outflow structure. District and County staff may access the weir and monitoring equipment through a locked gate.

6.4.7 Information Kiosk

District Environmental Sciences staff will coordinate with the District Office of Communications for printing of the kiosk materials. Project information located at the pond kiosk will be updated annually to include a seasonal bird and wildlife checklist, and water quality improvements.

7.0 Summary of O & M Responsibilities

The individuals listed below are the direct contacts for information and/or guidance on operation and maintenance issues. However, all applicable team members listed below should be notified if an operation or management task has potential to affect other aspects of the treatment system.

	Department	Contact	Email	Cell #		
SJRWM	SJRWMD Water Resources					
•	Division of Environmental Sciences	Pam Livingston Way	plivings@sjrwmd.com	386-227-0390		
•	Division of Engineering	John Richmond	jrichmon@sjrwmd.com	386-937-0541		
SJRWN	ID Project Management					
•	Environmental Resource Coordinator	Becky Trudeau	rtrudeau@sjrwmd.com	386-937-0292		
•	Lower St. Johns Basin Manager	Derek Busby	dbusby@sjrwmd.com	386-336-3895		
SJRWMD Department of Operations and Land Resources						
•	Division of Public Works	James Skellion	jskellio@sjrwmd.com	352-427-0930		
•	Division of Land Management	Steve Miller	smiller@sjrwmd.com	386-329-4399		
St. John	s County Department of Public Works					

Table 1 - Summary of O & M Responsibilities

Component	Frequency of Activity	Lead	Other Involved Organizational Units	Page
Monitoring				
Water Quality and Hydrologic Monitoring	Continuous	Environmental Sciences	Engineering	8
Exotic and Invasive Vegetation Monitoring	Quarterly	Environmental Sciences	Land Mgmt	18
Wetland Vegetation Survey	Biannually	Environmental Sciences	N/A	18
Fish Kill Contingency Plan	As Needed	Environmental Sciences, County	Land Mgmt	19
Pumps and Forebay				
Duma Station Maintananaa	After storm events	County	Engineering, Environmental	20
Pump Station Maintenance	of at least monthly	County, Engineering, Environmental	5000005	
Operation of Pond Inflow System for Water Levels	Continuous	Sciences	N/A	20
Pump Intake and Forebay Vegetation Removal	Weekly	County	N/A	21
Treatment Pond			······	
Development Phase of Pond Inflow Pumping			Environmental	
Schedule	N/S	Engineering	Sciences	21

Component	Frequency of Activity	Lead	Other Involved Organizational	Page
		A PARTICIPATION OF A PARTICIPATIONO OF A PARTICIPATION OF A PARTICIPATIONO OF A PARTICIPATICATA PARTICIPATICATA PARTICIPATICATA PARTICIPATICATA PARTICIPATIONO OF A P	Environmentel	Contraction
Manufaction Removal Man Rend Structures	As peopled	Country	Sciences	22
vegetation Removal Near Pond Structures	Asliceueu	Environmental	Sciences	22
Dead Existing and Investige Plant Management	Quartarly	Sciences County	Land Mamt	22
Fond Exolic and invasive Flant Management	In conjunction w/	Sciences, county	Land Might	LL
Inspection of Pond Outlet and Discharge System	nump maintenance	County	N/A	23
Treatment Wetland	pump maintenance	County		
Treatment wenand	1	Environmental	1	[
Operation and Management of Treatment Wetland	N/S	Sciences	Engineering	23
Operation and Management of Treatment Wenand	100	Sciences	Environmental	25
Removal of Vegetation In Header Ditch	Weekly	County	Sciences	24
Removal of Vegetation in Reduce Diten	Weekij	County	Environmental	
			Sciences:	
			Operations and	
Wetland Outlet Structure Operation	Routinely	County	Land Resources	24
		County.		
		Environmental		
Wetland Header Ditch Bypass Structure	As needed	Sciences	Engineering	25
Wetland Header Ditch Drainage Pipe	As needed	Engineering	N/A	25
		Environmental		
		Sciences, Land		
Wetland Vegetation Harvesting	If needed	Mgmt, County	N/A	25
		Environmental		
Wetland Exotic and Invasive Plant Management	Quarterly	Sciences	Land Mgmt	26
		Environmental		
Wetland Soil Amendments	If needed	Sciences	N/S	26
General Maintenance				
Ditch, Canal, and Structure Maintenance	Weekly, as needed	County	N/A	27
Mowing	Periodically	County	Land Mgmt	27
Cleanup Along the East Wetland Berm	Weekly, as needed	County	N/A	27
Fencing and Security	Weekly	County	N/A	27
Parking and Roadways	Periodically	County	N/A	28
Public Access	Periodically	County	N/A	28
		Environmental		
Information Kiosk	Annually	Sciences	Communications	28

N/S = Not Specified N/A = Not Applicable

Appendix G – Deep Creek Conservation Area Species List

Plants

Scientific name **Common Name** Status Acer rubrum Red maple Acrostichum danaeifolium Giant leather fern Agalinis filifolia Seminole false foxglove Agalinis purpurea Purple false foxglove Albizia julibrissin Mimosa * Andropogon sp. Bluestem Andropogon virginicus var. glaucus Chalky bluestem Coral ardisia * Ardisia crenata Bottlebrush threeawn Aristida spiciformis Aristida stricta var bervichiana Wiregrass Asclepias lanceolata Fewflower milkweed Asclepias longifolia Longleaf milkweed Asclepias perennis Aquatic milkweed Asimina spp Pawpaw Saltbush, Sea Myrtle Baccharis halimifolia Balduina uniflora Oneflower honeycombhead Baptisia calycosa Florida wild indigo G3, T, S1, SE, FN **Bidens** mitis Smallfruit beggarticks American beautyberry Callicarpa americana *Campsis radicans* Trumpet creeper Carex verrucosa Wary sedge Carphephorus corymbosus Florida paintbrush *Carphephorus odoratissimus* Vanillaleaf *Carphephorus paniculatus* Hairy chaffhead Celtis laevigata Sugar hackberry *Celtis occidentalis* Hackberry Centella asiatica Spadeleaf Cicuta maculata Water hemlock * Cinnamomum camphora Camphor tree Cladium mariscus jamaicense Jamaica swamp sawgrass Cnidoscolus acontifolious Chaya Cnidoscolus stimulosus Tread softly Commelina diffusa Climbing dayflower Blue mistflower Conoclinium coelestinum *Coreopsis levenworthii* Levenworth's tickseed Cornus foemina Swamp dogwood Crotalaria rotundifolia Rabbitbells Cyclosorus interruptus Swamp shield-fern Dicanthelium spp. Witchgrass Buttonweed Diodia virginiana

Dioscorea bublifera Diospyros virginiana Drosera brevifolia Dryopteris ludoviciana Echinochloa muricata Edrastima uniflora Elephantopus elatus Eragrostis sp. Erigeron spp. Erigeron strigosus Eupatorium capillifolium *Eupatorium rotundifolium Fimbristylis puberula Galactia elliottii* Gaylussacia nana Gaylussacia tomentosa Gaylussacia tomentosa *Gelesemium sempervirens* Geobalanus oblongifolius Gordonia lasianthus Gratiola ramosa Habenaria floribunda *Helenium pinnatifidum Hydrocotyle spp.* Hydrocotyle verticillata Hydrolea corymbosa Hypericum cistifolium *Hypericum crux-andreae Hypericum* galiodes *Hypericum hypericoides Hypericum mutilum Hypericum tetrapetalum* Hypericum virginicum *Hypoxis curtissii* Hypoxis juncea Hyptis alata *Ilex cassine Ilex coriacea* Ilex glabra Imperata cylindrica Itea virginica Juniperus virginiana Justicia ovata

Air potato Common persimmon Dwarf sundew Southern wood fern Rough cockspur Clustered mille graines Tall elephantsfoot Lovegrass Fleabane Daisy fleabane Dog Fennel Round-leaved boneset Hairy fimbristylis Elliott's milkpea Dwarf dangleberry Blue huckleberry Blue huckleberry Yellow jessamine Gopher apple Loblolly bay Branched hedge-hyssop Toothpetal false reinorchid Southeastern sneezeweed Dollarweed Whorled pennywort Skyflower Roundpod St. John's wort St. Peter's wort Bedstraw St. John's wort St. Andrew's cross Dwarf St. John's wort Fourpetal St. John's wort Virginia marsh St. John's wort Common yellow stargrass Fringed star grass Musky mint Dahoon holly Sweet gallberry Gallberry Cogongrass Virginia sweetspire Red cedar Looseflower water-willow

*

Kalmia hirsuta	Hairy wicky		
Lacanthes caroliniana	Redroot		
Lachnocaulon anceps	Common bogbuttons		
Lepidium virginicum	Virginia pepperweed		
Liatris gracilis	Slender blazing-star		
Limnobium spongia	American frogbit		
Liquidambar styraciflua	Sweetgum		
Lobelia feayana	Bay lobelia		
Ludwigia linearis	Narrowleaf primrose willow		
Ludwigia maritima	Seaside primrose-willow		
Ludwigia octovalvis	Mexican primrose willow		
Ludwigia palustris	Water purslane		
Ludwigia peruviana	Peruvian water primrose		*
Lycopodiella alopecuroides	Foxtail bog clubmoss		
Lycopodiella appressa	Appressed bog clubmoss		
Lycopus amplectens	Clasping water horehound		
Lygodium japonicum	Japanese climbing fern		*
Lyonia ferruginea	Rusty staggerbush		
Lyonia fruticosa	Coastal plain staggerbush		
Lyonia ligustrina foliosiflora	Maleberry		
Lyonia lucida	Fetterbush		
Lythrum curtissii	Curtiss' loosestrife	G2,S2,N,E	
Magnolia grandiflora	Southern Magnolia		
Mecardonia acuminata	Common axil-flower		
Melothria pendula	Creeping cucumber		
Mikania scandens	Climbing hemvine		
Mimosa microphylla	Littleleaf sensitive briar		
Mimosa quadrivalvis var angustata	Sensitive brier		
Mitchella repens	Partridgeberry		
Mitreola petiolata	Lax hornpod		
Morella cerifera	Wax myrtle		
Morella pumila	Dwarf bayberry		
Morus rubra	Red mulberry		
Nekemias arborea	Peppervine		
Osmunda cinnamomea	Cinnamon fern	CE	
Osmunda regalis	Royal fern	CE	
Osmunda spectabilis	American royal fern		
Palafoxia integrifolia	Coastalplain palafox		
Panicum sp.	Witchgrass		
Parietaria floridana	Florida pellitory		
Parthenocissus quinquefolia	Virginia creeper		
Paspalum floridanum	Florida paspalum		
Paspalum urvillei	Vasey grass		

Persea horbonia Red bay *Persea palustris* Swamp bay Phoradendron leucarpum American mistletoe Phytolacca americana rigida Maritime pokeweed Pinus clausa Sand pine Pinus elliottii Slash pine *Pinus palustris* Longleaf pine Pinus taeda Loblolly pine Pityopsis graminifolia Narrowleaf silkgrass Plantago sparsiflora Pineland plantain Platanthera flava Southern rein orchid Pluchea camphorata Camphorweed Orange milkwort *Polygala lutea* Candyroot Polygala nana Pickerelweed Pontederia cordata Combleaf mermaidweed Proserpinaca pectinata Prunus caroliniana Cherry laurel Prunus umbellata Hog plum Rabbit tobacco Pseudognaphalium obtusifolium Bracken fern *Pteridium aquilinum* Blackroot Pterocaulon pycnostachyum Quercus elliottii Runner oak Sand live oak Quercus geminata Quercus laevis Turkey oak Quercus laurifolia Laurel oak Quercus margaretta Sand post oak Dwarf live oak Quercus minima Myrtle oak *Quercus* myrtifolia Water oak Quercus nigra Live oak Quercus virginiana Rhexia alifanus Savannah meadowbeauty Rhexia nuttallii Nuttall's meadowbeauty *Rhexia petiolata* Short-stemmed meadowbeauty Rhododendron canascens Pink azalea Rhus copallinum Winged sumac Fringed beaksedge *Rhynchospora ciliaris* Rhynchospora colorata Whitetop sedge Rhynchospora fascicularis Fascicled beaksedge Rhynchospora microcephala Bunched beaksedge Rhynchospora miliacea Millet beaksedge

G4?,S3,N,T

CE

Rubus pensilvanicus	Pennsylvania blackberry	
Rubus trivialus	Blackberry	
Ruellia caroliniensis	Carolina wild petunia	
Rumex hastatulus	Hastate-leaved dock	
Sabal palmetto	Cabbage palm	
Sabatia calycina	Coastal rose gentian	
Sabatia difformis	Lanceleaf rosegentian	
Saccharum giganteum	Sugarcane plumegrass	
Salix caroliniana	Carolina willow	
Salvia lyrata	Lyreleaf Sage	
Sambucus nigra subsp. canadensis	Elderberry	
Sarracenia minor	Hooded pitcher plant	Т
Saururus cernuus	Lizard's tail	
Schizophyllum commune	Splitgill mushroom	
Scirpus spp.	Bulrush	
Scutellaria integrifolia	Helmet skullcap	
Sebatia difformis	Lanceleaf rosegentian	
Serenoa repens	Saw palmetto	CE
Sericocarpus tortifolius	Dixie aster	
Sesbania herbacea	Bigpod sesbania	
Silphium compositum	Kidneyleaf rosinweed	
Sisyrinchium angustifolium	Narrow-leaved blue-eyed grass	
Smilax auriculata	Earleaf greenbriar	
Smilax bonanox	Saw greenbrier	
Smilax laurifolia	Laurel-leaf greenbrier	
Smilax tamnoides	Bristly greenbrier	
Solidago fistulosa	Pine-barren goldenrod	
Solidago odora chapmanii	Chapmans goldenrod	
Solidago sempervirens	Seaside Goldenrod	
Spiranthes spp.	Ladiestresses	
Sporobolus junceus	Pineywoods dropseed	
Stachys floridana	Florida hedgenettle	
Stillingia sylvatica	Queen's delight	
Stylisma patens angustifolia	Narrowleaf coastalplain dawnflower	
Symphyotrichum lateriflorum	Calico aster	
Symphyotrichum simmondsii	Simmonds aster	
Symphyotrichum walteri	Walter's aster	
Syngonanthes flavidulus	Hatpins	
Taxodium distichum	Bald Cypress	
Thelypteris kunthii	Widespread maiden fern	

E

Tilia americana	Basswood	
Torenia crustacea	Brittle false pimpernel	
Toxicodendron radicans	Poison ivy	
Typha latifolia	Broadleaf Cattail	
Ulmus americana	American elm	
Urena lobata	Casear Weed	*
Vaccinium arboreum	Sparkleberry	
Vaccinium fuscatum	Black highbush blueberry	
Vaccinium myrsinites	Shiny blueberry	
Vaccinium stamineum	Deerberry	
Verbena brasiliensis	Purple Vervain	
Verbesina heterophylla	Diverseleaf crownbeard	G2,S2,N,E
Vernonia gigantea	Tall ironweed	
Viola lanceolata	White bog violet	
Vitis rotundifolia	Muscadine	
Woodwardia areolata	Netted chain fern	
Woodwardia virginica	Virginia chainfern	
Xyris ambigua	Coastal plain yelloweyed grass	
Xyris brevifolia	Shortleaf yellow-eyed grass	
Xyris caroliniana	Carolina yellow eyed grass	
Xyris platylepis	Tall yelloweyed grass	
Xyris sp	Yellow eyed grass	
Yucca filamentosa	Yucca	
Zeuxine strateumatica	Centipede grass orchid	

Scientific nameCommon NameStatusAccipiter cooperiiCooper's HawkAccipiter striatusSharp-shinned HawkActitis maculariusSpotted SandpiperAgelaius phoeniceusRed Wing BlackbirdAgelaius phoeniceusRed-winged BlackbirdAix sponsaWood DuckAnas creccaGreen-winged TealAnas platyrhynchosMallardAnhingaAnhingaAnser CaerulescensSnow GooseAntigone canadensisSandhill CraneAntrostomus carolinensisChuck-will's-widowAramus guaraunaLimpkinArchilochus colubrisRuby-throated hummingbirdArdea albaGreat EgretArdea herodiasGreat Blue HeronAythya collarisRing-necked DuckBaeolophus bicolorTufted Titmouse
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1
Bombycilla cedrorum Cedar Waxwing
Botaurus lentiginosus American Bittern
Bubo virginianus Great Horned Owl
Bubulcus ibis Cattle Egret
Buteo jamaicensis Red-tailed Hawk
Buteo lineatus Red-shouldered Hawk
Butorides virescens Green heron
Calidris himantopus Stilt Sandpiper
Calidris mauri Western Sandpiper
Calidris melanotos Pectoral Sandpiper
Calidris minutilla Least Sandpiper
Cardinalis Northern Cardinal
Cathartes aura Turkey Vulture
Catharus guttatus Hermit Thrush
Chaetura pelagica Chimney Swift
Charadrius semipalmatus Semipalmated Plover
Charadrius vociferus Killdeer
Chlidonias niger Black Tern
Chondestes grammacus Lark Sparrow
Circus hudsonius Marsh Harrier
Circus hudsonius Northern Harrier

Cistothorus palustris Marsh Wren Cistothorus platensis Sedge Wren Coccyzus americanus Yellow-billed Cuckoo Colaptes auratus Northern Flicker Colinus virginianus Northern Bobwhite Columba livia **Rock Pigeon** Columbina passerina Common Ground Dove Contopus virens Eastern Wood-Pewee Black vulture Coragyps atratus Corvus brachyrhynchos American Crow Fish Crow *Corvus ossifragus* Cyanocitta cristata Blue Jay Black-bellied Whistling-Duck Dendrocygna autumnalis Downy Woodpecker Dryobates pubescens Dryocopus pileatus Pileated Woodpecker Dumetella carolinensis Gray Catbird Egretta caerulea Little Blue Heron G5, S4, ST, FN Snowy Egret Egretta thula G5, S3, SN, FN Tricolored Heron Egretta tricolor G5, S4, ST, FN Swallow-tailed kite G5, S2, SN, FN Elanoides forficatus Eudocimus albus White Ibis G5, S5, SN, FN Falco sparverius American Kestrel Fulica americana American Coot Gallinago delicata Wilson's Snipe Gallinula galeata Common Gallinule Geothlypis trichas Common Yellowthroat Haliaeetus leucocephalus Bald Eagle G5, S3, SN, FN Black-necked Stilt Himantopus mexicanus Barn Swallow Hirundo rustica Icteria virens Yellow-breasted Chat Orchard Oriole *Icterus spurius* Ictinia mississippiensis Mississippi Kite Least Bittern Ixobrychus exilis Lanius ludovicianus Loggerhead Shrike Larus delawarensis **Ring-billed Gull** Orange-crowned Warbler Leiothlypis celata Leucophaeus atricilla Laughing Gull Lophodytes cucullatus Hooded Merganser Megaceryle alcyon **Belted Kingfisher** Eastern Screech-Owl Megascops asio Melanerpes carolinus Red-bellied Woodpecker Meleagris gallopavo Wild Turkey

Meleagris gallopavo osceola	Osceola Turkey	
Melospiza georgiana	Swamp Sparrow	
Melospiza melodia	Song Sparrow	
Mimus polyglottos	Northern Mockingbird	
Mniotilta varia	Black-and-white warbler	
Mycteria americana	Wood Stork	G4, S2, ST, FT
Myiarchus crinitus	Great Crested Flycatcher	
Nyctanassa violacea	Yellow-crowned Night-Heron	G5, S3, SN, FN
Nycticorax nycticorax	Black-crowned Night-Heron	G5, S3, SN, FN
Pandion haliaetus	Osprey	G5, S3S4, SN, FN
Parkesia noveboracensis	Northern Waterthrush	
Passerculus sandwichensis	Savannah Sparrow	
Passerina caerulea	Blue Grosbeak	
Passerina ciris	Painted Bunting	G5, S2, SN, FN
Passerina cyanea	Indigo Bunting	
Petrochelidon pyrrhonota	Cliff Swallow	
Phalacrocorax auritus	Double-crested Cormorant	
Pipilo erythrophthalmus	Eastern Towhee	
Platalea ajaja	Roseate Spoonbill	G5, S2, ST, FN
Plegadis falcinellus	Glossy Ibis	
Podilymbus podiceps	Pied-billed Grebe	
Polioptila caerulea	Blue-gray gnatcatcher	
Pooecetes gramineus	Vesper Sparrow	
Porzana carolina	Sora	
Progne subis	Purple Martin	
Protonotaria citrea	Prothonotary Warbler	
Quiscalus major	Boat-tailed Grackle	
Quiscalus quiscula	Common Grackle	
Rallus elegans	King Rail	
Rallus limicola	Virginia Rail	
Regulus calendula	Ruby-crowned Kinglet	
Riparia	Bank Swallow	
Sayornis phoebe	Eastern Phoebe	
Setophaga americana	Northern Parula	
Setophaga coronata	Yellow-rumped Warbler	
Setophaga discolor	Prairie Warbler	
Setophaga dominica	Yellow-throated Warbler	
Setophaga palmarum	Palm Warbler	
Setophaga petechia	Yellow Warbler	
Setophaga pinus	Pine Warbler	

Setophaga striata Sialia sialis Spatula discors Sphyrapicus varius Spinus tristis Spizella passerina *Stelgidopteryx serripennis* Sterna forsteri Streptopelia decaocto Strix varia Sturnella magna Sturnus vulgaris Tachycineta bicolor Thalasseus maximus *Thryothorus ludovicianus* Tringa flavipes Tringa melanoleuca Tringa solitaria Troglodytes aedon *Troglodytes hiemalis* Turdus migratorius *Tyrannus tyrannus* Tyto alba Vireo flavifrons Vireo griseus Vireo olivaceus Vireo solitarius Zenaida macroura

Blackpoll Warbler Eastern bluebird Blue-winged Teal Yellow-bellied Sapsucker American Goldfinch Chipping Sparrow Northern Rough-winged Forster's Tern Eurasian Collared-Dove Barred Owl Eastern Meadowlark **European Starling** Tree Swallow Royal Tern Carolina wren Lesser Yellowlegs Greater Yellowlegs Solitary Sandpiper House Wren Winter Wren American Robin Eastern Kingbird Barn Owl Yellow-throated Vireo White-eyed Vireo Red-eved Vireo Blue-headed Vireo Mourning Dove
Mammals

Scientific name	Common Name	Status
Canis iatrans	Coyote	
Dasypus novemcinctus	Nine-Banded Armadillo	
Didelphis virginiana	Virginia opossum	
Lutra canadensis	River otter	
Odocoileus virginianus	White-tailed deer	
Procyon lotor	Racoon	
Sciurus carolinensis	Eastern gray squirrel	
Sus scrofa	Feral hog	
Sylvilagus floridanus	Eastern cottontail rabbit	
Trichechus manatus latirostris	West Indian manatee	SE, FE, G2, S2
Urocyon cinereoargenteus	Gray fox	
Ursus americanus floridanus	Florida black bear	

Amphibians

Scientific name	Common Name	Status
Anaxyrus terrestris Hyla sauirella	Southern toad	
Lithobates clamitans	Green frog	
Lithobates sphenocephalus Scaphiopus holbooki	Southern leopard frog Eastern spadefoot	

Reptiles

Common Name	Status
Water Mocassin	
American alligator	G5, S4, SAT, FT(S/A)
Green Anole	
Florida softshell turtle	
Six-lined racerunner	
Gopher tortoise	
brown watersnake	
Rough Greensnake	
Cooter turtle	
Pygmy rattlesnake	
Florida box turle	
Eastern Garter Snake	
Yellow Bellied Turtle	
	Common NameWater MocassinAmerican alligatorGreen AnoleFlorida softshell turtleSix-lined racerunnerGopher tortoisebrown watersnakeRough GreensnakeCooter turtlePygmy rattlesnakeFlorida box turleEastern Garter SnakeYellow Bellied Turtle

Fish

Scientific name	Common Name	Status
Alosa mediocris	Hickory Shad	
Amia calva	Bowfin	
Brevoortia spp.	Menhadens	
Ctenogobius shufeldti	Freshwater Goby	
Dorosoma petenense	Threadfin Shad	
Etheostoma fusiforme	Swamp darter	
Fundulus seminolis	Seminole Killifish	
Gambusia holbrooki	Mosquitofish	
Gobiosoma bosc	Naked Goby	
Gobiosoma robustum	Code Goby	
Heterandria formosa	Least killifish	
Lagodon rhomboides	Pinfish	
Lepisosteus platyrhincus	Florida Gar	
Lepomis gulosus	Warmouth	
Lepomis macrochirus	Bluegill	
Lepomis punctatus	Spotted sunfish	
Lucania goodei	Bluefin killifish	
Lucania parva	Rainwater Killifish	
Menidia spp.	Menidia Silversides	
Micropogonias undulatus	Atlantic Croaker	
Micropterus salmoides	Largemouth bass	
Mugil curema	White Mullet	
Notemigonus crysoleucas	Golden Shiner	
Noturus gyrinus	Tadpole madtom	
Pomoxis nigromaculatus	Black Crappie	
Pterygoplichthys spp.	Armoured Catfishes	
Strongylura marina	Atlantic Needlefish	
Syngnathus scovelli	Gulf Pipefish	
Trinectes maculatus	Hogchoker	

Crabs and Crayfish

Scientific name	Common Name	Status
Callinectes sapidus	Blue crab	
Procambarus fallax	Deceitful crayfish	
Procambarus geodytes	Muddiver crayfish	
Procambarus paeninsulanus	Peninsula crayfish	

Butterflies

Scientific name	Common Name	Status
Anartia jatrophae	White Peacock	
Burnsius oileus	Tropical checkered-skipper	
Dione vanillae	Gulf Fritillary	
Eurema daira	Barred Yellow	
Hemiargus ceraunus	Ceraunus Blue	
Hermeuptychia sosybius	Carolina Satyr	
Junonia coenia	Common Buckeye	
Panoquina ocola	Ocola skipper	
Papilio troilus	Spicebush swallowtail	
Phyciodes phaon	Phaon Crescent	
Phyciodes tharos	Pearl Crescent	
Strymon melinus	Gray Hairstreak	
Thorybes dorantes	Dorantes Longtail	

Insects

Scientific name	Common Name	Status
Calopteryx maculata	Ebony jewelwing	
Grallipeza nebulosa	Stilt-legged fly	
Ischnura hastata	Citrine forktail	
Ixodes scapularis	Eastern black-legged tick	
Milesia virginiensis	Virginia giant	
Pachydiplax longipennis	Blue dasher	
Pantala flavescens	Wandering glider	
Phidippus princeps pulcerrimus	jumping spider	
Romalea microptera	Eastern lubber grasshopper	
Trichonephila clavipes	Golden silk spider	
Typocerus zebra	Zebra longhorn beetle	
Xylocopa micans	Southern carpenter bee	

Appendix H – Deep Creek Conservation Area Listed Species

Plants

Scientific name	Common Name	Status	
Baptisia calycosa	Florida wild indigo	G3, T, S1, SE, FN	
Lythrum curtissii	Curtiss' loosestrife	G2,S2,N,E	
Osmunda cinnamomea	Cinnamon fern	CE	
Osmunda regalis	Royal fern	CE	
Platanthera flava	Southern rein orchid	G4?,S3,N,T	
Rhododendron canascens	Pink azalea	CE	
Sarracenia minor	Hooded pitcher plant	Т	
Serenoa repens	Saw palmetto	CE	
Verbesina heterophylla	Diverseleaf crownbeard	G2,S2,N,E	

ReptilesScientific nameCommon NameStatusAlligator mississippiensisAmerican alligatorG5, S4, SAT, FT(S/A)Gopherus polyphemusGopher tortoiseG3, S3, ST, C

Birds

Scientific name	Common Name	Status
Aramus guarauna	Limpkin	G5, S3, SN, FN
Egretta caerulea	Little Blue Heron	G5, S4, ST, FN
Egretta thula	Snowy Egret	G5, S3, SN, FN
Egretta tricolor	Tricolored Heron	G5, S4, ST, FN
Elanoides forficatus	Swallow-tailed kite	G5, S2, SN, FN
Eudocimus albus	White Ibis	G5, S5, SN, FN
Mycteria americana	Wood Stork	G4, S2, FT, FT
Nyctanassa violacea	Yellow-crowned Night-	G5, S3, SN, FN
Nycticorax	Black-crowned Night-Heron	G5, S3, SN, FN
Pandion haliaetus	Osprey	G5, S3S4, SN, FN
Platalea ajaja	Roseate Spoonbill	G5, S2, ST, FN
Plegadis falcinellus	Glossy Ibis	G5, S3, SN, FN

Mammals

Scientific name	Common Name	Status
Trichechus manatus latirostris	West Indian manatee	SE, FE, S2

Species Ranking and Legal Status definitions as reported by FNAI

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.

 $\mathbf{FE} = \mathbf{Federally} \ \mathbf{Endangered}$

SE = State Endangered

FT = Federally 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.

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

ST = State Threatened

 \mathbf{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.

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.

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 (FNAI designation).

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. (FNAI designation) S3 = 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 of other factors. (FNAI designation)

S4 = Apparently secure in Florida (may be rare in parts of range). (FNAI designation)

S5 = Demonstrably secure in Florida. (FNAI designation)

* = Invasive Species

CE = Commercially Exploited (FDACS designation)

<u>Appendix I – Deep Creek Conservation Area 2020 Management</u> <u>Review Team Summary</u>

The bulleted land manager responses to the comments provided by the DCCA 2020 Management Review Team are below, followed by the Management Review Team checklists completed by the members.

Ben Williams-

Resource Protection and Management

Section- G,4: Comment- Plant appropriate species at Yarborough very thick.

• The District is planning to plant slash pine at a thick, pine plantation like density (roughly 720 trees per acre). This decision is based on invasive species infestations, most notably Cogongrass. By planting at high densities, shade from tree canopy will help control invasives.

Land Use Management

Section- B,5: Comment- Legal access to southeastern section of north tract needed to burn.

• The District has worked to obtain legal access, but has not yet succeeded. This task will be ongoing until completed

Section- C,2: Comment- Install informational kiosks at Yarborough/Dog Branch/Edgefield RST.

• An informational kiosk will be installed at the Yarborough Management Tract. Dog Branch is now maintained and managed by St. Johns County, and Edgefield was transferred to Putnam County.

Questions

Question 1: Is Property managed compatibly with conservation and recreation? Response: Investigate access to ponds for fishing, if determined fish are safe.

• Putnam County holds the deed to Edgefield, so no management authority. Deep Creek West is under an Intergovernmental agreement with St. Johns County that prohibits fishing

Chris Farrell-

Resource Protection and Management

Section- A,1: Comment- Maintain pump stations, etc. Consider adding adjacent ag field to treatment wetland.

• This is outside the scope of the Land Management Bureau. The Bureau of Water Resources would need to propose, then an agreement would need to be executed between St. Johns County and the District.

Land Use Management

Section- B,4: Comment- Update kiosk with new language regarding guns.

• This has been done with our signage.

Additional comment- Support re-hiring a recreation land manager to maintain quality access.

• Looking into it, but more of a District wide issue

Deborah Curry-

Resource Protection and Management

Section- A,1: Comment- Maintain pump stations, etc. Consider adding adjacent ag field to treatment wetland.

• This is outside the scope of the Land Management Bureau. The Bureau of Water Resources would need to propose, then an agreement would need to be executed between St. Johns County and the District.

Section- C,1: Comment- Remove Cogon.

• We are regularly treating Cogongrass along with other noxious weeds throughout the properties.

Section- C,2: Comment- Remove fire breaks into swamps.

• The District strives to keep fire breaks out of wetlands, which we will continue to do so at Deep Creek. The only fire breaks that enter wetlands are within pyric wetland communities where holding with hand tools or water delivery equipment isn't feasible due to time constraints or safety reasons.

Section- D,1&2: Comment- Continue to restore natural communities and ecotones as cleared of invasives with fire, and flag endangered species.

• Many of the invasive species at Deep Creek can be spread by fire (i.e., cogongrass, lygodium). Our approach is to get control of invasive pest plants before fire is implemented in many areas.

• Most, if not all endangered plants at the conservation area within pyric communities are maintained through fire. It is a low use area, and flagging would be difficult given limited staff. Additionally, most recreational users stay on trails where those plants are not present.

Land Use Management

Section- C,1: Comment- Install multi-use trail at Yarborough Tract. "4 Mile"

• There is a 2.25 mi. marked trail currently on the tract starting at the Cow Pen Branch parking lot. Expanding this trail was evaluated, but due to the historically low level of recreational use on the area, it is not feasible at this time. The District will re-evaluate if recreational pressure intensifies during the term of the new plan and once the parking lot is improved and reopened.

Group Discussion: Response to compliance with current plan question- Fear that access is going down by boat to the cultural areas.

• The District's policy regarding historical and cultural sites is to keep their locations unknown to the general public so they are not looted. There is no interest in advertising or improving access to them.

General Comment- Add Rhododendron canescence and Coreopsis levinworthei to endangered plant list.

• Added

Justin Ellenberger-

Group Discussion: Response to compliance with current plan question- Coordinate with Jax Port and St. Johns County on property to the north.

• The District has spoken with SJC regarding management of the property, but we have not been in touch with Jax Port. Future management projects will be discussed with the County to possibly coordinate or assist with a joint project. Additionally, the District will continue to try and reach the appropriate land holdings manager at Jax Port.

Sean O'Neil-

Group Discussion: Response to compliance with current plan question- Consider a fireline around the chemical treatment facility.

• Assuming he is referring to the leased RST just south of the UF ag field lease. If so, I like this recommendation. We used to have a road all the way around the site before it's construction, but the road is only remaining on the east and south sides. The UF field was young, planted pines when the last MRT took place and has now been converted back to an ag field which will suffice as a fire break. A single fireline is needed along the west side of the west side of the treatment facility.

Sam Carr-

First Question Regarding Yarborough: Response to Property being managed in a way compatible with conservation and recreation- Yes, but "Some recreational opportunities have been eliminated."

• I believe this in regard to the closing of the Cowpen Branch Rd. parking lot. Plan is to reopen by summer of 2023 as stated in the plan update.

Deep Creek Conservation Area	Management Review Tear	n Meeting March 11, 2020
Print Name	Affiliation	Email Address
Deborah Curry	FNPS	macio ablascrubFNPS@a mail.com
Sparky Oxemiden	SJRWMD	Saxeniider Silund.com
Justin Ellenberger	FNC	justin ellenberger @ my furc.com
Sam O'Neal	FF3	spen onen a fotous gov
Sam Clark	PUTNANDUEWAYS +	SCARR3\$46M@GWALL, COM
CHRIS FARRELL	AUDUBON FL	chris farrell @ audubon.org
DOUGUNS TAKISUX	St. JOHNS COUNTY ENGLISS	C DTARISON Q JJECC.US
ALAN Forey	SOME SHUNS & ASOC	atoley @ invesedurinds.com
GEAFT SAMPLE	STRWMD	asample estimation
Brent Backelder	SJRUMD	blackelder @ Sjowind . Cons
Nicholas Smith	STRWMD	
Jerony OlSun	SJRUMD	JOISON @ SJUVAL.com
Heather Venter	STRUMD	Hventer@ Sjrwind .cum
Ben Williami	Privale Land menor WFr.	A BRUSTU D Gurui / - con



MANAGEMENT REVIEW CHECKLIST

MANAGEMENT REVIEW TEAM TOUR DEEP CREEK CONSERVATION AREA NORTH & YARBOROUGH PARCEL MARCH 11, 2020

Instructions: Please take time to review the management plan summary. During the tour, please rate the extent to which you perceive the District is managing the properties in accordance with the 2006 land management plans.

LAI	ND MANAGEMENT TASK 2006	DUE DATE	REVIEW RATING Do field observations comply with land management activities/goals set forth in the management plan?	COMMENTS If you need additional space, please use reverse side of paper or attach additional pages.
RE	SOURCE PROTECTION AND MAN Water Resource Protection YAI	NAGEMENT RBOROUGH	~	
1.	Maintain pump stations at Regional Stormwater Treatment Facility (RST).	As Needed	Yes No In Progress	
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No In Progress	
B.	Water Resource Protection NOI	RTH	~	
1.	Recontour entrance road to property in order to reduce	2007	(Yes) No	

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2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No In Progress	
C. I	Flora and Fauna YARBOROUGH		1	
1.	Continue to restore natural communities.	Annually	Yes No	
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No	
D.	Flora and Fauna NORTH			W
1.	Continue to restore natural communities.	Annually	Yes No	
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No	
E. F	Forest Management YARBOROUC	GH		
1.	Utilize prescribed fire as a forest management tool.	Annually	Yes No	
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No In Progress	
F.	Forest Management NORTH			
1.	Utilize prescribed fire as a forest management tool.	Ongoing	Yes No	
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No In Progress	
3.	Conduct a detailed inventory of timber resources on property.	2006-2007	Yes No In Progress	But Being done Yarbornal
G.	Fire Management YARBOROUG	H	- settorie	MAC
1.	Introduce dormant season burns in areas where fire has been excluded.	2007	Yes No In Progress	
2.	Continue to conduct dormant season burns until fuel reduction goals are met.	As Needed	Yes No	
3.	Introduce growing season burns in areas with reduced fuels.	2007	Yes No	
4.	Determine appropriate species for abandoned agricultural fields.	2007	Yes No In Progress	Plawt very, THICK !!

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	.*		and the second sec
5.	Replant or direct seed in conjunction with natural regeneration when necessary.	2007	Yes No In Progress
H.	Fire Management NORTH		
1.	Install additional firebreaks as necessary.	2007	Yes No (In Progress)
2.	Introduce dormant season burns in areas where fire has been excluded.	2006-2007	Yes No In Progress
3.	Continue to conduct dormant season burns until fuel reduction goals are met.	Ongoing	Yes No
4.	Introduce growing season burns in areas with reduced fuels.	2010	Yes No In Progress
I. I	Exotic Species YARBOUROUGH		
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No
2.	Continue coordination with hog trapper.	As needed	Yes No
J.	Exotic Species NORTH		
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No In Progress
2.	Evaluate the need to utilize a hog trapper for removal of feral hogs.	As needed	Yes No
K. (Cultural Resources YARBOROUG	H	
1.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Yes No
L. (Cultural Resources NORTH		
1.	Protect existing cultural and historical sites.	Ongoing	Yes No In Progress
2.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Yes No (In Progress)
LA	ND USE MANAGEMENT		
A.	Access YARBOROUGH		A STATE OF A
1.	Maintain fencing, boundary markers, roads, crossings, and parking areas.	Annually	Yes No In Progress

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2.	Maintain limited access points and roads necessary for resource management activities.	Annually	Yes No	
3.	Maintain informational signage near trailheads and regional stormwater treatment areas.	Annually	Yes No In Progress	
B.	Access NORTH		0	
1.	Repair entrance road in order to provide improved access for land management activities.	2007	Yes No In Progress	
2.	Install and maintain parking area.	2006	Yes No In Progress	
3.	Maintain limited access points and roads necessary for resource management activities.	As Needed	Yes No In Progress	
4.	Maintain kiosk and associated informational signage near trailhead.	As Needed	Yes No In Progress	
5.	Pursue legal upland access to southeastern portions of the conservation area.	2007	Yes No	Burn. Work to
C.	Recreation YARBOROUGH			1
1,	Install marked multi-use trail at the Yarborough Land Management Tract.	2006	Yes No In Progress	
2.	Install an informational kiosks at the Yarborough Land Management Tract and at the dog Branch/ Edgefield RST.	2006-2007	Yes No In Progress	But no Hisps 1 Somot Fright
3.	Maintain marked multi-use trail.	As Needed	Yes No In Progress	
4.	Create a brochure detailing trail system and allowed activities.	2006	(Yes) No In Progress	(ou.)
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress	sine
D.	Recreation NORTH			
1.	Install marked trail system.	2006	Yes No In Progress	
2.	Install an informational kiosk.	2006	Yes No	
3.	Maintain multi-use trail.	Ongoing	Yes No	

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4.	Create a brochure detailing trail system and allowed activities.	2006	(Yes) No In Progress	2
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress	
E.	Environmental Education YARBO	OROUGH		
1.	Encourage educational opportunities as they arise.	As Needed	Yes No	
F.	Environmental Education NORTI	A		
1.	Encourage educational opportunities as they arise.	As Needed	Yes No	
G.	Security YARBOROUGH			
1.	Continue contract with private security firm.	Annually	Yes No In Progress	
2.	Maintain gates, signage, fencing and boundary marking.	Annually	Yes No	
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress	
H.	Security NORTH			
1.	Maintain fencing, gates, and boundary markers.	As Needed	Yes No	
2.	Install additional gates and fencing.	2006	Yes No (In Progress)	
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress	
4.	Maintain fencing and boundary marking.	Annually	Yes No In Progress	

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Please answer the following questions for YARBOROUGH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and

But investigate Getting access to ponds For recreation? People to Fish IF it can be dotermined Fsix YES NO 2. Does the current management plan provide sufficient protection to the properties natural

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

YES) NO

Group Discussion

Are the management practices in compliance with the current land management plan?

Jes - But more & weeded + more mgt star-

Please answer the following questions for NORTH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and recreation?



2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

YES NO

Group Discussion

Are the management practices in compliance with the current land management plan?

yes - but \$ + PeoPle - more -

Please return completed checklist to: Sandy Oxenrider, Land Resource Specialist, Bureau of Real Estate Services, St. Johns River Water Management District, 4049 Reid Street Palatka, FL 32177 Phone: 386-329-4517 Email: <u>soxenrider@sjrwmd.com</u>

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Name: GEOFFALL SAMPLE

Affiliation: STRWMD-Intergovernmental Coordinator Email: gsumple @gjrwmdncom

MANAGEMENT REVIEW CHECKLIST Management Review Team Tour Deep Creek Conservation Area

NORTH & Yarborough Parcel March 11, 2020

Instructions: Please take time to review the management plan summary. During the tour, please rate the extent to which you perceive the District is managing the properties in accordance with the 2006 land management plans.

LAN	ND MANAGEMENT TASK 2006	DUE DATE	REVIEW RATING Do field observations comply with land management activities/goals set forth in the management plan?	COMMENTS If you need additional space, please use reverse side of paper or attach additional pages.
RE:	SOURCE PROTECTION AND MAN Water Resource Protection YAR	AGEMENT		
1.	Maintain pump stations at Regional Stormwater Treatment Facility (RST).	As Needed	Yes No In Progress	
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No In Progress	
B.	Water Resource Protection NOR	ТН		
1.	Recontour entrance road to property in order to reduce potential for erosion.	2007	Yes No In Progress	

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			- In the second se	
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No	
C. I	Flora and Fauna YARBOROUGH		minogress	
1.	Continue to restore natural communities.	Annually	Yes No In-Progress	
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No In Progress	
D.	Flora and Fauna NORTH	1	1	A CONTRACTOR OF A CONTRACTOR
1.	Continue to restore natural communities.	Annually	Yes No	
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No	
E. F	Forest Management YARBOROUG	GH	In Trogress	
1.	Utilize prescribed fire as a forest management tool.	Annually	Yes No	386 acres
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No	
F.	Forest Management NORTH			the set of the set of the
1.	Utilize prescribed fire as a forest management tool.	Ongoing	Yes No In Progress	328 acres,
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No In Progress	Torrea internet inst
3.	Conduct a detailed inventory of timber resources on property.	2006-2007	Yes No In Progress	Area of valuable not significant
G.	Fire Management YARBOROUG	H		
1.	Introduce dormant season burns in areas where fire has been excluded.	2007	Yes No In Progress	1101 acres.
2.	Continue to conduct dormant season burns until fuel reduction goals are met.	As Needed	Yes No In Progress	
3.	Introduce growing season burns in areas with reduced fuels.	2007	Yes No In Progress	
4.	Determine appropriate species for abandoned agricultural fields.	2007	Yes No In Progress	7 slash pine

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		C 3	
Replant or direct seed in conjunction with natural regeneration when necessary.	2007	Yes No In Progress	
Fire Management NORTH	01. 5.	The second second	a and a second and a second and
Install additional firebreaks as necessary.	2007	Yes No In Progress	6. Tomites
Introduce dormant season burns in areas where fire has been excluded.	2006-2007	Yes No In Progress	162 acres
Continue to conduct dormant season burns until fuel reduction goals are met.	Ongoing	Yes No In Progress	
Introduce growing season burns in areas with reduced fuels.	2010	Yes No In Progress	166 acres
Exotic Species YARBOUROUGH			It leave for
Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No	List included
Continue coordination with hog trapper.	As needed	Yes No	172 Migs
Exotic Species NORTH	1.05 		A CONTRACTOR OF THE OWNER
Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No In Progress	
Evaluate the need to utilize a hog trapper for removal of feral hogs.	As needed	Yes No In Progress	62 hogs remared
Cultural Resources YARBOROUG	H		Langer M
Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Yes No In Progress	7-acre Manyation
Cultural Resources NORTH		~	in half
Protect existing cultural and historical sites.	Ongoing	Yes No	Tie cut
Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Yes No In Progress	121 18 2 1 P 2
ND USE MANAGEMENT			
Access YARBOROUGH		0	
Maintain fencing, boundary markers, roads, crossings, and parking areas.	Annually	Yes' No In Progress	
	Replant or direct seed in conjunction with natural regeneration when necessary. Fire Management NORTH Install additional firebreaks as necessary. Introduce dormant season burns in areas where fire has been excluded. Continue to conduct dormant season burns until fuel reduction goals are met. Introduce growing season burns in areas with reduced fuels. Exotic Species YARBOUROUGH Continue to monitor for invasive plant species and treat as necessary. Continue coordination with hog trapper. Exotic Species NORTH Continue to monitor for invasive plant species and treat as necessary. Evaluate the need to utilize a hog trapper for removal of feral hogs. Cultural Resources YARBOROUG Identify and report any new sites to Florida Division of Historical Resources. Cultural Resources NORTH Protect existing cultural and historical sites. Identify and report any new sites to Florida Division of Historical Resources. Duteral Resources NORTH Protect existing cultural and historical sites. Identify and report any new sites to Florida Division of Historical Resources. ND USE MANAGEMENT Access YARBOROUGH Maintain fencing, boundary markers, roads, crossings, and parking areas.	Replant or direct seed in conjunction with natural regeneration when necessary.2007Fire Management NORTH1Install additional firebreaks as necessary.2007Introduce dormant season burns in areas where fire has been excluded.2006-2007Continue to conduct dormant season burns until fuel reduction goals are met.Ongoing 2010Introduce growing season burns in areas with reduced fuels.2010Continue to monitor for invasive plant species and treat as necessary.Annually As neededExotic Species NORTH Continue to monitor for invasive plant species and treat as necessary.Annually As neededExotic Species NORTH Continue to monitor for invasive plant species and treat as necessary.As neededExotic Species NORTH Continue to monitor for invasive plant species and treat as necessary.As neededCultural Resources YARBOROUGHAs neededIdentify and report any new sites to Florida Division of Historical Resources.As NeededCultural Resources NORTH Protect existing cultural and historical sites.OngoingIdentify and report any new sites to Florida Division of Historical Resources.As NeededMD USE MANAGEMENTAs NeededAccess YARBOROUGHMaintain fencing, boundary markers, roads, crossings, and parking areas.Annually	Replant or direct seed in conjunction with natural regeneration when necessary. 2007 Yes No Fire Management NORTH In Progress In Progress No Install additional firebreaks as necessary. 2007 In Progress No Introduce dormant season burns in areas where fire has been excluded. 2006-2007 Yes No Continue to conduct dormant season burns until fuel reduction goals are met. Ongoing Yes No Introduce growing season burns in areas with reduced fuels. 2010 In Progress Zootic Species YARBOUROUGH Continue to monitor for invasive plant species and treat as necessary. 2010 In Progress Continue to monitor for invasive plant species and treat as necessary. As needed In Progress Exotic Species NORTH Yes No Continue to monitor for invasive plant species and treat as necessary. Annually Yes No Continue to monitor for invasive plant species and treat as necessary. Annually Yes No In Progress Ves No In Progress Evaluate the need to utilize a hog trapper for removal of feral hogs. As needed In Progress Cultural Resources. Ongoing



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2.	Maintain limited access points and roads necessary for resource management activities.	Annually	Yes No	
3.	Maintain informational signage near trailheads and regional stormwater treatment areas.	Annually	Yes No In Progress	
B.	Access NORTH		~	
1.	Repair entrance road in order to provide improved access for land management activities.	2007	Yes No In Progress	
2.	Install and maintain parking area.	2006	Yes No	
3.	Maintain limited access points and roads necessary for resource management activities.	As Needed	Yes No In Progress	
4.	Maintain kiosk and associated informational signage near trailhead.	As Needed	Yes No In Progress	
5.	Pursue legal upland access to southeastern portions of the conservation area.	2007	Yes No In Progress	
C.	Recreation YARBOROUGH			
1.	Install marked multi-use trail at the Yarborough Land Management Tract.	2006	Yes No	
2.	Install an informational kiosks at the Yarborough Land Management Tract and at the dog Branch/ Edgefield RST.	2006-2007	In Progress	
3.	Maintain marked multi-use trail.	As Needed	Yes No In Progress	
4.	Create a brochure detailing trail system and allowed activities.	2006	Yes No In Progress	online
5.	Update and maintain brochure for trail system.	As Needed	Yes) No In Progress	11
D.	Recreation NORTH			
1.	Install marked trail system.	2006	Yes No In Progress	
2.	Install an informational kiosk.	2006	Yes No In Progress	
3.	Maintain multi-use trail.	Ongoing	Yes No In Progress	

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4.	Create a brochure detailing trail system and allowed activities.	2006	Yes No In Progress	outine
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress	online
E.	Environmental Education YARBO	OROUGH		
1.	Encourage educational opportunities as they arise.	As Needed	Yes No In Progress	
F.	Environmental Education NORTI	ł		
1.	Encourage educational opportunities as they arise.	As Needed	Yes No In Progress	
G.	Security YARBOROUGH		and the second se	
1.	Continue contract with private security firm.	Annually	Yes No In Progress	
2.	Maintain gates, signage, fencing and boundary marking.	Annually	Yes No In Progress	
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress	
H.	Security NORTH			Alter and a second
1.	Maintain fencing, gates, and boundary markers.	As Needed	Yes No In Progress	
2.	Install additional gates and fencing.	2006	Yes No In Progress	where needed.
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes) No In Progress	
4.	Maintain fencing and boundary marking.	Annually	Yes No In Progress	

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Please answer the following questions for YARBOROUGH tract (circle one):

 Is the property being managed in a manner that is compatible with conservation and recreation?



2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

YES NO

Group Discussion

L. S. P.E.

Are the management practices in compliance with the current land management plan?

Yes, with the understand on the time 1 - 1

Please answer the following questions for NORTH tract (circle one):

Is the property being managed in a manner that is compatible with conservation and recreation?

YES NO

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

YES NO

Group Discussion

Are the management practices in compliance with the current land management plan?

Nes, with the understanding that the place can be updated to vote a champion constraints and offertunities.

Please return completed checklist to: Sandy Oxenrider, Land Resource Specialist, Bureau of Real Estate Services, St. Johns River Water Management District, 4049 Reid Street Palatka, FL 32177 Phone: 386-329-4517 Email: soxenrider@sjrwmd.com

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MANAGEMENT REVIEW CHECKLIST Management Review Team Tour Deep Creek Conservation Area NORTH & Yarborough Parcel March 11, 2020

Instructions: Please take time to review the management plan summary. During the tour, please rate the extent to which you perceive the District is managing the properties in accordance with the 2006 land management plans.

LA	ND MANAGEMENT TASK 2006	DUE DATE	REVIEW RATING Do field observations comply with land management activities/goals set forth in the management plan?	COMMENTS If you need additional space, please use reverse side of paper or attach additional pages.
RE	SOURCE PROTECTION AND MA	NAGEMENT		
A.	Water Resource Protection YA	RBOROUGH	~	
1.	Maintain pump stations at Regional Stormwater Treatment Facility (RST).	As Needed	Yes No In Progress	Consider adding as acent og field to treatment wotlen
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No In Progress	
B.	Water Resource Protection NO	RTH		
1.	Recontour entrance road to property in order to reduce potential for erosion.	2007	Yes No In Progress	

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2.	Regularly inspect roads and crossings for erosion problems.	Annually	(Yes) No	
CI	Flam and Fauna VADBODOUCU		In Progress	
C , I	flora and Fauna YARBOROUGH			1
1.	communities.	Annually	(Yes) No	
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No	
D.	Flora and Fauna NORTH		in riogress	
1.	Continue to restore natural communities.	Annually	Yes No In Progress	
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No In Progress	
E.I	Forest Management YARBOROUG	ЯН		
1.	Utilize prescribed fire as a forest management tool.	Annually	Yes No In Progress	
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No In Progress	
F.	Forest Management NORTH			
1.	Utilize prescribed fire as a forest management tool.	Ongoing	Yes No In Progress	
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No In Progress	
3.	Conduct a detailed inventory of timber resources on property.	2006-2007	Yes No In Progress	Not needed
G.	Fire Management YARBOROUG	H	~	
1.	Introduce dormant season burns in areas where fire has been excluded.	2007	Yes No In Progress	
2.	Continue to conduct dormant season burns until fuel reduction goals are met.	As Needed	Yes No In Progress	
3.	Introduce growing season burns in areas with reduced fuels.	2007	Yes No In Progress	
4.	Determine appropriate species for abandoned agricultural fields.	2007	Yes No In Progress	

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_			0	
5.	Replant or direct seed in conjunction with natural regeneration when necessary.	2007	Yes) No In Progress	
H.	Fire Management NORTH		~	
1.	Install additional firebreaks as necessary.	2007	Yes No In Progress	
2.	Introduce dormant season burns in areas where fire has been excluded.	2006-2007	Yes No An Progress	
3.	Continue to conduct dormant season burns until fuel reduction goals are met.	Ongoing	Yes No In Progress	
4.	Introduce growing season burns in areas with reduced fuels.	2010	Yes No In Progress	
I. E	Exotic Species YARBOUROUGH		0	
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No In Progress	
2.	Continue coordination with hog trapper.	As needed	Yes No In Progress	
J.	Exotic Species NORTH			
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No In Progress	
2.	Evaluate the need to utilize a hog trapper for removal of feral hogs.	As needed	Yes No In Progress	
K. (Cultural Resources YARBOROUG	H	in the second second	
1.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Yes No In Progress	
L. (Cultural Resources NORTH		~	
1.	Protect existing cultural and historical sites.	Ongoing	Yes No	
2.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Yes No In Progress	
LA	ND USE MANAGEMENT			
A.	Access YARBOROUGH		0	
1.	Maintain fencing, boundary markers, roads, crossings, and parking areas.	Annually	Yes No In Progress	

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			~~~~	
2.	Maintain limited access points and roads necessary for resource management activities.	Annually	Yes No	
3.	Maintain informational signage near trailheads and regional stormwater treatment areas.	Annually	Yes No In Progress	
B.	Access NORTH		~	
1.	Repair entrance road in order to provide improved access for land management activities.	2007	Yes No In Progress	
2.	Install and maintain parking area.	2006	Yes No	
3.	Maintain limited access points and roads necessary for resource management activities.	As Needed	Yes No In Progress	
4.	Maintain kiosk and associated informational signage near trailhead.	As Needed	Yes No In Progress	Update Krosk sign w/ new language /
5.	Pursue legal upland access to southeastern portions of the conservation area.	2007	Yes No In Progress	
C.	Recreation YARBOROUGH		~	
1.	Install marked multi-use trail at the Yarborough Land Management Tract.	2006	Yes No In Progress	
2.	Install an informational kiosks at the Yarborough Land Management Tract and at the dog Branch/ Edgefield RST.	2006-2007	Yes No In Progress	Lack of Jomand
3.	Maintain marked multi-use trail.	As Needed	Yes No In Progress	
4.	Create a brochure detailing trail system and allowed activities.	2006	Yes In Progress	Nov.
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress	
D.	Recreation NORTH			h
1.	Install marked trail system.	2006	Yes No	
2.	Install an informational kiosk.	2006	Yes No In Progress	Update as necessary
3.	Maintain multi-use trail.	Ongoing	In Progress	

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			0	
4.	Create a brochure detailing trail system and allowed activities.	2006	Yes No In Progress	
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress	
E.	<b>Environmental Education YARBO</b>	OROUGH		
1.	Encourage educational opportunities as they arise.	As Needed	Yes No In Progress	
F.	<b>Environmental Education NORTI</b>	H		
1.	Encourage educational opportunities as they arise.	As Needed	Yes No In Progress	
G.	Security YARBOROUGH			
1.	Continue contract with private security firm.	Annually	Yes No In Progress	
2.	Maintain gates, signage, fencing and boundary marking.	Annually	Yes No In Progress	
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress	
H.	Security NORTH			
1.	Maintain fencing, gates, and boundary markers.	As Needed	Yes No In Progress	
2.	Install additional gates and fencing.	2006	(Yes) No In Progress	
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress	
4.	Maintain fencing and boundary marking.	Annually	Yes No In Progress	

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#### Please answer the following questions for YARBOROUGH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and recreation?

YES NO

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

YES) NO

### **Group Discussion**

Are the management practices in compliance with the current land management plan?

Yes, as usual, the District has good goals & good intentions for management, but may be limited by funding statt, and local Please answer the following questions for NORTH tract (circle one): conditions around properties

1. Is the property being managed in a manner that is compatible with conservation and recreation?

YES NO

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

YES NO

## **Group Discussion**

Are the management practices in compliance with the current land management plan?

See Albur

Please return completed checklist to: Sandy Oxenrider, Land Resource Specialist, Bureau of Real Estate Services, St. Johns River Water Management District, 4049 Reid Street Palatka, FL 32177 Phone: 386-329-4517 Email: soxenrider@sjrwmd.com

AStrong support for re-hiring someone to fill Nils position to maintain quality recreational access to WMD properties.



Name: Deborah Curry

Affiliation: FNPS

Email: marion big scrubFNPS@gmilicom

MANAGEMENT REVIEW CHECKLIST Management Review Team Tour Deep Creek Conservation Area NORTH & Yarborough Parcel March 11, 2020

**Instructions:** Please take time to review the management plan summary. During the tour, please rate the extent to which you perceive the District is managing the properties in accordance with the 2006 land management plans.

LAN	ND MANAGEMENT TASK 2006	DUE DATE	REVIEW RATING Do field observations comply with land management activities/goals set forth in the management plan?	<b>COMMENTS</b> If you need additional space, please use reverse side of paper or attach additional pages.
RES	SOURCE PROTECTION AND MAI	NAGEMENT		
<b>A</b> .	Water Resource Protection YAI	RBOROUGH	1,11	>10 0
1.	Maintain pump stations at Regional Stormwater Treatment Facility (RST).	As Needed	Yes No In Progress	gor graingield
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No	
В.	Water Resource Protection NOI	RTH		
1.	Recontour entrance road to property in order to reduce potential for erosion.	2007	Yes No In Progress	

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			$\frown$	
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No	
C.I	Flora and Fauna YARBOROUGH			
1.	Continue to restore natural communities.	Annually	Yes No In Progress	remary coegan g
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No	fire breaks
D.	Flora and Fauna NORTH			
1.	Continue to restore natural communities.	Annually	Yes No	as cleared of invasing
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No In Progress	With fire flag enlangered
E. I	Forest Management YARBOROUC	GH		V-0
1.	Utilize prescribed fire as a forest management tool.	Annually	Yes No	
2.	Monitor forested areas for disease or insect infestations. 7. do the very too	Annually	Yes No	Chaldengel to reach these -
F.	Forest Management NORTH			A second second second
1.	Utilize prescribed fire as a forest management tool.	Ongoing	In Progress	
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No In Progress	
3.	Conduct a detailed inventory of timber resources on property.	2006-2007	Yes No In Progress	porester : not Enough gorest
G.	Fire Management YARBOROUC	н		
1.	Introduce dormant season burns in areas where fire has been excluded.	2007	Yes No	119 acres purned
2.	Continue to conduct dormant season burns until fuel reduction goals are met.	As Needed	Yes No	
3.	Introduce growing season burns in areas with reduced fuels.	2007	Yes No In Progress	
4.	Determine appropriate species for abandoned agricultural fields.	2007	Yes No In(Progress	

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5.	Replant or direct seed in conjunction with natural regeneration when necessary.	2007	Yes No	
<b>H</b> . ]	Fire Management NORTH			The second second
1.	Install additional firebreaks as necessary.	2007	Yes No	617 miles boundry lives
2.	Introduce dormant season burns in areas where fire has been excluded.	2006-2007	Yes No In Progress	162 0000
3.	Continue to conduct dormant season burns until fuel reduction goals are met.	Ongoing	Yes No	
4.	Introduce growing season burns in areas with reduced fuels.	2010	Yes No	166
I. E	xotic Species YARBOUROUGH		1976 - 1976 - 1976	
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No	1 ist - 103 about the at
2.	Continue coordination with hog trapper.	As needed	Yes No In Progress	4
<b>J.</b> ]	Exotic Species NORTH	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -		
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No	
2.	Evaluate the need to utilize a hog trapper for removal of feral hogs.	As needed	Yes No In Progress	Co2 FE moud hogo
K. (	Cultural Resources YARBOROUG	H		V
1.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Yes No In Progress	None found yet
L. (	Cultural Resources NORTH			
1.	Protect existing cultural and historical sites.	Ongoing	Yes No In Progress	
2.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Yes No	
LAN	ND USE MANAGEMENT			
<b>A.</b>	Access YARBOROUGH		1	La Cola
1.	Maintain fencing, boundary markers, roads, crossings, and parking areas.	Annually	Yes No In Progress	protection

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			$\frown$	
2.	Maintain limited access points and roads necessary for resource management activities.	Annually	Yes No In Progress	
3.	Maintain informational signage near trailheads and regional stormwater treatment areas.	Annually	Yes No In Progress	
B.	Access NORTH			
1.	Repair entrance road in order to provide improved access for land management activities.	2007	Yes No In Progress	
2.	Install and maintain parking area.	2006	Yes No In Progress	limited demand for protection
3.	Maintain limited access points and roads necessary for resource management activities.	As Needed	Yes No	
4.	Maintain kiosk and associated informational signage near trailhead.	As Needed	Yes No In Progress	Nice
5.	Pursue legal upland access to southeastern portions of the conservation area.	2007	Yes No In Progress	
C.	Recreation YARBOROUGH			A STATE OF A DURING
1.	Install marked multi-use trail at the Yarborough Land Management Tract.	2006	Yes No	A mile
2.	Install an informational kiosks at the Yarborough Land Management Tract and at the dog Branch/ Edgefield RST.	2006-2007	Yes No In Progress	No acces Turrently
3.	Maintain marked multi-use trail.	As Needed	Yes No	online info
4.	Create a brochure detailing trail system and allowed activities.	2006	Yes No In Progress	On line info
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress	on line -
D.	Recreation NORTH			
1.	Install marked trail system.	2006	Yes No	
2.	Install an informational kiosk.	2006	Yes No (In Progress	
3.	Maintain multi-use trail.	Ongoing	Yes No	

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			1	
4.	Create a brochure detailing trail system and allowed activities.	2006	Yes No In Progress	on live
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress	07 / INP
E.	Environmental Education YARBO	OROUGH		
1.	Encourage educational opportunities as they arise.	As Needed	Yes No In Progress	Dat research
F.	<b>Environmental Education NORTI</b>	H		
1.	Encourage educational opportunities as they arise.	As Needed	Yes No In Progress	
G.	Security YARBOROUGH			
1.	Continue contract with private security firm.	Annually	Yes No In Progress	
2.	Maintain gates, signage, fencing and boundary marking.	Annually	Yes No In Progress	ep
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress	
H.	Security NORTH		0	
1.	Maintain fencing, gates, and boundary markers.	As Needed	Yes No In Progress	
2.	Install additional gates and fencing.	2006	Yes No	No Nech
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress	
4.	Maintain fencing and boundary marking.	Annually	Yes No In Progress	

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Please answer the following questions for YARBOROUGH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and recreation?

YES NO

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

**Group Discussion** 

Are the management practices in compliance with the current land management plan? (Permitting locals to fish by knowing the pollution //toxic level) water Action Volunteers - lost in 2011 sad-

### Please answer the following questions for NORTH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and recreation?

(YES NO

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

## **Group Discussion**

Are the management practices in compliance with the current land management plan?

Please return completed checklist to: Sandy Oxenrider, Land Resource Specialist, Bureau of Real Estate Services, St. Johns River Water Management District, 4049 Reid Street Palatka, FL 32177 Phone: 386-329-4517 Email: <u>soxenrider@sjrwmd.com</u> add_<u>Rhedwdonduce</u> canescence (6100 miens) Nork #9 Blue eyel graw # 6 Coreop515? levenworther?

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Name: Justin Ellenberge Affiliation: Fwc ustin. ellenberger@myfuc.com Email:

MANAGEMENT REVIEW CHECKLIST Management Review Team Tour Deep Creek Conservation Area NORTH & Yarborough Parcel March 11, 2020

**Instructions:** Please take time to review the management plan summary. During the tour, please rate the extent to which you perceive the District is managing the properties in accordance with the 2006 land management plans.

LAN	ND MANAGEMENT TASK 2006	DUE DATE	REVIEW RATING Do field observations comply with land management activities/goals set forth in the management plan?	COMMENTS If you need additional space, please use reverse side of paper or attach additional pages.
RE:	SOURCE PROTECTION AND MAN	AGEMENT		
1.	Maintain pump stations at Regional Stormwater Treatment Facility (RST).	As Needed	Yes No In Progress	
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No In Progress	
B.	Water Resource Protection NOF	ТН	0	
1.	Recontour entrance road to property in order to reduce potential for erosion.	2007	Yes No In Progress	

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2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No In Progress	
C. F	lora and Fauna YARBOROUGH			
1.	Continue to restore natural communities.	Annually	Yes No	
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No In Progress	
D.	Flora and Fauna NORTH			
1.	Continue to restore natural communities.	Annually	(Yes) No In Progress	
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No In Progress	
E.F	orest Management YARBOROUG	H		
1.	Utilize prescribed fire as a forest management tool.	Annually	Yes No In Progress	
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No In Progress	
F.	Forest Management NORTH			
1.	Utilize prescribed fire as a forest management tool.	Ongoing	Yes No In Progress	
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No In Progress	
3.	Conduct a detailed inventory of timber resources on property.	2006-2007	In Progress	
G.	Fire Management YARBOROUG	H		
1.	Introduce dormant season burns in areas where fire has been excluded.	2007	Ves No In Progress	
2.	Continue to conduct dormant season burns until fuel reduction goals are met.	As Needed	Yes No In Progress	
3.	Introduce growing season burns in areas with reduced fuels.	2007	Yes No In Progress	
4.	Determine appropriate species for abandoned agricultural fields.	2007	Yes No In Progress	

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5.	Replant or direct seed in conjunction with natural regeneration when necessary.	2007	Yes No
H.	Fire Management NORTH		
1.	Install additional firebreaks as necessary.	2007	Yes No In Progress
2.	Introduce dormant season burns in areas where fire has been excluded.	2006-2007	Yes No In Progress
3.	Continue to conduct dormant season burns until fuel reduction goals are met.	Ongoing	Yes No In Progress
4.	Introduce growing season burns in areas with reduced fuels.	2010	Yes No In Progress
I. F	Exotic Species YARBOUROUGH		
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No In Progress
2.	Continue coordination with hog trapper.	As needed	(Yes) No In Progress
J.	Exotic Species NORTH		
1.	Continue to monitor for invasive plant species and treat as necessary	Annually	Yes No In Progress
2.	Evaluate the need to utilize a hog trapper for removal of feral	As needed	Yes No
K	Cultural Resources VARBOROUG	н	mirrogress
1.	Identify and report any new sites to Florida Division of	As Needed	Yes No
1 (	Tultural Resources NORTH		In Progress
1.	Protect existing cultural and historical sites.	Ongoing	Yes No Ja.Progress
2.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Yes No In Progress
LA	ND USE MANAGEMENT		
A.	Access YARBOROUGH		
1.	Maintain fencing, boundary markers, roads, crossings, and parking areas.	Annually	Ves No In Progress

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2.	Maintain limited access points and roads necessary for resource management activities	Annually	Yes No In Progress	
3.	Maintain informational signage near trailheads and regional stormwater treatment areas.	Annually	Tes No In Progress	
В.	Access NORTH			
1.	Repair entrance road in order to provide improved access for land management activities.	2007	Yes No In Progress	
2.	Install and maintain parking area.	2006	Yes No In Progress	
3.	Maintain limited access points and roads necessary for resource management activities.	As Needed	Yes No In Progress	
4.	Maintain kiosk and associated informational signage near trailhead.	As Needed	In Progress	
5.	Pursue legal upland access to southeastern portions of the conservation area	2007	Yes No	
C.	Recreation YARBOROUGH			-
1.	Install marked multi-use trail at the Yarborough Land Management Tract.	2006	Yes No In Progress	
2.	Install an informational kiosks at the Yarborough Land Management Tract and at the dog Branch/ Edgefield RST.	2006-2007	Yes No In Progress	
3.	Maintain marked multi-use trail.	As Needed	Yes No In Progress	
4.	Create a brochure detailing trail system and allowed activities.	2006	Yes No In Progress	
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress	
D.	Recreation NORTH			
1.	Install marked trail system.	2006	Yes No In Progress	
2.	Install an informational kiosk.	2006	Ves No	
3.	Maintain multi-use trail.	Ongoing	Yes No In Progress	

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4.	Create a brochure detailing trail system and allowed activities.	2006	Ves No In Progress	
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress	
E.	<b>Environmental Education YARBO</b>	OROUGH		
1.	Encourage educational opportunities as they arise.	As Needed	(Yes) No	
F.	Environmental Education NORT	Ŧ	minogress	
1.	Encourage educational opportunities as they arise.	As Needed	Yes No	
G.	Security YARBOROUGH			
1.	Continue contract with private security firm.	Annually	Yes No In Progress	
2.	Maintain gates, signage, fencing and boundary marking.	Annually	Yes No In Progress	
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress	
H.	Security NORTH			
1.	Maintain fencing, gates, and boundary markers.	As Needed	Yes No In Progress	
2.	Install additional gates and fencing.	2006	Yes No	
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress	
4.	Maintain fencing and boundary marking.	Annually	Ves No In Progress	

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#### Please answer the following questions for YARBOROUGH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and recreation?

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

## **Group Discussion**

Are the management practices in compliance with the current land management plan?

## Please answer the following questions for NORTH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and recreation?

(YES) NO

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

## **Group Discussion**

Are the management practices in compliance with the current land management plan?

Please return completed checklist to: Sandy Oxenrider, Land Resource Specialist, Bureau of Real Estate Services, St. Johns River Water Management District, 4049 Reid Street Palatka, FL 32177 Phone: 386-329-4517 Email: <u>soxenrider@sjrwmd.com</u>

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2 O'Ner Name: Affiliation:

Sean. O'Nenl @ Edacs.gov Email:

MANAGEMENT REVIEW CHECKLIST Management Review Team Tour Deep Creek Conservation Area NORTH & Yarborough Parcel March 11, 2020

**Instructions:** Please take time to review the management plan summary. During the tour, please rate the extent to which you perceive the District is managing the properties in accordance with the 2006 land management plans.

LAND MANAGEMENT TASK 2006		DUE DATE	REVIEW RATING Do field observations comply with land management activities/goals set forth in the management plan?	<b>COMMENTS</b> If you need additional space, please use reverse side of paper or attach additional pages.
RE	SOURCE PROTECTION AND MA	NAGEMENT		
A.	Water Resource Protection YA	RBOROUGH	-	
1.	Maintain pump stations at Regional Stormwater Treatment Facility (RST).	As Needed	Yes No In Progress	
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No In Progress	
B.	Water Resource Protection NO	RTH	0	
1.	Recontour entrance road to property in order to reduce potential for erosion.	2007	Yes No In Progress	

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2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No	
C. I	Flora and Fauna YARBOROUGH		1	
1.	Continue to restore natural communities.	Annually	Yes No	Convert Ag. Breid
2.	Continue to maintain ecotones between natural communities.	Annually	In Progress	
D.	Flora and Fauna NORTH			
1.	Continue to restore natural communities.	Annually	Yes No.	
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No In Progress	
E. I	Forest Management YARBOROUG	H		
1.	Utilize prescribed fire as a forest management tool.	Annually	Yes No	
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No	
F.	Forest Management NORTH			
1.	Utilize prescribed fire as a forest management tool.	Ongoing	Yes No In Progress	
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No In Progress	
3.	Conduct a detailed inventory of timber resources on property.	2006-2007	Yes No In Progress	Yarborough?
G.	Fire Management YARBOROUG	H	~	
1.	Introduce dormant season burns in areas where fire has been excluded.	2007	Yes No In Progress	
2.	Continue to conduct dormant season burns until fuel reduction goals are met.	As Needed	Yes No In Progress	
3.	Introduce growing season burns in areas with reduced fuels.	2007	Yes No In Progress	
4.	Determine appropriate species for abandoned agricultural fields.	2007	Yes No In Progress	

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5.	Replant or direct seed in conjunction with natural regeneration when necessary.	2007	Yes No In Progress	
H.	Fire Management NORTH		CONTRACTOR OF THE	
1.	Install additional firebreaks as necessary.	2007	Yes No In Progress	
2.	Introduce dormant season burns in areas where fire has been excluded.	2006-2007	Yes No In Progress	
3.	Continue to conduct dormant season burns until fuel reduction goals are met.	Ongoing	Yes No In Progress	
4.	Introduce growing season burns in areas with reduced fuels.	2010	Yes No In Progress	
I. F	Exotic Species YARBOUROUGH	11	-	
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No In Progress	
2.	Continue coordination with hog trapper.	As needed	Yes No In Progress	
J.	Exotic Species NORTH	in the second		
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Tes No In-Progress	
2.	Evaluate the need to utilize a hog trapper for removal of feral hogs.	As needed	Yes No In Progress	
K. (	Cultural Resources YARBOROUG	H		
1.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	In Progress	No Sitas
L. (	Cultural Resources NORTH		0	
1.	Protect existing cultural and historical sites.	Ongoing	Yes No In Progress	
2.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Fes No In Progress	
LA	ND USE MANAGEMENT			
Α.	Access YARBOROUGH		~	
1.	Maintain fencing, boundary markers, roads, crossings, and parking areas.	Annually	Yes No In Progress	

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2.	Maintain limited access points and roads necessary for resource management activities.	Annually	Ves No In Progress
3.	Maintain informational signage near trailheads and regional stormwater treatment areas.	Annually	Mes No In Progress
В.	Access NORTH		0
1.	Repair entrance road in order to provide improved access for land management activities.	2007	Yes No In Progress
2.	Install and maintain parking area.	2006	Yes No In Progress
3.	Maintain limited access points and roads necessary for resource management activities.	As Needed	Ves No In Progress
4.	Maintain kiosk and associated informational signage near trailhead.	As Needed	No In Progress
5.	Pursue legal upland access to southeastern portions of the conservation area.	2007	Yes No
C.	Recreation YARBOROUGH		
1.	Install marked multi-use trail at the Yarborough Land Management Tract.	2006	In Progress
2.	Install an informational kiosks at the Yarborough Land Management Tract and at the dog Branch/ Edgefield RST.	2006-2007	In Progress
3.	Maintain marked multi-use trail.	As Needed	In Progress
4.	Create a brochure detailing trail system and allowed activities.	2006	No In Progress
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress
D,	Recreation NORTH		
1.	Install marked trail system.	2006	Yes No In Progress
2.	Install an informational kiosk.	2006	Yes No
3.	Maintain multi-use trail.	Ongoing	Ves No In Progress

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	and the second se			
4.	Create a brochure detailing trail system and allowed activities.	2006	Yes No In Progress	
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress	
E.	<b>Environmental Education YARBO</b>	OROUGH	6	and the second
1.	Encourage educational opportunities as they arise.	As Needed	Yes No In Progress	
F.	<b>Environmental Education NORTI</b>	H	0	
1.	Encourage educational opportunities as they arise.	As Needed	Yes No In Progress	
G.	Security YARBOROUGH			
1,	Continue contract with private security firm.	Annually	Yes No In Progress	
2.	Maintain gates, signage, fencing and boundary marking.	Annually	Yes No In Progress	
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress	
H.	Security NORTH			
1.	Maintain fencing, gates, and boundary markers.	As Needed	Yes No In Progress	
2.	Install additional gates and fencing.	2006	In Progress	No New Yet.
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress	
4.	Maintain fencing and boundary marking.	Annually	In Progress	1.2.42

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Please answer the following questions for YARBOROUGH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and

recreation? Fishing access to retention pouls. ES NO

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

YES NO

#### **Group Discussion**

Are the management practices in compliance with the current land management plan?

- Fire line around chemical treatment facility.

Please answer the following questions for NORTH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and recreation?



2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

NO VES

## **Group Discussion**

Are the management practices in compliance with the current land management plan?

DOF needs to be changed to FFS on both plans.

Please return completed checklist to: Sandy Oxenrider, Land Resource Specialist, Bureau of Real Estate Services, St. Johns River Water Management District, 4049 Reid Street Palatka, FL 32177 Phone: 386-329-4517 Email: <u>soxenrider@sjrwmd.com</u>

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Name: BULERA & PUTNA, BULERASS SMALL. Com Affiliation: Email: SCAR

MANAGEMENT REVIEW CHECKLIST Management Review Team Tour Deep Creek Conservation Area NORTH & Yarborough Parcel March 11, 2020

**Instructions:** Please take time to review the management plan summary. During the tour, please rate the extent to which you perceive the District is managing the properties in accordance with the 2006 land management plans.

LA	ND MANAGEMENT TASK 2006	DUE DATE	REVIEW RATING Do field observations comply with land management activities/goals set forth in the management plan?	COMMENTS If you need additional space, please use reverse side of paper or attach additional pages.
RE A.	SOURCE PROTECTION AND MAN Water Resource Protection YAR	BOROUGH	$\sim$	
1.	Maintain pump stations at Regional Stormwater Treatment Facility (RST).	As Needed	Yes No In Progress	
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No In Progress	
B.	Water Resource Protection NOR	TH	0	
1.	Recontour entrance road to property in order to reduce potential for erosion.	2007	Yes No In Progress	

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			~	
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No In Progress	
C. I	Flora and Fauna YARBOROUGH	a second start		
1.	Continue to restore natural communities.	Annually	Yes No EXTAND In Progress WETCHIDS	
2.	Continue to maintain ecotones, between natural communities.	Annually	Yes No In Progress	
D.	Flora and Fauna NORTH			
1.	Continue to restore natural communities.	Annually	Yes No In Progress	
2.	Continue to maintain ecotones between natural communities.	Annually	Tes No In Progress	
E. 1	Forest Management YARBOROUG	GH	minogioss	-
1.	Utilize prescribed fire as a forest management tool.	Annually	Yes No In Progress	
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No	
F.	Forest Management NORTH			
1.	Utilize prescribed fire as a forest management tool.	Ongoing	Yes No In Progress	
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No In Progress	
3.	Conduct a detailed inventory of timber resources on property.	2006-2007	Yes No In Progress	
G	Fire Management YARBOROUG	GH	and the second s	
1.	Introduce dormant season burns in areas where fire has been excluded.	2007	Yes No In Progress	
2.	Continue to conduct dormant season burns until fuel reduction goals are met.	As Needed	Yes No	
3.	Introduce growing season burns in areas with reduced fuels.	2007	Yes No In Progress	
4.	Determine appropriate species for abandoned agricultural fields.	2007	Yes No In Progress	

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5.	Replant or direct seed in conjunction with natural regeneration when necessary.	2007	Yes No In Progress
<b>H</b> .	Fire Management NORTH		
1.	Install additional firebreaks as necessary.	2007	Yes No In Progress
2.	Introduce dormant season burns in areas where fire has been excluded.	2006-2007	Yes No In Progress
3.	Continue to conduct dormant season burns until fuel reduction goals are met.	Ongoing	Yes No
4.	Introduce growing season burns in areas with reduced fuels.	2010	Yes No In Progress
I. E	Exotic Species YARBOUROUGH		
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No In Progress
2.	Continue coordination with hog trapper.	As needed	Yes No In Progress
J. 1	Exotic Species NORTH	All services and	
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No In Progress
2.	Evaluate the need to utilize a hog trapper for removal of feral hogs.	As needed	Yes No In Progress
K. (	Cultural Resources YARBOROUG	H	
1.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Yes Non In Progress
L. (	Cultural Resources NORTH		
1.	Protect existing cultural and historical sites.	Ongoing	Yes No In Progress
2.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Yes No
LA	ND USE MANAGEMENT		
			0
A.	Access YARBOROUGH		(
1.	Maintain fencing, boundary markers, roads, crossings, and parking areas.	Annually	Yes No In Progress

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2.	Maintain limited access points and roads necessary for resource management activities.	Annually	Yes No In Progress	
3.	Maintain informational signage near trailheads and regional stormwater treatment areas.	Annually	Yes No In Progress	
B.	Access NORTH			
1.	Repair entrance road in order to provide improved access for land management activities.	2007	Yes No In Progress	
2.	Install and maintain parking area.	2006	Yes No In Progress	
3.	Maintain limited access points and roads necessary for resource management activities.	As Needed	Yes No	
4.	Maintain kiosk and associated informational signage near trailhead.	As Needed	Yes No In Progress	
5.	Pursue legal upland access to southeastern portions of the conservation area.	2007	Yes No	
с.	Recreation YARBOROUGH			
1.	Install marked multi-use trail at the Yarborough Land Management Tract.	2006	Yes No In Progress	LOW DEMAND
2.	Install an informational kiosks at the Yarborough Land Management Tract and at the dog Branch/ Edgefield RST.	2006-2007	Yes No In Progress	
3.	Maintain marked multi-use trail.	As Needed	Yes No In Progress	2
4.	Create a brochure detailing trail system and allowed activities.	2006	Yes No In Progress	online,-
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress	17
D.	Recreation NORTH		0	
1.	Install marked trail system.	2006	Yes No In Progress	
2.	Install an informational kiosk.	2006	Yes No In Progress	
3.	Maintain multi-use trail.	Ongoing	Yes No In Progress	

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4.	Create a brochure detailing trail system and allowed activities.	2006	Yes No In Progress	onlue
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress	
E.	<b>Environmental Education YARB</b>	OROUGH		
1.	Encourage educational opportunities as they arise.	As Needed	Yes No	
F.	<b>Environmental Education NORT</b>	H		
1.	Encourage educational opportunities as they arise.	As Needed	Yes No	
G.	Security YARBOROUGH			
1.	Continue contract with private security firm.	Annually	Yes No In Progress	
2.	Maintain gates, signage, fencing and boundary marking.	Annually	Yes No In Progress	
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress	
H.	Security NORTH			
1.	Maintain fencing, gates, and boundary markers.	As Needed	Yes No In Progress	
2.	Install additional gates and fencing.	2006	Yes No In Progress	
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	In Progress	
4.	Maintain fencing and boundary marking.	Annually	Yes No In Progress	

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## Please answer the following questions for YARBOROUGH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and recreation?

Some Rec oportimities have YES NO

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

YES NO

#### **Group Discussion**

Are the management practices in compliance with the current land management plan?

es -

## Please answer the following questions for NORTH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and recreation?

YES NO

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

Within limited resources available more iscussion con be done YES) NO

**Group Discussion** 

Are the management practices in compliance with the current land management plan?

Mas

Please return completed checklist to: Sandy Oxenrider, Land Resource Specialist, Bureau of Real Estate Services, St. Johns River Water Management District, 4049 Reid Street Palatka, FL 32177 Phone: 386-329-4517 Email: soxenrider@sjrwmd.com

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# MANAGEMENT REVIEW CHECKLIST Management Review Team Tour Deep Creek Conservation Area NORTH & Yarborough Parcel March 11, 2020

**Instructions:** Please take time to review the management plan summary. During the tour, please rate the extent to which you perceive the District is managing the properties in accordance with the 2006 land management plans.

LAND MANAGEMENT TASK 2006		DUE DATE	REVIEW RATING Do field observations comply with land management activities/goals set forth in the management plan?	<b>COMMENTS</b> If you need additional space, please use reverse side of paper or attach additional pages.	
RE	SOURCE PROTECTION AND MAN	NAGEMENT			
A.	Water Resource Protection YAI	RBOROUGH	~		
1.	Maintain pump stations at Regional Stormwater Treatment Facility (RST).	As Needed	Yes No In Progress		
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No In Progress		
B.	Water Resource Protection NOI	RTH			
1.	Recontour entrance road to property in order to reduce potential for erosion.	2007	Yes No In Progress		

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2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No	
C. I	Flora and Fauna YARBOROUGH		III Progress	
1.	Continue to restore natural communities.	Annually	Yes No	
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No	
D.	Flora and Fauna NORTH			
1.	Continue to restore natural communities.	Annually	Yes No	
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No	
E. F	Forest Management YARBOROUC	SH		
1.	Utilize prescribed fire as a forest management tool.	Annually	Yes No	
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No In Progress	
F.	Forest Management NORTH			
1.	Utilize prescribed fire as a forest management tool.	Ongoing	Yes No	
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No	
3.	Conduct a detailed inventory of timber resources on property.	2006-2007	Yes No In Progress	But Being done Yarbornan
G.	Fire Management YARBOROUG	H	- Sector -	MAC MAC
1.	Introduce dormant season burns in areas where fire has been excluded.	2007	Yes No In Progress	
2.	Continue to conduct dormant season burns until fuel reduction goals are met.	As Needed	Yes No	
3.	Introduce growing season burns in areas with reduced fuels.	2007	Yes No	
4.	Determine appropriate species for abandoned agricultural fields.	2007	Yes No In Progress	Plant very, THICK !!

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5.	Replant or direct seed in		(Yes) No	
-	conjunction with natural	2007		
	regeneration when necessary.		In Progress	
H.	Fire Management NORTH			. 1
1.	Install additional firebreaks as	2007	Yes No	
	necessary.		( ) · · · · · · · · · · · · · · · · · ·	
-			(In Progress)	
2.	Introduce dormant season burns	2006 2007	Yes No	
	excluded	2000-2007	In Progress	
3.	Continue to conduct dormant		Yes No	
	season burns until fuel reduction	Ongoing		
	goals are met.	0.0	(In Progress	_
4.	Introduce growing season burns		Yes No	
	in areas with reduced fuels.	2010		
			In Progress	_
I. I	Exotic Species YARBOUROUGH	N		-
1.	Continue to monitor for	4 11	Yes No	
	invasive plant species and treat	Annually	In Brownood	
2	as necessary.		Ves No	
2.	trapper A	As needed	Tes No	
	trapper.	As needed	In Progress?	
J.	Exotic Species NORTH			
1.	Continue to monitor for		(Yes) No	
1	invasive plant species and treat	Annually		
	as necessary.		In Progress	_
2.	Evaluate the need to utilize a		Yes No	
	hog trapper for removal of feral	As needed		
	hogs.		(In Progress)	
K. (	Cultural Resources YARBOROUG	H		
1.	Identify and report any new	A	Yes No	
	sites to Florida Division of	As Needed	In Progress	
T (	Cultural Resources NORTH		milligiess	-
1	Protect existing cultural and		(Ves) No	
1.	historical sites	Ongoing		
	motoriour bites.	ongoing	In Progress	
2.	Identify and report any new		Yes No	
	sites to Florida Division of	As Needed		
	Historical Resources.		In Progress /	
LA	ND USE MANAGEMENT			
Α.	Access YARBOROUGH		Party and the second second	
1	Maintain fencing, boundary		Yes No	-
1.	markers, roads, crossings, and	Annually		
	· · · · · · · · · · · · · · · · · · ·	Annually		

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2.	Maintain limited access points and roads necessary for resource management activities.	Annually	Yes No	
3.	Maintain informational signage near trailheads and regional stormwater treatment areas.	Annually	Yes No In Progress	
B.	Access NORTH		~	
1.	Repair entrance road in order to provide improved access for land management activities.	2007	Yes No In Progress	
2.	Install and maintain parking area.	2006	Yes No	
3.	Maintain limited access points and roads necessary for resource management activities.	As Needed	Yes No In Progress	
4.	Maintain kiosk and associated informational signage near trailhead.	As Needed	Yes No In Progress	
5.	Pursue legal upland access to southeastern portions of the conservation area.	2007	Yes No	Burn. Work K
C.	Recreation YARBOROUGH			
1.	Install marked multi-use trail at the Yarborough Land Management Tract.	2006	Yes No In Progress	
2.	Install an informational kiosks at the Yarborough Land Management Tract and at the dog Branch/ Edgefield RST.	2006-2007	Yes No	But no Hecps 1 Sonot Impt.
3.	Maintain marked multi-use trail.	As Needed	Yes No In Progress	
4.	Create a brochure detailing trail system and allowed activities.	2006	(Yes) No In Progress	(ou.)
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress	size
D.	Recreation NORTH			
1.	Install marked trail system.	2006	Yes No In Progress	
2.	Install an informational kiosk.	2006	Yes No	
3.	Maintain multi-use trail.	Ongoing	Yes No In Progress	

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4.	Create a brochure detailing trail system and allowed activities.	2006	(Yes) No In Progress Phi Li4 P
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress
E.	<b>Environmental Education YARBO</b>	OROUGH	the second s
1.	Encourage educational opportunities as they arise.	As Needed	Yes No
F.	<b>Environmental Education NORTI</b>	ł	
1.	Encourage educational opportunities as they arise.	As Needed	Yes No
G.	Security YARBOROUGH		
1.	Continue contract with private security firm.	Annually	Yes No In Progress
2.	Maintain gates, signage, fencing and boundary marking.	Annually	Yes No (In Progress)
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress
H.	Security NORTH		
1.	Maintain fencing, gates, and boundary markers.	As Needed	Yes No
2.	Install additional gates and fencing.	2006	Yes No (In Progress)
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress
4.	Maintain fencing and boundary marking.	Annually	Yes No In Progress

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#### Please answer the following questions for YARBOROUGH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and

But investigate Getting access to ponds For recreation? NO YES YES NO People to Fish IF it can be determined Fsig are Safe. 2. Does the current management plan provide sufficient protection to the properties natural

and cultural resources?

YES ) NO

#### **Group Discussion**

Are the management practices in compliance with the current land management plan?

Jes - But more & weeded & more mgt STAF.

Please answer the following questions for NORTH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and recreation?



2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

NO

## **Group Discussion**

Are the management practices in compliance with the current land management plan?

yes - But # + PeoPle - more -

Please return completed checklist to: Sandy Oxenrider, Land Resource Specialist, Bureau of Real Estate Services, St. Johns River Water Management District, 4049 Reid Street Palatka, FL 32177 Phone: 386-329-4517 Email: soxenrider@sirwmd.com

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Name: GEOFFALY SAMPLE

Affiliation: SJRWMD-Intergovernmental Coordinator

Email: <u>ASumple Osjrumancom</u>

MANAGEMENT REVIEW CHECKLIST Management Review Team Tour Deep Creek Conservation Area NORTH & Yarborough Parcel March 11, 2020

**Instructions:** Please take time to review the management plan summary. During the tour, please rate the extent to which you perceive the District is managing the properties in accordance with the 2006 land management plans.

LAN	ND MANAGEMENT TASK 2006	DUE DATE	REVIEW RATING Do field observations comply with land management activities/goals set forth in the management plan?	<b>COMMENTS</b> If you need additional space, please use reverse side of paper or attach additional pages.
RES	SOURCE PROTECTION AND MAN Water Resource Protection YAR	RBOROUGH		
1.	Maintain pump stations at Regional Stormwater Treatment Facility (RST).	As Needed	Yes No In Progress	
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No In Progress	
В.	Water Resource Protection NOF	ТН		
1.	Recontour entrance road to property in order to reduce potential for erosion.	2007	Yes No In Progress	

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			- Internet	
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No	
C. I	Flora and Fauna YARBOROUGH		In Flogress	
1.	Continue to restore natural communities.	Annually	Yes No	
2.	Continue to maintain ecotones between natural communities.	Annually	Ves No	
D.	Flora and Fauna NORTH		1	a support of the second
1.	Continue to restore natural communities.	Annually	Yes No	
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No	
E.I	Forest Management YARBOROUG	H	In riogress	
1.	Utilize prescribed fire as a forest management tool.	Annually	Yes No	386 acres
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No	
F.	Forest Management NORTH		III TOBICSS	
1.	Utilize prescribed fire as a forest management tool.	Ongoing	Yes No In Progress	328 acres, but work since la
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No In Progress	101100 11101
3.	Conduct a detailed inventory of timber resources on property.	2006-2007	Yes No In Progress	Area of plunche
G.	Fire Management YARBOROUG	н		
1.	Introduce dormant season burns in areas where fire has been excluded.	2007	Yes No In Progress	1101 acres.
2.	Continue to conduct dormant season burns until fuel reduction goals are met.	As Needed	Yes No In Progress	
3.	Introduce growing season burns in areas with reduced fuels.	2007	Yes No	
4.	Determine appropriate species for abandoned agricultural fields.	2007	Yes No	7 slash pine

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			- C1	
5.	Replant or direct seed in conjunction with natural regeneration when necessary.	2007	Yes No In Progress	
н.	Fire Management NORTH	011		
1.	Install additional firebreaks as necessary.	2007	Yes No In Progress	6.7 miles
2.	Introduce dormant season burns in areas where fire has been excluded.	2006-2007	Yes No In Progress	162 acros
3.	Continue to conduct dormant season burns until fuel reduction goals are met.	Ongoing	Yes No In Progress	
4.	Introduce growing season burns in areas with reduced fuels.	2010	Yes No In Progress	166 acres
I. H	Exotic Species YARBOUROUGH			Index 1
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No In Progress	List included
2.	Continue coordination with hog trapper.	As needed	Yes No In Progress	172 hogs
J.	Exotic Species NORTH	in the second		Water and the second second
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No In Progress	
2.	Evaluate the need to utilize a hog trapper for removal of feral hogs.	As needed	Yes No In Progress	62 hogs removed
K. (	Cultural Resources YARBOROUG	H		I Harry W
1.	Identify and report any new sites to Florida Division of Historical Resources	As Needed	Yes No	7-acre Mand
L. (	Cultural Resources NORTH		In rogicss	W Marth
1.	Protect existing cultural and historical sites.	Ongoing	Yes No	nicol .
2.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Yes No In Progress	ANTE NIL C
LA	ND USE MANAGEMENT			
A.	Access YARBOROUGH		-	
1.	Maintain fencing, boundary markers, roads, crossings, and parking areas.	Annually	Yes No In Progress	



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2.	Maintain limited access points and roads necessary for resource management activities.	Annually	Yes No	
3.	Maintain informational signage near trailheads and regional stormwater treatment areas.	Annually	Yes No In Progress	
B.	Access NORTH		~	
1.	Repair entrance road in order to provide improved access for land management activities.	2007	(Yes) No In Progress	
2.	Install and maintain parking area.	2006	Yes No	
3.	Maintain limited access points and roads necessary for resource management activities.	As Needed	Yes No In Progress	
4.	Maintain kiosk and associated informational signage near trailhead.	As Needed	Yes No In Progress	
5.	Pursue legal upland access to southeastern portions of the conservation area.	2007	Yes No In Progress	
C.	Recreation YARBOROUGH			
1.	Install marked multi-use trail at the Yarborough Land Management Tract.	2006	Yes No In Progress	
2.	Install an informational kiosks at the Yarborough Land Management Tract and at the dog Branch/ Edgefield RST.	2006-2007	In Progress	
3.	Maintain marked multi-use trail.	As Needed	Yes No In Progress	
4.	Create a brochure detailing trail system and allowed activities.	2006	Yes No In Progress	online
5.	Update and maintain brochure for trail system.	As Needed	Yes) No In Progress	ιτ.
D.	Recreation NORTH			
1.	Install marked trail system.	2006	Yes No In Progress	
2.	Install an informational kiosk.	2006	Yes No	
3.	Maintain multi-use trail.	Ongoing	Yes No In Progress	

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4.	Create a brochure detailing trail system and allowed activities.	2006	Yes No In Progress	ouine
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress	online
E.	<b>Environmental Education YARBO</b>	OROUGH		
1.	Encourage educational opportunities as they arise.	As Needed	Yes No In Progress	
F.	<b>Environmental Education NORTI</b>	ł	i de la companya de l	
1.	Encourage educational opportunities as they arise.	As Needed	Yes No	
G.	Security YARBOROUGH		mirogress	
1.	Continue contract with private security firm.	Annually	Yes No	
2.	Maintain gates, signage, fencing and boundary marking.	Annually	Yes No In Progress	
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress	
H.	Security NORTH			
1.	Maintain fencing, gates, and boundary markers.	As Needed	Yes No In Progress	
2.	Install additional gates and fencing.	2006	Yes No In Progress	where weeded.
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress	
4.	Maintain fencing and boundary marking.	Annually	Yes No In Progress	

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#### Please answer the following questions for YARBOROUGH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and recreation?

YES) NO

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

YES NO

#### **Group Discussion**

U.U. PE

Are the management practices in compliance with the current land management plan?

Yes, with the understand of the the fillence of the standard the standard of t

epport with 1. Is the property being managed in a manner that is compatible with conservation and recreation?

YES NO

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

YES NO

#### **Group Discussion**

Are the management practices in compliance with the current land management plan?

# Nez, with the understanding that the plate can be updated to work at champion regardens much offertuites,

Please return completed checklist to: Sandy Oxenrider, Land Resource Specialist, Bureau of Real Estate Services, St. Johns River Water Management District, 4049 Reid Street Palatka, FL 32177 Phone: 386-329-4517 Email: soxenrider@sjrwmd.com

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# MANAGEMENT REVIEW CHECKLIST Management Review Team Tour Deep Creek Conservation Area NORTH & Yarborough Parcel March 11, 2020

**Instructions:** Please take time to review the management plan summary. During the tour, please rate the extent to which you perceive the District is managing the properties in accordance with the 2006 land management plans.

LAI	nd Management Task 2006	DUE DATE	REVIEW RATING Do field observations comply with land management activities/goals set forth in the management plan?	<b>COMMENTS</b> If you need additional space, please use reverse side of paper or attach additional pages.
RE	SOURCE PROTECTION AND MA	NAGEMENT		
A.	Water Resource Protection YA	RBOROUGH		
1.	Maintain pump stations at Regional Stormwater Treatment Facility (RST).	As Needed	Yes No In Progress	Consider adding as a cent og field to treatment wotlan
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No In Progress	
B.	Water Resource Protection NO	RTH		
1.	Recontour entrance road to property in order to reduce	2007	Yes No	

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2.	Regularly inspect roads and crossings for erosion problems.	Annually	(Yes) No	
C. 1	Flora and Fauna YARBOROUGH		Introgress	
1.	Continue to restore natural communities.	Annually	Yes No	
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No	
D.	Flora and Fauna NORTH		in riogress	
1.	Continue to restore natural communities.	Annually	Yes No In Progress	
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No In Progress	
E. I	Forest Management YARBOROUG	ЯН		
1.	Utilize prescribed fire as a forest management tool.	Annually	Yes No In Progress	
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No In Progress	
F.	Forest Management NORTH			
1.	Utilize prescribed fire as a forest management tool.	Ongoing	Yes No In Progress	
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No In Progress	
3.	Conduct a detailed inventory of timber resources on property.	2006-2007	Yes No In Progress	Not needed
G.	Fire Management YARBOROUG	H	~	
1.	Introduce dormant season burns in areas where fire has been excluded.	2007	Yes No In Progress	
2.	Continue to conduct dormant season burns until fuel reduction goals are met.	As Needed	Yes No In Progress	
3.	Introduce growing season burns in areas with reduced fuels.	2007	Yes No In Progress	
4.	Determine appropriate species for abandoned agricultural fields.	2007	Yes No In Progress	

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			<u></u>
5.	Replant or direct seed in conjunction with natural regeneration when necessary.	2007	Yes No In Progress
H. ]	Fire Management NORTH		
1.	Install additional firebreaks as necessary.	2007	Yes No In Progress
2.	Introduce dormant season burns in areas where fire has been excluded.	2006-2007	(Yes) No In Progress
3.	Continue to conduct dormant season burns until fuel reduction goals are met.	Ongoing	Yes No In Progress
4.	Introduce growing season burns in areas with reduced fuels.	2010	Yes No In Progress
L E	xotic Species YARBOUROUGH		0
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No In Progress
2.	Continue coordination with hog trapper.	As needed	Yes No In Progress
J. ]	Exotic Species NORTH		
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No In Progress
2.	Evaluate the need to utilize a hog trapper for removal of feral hogs.	As needed	Yes No In Progress
K. (	Cultural Resources YARBOROUC	<b>GH</b>	
1.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Yes No In Progress
L. (	Cultural Resources NORTH		
1.	Protect existing cultural and historical sites.	Ongoing	Yes No In Progress
2.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Yes No In Progress
LAN	ND USE MANAGEMENT		· · · · · · · · · · · · · · · · · · ·
A	Access YARBOROUGH		0
1.	Maintain fencing, boundary markers, roads, crossings, and parking areas.	Annually	Ves No In Progress

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2.	Maintain limited access points and roads necessary for resource management activities.	Annually	Yes No	
3.	Maintain informational signage near trailheads and regional stormwater treatment areas.	Annually	Yes No In Progress	
B.	Access NORTH		~	State of the second second
1.	Repair entrance road in order to provide improved access for land management activities.	2007	Yes No In Progress	
2.	Install and maintain parking area.	2006	Yes No In Progress	
3.	Maintain limited access points and roads necessary for resource management activities.	As Needed	Yes No In Progress	
4.	Maintain kiosk and associated informational signage near trailhead.	As Needed	Yes No In Progress	Update Klosk sign w/new/anguage (
5.	Pursue legal upland access to southeastern portions of the conservation area.	2007	Yes No In Progress	
C.	Recreation YARBOROUGH		$\sim$	1
1.	Install marked multi-use trail at the Yarborough Land Management Tract.	2006	Yes No In Progress	
2.	Install an informational kiosks at the Yarborough Land Management Tract and at the dog Branch/ Edgefield RST.	2006-2007	Yes No In Progress	Lack of domand
3.	Maintain marked multi-use trail.	As Needed	Yes No	
4.	Create a brochure detailing trail system and allowed activities.	2006	Yes What In Progress	1800
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress	
D.	Recreation NORTH			
1.	Install marked trail system.	2006	Yes No In Progress	
2.	Install an informational kiosk.	2006	Yes No	Updale as necessary
3.	Maintain multi-use trail.	Ongoing	Yes No In Progress	

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			0	
4.	Create a brochure detailing trail system and allowed activities.	2006	(Yes) No In Progress	
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress	
E.	<b>Environmental Education YARBO</b>	OROUGH		
1.	Encourage educational opportunities as they arise.	As Needed	Yes No In Progress	
F.	<b>Environmental Education NORTI</b>	H		
1.	Encourage educational opportunities as they arise.	As Needed	Yes No	
G.	Security YARBOROUGH			
1.	Continue contract with private security firm.	Annually	Yes No In Progress	
2.	Maintain gates, signage, fencing and boundary marking.	Annually	Yes No In Progress	
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress	
H.	Security NORTH			
1.	Maintain fencing, gates, and boundary markers.	As Needed	Yes No In Progress	
2.	Install additional gates and fencing.	2006	(Yes) No In Progress	
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress	
4.	Maintain fencing and boundary marking.	Annually	Yes No In Progress	

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Please answer the following questions for YARBOROUGH tract (circle one):

 Is the property being managed in a manner that is compatible with conservation and recreation?

YES NO

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

YES) NO

#### **Group Discussion**

Are the management practices in compliance with the current land management plan?

Yes, as usual, the District has good goals & good intentions for management, but may be limited by funding, statt, and local Please answer the following questions for NORTH tract (circle one): conditions around properties

1. Is the property being managed in a manner that is compatible with conservation and recreation?

(YES) NO

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

YES NO

**Group Discussion** 

Are the management practices in compliance with the current land management plan?

See Above

Please return completed checklist to: Sandy Oxenrider, Land Resource Specialist, Bureau of Real Estate Services, St. Johns River Water Management District, 4049 Reid Street Palatka, FL 32177 Phone: 386-329-4517 Email: <u>soxenrider@sjrwmd.com</u> ASSTrong <u>support</u> for re-hiving someone to fill NILS position to maintain quality recreational NILS position to maintain quality recreational Page 6 of 6 access to WMD properties.



Name: Deborah Curry Affiliation: FNPS

Email: marion big scrubFN PS@gmilicom

MANAGEMENT REVIEW CHECKLIST Management Review Team Tour Deep Creek Conservation Area NORTH & Yarborough Parcel March 11, 2020

**Instructions:** Please take time to review the management plan summary. During the tour, please rate the extent to which you perceive the District is managing the properties in accordance with the 2006 land management plans.

LAND MANAGEMENT TASK 2006	DUE DATE	REVIEW RATING Do field observations comply with land management activities/goals set forth in the management plan?	<b>COMMENTS</b> If you need additional space, please use reverse side of paper or attach additional pages.
RESOURCE PROTECTION AND MAN	NAGEMENT		
A. Water Resource Protection YAR	BOROUGH		240 0
<ol> <li>Maintain pump stations at Regional Stormwater Treatment Facility (RST).</li> </ol>	As Needed	Yes No In Progress	ge field used
2. Regularly inspect roads and crossings for erosion problems.	Annually	Yes No	
B. Water Resource Protection NOF	ТН		
1. Recontour entrance road to property in order to reduce	2007	Yes No	

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			6	
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No In Progress	
C. I	lora and Fauna YARBOROUGH			
1.	Continue to restore natural communities.	Annually	Yes No In Progress	remary coegan g
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No	fire breaks
D.	Flora and Fauna NORTH			
1.	Continue to restore natural communities.	Annually	Yes No	as cleared of invasing
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No In Progress	With fire blag enlangered
E. F	Forest Management YARBOROU	GH		10
1.	Utilize prescribed fire as a forest management tool.	Annually	Yes No	
2.	Monitor forested areas for disease or insect infestations. 7. do the here you	Annually	Yes No	Chaldange to reach these -
F.	Forest Management NORTH			The second second second
1.	Utilize prescribed fire as a forest management tool.	Ongoing	res No In Progress	
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No In Progress	
3.	Conduct a detailed inventory of timber resources on property.	2006-2007	Yes No In Progress	posester: not Enough forest
G.	Fire Management YARBOROUG	GH		
1.	Introduce dormant season burns in areas where fire has been excluded.	2007	Yes No	119 acres burned
2.	Continue to conduct dormant season burns until fuel reduction goals are met.	As Needed	Yes No In Progress	
3.	Introduce growing season burns in areas with reduced fuels.	2007	Yes No In Progress	
4.	Determine appropriate species for abandoned agricultural fields.	2007	Yes No In Progress	

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5.	Replant or direct seed in conjunction with natural regeneration when necessary.	2007	Yes No	
H.	Fire Management NORTH			1
1.	Install additional firebreaks as necessary.	2007	Yes No	617 miles boundry lines
2.	Introduce dormant season burns in areas where fire has been excluded.	2006-2007	Yes No In Progress	162 0000
3.	Continue to conduct dormant season burns until fuel reduction goals are met.	Ongoing	Yes No	
4.	Introduce growing season burns in areas with reduced fuels.	2010	Yes No	166
I. F	Exotic Species YARBOUROUGH		8.086-0.00	
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No In Progress	1 ist - 103 abover treated
2.	Continue coordination with hog trapper.	As needed	Yes No In Progress	
J.	Exotic Species NORTH			Manager Production of the
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No	
2.	Evaluate the need to utilize a hog trapper for removal of feral hogs.	As needed	Yes No In Progress	Corremond hogo
K. (	Cultural Resources YARBOROUG	H		
1.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Yes No In Progress	None found yet
L. (	Cultural Resources NORTH		$\sim$	
1.	Protect existing cultural and historical sites.	Ongoing	Yes No In Progress	
2.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Yes No	
LA	nd Use Management			
A.	Access YARBOROUGH		(2)))	Mar view and a second
1.	Maintain fencing, boundary markers, roads, crossings, and parking areas.	Annually	Yes No In Progress	closed for protection

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	the second s		$\sim$	11
2.	Maintain limited access points and roads necessary for resource management activities.	Annually	Yes No In Progress	
3.	Maintain informational signage near trailheads and regional stormwater treatment areas.	Annually	Yes No In Progress	
B.	Access NORTH			
1.	Repair entrance road in order to provide improved access for land management activities.	2007	Yes No In Progress	
2.	Install and maintain parking area.	2006	Yes No In Progress	limited demand for protection
3.	Maintain limited access points and roads necessary for resource management activities.	As Needed	Yes No	
4.	Maintain kiosk and associated informational signage near trailhead.	As Needed	Yes No In Progress	Nice
5.	Pursue legal upland access to southeastern portions of the conservation area.	2007	Yes No	
C.	Recreation YARBOROUGH	and and all the same same		A STATE OF THE OWNER
1.	Install marked multi-use trail at the Yarborough Land Management Tract.	2006	Yes No	A mile
2.	Install an informational kiosks at the Yarborough Land Management Tract and at the dog Branch/ Edgefield RST.	2006-2007	Yes No In Progress	No acces Eurrently
3.	Maintain marked multi-use trail.	As Needed	Yes No	online info
4.	Create a brochure detailing trail system and allowed activities.	2006	Yes No In Progress	On line in fo
5.	Update and maintain brochure for trail system.	As Needed	Yes No (In Progress	on line -
D.	Recreation NORTH			
1.	Install marked trail system.	2006	Yes No	
2.	Install an informational kiosk.	2006	Yes No	
3.	Maintain multi-use trail.	Ongoing	Yes No	

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			1
4.	Create a brochure detailing trail system and allowed activities.	2006	Ves No On live
5.	Update and maintain brochure for trail system.	As Needed	Yes No or INP
E.	Environmental Education YARBO	OROUGH	
1.	Encourage educational opportunities as they arise.	As Needed	Tes No Dat research
F.	<b>Environmental Education NORTI</b>	H	
1.	Encourage educational opportunities as they arise.	As Needed	(Yes) No In Progress
G.	Security YARBOROUGH		
1.	Continue contract with private security firm.	Annually	Yes No In Progress
2.	Maintain gates, signage, fencing and boundary marking.	Annually	Yes No always In Progress
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress
H.	Security NORTH		
1.	Maintain fencing, gates, and boundary markers.	As Needed	Yes No In Progress
2.	Install additional gates and fencing.	2006	Yes No No Nech In Progress
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress
4.	Maintain fencing and boundary marking.	Annually	Yes No In Progress

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#### Please answer the following questions for YARBOROUGH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and recreation?

(YES NO

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

**Group Discussion** 

Are the management practices in compliance with the current land management plan? (Permitting locals to fish by knowing the pollution //toxic level) water Action Volunteers - lost in 2011 sad-

#### Please answer the following questions for NORTH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and recreation?

YES NO

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

YES NO

#### **Group Discussion**

Are the management practices in compliance with the current land management plan?

Please return completed checklist to: Sandy Oxenrider, Land Resource Specialist, Bureau of Real Estate Services, St. Johns River Water Management District, 4049 Reid Street Palatka, FL 32177 Phone: 386-329-4517 Email: <u>soxenrider@sjrwmd.com</u> add__Rhedodenduc_canescence (bloomies) North #9 Blue cycl great # 6 Coreop515?, levenworthei?

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Name: Justin Ellenberge Affiliation: FWC

ustin. ellenberger emyfi vc. com Email:

MANAGEMENT REVIEW CHECKLIST Management Review Team Tour Deep Creek Conservation Area NORTH & Yarborough Parcel March 11, 2020

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LAN	ND MANAGEMENT TASK 2006	DUE DATE	REVIEW RATING Do field observations comply with land management activities/goals set forth in the management plan?	<b>COMMENTS</b> If you need additional space, please use reverse side of paper or attach additional pages.
RES	SOURCE PROTECTION AND MAN Water Resource Protection YAF	NAGEMENT		
1.	Maintain pump stations at Regional Stormwater Treatment Facility (RST).	As Needed	Yes No In Progress	
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No In Progress	
B.	Water Resource Protection NOF	RTH	0	
1.	Recontour entrance road to property in order to reduce potential for erosion.	2007	Yes No In Progress	

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			-	
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No	
C.I	Flora and Fauna YARBOROUGH		In Progress	
1	Continue to restore natural		Vac No	
1.	communities.	Annually	(In Progress)	
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No	
D.	Flora and Fauna NORTH		Introgress	
1	Continue to restore natural		Vac No	
1.	communities.	Annually	In Progress	
2.	Continue to maintain ecotones between natural communities.	Annually	(Yes) No	
FI	Forest Management VADPODU	NIT.	In Progress	
L. I	orest Management YAKBOROUC	m		
1.	Utilize prescribed fire as a forest management tool.	Annually	Yes No	
2	Manitar forested areas for		Ver No	
2.	disease or insect infestations.	Annually	In Progress	
F.	Forest Management NORTH			
1.	Utilize prescribed fire as a forest		Yes No	
	management tool.	Ongoing	In Progress	
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No	
		and the second s	In Progress	
3.	Conduct a detailed inventory of timber resources on property.	2006-2007	CAL No	
			In Progress	
G.	Fire Management YARBOROUG	н		
1	Introduce dormant season burns		Yes No	
**	in areas where fire has been	2007	In Progress	
2	Continue to conduct doma		Vas No	
2.	season burns until fuel reduction	As Needed	In Progress	
2	goals are met.			
3.	in areas with reduced fuels.	2007	La Dragona	
			in Progress	
4.	Determine appropriate species for abandoned agricultural	2007	Yes No	
	nelas.		In Progress	

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5.	Replant or direct seed in conjunction with natural regeneration when necessary.	2007	Yes No (In Progress)
H. I	Fire Management NORTH		
1.	Install additional firebreaks as necessary.	2007	Yes No In Progress
2.	Introduce dormant season burns in areas where fire has been excluded.	2006-2007	Yes No In Progress
3.	Continue to conduct dormant season burns until fuel reduction goals are met.	Ongoing	Yes No In Progress
4.	Introduce growing season burns in areas with reduced fuels.	2010	Yes No In Progress
I. F	<b>Exotic Species YARBOUROUGH</b>		
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No In Progress
2.	Continue coordination with hog trapper.	As needed	Yes) No In Progress
<b>J.</b>	Exotic Species NORTH		A LAND AND A REPORT OF AND A LAND AND A
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No In Progress
2.	Evaluate the need to utilize a hog trapper for removal of feral hogs.	As needed	(Yes) No In Progress
K. (	Cultural Resources YARBOROUG	н	the comments are an a second
1.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Yes No In Progress
L. (	Cultural Resources NORTH		
1.	Protect existing cultural and historical sites.	Ongoing	Yes No Ja.Progress
2.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	(Yes) No In Progress
LA	ND USE MANAGEMENT		· · · · · · · · · · · · · · · · · · ·
A	Access VARBOROUGH		
1.	Maintain fencing, boundary markers, roads, crossings, and parking areas.	Annually	Ves No In Progress

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2.	Maintain limited access points	Annually	Yes No	
	management activities.	Annually	In Progress	
3.	Maintain informational signage near trailheads and regional stormwater treatment areas	Annually	In Progress	
B.	Access NORTH		minogress	
1.	Repair entrance road in order to		Nes No	
	provide improved access for land management activities.	2007	In Progress	
2.	Install and maintain parking area.	2006	Yes No	
3	Maintain limited access points		Ves No	
5.	and roads necessary for resource	As Needed	In Progress	
4.	Maintain kiosk and associated informational signage near trailhead	As Needed	Tes No In Progress	
5.	Pursue legal upland access to southeastern portions of the conservation area	2007	Yes No	
C.	Recreation YARBOROUGH			
1.	Install marked multi-use trail at the Yarborough Land Management Tract	2006	Yes No In Progress	
2.	Install an informational kiosks at the Yarborough Land Management Tract and at the dog Branch/Edgefield RST.	2006-2007	Yes No In Progress	
3.	Maintain marked multi-use trail.	As Needed	Yes No In Progress	
4.	Create a brochure detailing trail system and allowed activities.	2006	Yes No In Progress	
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress	
D.	Recreation NORTH			-
1.	Install marked trail system.	2006	Yes No	
2.	Install an informational kiosk.	2006	In Progress Ves No In Progress	
3.	Maintain multi-use trail.	Ongoing	Yes No In Progress	

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4.	Create a brochure detailing trail system and allowed activities.	2006	Ves No In Progress
5.	Update and maintain brochure for trail system.	As Needed	Ves No In Progress
E.	<b>Environmental Education YARBO</b>	OROUGH	1
1.	Encourage educational opportunities as they arise.	As Needed	Yes No In Progress
F.	Environmental Education NORT	A	In rogioss
1.	Encourage educational opportunities as they arise.	As Needed	Yes No In Progress
G.	Security YARBOROUGH		minogroup
1.	Continue contract with private security firm.	Annually	Yes No In Progress
2.	Maintain gates, signage, fencing and boundary marking.	Annually	Yes No In Progress
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress
H.	Security NORTH		
1.	Maintain fencing, gates, and boundary markers.	As Needed	Yes No In Progress
2.	Install additional gates and fencing.	2006	Yes No
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress
4.	Maintain fencing and boundary marking.	Annually	In Progress

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#### Please answer the following questions for YARBOROUGH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and recreation?

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

#### **Group Discussion**

Are the management practices in compliance with the current land management plan?

#### Please answer the following questions for NORTH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and recreation?

(YES) NO

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

YES NO

#### **Group Discussion**

Are the management practices in compliance with the current land management plan?

Please return completed checklist to: Sandy Oxenrider, Land Resource Specialist, Bureau of Real Estate Services, St. Johns River Water Management District, 4049 Reid Street Palatka, FL 32177 Phone: 386-329-4517 Email: <u>soxenrider@sjrwmd.com</u>

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Affiliation:

Sean. O'Neal @ Edars.gov Email:

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LA	ND MANAGEMENT TASK 2006	DUE DATE	REVIEW RATING Do field observations comply with land management activities/goals set forth in the management plan?	<b>COMMENTS</b> If you need additional space, please use reverse side of paper or attach additional pages.
RE	SOURCE PROTECTION AND MA	NAGEMENT		
Α.	Water Resource Protection YA	RBOROUGH	-	
1.	Maintain pump stations at Regional Stormwater Treatment Facility (RST).	As Needed	Yes No In Progress	
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No In Progress	
B.	Water Resource Protection NOI	RTH	-	
1.	Recontour entrance road to property in order to reduce potential for erosion.	2007	Yes No In Progress	

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2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No	
C. F	Flora and Fauna YARBOROUGH		Introgress	
1.	Continue to restore natural communities.	Annually	Yes No	Convert Ag. Breid
2.	Continue to maintain ecotones between natural communities.	Annually	In Progress	
D.	Flora and Fauna NORTH			
1.	Continue to restore natural communities.	Annually	Yes No In-Progress	87 
2.	Continue to maintain ecotones between natural communities.	Annually	Yes No	
E. F	Forest Management YARBOROUG	<b>GH</b>		
1.	Utilize prescribed fire as a forest management tool.	Annually	Yes No	
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No	
F.	Forest Management NORTH		In Trogress	
1.	Utilize prescribed fire as a forest management tool.	Ongoing	Yes No In Progress	
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No In Progress	
3.	Conduct a detailed inventory of timber resources on property.	2006-2007	Yes No In Progress	Yarborough?
G.	Fire Management YARBOROUG	H	~	
1.	Introduce dormant season burns in areas where fire has been excluded.	2007	Yes No In Progress	
2.	Continue to conduct dormant season burns until fuel reduction goals are met.	As Needed	Yes No In Progress	
3.	Introduce growing season burns in areas with reduced fuels.	2007	Yes No In Progress	
4.	Determine appropriate species for abandoned agricultural fields.	2007	Yes No In Progress	

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5.	Replant or direct seed in conjunction with natural regeneration when necessary.	2007	Yes No In Progress	
H.	Fire Management NORTH		CONCREDENT.	
1.	Install additional firebreaks as necessary.	2007	Yes No In Progress	
2.	Introduce dormant season burns in areas where fire has been excluded.	2006-2007	Yes No In Progress	
3.	Continue to conduct dormant season burns until fuel reduction goals are met.	Ongoing	Yes No In Progress	
4.	Introduce growing season burns in areas with reduced fuels.	2010	Yes No In Progress	
I. F	Exotic Species YARBOUROUGH		0	
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No In Progress	
2.	Continue coordination with hog trapper.	As needed	Yes No In Progress	
J.	Exotic Species NORTH			
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Tes No In-Progress	
2.	Evaluate the need to utilize a hog trapper for removal of feral hogs.	As needed	Yes No In Progress	
K. (	Cultural Resources YARBOROUG	H		
1.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Mes No In Progress	No sitas
L. (	Cultural Resources NORTH		0	
1.	Protect existing cultural and historical sites.	Ongoing	Yes No In Progress	
2.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Fes No In Progress	
LA	ND USE MANAGEMENT			
A.	Access YARBOROUGH		0	
1.	Maintain fencing, boundary markers, roads, crossings, and parking areas.	Annually	Yes No In Progress	

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Q.20			
2.	Maintain limited access points and roads necessary for resource management activities.	Annually	Ves No In Progress
3.	Maintain informational signage near trailheads and regional stormwater treatment areas.	Annually	In Progress
B.	Access NORTH		
1.	Repair entrance road in order to provide improved access for land management activities.	2007	Yes No In Progress
2.	Install and maintain parking area.	2006	Ves No In Progress
3.	Maintain limited access points and roads necessary for resource management activities.	As Needed	Ves No In Progress
4.	Maintain kiosk and associated informational signage near trailhead.	As Needed	In Progress
5.	Pursue legal upland access to southeastern portions of the conservation area.	2007	Yes No In Progress
C.	Recreation YARBOROUGH		
1.	Install marked multi-use trail at the Yarborough Land Management Tract.	2006	res No In Progress
2.	Install an informational kiosks at the Yarborough Land Management Tract and at the dog Branch/ Edgefield RST.	2006-2007	In Progress
3.	Maintain marked multi-use trail.	As Needed	Tes No In Progress
4.	Create a brochure detailing trail system and allowed activities.	2006	In Progress
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress
D,	Recreation NORTH		
1.	Install marked trail system.	2006	Yes No In Progress
2.	Install an informational kiosk.	2006	Yes No In Progress
3.	Maintain multi-use trail.	Ongoing	Yes No In Progress

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4.	Create a brochure detailing trail system and allowed activities.	2006	Yes No	
5.	Update and maintain brochure for trail system.	As Needed	Tes No In Progress	
E.	Environmental Education YARBO	DROUGH		
1.	Encourage educational opportunities as they arise.	As Needed	Yes No In Progress	
F.	<b>Environmental Education NORTH</b>	I	0	The second second
1.	Encourage educational opportunities as they arise.	As Needed	Yes No	
G.	Security YARBOROUGH		in Trogrado	
1.	Continue contract with private security firm.	Annually	Yes No In Progress	
2.	Maintain gates, signage, fencing and boundary marking.	Annually	Yes No In Progress	
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress	
H.	Security NORTH		0	
1.	Maintain fencing, gates, and boundary markers.	As Needed	Yes No In Progress	
2.	Install additional gates and fencing.	2006	In Progress	No Neck Yet.
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress	
4.	Maintain fencing and boundary marking.	Annually	In Progress	1.5.5

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Please answer the following questions for YARBOROUGH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and

recreation? Fishing rucess to retention pouls. NO

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

NO

#### **Group Discussion**

Are the management practices in compliance with the current land management plan?

- Fire line around chemical treatment facility.

Please answer the following questions for NORTH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and recreation?



2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?



#### **Group Discussion**

Are the management practices in compliance with the current land management plan?

DOF needs to be changed to FFS on both plans.

Please return completed checklist to: Sandy Oxenrider, Land Resource Specialist, Bureau of Real Estate Services, St. Johns River Water Management District, 4049 Reid Street Palatka, FL 32177 Phone: 386-329-4517 Email: <u>soxenrider@sjrwmd.com</u>

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Name: BUIER & Patras Buierags Affiliation: PARE Email: SCAR

MANAGEMENT REVIEW CHECKLIST Management Review Team Tour Deep Creek Conservation Area NORTH & Yarborough Parcel March 11, 2020

**Instructions:** Please take time to review the management plan summary. During the tour, please rate the extent to which you perceive the District is managing the properties in accordance with the 2006 land management plans.

LA	ND MANAGEMENT TASK 2006	DUE DATE	REVIEW RATING Do field observations comply with land management activities/goals set forth in the management plan?	<b>COMMENTS</b> If you need additional space, please use reverse side of paper or attach additional pages.
RES A.	SOURCE PROTECTION AND MAN Water Resource Protection YAF	NAGEMENT		
1.	Maintain pump stations at Regional Stormwater Treatment Facility (RST).	As Needed	Yes No In Progress	
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No In Progress	
B.	Water Resource Protection NOF	ТН		
1.	Recontour entrance road to property in order to reduce potential for erosion.	2007	Yes No In Progress	

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			$\sim$
2.	Regularly inspect roads and crossings for erosion problems.	Annually	Yes No In Progress
C. F	lora and Fauna YARBOROUGH		In Trogress
1.	Continue to restore natural communities.	Annually	Yes No EXTAND In Progress WETCHIDS
2.	Continue to maintain ecotones, between natural communities.	Annually	Yes No In Progress
D.	Flora and Fauna NORTH		
1.	Continue to restore natural communities.	Annually	Yes No In Progress
2.	Continue to maintain ecotones between natural communities.	Annually	In Progress
E.F	orest Management YARBOROUG	SH	mirreg.cos
1.	Utilize prescribed fire as a forest management tool.	Annually	Yes No In Progress
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No
F.	Forest Management NORTH		
1.	Utilize prescribed fire as a forest management tool.	Ongoing	Yes No In Progress
2.	Monitor forested areas for disease or insect infestations.	Annually	Yes No In Progress
3.	Conduct a detailed inventory of timber resources on property.	2006-2007	Yes No In Progress
G.	Fire Management YARBOROUC	GH	
1.	Introduce dormant season burns in areas where fire has been excluded.	2007	Yes No In Progress
2.	Continue to conduct dormant season burns until fuel reduction goals are met.	As Needed	Yes No
3.	Introduce growing season burns in areas with reduced fuels.	2007	Yes No
4.	Determine appropriate species for abandoned agricultural fields.	2007	Yes No In Progress

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5.	Replant or direct seed in conjunction with natural regeneration when necessary.	2007	Yes No In Progress
H.	Fire Management NORTH		
1.	Install additional firebreaks as necessary.	2007	Yes No In Progress
2.	Introduce dormant season burns in areas where fire has been excluded.	2006-2007	Yes No In Progress
3.	Continue to conduct dormant season burns until fuel reduction goals are met.	Ongoing	Yes No
4.	Introduce growing season burns in areas with reduced fuels.	2010	Yes No In Progress
I. F	Exotic Species YARBOUROUGH		
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No In Progress
2.	Continue coordination with hog trapper.	As needed	Yes No In Progress
J.	Exotic Species NORTH	CAN SHOW T	
1.	Continue to monitor for invasive plant species and treat as necessary.	Annually	Yes No In Progress
2.	Evaluate the need to utilize a hog trapper for removal of feral hogs.	As needed	Yes No In Progress
K. (	Cultural Resources YARBOROUG	н	
1.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Yes Nor In Progress
L. (	Cultural Resources NORTH		
1.	Protect existing cultural and historical sites.	Ongoing	Yes No In Progress
2.	Identify and report any new sites to Florida Division of Historical Resources.	As Needed	Yes No (In Progress)
LA	ND USE MANAGEMENT		
Α.	Access YARBOROUGH		$\wedge$
1.	Maintain fencing, boundary markers, roads, crossings, and parking areas.	Annually	Yes No In Progress

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2.	Maintain limited access points and roads necessary for resource management activities.	Annually	Yes No In Progress	
3.	Maintain informational signage near trailheads and regional stormwater treatment areas.	Annually	Yes No In Progress	
B.	Access NORTH			
1.	Repair entrance road in order to provide improved access for land management activities.	2007	Yes No In Progress	
2.	Install and maintain parking area.	2006	Yes No In Progress	
3.	Maintain limited access points and roads necessary for resource management activities.	As Needed	Yes No	
4.	Maintain kiosk and associated informational signage near trailhead.	As Needed	Yes No In Progress	
5.	Pursue legal upland access to southeastern portions of the conservation area.	2007	Yes No	
C.	Recreation YARBOROUGH			
1.	Install marked multi-use trail at the Yarborough Land Management Tract.	2006	Yes No In Progress	LOW DEMAND
2.	Install an informational kiosks at the Yarborough Land Management Tract and at the dog Branch/ Edgefield RST.	2006-2007	Yes No In Progress	
3.	Maintain marked multi-use trail.	As Needed	Yes No In Progress	2
4.	Create a brochure detailing trail system and allowed activities.	2006	Yes No In Progress	online,-
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress	0
D.	Recreation NORTH		0	
1.	Install marked trail system.	2006	Yes No In Progress	
2.	Install an informational kiosk.	2006	Yes No In Progress	1
3.	Maintain multi-use trail.	Ongoing	Yes No In Progress	

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RIENZA MATS

4.	Create a brochure detailing trail system and allowed activities.	2006	Yes No In Progress	online	
5.	Update and maintain brochure for trail system.	As Needed	Yes No In Progress		
E.	<b>Environmental Education YARB</b>	OROUGH			
1.	Encourage educational opportunities as they arise.	As Needed	Yes No		
F.	<b>Environmental Education NORT</b>	H			-
1.	Encourage educational opportunities as they arise.	As Needed	Yes No		
G.	Security YARBOROUGH				
1.	Continue contract with private security firm.	Annually	Yes No In Progress		
2.	Maintain gates, signage, fencing and boundary marking.	Annually	Yes No In Progress		
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement.	Annually	Yes No In Progress		
H.	Security NORTH				
1.	Maintain fencing, gates, and boundary markers.	As Needed	Yes No In Progress		~
2.	Install additional gates and fencing.	2006	Yes No In Progress		
3.	Continue to coordinate with Florida Fish and Wildlife Conservation Commission and local law enforcement	Annually	In Progress		
4.	Maintain fencing and boundary marking.	Annually	Yes No In Progress		

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#### Please answer the following questions for YARBOROUGH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and recreation?

Some Rec oportintes have NO YES

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

NO YES

#### **Group Discussion**

Are the management practices in compliance with the current land management plan?

or -

#### Please answer the following questions for NORTH tract (circle one):

1. Is the property being managed in a manner that is compatible with conservation and recreation?

YES NO

2. Does the current management plan provide sufficient protection to the properties natural and cultural resources?

Within limited resources available more iscussion YES) NO

**Group Discussion** 

Are the management practices in compliance with the current land management plan?

in

Please return completed checklist to: Sandy Oxenrider, Land Resource Specialist, Bureau of Real Estate Services, St. Johns River Water Management District, 4049 Reid Street Palatka, FL 32177 Phone: 386-329-4517 Email: soxenrider@sjrwmd.com

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# <u>Appendix J – Deep Creek Conservation Area Fire Management Plan</u>

The District Fire Management Plan provides general fire management information relative to policy, procedure, and reporting. This document provides the guidelines for the implementation of prescribed fire activities on the Deep Creek Conservation Area (DCCA).

## **Introduction and Objectives**

The Deep Creek Conservation Area (DCCA) comprises approximately 5,953 acres mostly in St. Johns County, with a small portion of the Property located in Putnam County. DCCA is comprised of two disjunct tracts, referred to as the DCCA North and DCCA South. DCCA lies within portions of Sections 29, 30, 31, and 32 of Township 8 South, Range 28 East, and Sections 5, 6, 7, 8, 9, 15, 16, 21, 22, 26, 27, 34, 37, and 38 of Township 9 South, Range 28 East.

DCCA nearly surrounds Hastings and is 14 miles west of Crescent Beach. The Property is situated in and around the floodplain swamp associated with Deep Creek and the St. Johns River. The DCCA North is located off CR-13 and includes over two miles of frontage along the St. Johns River and over three miles of Deep Creek. Access to the DCCA North is off CR-13 and leads to a two-mile multiuse trail. The DCCA South is located off George Miller Rd., between CR-13 and SR-206. Access to DCCA South is gained either at George Miller Rd. or at Cowpen Branch Rd. which leads to a two and a quarter mile multiuse trail.

Historically, fires have played a vital role in the shaping and maintenance of many of the natural communities in Florida. As such, most vegetative communities and associated wildlife are fire adapted and in many instances fire dependent. Conversely, the exclusion of fire from an area allows for successional changes within the natural community. Fire exclusion leads to the excessive accumulation of fuel loads, which increases the risk for catastrophic wildfires. The goals for the implementation of fire management activities within the conservation area include:

- Reduction of fuel loads through the application of dormant season burns to decrease potential risk of damaging wildfires.
- Introduction of growing season burns to encourage the perpetuation of native fire adapted ground cover species.
- Mitigation of smoke management issues.
- Restoration and maintenance of a mosaic of natural plant communities and ecological diversity.
- Maintenance and restoration of ecotonal areas.

The achievement of these goals requires that the conservation area be partitioned into manageable burn units prior to the application of prescribed fire within those units. The following sections summarize the considerations necessary for the safe and effective use of prescribed fire as a land management tool within DCCA.

## **Fire Return Interval**

The general frequency to which fire returns to a community type is termed its fire return interval. Some communities require frequent pyric disturbances to perpetuate themselves while others are not fire adapted and subsequently do not require fire to maintain their characteristics. The following discussion of native plant communities occurring on DCCA and optimal fire return intervals was characterized in part using information from the 2010 Florida Natural Areas Inventory's *Guide to the Natural Communities of Florida* (Table 1).

Natural Community Type	FNAI Fire Return Interval
Sandhill	1-3 years
Scrubby Flatwoods	5-15 years, though can be variable
Mesic Hammock	This is not a fire-adapted community
Mesic Flatwoods	2-4 years
Wet Flatwoods	1-3 years in grass dominated systems; 5-7 years in shrubbier systems
Floodplain Swamp	This is not a fire-adapted community
Dome Swamp	3-5 years along the outer edges (or as adjacent communities burn); 100-150 years interior
Baygall	Infrequent; may burn with adjacent pyric plant communities
Wet Prairie	2-3 years

Table 1: Fire Return Interval by Natural Community Type

The above-referenced fire return intervals relate to high quality natural communities. The fire return interval within degraded systems is variable. Prescribed fire will be applied as necessary to achieve restoration and management goals.

Mesic and wet flatwoods are the most prevalent fire adapted natural community types found within DCCA. These areas have had little historic disturbance aside from timbering in the mid-20th century. They have received the most amount of prescribed fire on DCCA with an average fire return of nine years.

Fire management within the remaining pyric plant communities (below) will be in conjunction with the associated mesic or wet flatwoods. These plant communities will burn as site conditions permit during the implementation of controlled burns in adjacent plant communities. Additionally, these areas will not be excluded from fire activities unless warranted by safety or smoke management issues.

The dome swamps on DCCA are embedded within the flatwoods and will likely receive fire on their ecotones when fires are affecting the surrounding community.

Though a smaller component of DCCA, scrubby flatwoods play an important role in providing ecotones within the conservation area. This community is found in the DCCA South surrounded by mesic flatwoods and floodplain swamp. It will be burned at the same time as the adjacent mesic flatwoods.

Baygalls are not generally targeted specifically for fire management, pockets of bay trees will begin to move into adjacent mesic and wet flatwoods natural communities over time. District staff utilize prescribed fire to reduce bay encroachment in adjacent natural communities. Most of the fire adapted communities within DCCA are bound by floodplain swamp. Whenever possible, the ecotonal areas between these communities and adjacent fire adapted communities will be included in burns.

## Seasonality and Type of Fire

Historically, most fires in Florida occurred in what is commonly referred to as the "growing season." The growing season usually spans from mid-March through July. Fires during the growing season generally have significant ecological benefits as most fire adapted flora is perpetuated by fire. Mimicking lightning ignited natural fires by implementing prescribed fire during the growing season provides benefits to natural systems by controlling shrub layers and encouraging diversity in groundcover species.

Dormant season burns, conducted from late November through mid-March, help to reduce fuel loads in overgrown areas or in areas of newly planted pines. Cooler conditions associated with dormant season burning are a consideration in areas of high fuel loads and where only minimal pine mortality is acceptable. Additionally, dormant season burning may result in fewer safety and smoke management issues due to higher fuel moisture and more consistent winds. District staff will continue to work to maintain fire return frequencies that are consistent with those identified by FNAI for the various communities within the Property.

## Wildfire Policy

In the event of a wildfire, if conditions permit, suppression strategies will utilize existing fuel breaks to contain the wildfire. These fuel breaks may include previously burned areas, existing roads, trails, and firelines, and wetlands and other water bodies. This is only possible with the agreement of local fire rescue, Florida Forest Service, District staff, and when all the following conditions are met:

- 1) Fuels within the area have been managed;
- 2) No extreme weather conditions are present or expected;
- 3) There are no other wildfires that may require action;
- 4) There are sufficient resources available to manage the fire to containment; and
- 5) The fire and the resulting smoke will not impact neighbors or smoke sensitive areas

If any of these conditions are not met, direct suppression action will be taken.

# As soon as possible following a fire in which firelines are plowed, a plan for fireline rehabilitation shall be developed and implemented.

Persons discovering arson or wildfires on the conservation area should report them to the Florida Department of Agriculture and Consumer Services, Florida Forest Service, the St. Johns River Water Management District, or by dialing 911.

## **Post Burn Reports**

Burn reports must be completed after each prescribed burn or wildfire. These reports include detailed information regarding the acreage, fuel models, staff and equipment hours, cooperator hours, contractor hours, weather (forecasted and observed) and fire behavior. The timely completion

of these reports is necessary for the compilation of information relative to the entire District burn program. Additionally, these reports provide a documented account of site-specific conditions which are helpful in the planning of future burns.

### **Smoke Management**

A significant challenge to the implementation of any prescribed burn program is smoke management (Figure 1). Fuel loads across the Property are moderate to high. Accumulated fuels have the potential to produce a tremendous amount of smoke as areas are burned. As the surrounding areas become increasingly urbanized, smoke management concerns will increase in magnitude, as there become fewer acceptable places to maneuver a smoke column from a prescribed fire.

While DCCA has an acceptable smoke shed in which to place a smoke column from a prescribed fire, there are smoke sensitive areas that surround the conservation area and may affect the smoke management of each burn unit. Smoke management is a limiting factor in the application of prescribed fire within the conservation area. Figure 1 illustrates the smoke management area for DCCA. As development increases in the area, fire management will become more difficult. Increasing daily traffic on SR 207 and 206 will further impair the District's ability to implement prescribed burns at the appropriate fire return intervals within the conservation area. Concern for smoke settling into the Deep Creek drainage basin from prescribed fires on the DCCA South impacted the SR 207-Deep Creek bridge must be considered. Currently, this Property still has an acceptable smoke shed into which to place a smoke column from a prescribed fire.

Depending on the arrangement and composition of fuels, fire spread will be through grasses and/or needle litter, the shrub layer, or logging slash. Areas within the conservation area having heavier shrub and mid-story fuel accumulation or logging slash can burn for long periods of time causing additional smoke management issues.

A fire weather forecast is obtained and evaluated for suitable burning conditions and smoke management objectives. A wind direction is chosen that will transport smoke away from urbanized areas and/or pose the least possible impact on smoke sensitive areas. When possible, the smoke plume from burns should be directed back through the Property. Smoke can then mix and loft into the atmosphere over uninhabited or rural land adequately enough to minimize off-site impacts.

On burn day, the ability of smoke to mix and disperse into the atmosphere should be good. The Dispersion index is a value that indicates the atmosphere's ability to "absorb and disperse" smoke. The higher the index value, the more the smoke dissipates. Dispersion indices should be above 30. Dispersions of greater than 75 will not be utilized unless other weather conditions mitigate expected fire behavior. Forecast mixing heights should be above 1,700 ft. Transport winds should be at least 9 mph to effectively minimize residual smoke. Lower transport wind speeds can be utilized if dispersion index and mixing heights are above average. Burns will be conducted with a carefully plotted wind direction to limit and/or eliminate negative impacts from smoke to neighbors and urbanized areas.

### **Mechanical and Chemical Treatments**

Short and long-term weather conditions and a fire management unit's proximity to urban areas become increasingly important when implementing a prescribed fire program. Should drought

conditions become severe, or if smoke management becomes an insurmountable problem, the District may use mechanical methods, such as mowing or roller-chopping, as alternatives to prescribed fire.



*Figure 1: Fire management – smoke sensitive areas.* 

## Hazards

Common hazards include heat stress, venomous snakes, trip hazards or falling trees. Individual prescriptions address the hazards to consider when burning each unit and are discussed during the pre-burn briefing.

#### **Legal Considerations**

Only burn managers certified by Florida Forest Service will approve the unit prescriptions and must be on site while the burn is being conducted. Prescriptions and weather parameters will be approved up the burn manager's chain of command before a specific burn can be conducted. Certified burn managers adhering to the requirements of Section 590.125, Florida Statutes, are protected from liability for damage or injury caused by fire or resulting smoke, unless gross negligence is proven.

#### **Fire Management Units**

Fire management units (FMU) have been delineated on the Property. Where logical, the District used existing roads and landscape features to delineate fire management units. Occasionally, multiple FMUs with similar fire needs will be burned simultaneously and roads and natural landscape features provide a break in fuels so that staff may burn smaller areas than initially planned if needed.

Ideally, District staff would thoroughly address and describe each fire management unit in terms of its fire management needs. All fire management units are categorized into one of several fuel model (FM) descriptions. The 13 standard fuel models (as described in Hal E. Anderson's *Aids to Determining Fuel Models for Estimating Fire Behavior*) were used as a basis for this categorization. The factors considered in determining each FM are: amount, composition and arrangement of available fuels within units, predicted fire behavior within each unit (under conditions acceptable to implement a prescribed burn), and resources necessary to regain management of a fire in extenuating circumstances. District staff anticipates the change of vegetative assemblages over time due to growth and/or restoration and understand that fuel characteristics, models, and resulting fire behavior will also change.

# <u>Appendix K – Management Procedures for Archaeological and</u> <u>Historical Sites and Properties on State-Owned or Controlled</u> <u>Properties (revised June 2021)</u>

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

## A. Historic Property Definition

Historic properties include archaeological sites and historic structures as well as other types of resources. Section 267.021, Florida Statutes (F.S.), defines "Historic property" or "historic resource" as "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

Pursuant to section 267.061, F.S. and state policy related to historic properties, state agencies of the executive branch must provide the Division of Historical Resources (DHR) 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 DHR has the opportunity to review and comment on the undertaking. (Section 267.061(2)(a), F.S.).

State agencies of the executive branch 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. (Section 267.061(2)(b), F.S.)

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

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

## 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 DHR 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 DHR for review and comment.

Managers of state lands must coordinate any land clearing or ground disturbing activities with the DHR to allow for review and comment on the proposed project. DHR'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 DHR for review. Projects involving structures fifty years of age or older must be submitted to DHR 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 DHR 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 DHR'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 DHR, 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-onstate-lands/

## G. Human Remains Treatment

Pursuant to chapter 872, F.S., it is illegal to willfully and knowingly disturb human remains. In the event human remains are discovered, the provisions of chapter 872, F.S., will be followed. All activity in the area that may disturb the remains will cease. Bones and nearby items will be left in place and law enforcement or the local district medical examiner will be notified immediately of the discovery. 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-aretheapplicable-laws-and-regulations/

### H. Division of Historical Resources Review Procedure

Projects on state owned or controlled properties may submit projects to DHR for review using the streamlined State Lands Consultation Form. The form provides instructions to submit projects for review and outlines the necessary information for DHR to complete the review process. The State Lands Consultation Form and additional information about DHR'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 <u>StateLandsCompliance@dos.myflorida.com</u> Phone: (850) 245-6333 Toll Free: (800) 847-7278 Fax: (850) 245-6435

# Appendix L – Arthropod Control Plan

Anastasia Mosquito Control District of St. Johns County 120 EOC Drive, St. Augustine, FL 32092 Telephone: (904) 471-3107 * Fax (904) 471-3189 * Web: www.aucdyc.org

BOARD OF COMMISSIONERS Jeanne Moeller, Chairperson Trish Becker, Vice-Chairperson Gayle Gardner, Secretary/Treasurer Catherine Brandhorst, Commissioner Gina LeBlanc, Commissioner

DISTRICT DIRECTOR Dr. Rui-De Xue







Chris Kinslow Land Resource Specialist St. Johns River Water Management District

Dear Mr. Kinslow,

Anastasia Mosquito Control District dose not have an Arthropod Control Plan for Deep Creek Conservation Area, located in Hastings.

Deep Creek Conservation Area is included in District wide operation for maintenance of public safety.

Please don't hesitate to contact me if you have further.

Sincerely,

Marcia Gaines Operations Manager, AMCD

FORM 114A