

RESOLUTION NO. 2021- 106

**A RESOLUTION BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA, APPROVING THE TERMS AND AUTHORIZING THE CHAIR TO EXECUTE A MEMORANDUM OF AGREEMENT BETWEEN ST. JOHNS COUNTY AND THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT FOR THE MCCULLOUGH CREEK REGIONAL OFFSITE MITIGATION AREA AND AUTHORIZING THE CHAIR TO EXECUTE A DEED OF CONSERVATION EASEMENT.**

**RECITALS**

**WHEREAS**, St. Johns County (County) and St. Johns River Water Management District (District) wish to formalize a Memorandum of Agreement, attached hereto as Exhibit "A", incorporated by reference and made a part hereof, ("MOA") relating to the McCullough Creek Regional Offsite Mitigation Area (ROMA) located in St. Johns County, Florida; and

**WHEREAS**, Section 373.4135(1), Florida Statutes (F.S.) directs the District to participate in and encourage the establishment of public offsite regional mitigation; and

**WHEREAS**, the County desires to establish a ROMA to serve as mitigation for future environmental resource permits issued by the District to the County for County projects; and

**WHEREAS**, although Section 373.4135(6), F.S., does not require that this McCullough Creek ROMA be established and operated under an MOA, because no money will be donated or paid as mitigation as the site will provide solely for County mitigation, the parties have determined that an MOA would be mutually beneficial; and

**WHEREAS**, as required by the MOA, the County will preserve the property in perpetuity by granting to the District a Deed of Conservation Easement, attached hereto as Exhibit "B", incorporated by reference and made a part hereof.

**NOW THEREFORE, BE IT RESOLVED** by the Board of County Commissioners of St. Johns County, Florida, as follows:

**Section 1.** The above Recitals are incorporated by reference into the body of this Resolution and such Recitals are adopted as findings of fact.

**Section 2.** The Board of County Commissioners hereby approves the terms, provisions, conditions and requirements of the attached Memorandum of Agreement (MOA) and authorizes the Chair to execute said MOA and Deed of Conservation Easement.

**Section 3.** The Clerk is instructed to file the MOA and record the Deed of Conservation Easement in the official records of St. Johns County, Florida.

**Section 4.** To the extent that there are typographical or administrative errors or omissions that do not change the tone, tenor, or context of this Resolution, then this Resolution may be revised without subsequent approval of the Board of County Commissioners.

**PASSED AND ADOPTED** by the Board of County Commissioners of St. Johns County, Florida, this 16 day of March, 2021.

BOARD OF COUNTY COMMISSIONERS  
OF ST. JOHNS COUNTY, FLORIDA

By: Jeremiah R. Blocker  
Jeremiah R. Blocker, Chair

ATTEST: Brandon J. Patty, Clerk of the Circuit Court & Comptroller

By: Sam Heatterman  
Deputy Clerk

RENDITION DATE 3/18/21



Exhibit "A" to Resolution

**MEMORANDUM OF AGREEMENT BETWEEN  
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT AND ST. JOHNS COUNTY  
FOR McCULLOUGH CREEK REGIONAL OFFSITE MITIGATION AREA (ROMA)**

THIS MEMORANDUM OF AGREEMENT is entered into by the St. Johns River Water Management District (District) and St. Johns County (County) regarding the McCullough Creek Regional Offsite Mitigation Area (ROMA).

WITNESSETH:

WHEREAS, Section 373.4135(1), Florida Statutes (F.S.), directs the District to participate in and encourage the establishment of public offsite regional mitigation;

WHEREAS, the County desires to establish a ROMA to serve as mitigation for future Environmental Resource Permits (ERPs) issued by the District to the County for County projects;

WHEREAS, Section 373.4135(6), F.S., requires that certain ROMAs for which money is donated or paid as mitigation be established and operated pursuant to a Memorandum of Agreement (MOA);

WHEREAS, although Section 373.4135(6), F.S., does not require that this McCullough Creek ROMA be established and operated under the MOA because no money will be donated or paid as mitigation, the parties have determined that the MOA would be mutually beneficial;

WHEREAS, Section 373.4135, F.S., provides that such MOA need not be adopted by rule;

NOW THEREFORE, for and in consideration of the foregoing, which are made a part of the MOA, the District and the County hereby agree to the following:

**Section 1. ROMA.**

The County will implement the McCullough Creek ROMA as described in the following four documents: (1) "McCullough Creek ROMA Plan" (hereinafter the "Plan") received by the District on October 27, 2020, attached hereto and incorporated herein as Exhibit A; (2) Success Criteria, UMAM, and Credit Release Schedule attached hereto and incorporated herein as Exhibit B; (3) the approved WEA2 Bedding Furrow Fill Map received by the District on January 5, 2021, for permit GEN-109-165834-1, attached hereto and incorporated herein as Exhibit C; and (4) this MOA.

**Section 2. Functional Gain Units.**

In exchange, the County will be able to use 142.37 Total Functional Gain Units (FGUs) from the ROMA as mitigation for ERPs issued by the District to the County for County projects in Basin 8.

**Section 3. Responsibilities.**

A. Description of work

The County acquired the 1,359.3-acre ROMA site in 2018 from the Jacksonville Port Authority. The site contains approximately 841.9 acres of wetlands and other surface waters and 517.4 acres of uplands.

The County will conduct the following activities to return the site to a more natural state:

- Preservation and perpetual management of Forested Wetland Assessment Areas WPA 1 and 2 (239.1 acres);
- Preservation and perpetual management of Forested Upland Assessment Areas WBP and WBEA 2 (26.5 acres);
- Preservation, enhancement and perpetual management of Forested Wetland Assessment Areas WEA 1 and 2 (602.8 acres) by regrading silviculture beds (WEA 2) and thinning timber stands;
- Preservation enhancement and perpetual management of Forested Upland Assessment Area WBEA 1 (490.9 acres) by thinning timber stands.

Regular and frequent prescribed fire will be applied to pyrogenic communities and problematic plants and animals will be eradicated. A summary chart of the mitigation activities is below.

Assessment Area	Acreage	Activity	Mitigation Activity				
			Hydrological	Breaching Bedrows	Thinning/ Harvesting	Prescribed Burning	Exotic/Nuisance Species Control
Wetland Preservation (Area 1)	168.1	Preservation	-	-	-	-	-
Wetland Preservation (Area 2)	71.0	Preservation	-	-	-	-	-
WEA1	579.6	Preservation and Enhancement	X		X	X	X
WEA2	23.2	Enhancement	X	X	X	-	X
WBEA1	490.9	Enhancement	-	-	X	X	X
Wetland Buffer Preservation	26.5	Preservation	-	-	-	-	X
Infrastructure	34.0						
<b>TOTAL=</b>	<b>1,393.3</b>						

A thorough description of the property and land management activities is included in the Plan (Exhibit A; Section 5 at page 18). The County anticipates that construction and implementation activities will begin in April 2021 and expects to complete construction by the end of 2021.

B. Timeline for obtaining any required environmental resource permit

The proposed reconfiguration of silviculture beds in WEA 2 requires an ERP, which the County obtained on January 6, 2021.

C. Environmental success criteria

1. Preserve the entire property in perpetuity by conveying a conservation easement approved in writing by District staff.
2. Perform the activities described in the Plan (Exhibit A), which includes a Land Management Plan and a Fire Management Plan, and perform the activities described in subsequent ERPs.
3. Perform the exotic species removal and maintenance as described in the Plan (Exhibit A; Section 5.2 at page 19), including semi-annual chemical treatment the first year and thereafter for two additional years. Additional treatments will be conducted in accordance with the Plan. The mitigation success of McCullough Creek ROMA will be achieved by placement of a conservation easement over the property, enhancing forested habitats, and perpetually managing habitats through prescribed fire, controlling problematic plants, and other activities as described in the attached ROMA Plan (Exhibit A) and Table 1 (Exhibit B).
4. Meet success criteria in Table 1, below.

Table 1 Success Criteria for Target Communities at McCullough Creek Regional Offsite Mitigation Area, St. Johns County.

(A) MESIC FLATWOODS (WBEA 1)

PARAMETER	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	COMMENTS
Canopy: target species relative abundance	≥70%	≥75%	≥80%	≥85%	≥90%	# target species / # all species
Canopy: relative abundance of target species ≥ 20 ft tall	-	-	-	-	≥ 50%	# target species / # all species
Canopy: basal area (per acre) of pines ≥10 ft tall	≤70 ft <sup>2</sup>	≤70 ft <sup>2</sup>	≤70 ft <sup>2</sup>	≤70 ft <sup>2</sup>	40-70 ft <sup>2</sup>	Perpetual management shall maintain pine basal area of 40-70 ft <sup>2</sup> per acre
Canopy: evidence of target seed production?	-	-	-	Yes	Yes	Target tree cones, mast, seedlings, etc., observed
Canopy: evidence of target species recruitment	-	-	Yes	Yes	Yes	Multiple year-classes observed at proportions appropriate for the target community
Subcanopy: target species relative abundance	≥30%	≥50%	≥70%	≥80%	≥90%	# target species / # all species
Subcanopy: pine sapling (<10 ft tall) density	<400/ac	<400/ac	<400/ac	<400/ac	<400/ac	Averaged over the entire target community
Subcanopy: cover by target species	≤40%	≤40%	≤40%	≤40%	≤40%	target species areal cover / target community area
Groundcover: target species relative abundance	≥30%	≥50%	≥70%	≥80%	≥90%	# target species / # all species
Groundcover: diversity of target species	≥5 spp.	≥10 spp.	≥15 spp.	≥18 spp.	≥20 spp.	# of target species per assessment area
Groundcover: areal cover by target species	≥40%	≥50%	≥60%	≥70%	≥80%	target species areal cover / target community area not occupied by shrubs or trees
Groundcover: evidence of target reproduction?	Yes	Yes	Yes	Yes	Yes	Seedlings, flower production, etc., observed at proportions appropriate for the target community
All strata: invasive/non-native/nuisance species abundance	<5%	<4%	<3%	<2%	≤1%	Problematic-plant areal cover / target community area for a given stratum
All strata: effective prescribed-fire management?	Yes	-	Yes	-	Yes	≥80% of each Fire Management Unit burned every 2 to 5 years (≤3-year average) according to the goals of the prescribed fire plan *

\* Must maintain a perpetual burn rotation. The Level 5 burn may occur during the perpetual management phase if all success criteria are met and the District agrees that conditions do not allow for a timely burn.

Table 1. (cont.)

(B) WET PINE FLATWOODS (WEA 1 & WEA 2)

PARAMETER	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	COMMENTS
Canopy: target species relative abundance	≥70%	≥75%	≥80%	≥85%	≥90%	# target species / # all species
Canopy: mean % of target species ≥ 20 ft tall	-	-	-	-	≥ 50%	# target species / # all species
Canopy: basal area (per acre) of pines ≥ 10 ft tall	≤70 ft <sup>2</sup>	≤70 ft <sup>2</sup>	≤70 ft <sup>2</sup>	≤70 ft <sup>2</sup>	40-70 ft <sup>2</sup>	Perpetual management shall maintain pine basal area of 40-70 ft <sup>2</sup> per acre
Canopy: evidence of target seed production?	-	-	-	Yes	Yes	Target tree cones, mast, seedlings, etc., observed
Canopy: evidence of target recruitment/ regeneration?	-	-	Yes	Yes	Yes	Multiple year-classes observed at proportions appropriate for the target community
Subcanopy: target species relative abundance	≥30%	≥50%	≥70%	≥80%	≥90%	# target species / # all species
Subcanopy: pine sapling (<10 ft tall) density	<400/ac	<400/ac	<400/ac	<400/ac	<400/ac	Averaged over the entire target community
Subcanopy: areal cover by target species	≤40%	≤40%	≤40%	≤40%	≤40%	target species areal cover / target community area
Groundcover: target species relative abundance	≥30%	≥50%	≥70%	≥80%	≥90%	# target species / # all species
Groundcover: diversity of target species	≥5 spp.	≥10 spp.	≥15 spp.	≥20 spp.	≥20 spp.	# of target species per assessment area
Groundcover: areal cover by target species	≥50%	≥60%	≥70%	≥80%	≥80%	target species areal cover / target community area not occupied by shrubs or trees
Groundcover: evidence of target reproduction?	Yes	Yes	Yes	Yes	Yes	Seedlings, flower production, etc., observed at proportions appropriate for the target community.
All strata: invasive/non-native/nuisance species abundance	<5%	<4%	<3%	<2%	≤1%	Problematic-plant areal cover / target community area for a given stratum
All strata: adequate prescribed-fire management?	Yes	-	Yes	-	Yes	≥80% of each Fire Management Unit burned every 2 to 5 years (≤3-year average) according to the goals of the prescribed fire plan *

\* Must maintain a perpetual burn rotation. The Level 5 burn may occur during the perpetual management phase if all success criteria are met and the District agrees that conditions do not allow for a timely burn.

D. Monitoring and long-term management requirements

The County will monitor the planted areas for a total of 5 years. In addition, the County shall furnish the District with a copy of an annual monitoring report on December 31 of each year for WEA 1, WEA2, and WBEA1. (Exhibit A, Section 10 at pages 33-34)

The County shall perform exotic species removal and maintenance activities and land management and fire management activities as described in the Plan (Exhibit A, Section 5 at page 18) and in this MOA.

The County will operate and maintain the site in a manner consistent with the Plan (Exhibit A), implement invasive plant management, prescribed burning, and wetland protection in accordance with the Plan to ensure that the ROMA is maintained in perpetuity.

E. Project Assessment

Mitigation within McCullough Creek ROMA was evaluated according to the Uniform Mitigation Assessment Method (Chapter 62-345, F.A.C.). The District determined that the McCullough Creek ROMA could provide 142.403 forested freshwater functional gain units (Exhibit B, Table 2). The credits shall be released according to the credit release schedule in Table 3 of Exhibit B:

F. Entity responsible for successful completion of the mitigation work

The County is responsible for the successful completion of the mitigation work in the McCullough Creek ROMA.

G. Geographic area where the project may be used

The geographic area where the McCullough Creek ROMA may be used as mitigation consists of that part of Drainage Basin 08 (St. Johns River [Welaka to Bayard]; Figure 10.2.8-2, ERP Applicants Handbook, Vol. 1) that coincides with the limits of St. Johns County (Figure 1-4 of the Plan (Exhibit A)).

H. Cost accounting, annual review and adjustment

In this case, the District determined that a procedure for full cost accounting was not needed because the County will use the McCullough Creek ROMA only for County projects; will not collect funds from others to implement the ROMA; and because an MOA is not required for this ROMA type.

I. Land acquisition project

The County acquired the entire property in 2018. No additional acquisition is necessary.

J. Preservation of the site

The McCullough Creek ROMA property will be preserved in perpetuity by conservation easement granted to the District.

K. Funds

In this case, the County will not collect money from others to implement the ROMA. Thus, the District concluded that a procedure to track funds is not required.

L. Termination

If the District determines that the County is not in material compliance with the terms and conditions of this MOA, it shall provide the County with written notice of its material non-compliance and give the County ninety (90) calendar days, or another time period mutually agreed upon in writing, to correct the non-compliance. During the time period provided for correcting the non-compliance, the County may not use FGUs to mitigate adverse impacts to wetlands for any of its pending applications for an ERP.

If the County does not correct the material non-compliance within the stated timeframe, the District may terminate use of the remaining FGUs for future ERPs.

If the District determines that the material non-compliance diminishes the value of FGUs already used from the ROMA, then the District shall provide the County with written notice of this determination. The District shall give the County ninety (90) calendar days, or another time period mutually agreed upon in writing, to correct the non-compliance or submit for District approval alternative mitigation for any permits that were not fully mitigated within the ROMA.

The County is obligated to manage the lands in accordance with the Plan, the conservation easement, and this MOA, regardless of whether FGUs have been used or terminated.

**Section 4. Notices.**

All notices required or permitted to be given under the terms and provisions of this MOA shall be in writing and shall be sent by registered or certified mail, return receipt requested, as follows:

To the District:

St. Johns River Water Management District  
Attention: Reid Hilliard  
P.O. Box 1429  
Palatka, FL 32178

To the County:

St. Johns County Environmental Division  
Attention: Ryan Mauch  
4040 Lewis Speedway  
St. Augustine, FL 32084

Each party may unilaterally change the person to whom notices are sent by notifying the other party in writing.

**Section 5. Effective Date and Term.**

This MOA shall become effective upon the date the last party signs the agreement. This MOA shall remain in effect in perpetuity, unless both parties amend or terminate the MOA.

**Section 6. Amendments.**

This MOA, including its exhibits, may be amended in writing by the District and County.

**Section 7. Severance Clause.**

The invalidity of one or more of the phrases, sentences, clauses, or articles contained in the MOA shall not affect the validity of the remainder of this MOA, provided that the material purposes of this MOA can be determined and effectuated.

*[remainder of page intentionally left blank]*

IN WITNESS WHEREOF, the parties have caused this Memorandum of Agreement to be executed effective as of the date first set forth above.

Approved as to Form and Legality  
District Office of General Counsel

ST: JOHNS RIVER WATER  
MANAGEMENT DISTRICT

By: \_\_\_\_\_

By: \_\_\_\_\_

Printed  
Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Approved as to Form and Legality  
St. Johns County Office of General  
Counsel

ST. JOHNS COUNTY

By: \_\_\_\_\_

By: \_\_\_\_\_

Printed  
Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Exhibit "A"

(McCullough Creek ROMA Plan)



**McCULLOUGH CREEK BASIN 8  
REGIONAL OFF-SITE MITIGATION AREA  
MITIGATION WORK PLAN**

St. Johns County | February 2020  
Revised September 2020

**MCCULLOUGH CREEK BASIN 8  
REGIONAL OFF-SITE MITIGATION AREA  
MITIGATION WORK PLAN**

**Submitted to:**

St. Johns River Water Management District  
7775 Baymeadows Way, Suite 102  
Jacksonville, Florida 32256

**and**

US Army Corps of Engineers  
Jacksonville Permit Section  
PO Box 4970  
Jacksonville, Florida 32232-0019

**Prepared by:**

Jones Edmunds & Associates Inc.  
730 NE Waldo Road  
Gainesville, Florida 32641

**February 2020**

**Revised June 2020**

**Revised September 2020**

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## APPENDICES

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# 1 INTRODUCTION

St. Johns County has several large transportation projects planned such as County Road (CR) 2209, CR 305 drainage improvements, CR 13A drainage improvements, CR 210 Four-Laning, and others that will take place in the St. Johns River Water Management District (SJRWMD) Mitigation Basin 8 that will result in wetland impacts. In addition, the County has numerous drainage improvement projects that will also result in impacts to wetlands and wetland cut ditches. Accordingly, the County purchased a large tract of land in the southwest portion of the County within SJRWMD Basin 8 to use as a wetland mitigation area for future capital improvement projects that result in wetland impacts. The proposed mitigation area, referred to as the *McCullough Creek Basin 8 Regional Off-Site Mitigation Area* (McCullough Creek ROMA), will significantly enhance on-site wetland and upland community structure, which has been altered by years of industrial silviculture, restore the hydrologic patterns in a large wetland, and remove invasive exotic vegetation.

The functional gain generated by the McCullough Creek ROMA will be used only for County projects consistent with the County's other ROMAs. The County will implement the mitigation activities identified in this Plan before any proposed wetland impacts associated with County capital improvement transportation projects.

St. Johns County acquired the 1,393-acre property in 2018 from the Jacksonville Port Authority (Jaxport), who had recently acquired the property from Rayonier. Rayonier had intensely managed the site for silviculture for many years. Silvicultural activities and a lack of fire have adversely impacted the vegetation communities and hydrology of the site. The McCullough Creek ROMA is in southwest St. Johns County, north of Hastings, and just east of the St. Johns River (Figure 1-1). The site is in Section 13, Township 8 South, Range 27 East, and Section 17, 18, 19, 20, and 24 in Township 8 South, Range 27 East (Figures 1-2 and 1-3) and in SJRWMD Mitigation Basin 8 (St. Johns River [Welaka to Bayard]) (Figure 1-4).

The proposed mitigation actions focus on reversing the environmental damage caused by decades of silvicultural use of the property by implementing vegetative enhancement activities, including the application of prescribed fire, thinning, exotic plant control, as well as supplemental plantings of desired species. The overall goals of the McCullough Creek ROMA are to eliminate current pine production, eliminate pre- and post-emergent herbicide applications, eliminate fertilizer applications, increase wetland hydroperiods, prevent clear-cutting of cypress and mixed hardwoods, manage native plant communities, and incorporate a prescribed fire regime within fire-dependent communities. Additionally, the site will provide opportunities for limited public resource-based recreation.

The following activities will be implemented in the McCullough Creek ROMA to achieve its objectives:

1. Preserving the McCullough Creek ROMA by recording a conservation easement over the property and providing acceptable title insurance.
2. Ceasing all pine production and harvesting practices and cutting of cypress and hardwoods.
3. Ceasing the application of pre- and post-emergent herbicides, fertilizers, and mechanical harvesting for purposes of pine production.

**Figure 1-1 Location Map**

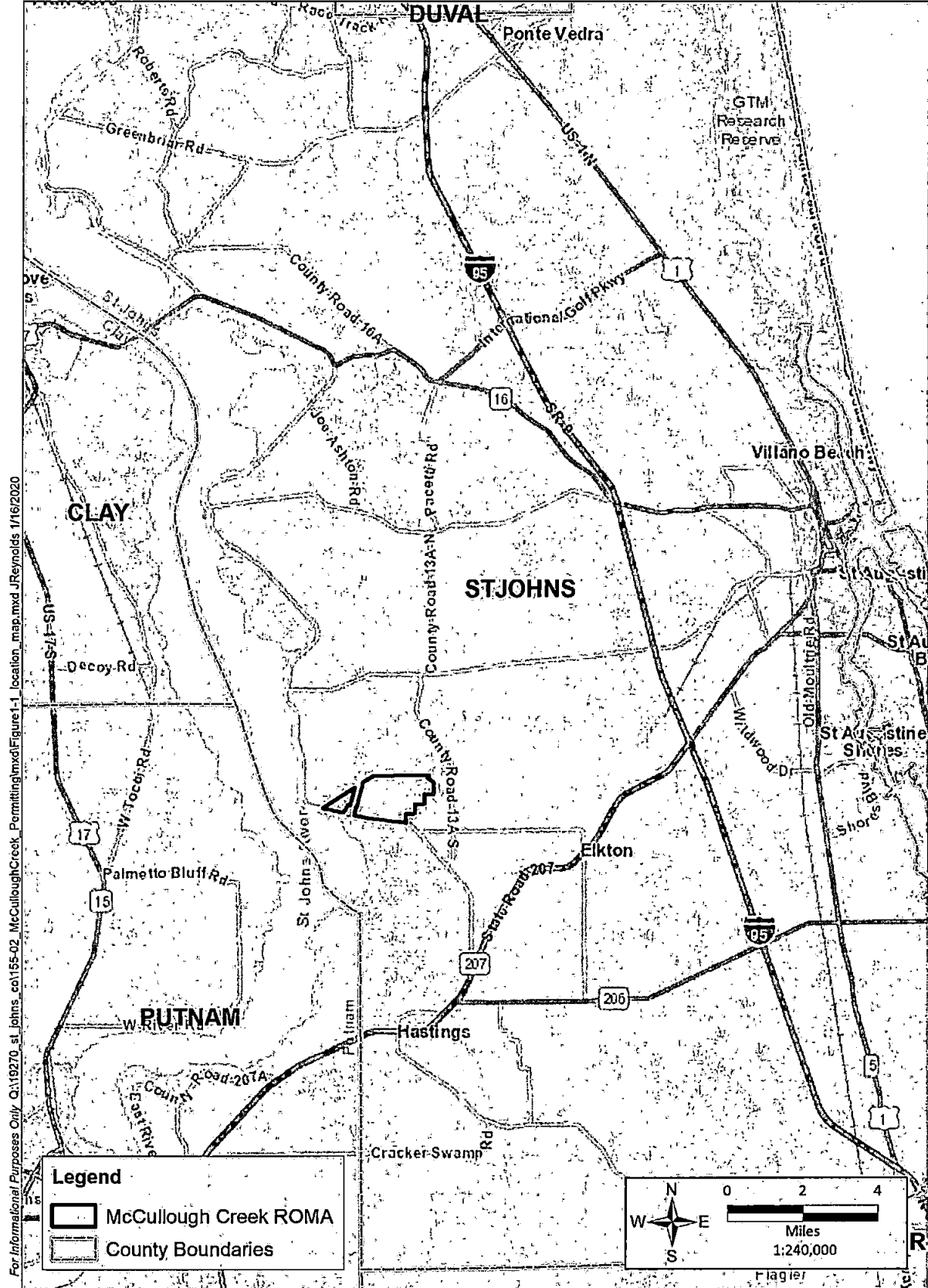
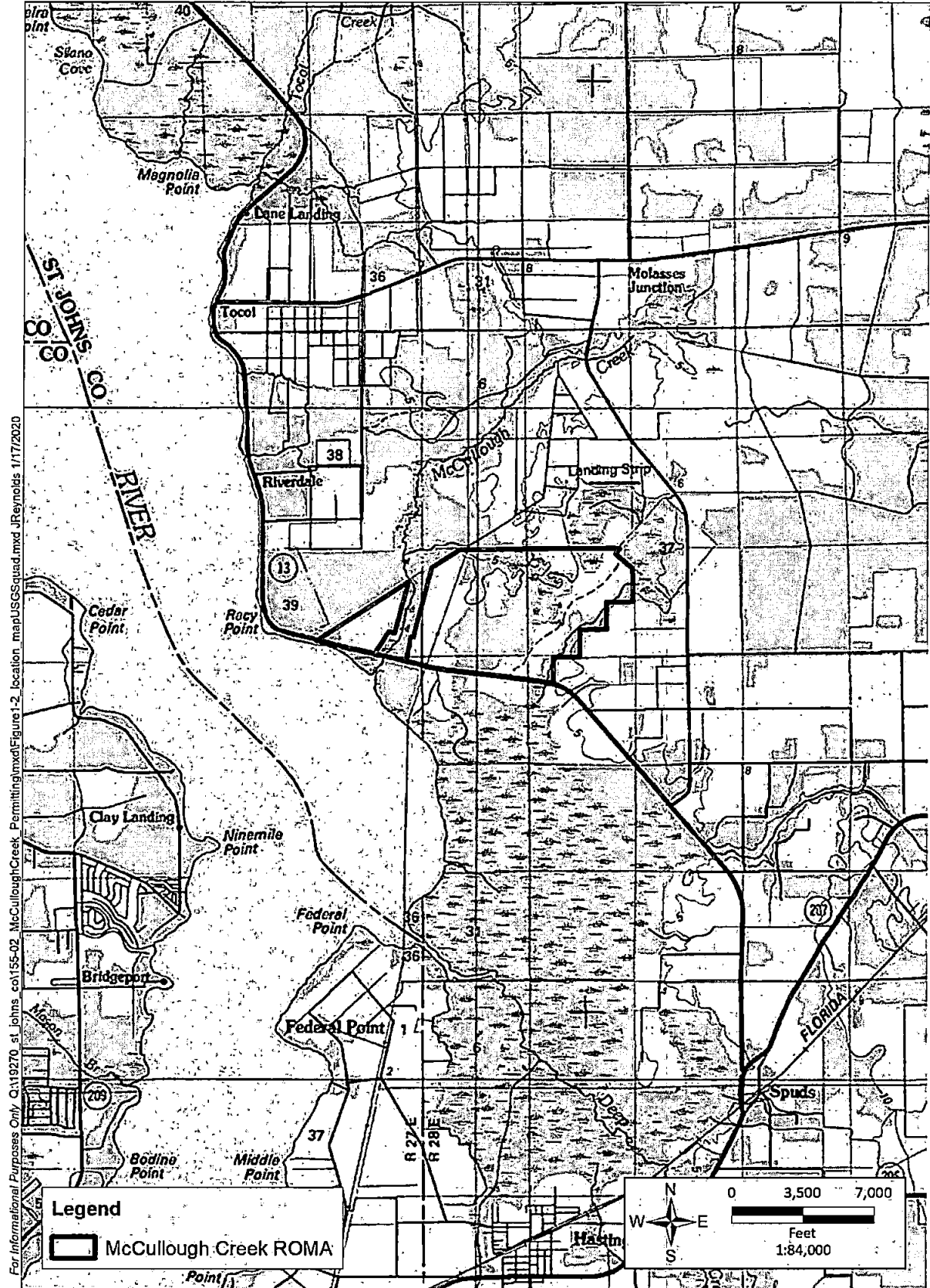
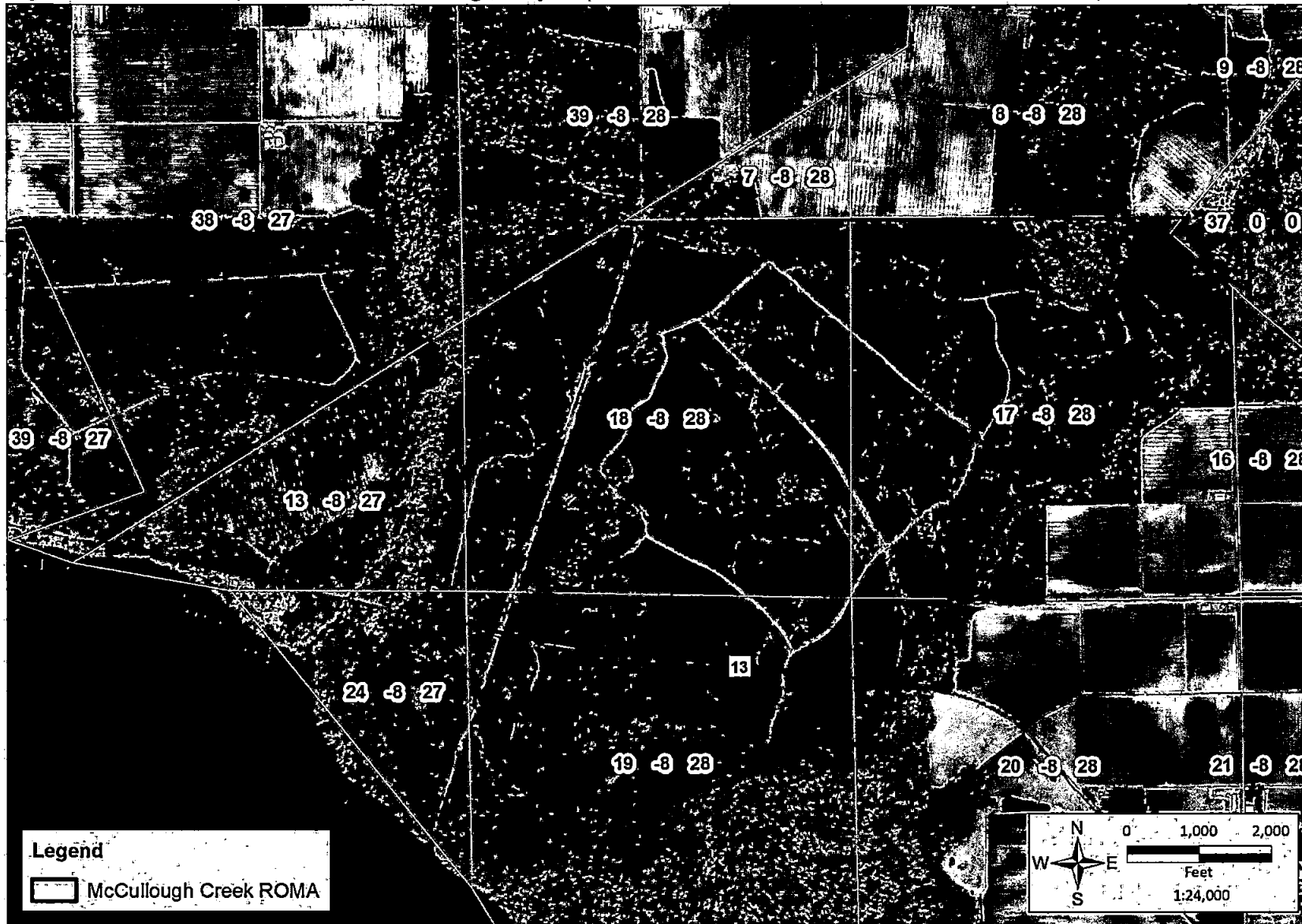


Figure 1-2 Location Map USGS Squad



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Figure 1-3 Section, Township, and Range Map



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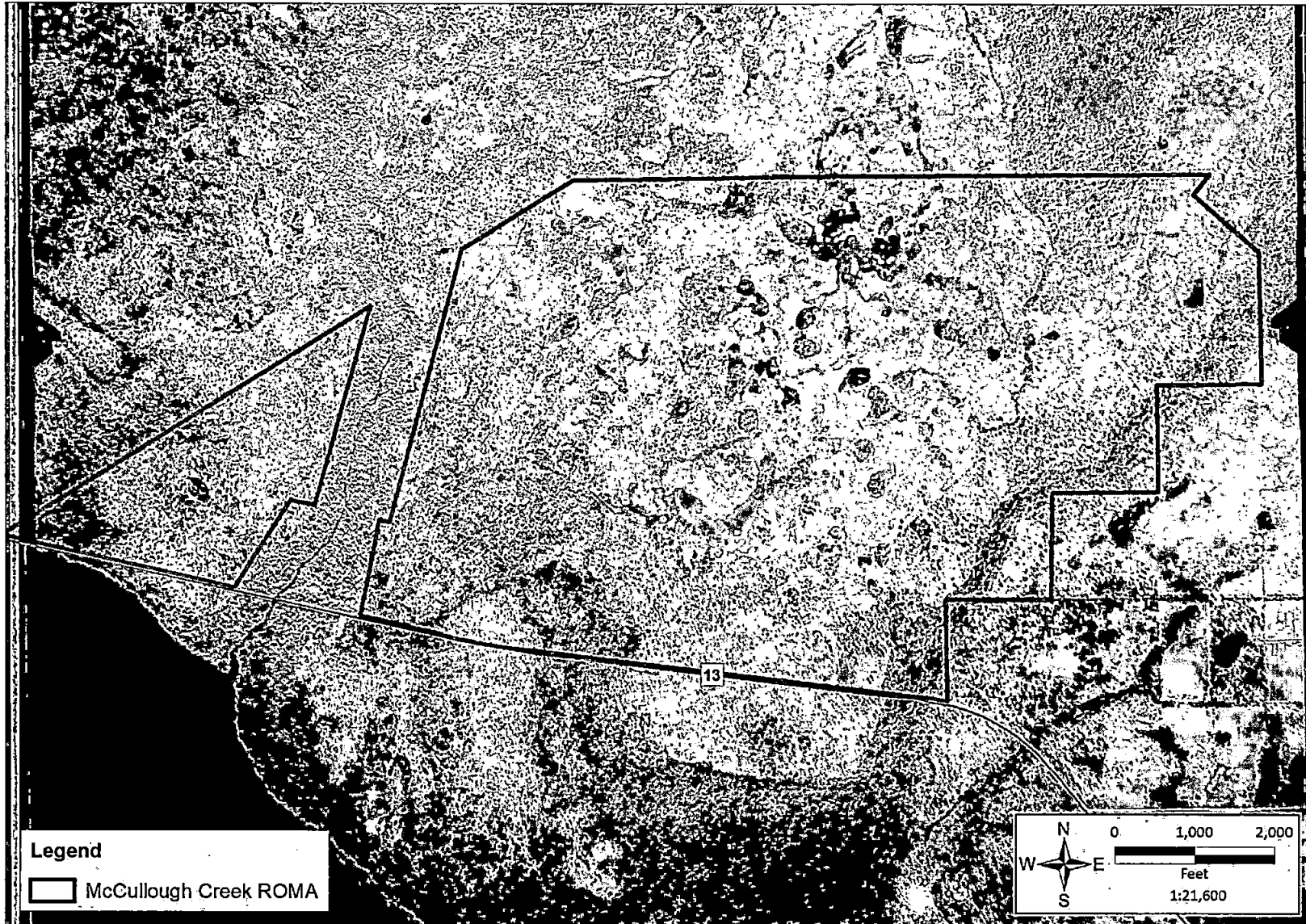


4. Hydrologically restoring the basin swamp and wet flatwood habitats through the breaching of bedrows to prevent channelized drainage of surface flows and significant reduction of pine densities to a target basal area of 40 to 60 square feet per acre (ft<sup>2</sup>/ac).
5. Restoring or improving native communities through pine thinning or complete pine removal in appropriate communities.
6. Restoring longleaf pine (*Pinus palustris*) and desirable groundcover species in designated communities.
7. Restricting hunting to methods used for wildlife management purposes and to foster public support for future land acquisition.
8. Implementing a Management Plan that outlines a prescribed burn and vegetation management program in the fire-dependent communities, which is intended to promote natural recruitment of subcanopy, shrub, and groundcover species appropriate for the target community.

## **2 HISTORICAL CONDITIONS**

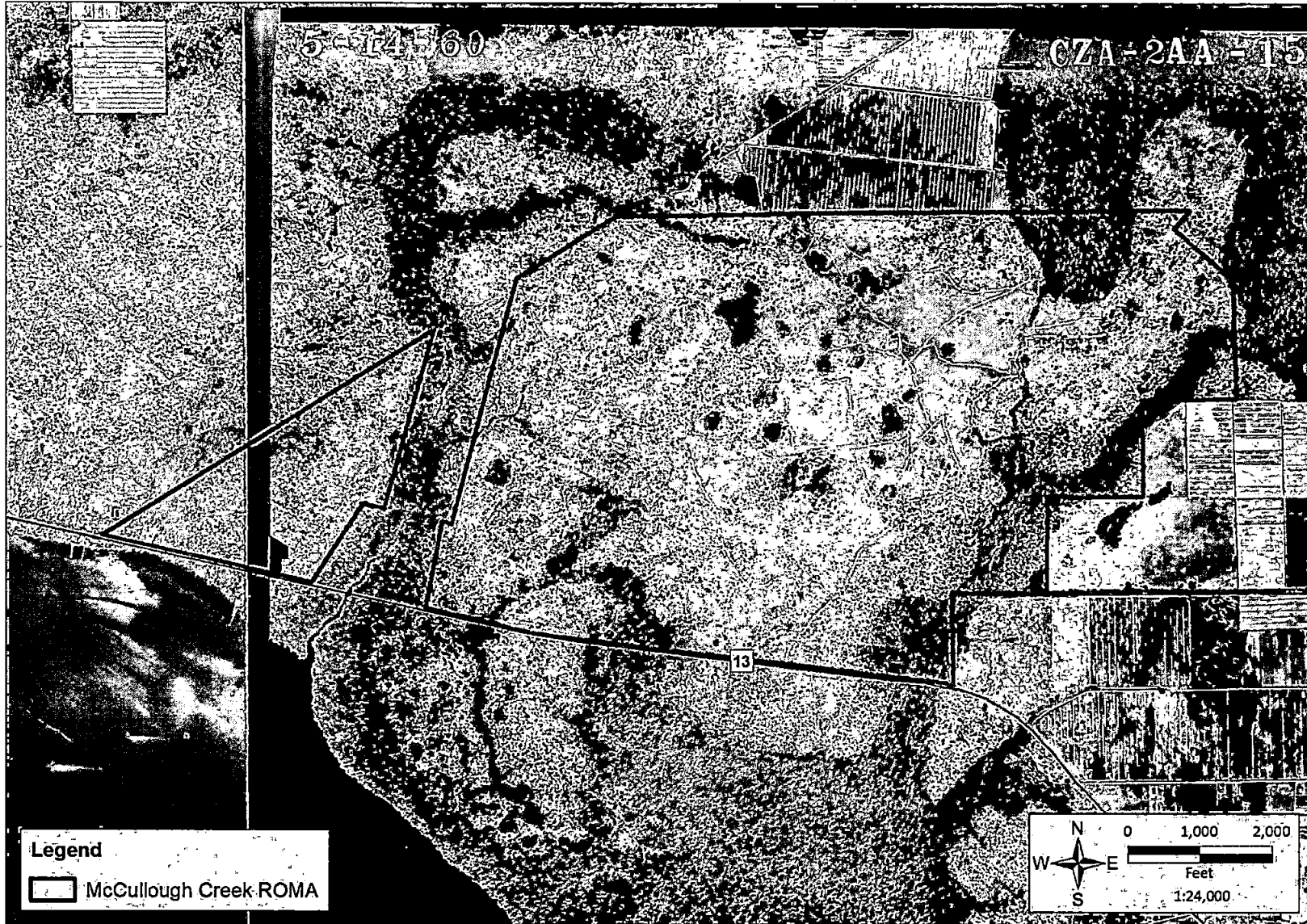
Based on historical aerial imagery, the site was dominated by open pine flatwoods with an abundance of herbaceous and forested wetlands in 1942 through the 1960s (Figures 2-1 and 2-2). Aerial imagery from the 1970s indicates a much denser upland tree cover and between 1971 and 1980 several roads were constructed and over half of the site was clear-cut (Figures 2-3 and 2-4). Figure 2-5 provides a topographic map of the site.

Figure 2-1 1942 Aerial Map



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Figure 2-2 1960 Aerial Map



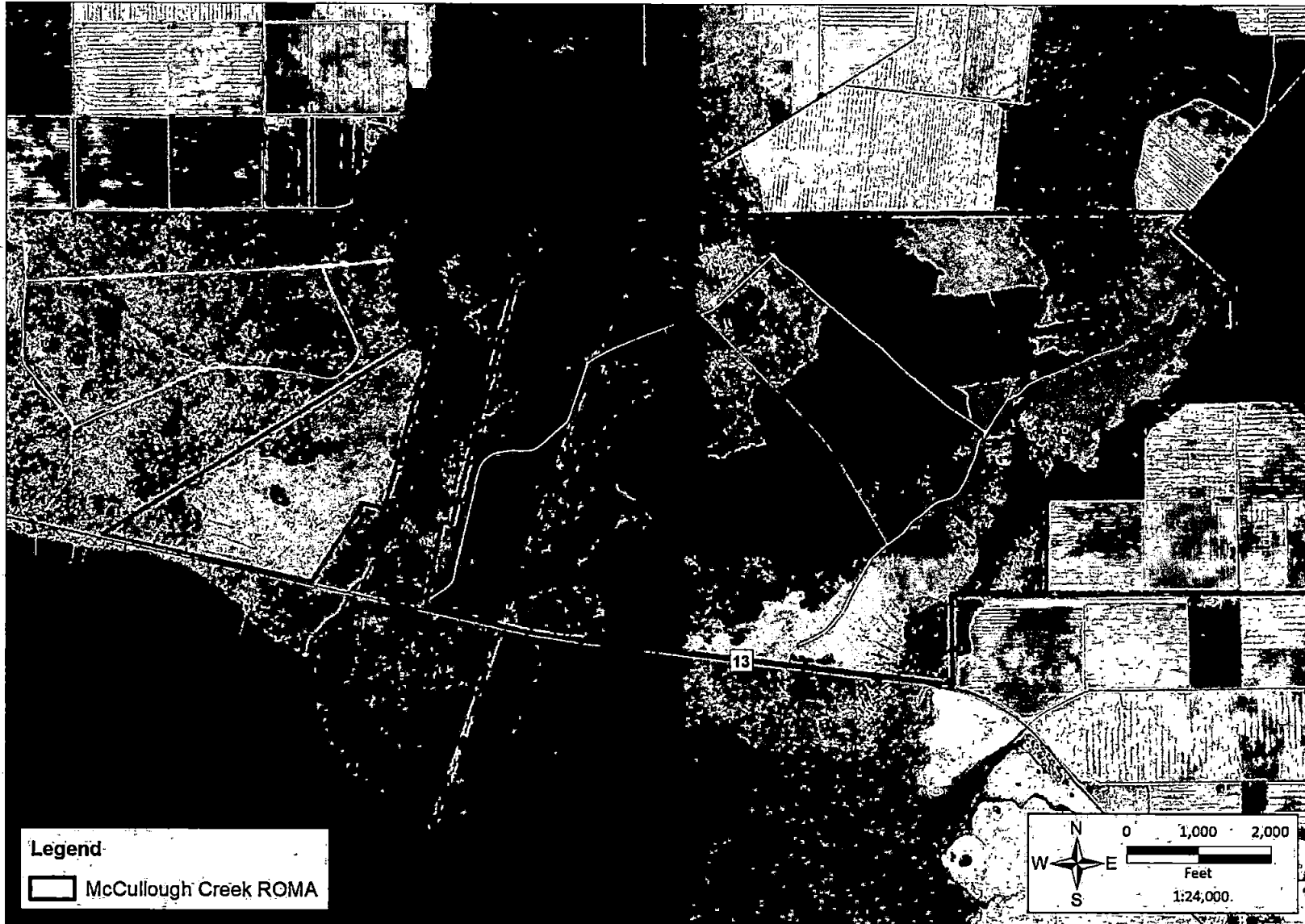
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**Figure 2-3 1971 Aerial Map**



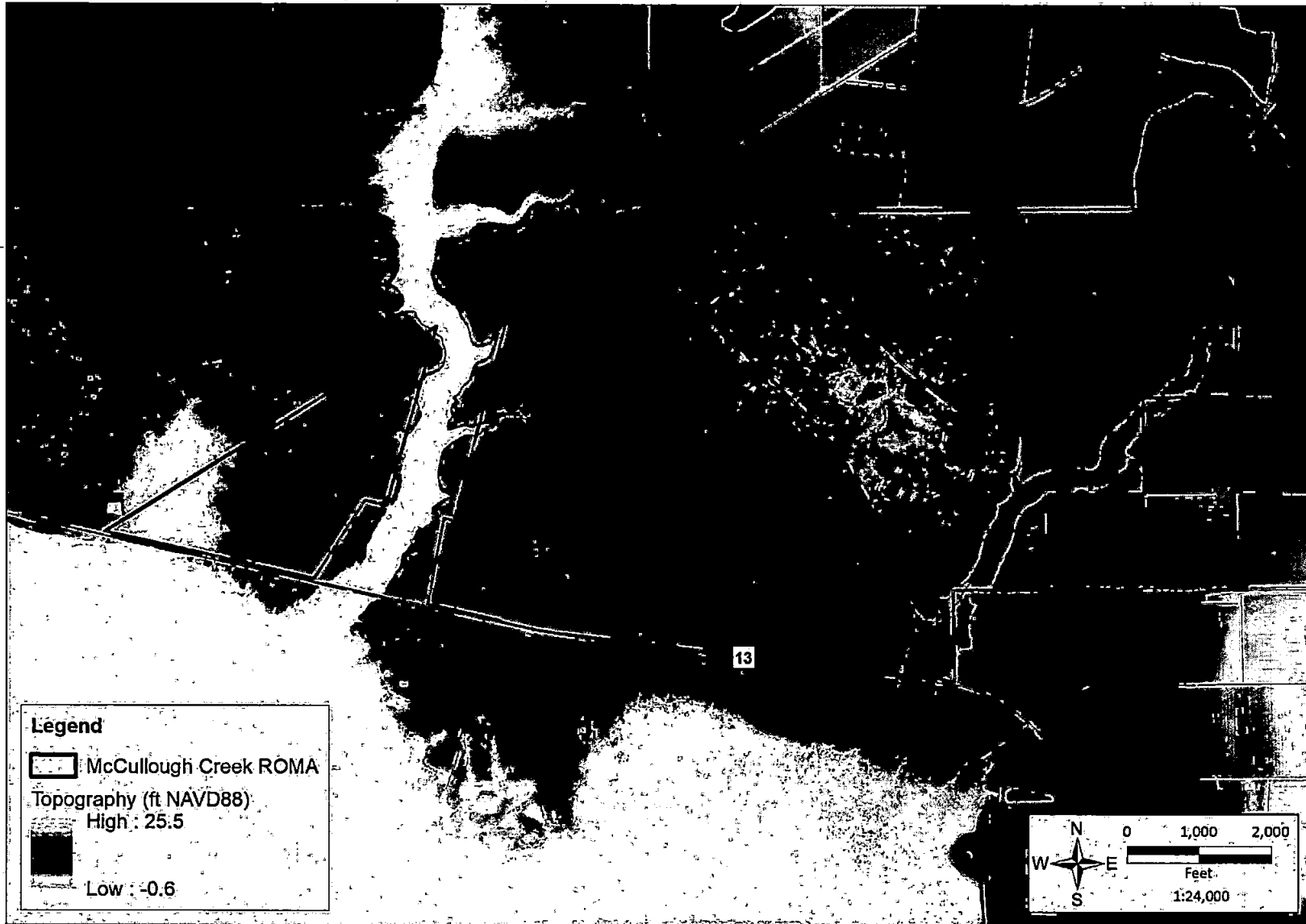
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**Figure 2-4 1980 Aerial Map**



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Figure 2-5 Topographic Map

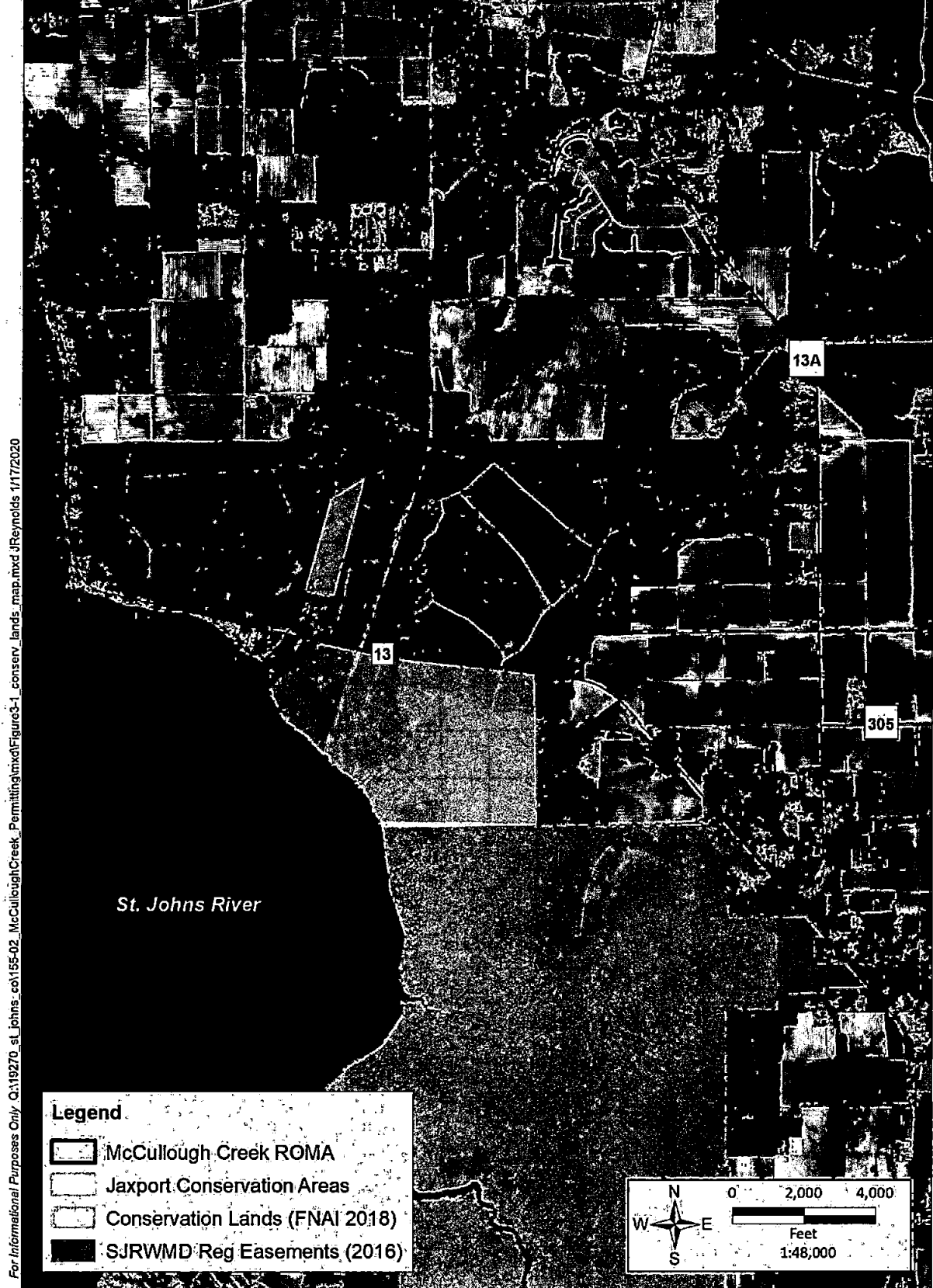


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### **3 PROXIMITY TO CONSERVATION LANDS**

The McCullough Creek ROMA builds on an existing regionally significant Deep Creek Conservation Area that runs from State Route (SR) 207 at Hastings north to CR 13 consisting of over 6,000 acres. The McCullough Creek ROMA is adjacent to the Jaxport conservation properties to the south and east and the Saturiwa Swamp Conservation Area on the south side of CR 13 (Figure 3-1). This ROMA builds on these other conservation areas and helps to protect and provide high-quality refugia and foraging habitat for a diversity of wildlife species and large wide-ranging terrestrial mammals such as the black bear (*Ursus americanus*).

**Figure 3-1 Conservation Lands Map**



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## 4 EXISTING/BASELINE VEGETATION COMMUNITIES

The McCullough Creek ROMA contains approximately 842 acres of wetlands and 517 acres of uplands (Figure 4-1). Figure 4-2 depicts these on-site vegetation communities as classified by the Florida Natural Areas Inventory (FNAI) 2010 Classification System, which includes the following:

- Uplands:
  - Pine Plantation.
  - Mesic Hammock.
  - Xeric Hammock.
- Wetlands:
  - Bottomland Forest.
  - Basin Swamp.
  - Pine Plantation – Wet.

The following describes each community.

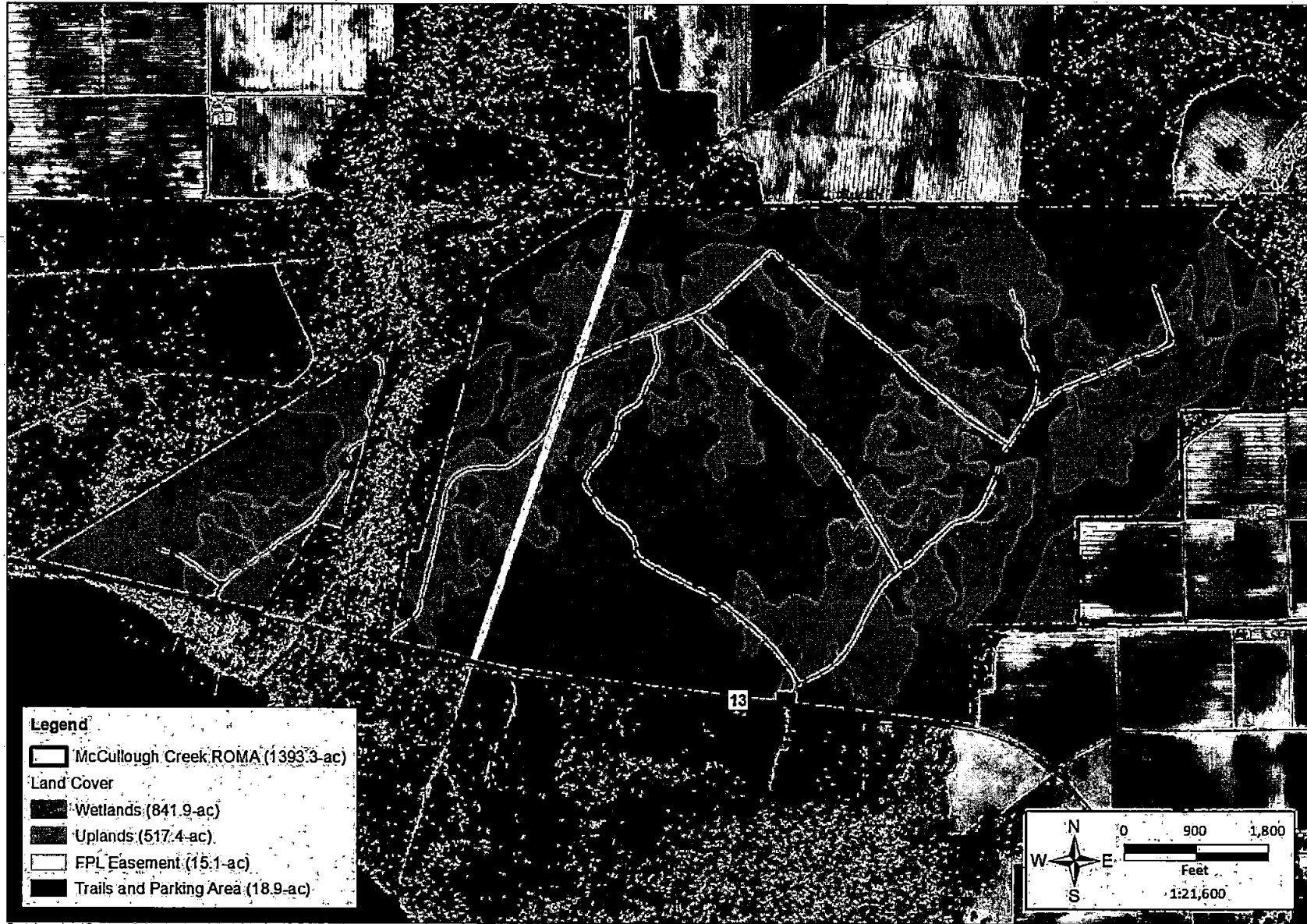
### 4.1 PINE PLANTATION – 490.9 ACRES

The pine plantation community comprises approximately 490.9 acres of the subject property. This area is a monoculture of densely planted and bedded slash pine (*Pinus elliottii*) that occurs in blocks of even-aged stands. Numerous varying age stands of this community are found on-site (Figure 4-3) and little to no mid-story or competing canopy species exist. Ground cover is sparse in most areas and includes saw palmetto (*Serenoa repens*), gallberry (*Ilex glabra*), wax myrtle (*Myrica cerifera*), greenbriar (*Smilax* sp.), grapevine (*Vitis rotundifolia*), and bracken fern (*Pteridium aquilinum*). This community has been subjected to decades of intensive silvicultural management that includes herbicide treatments to eliminate competition for the planted pines and fire suppression, all of which have resulted in a significantly altered community.

### 4.2 MESIC HAMMOCK – 11.9 ACRES

This area of habitat occurs along the east side of the McCullough Creek ROMA on the east side of an unnamed creek system. This community varies in quality and composition when moving from east to west as considerable topography change exists. The community is dominated by mature slash and loblolly pines interspersed with various hardwood species such as laurel oak (*Quercus laurifolia*), water oak (*Quercus nigra*), and sweetgum (*Liquidambar styraciflua*) with and an understory of saw palmetto, gallberry, wax myrtle, highbush blueberry (*Vaccinium corymbosum*), wiregrass (*Aristida stricta*), and bracken fern.

**Figure 4-1 Existing Wetland and Uplands Map**

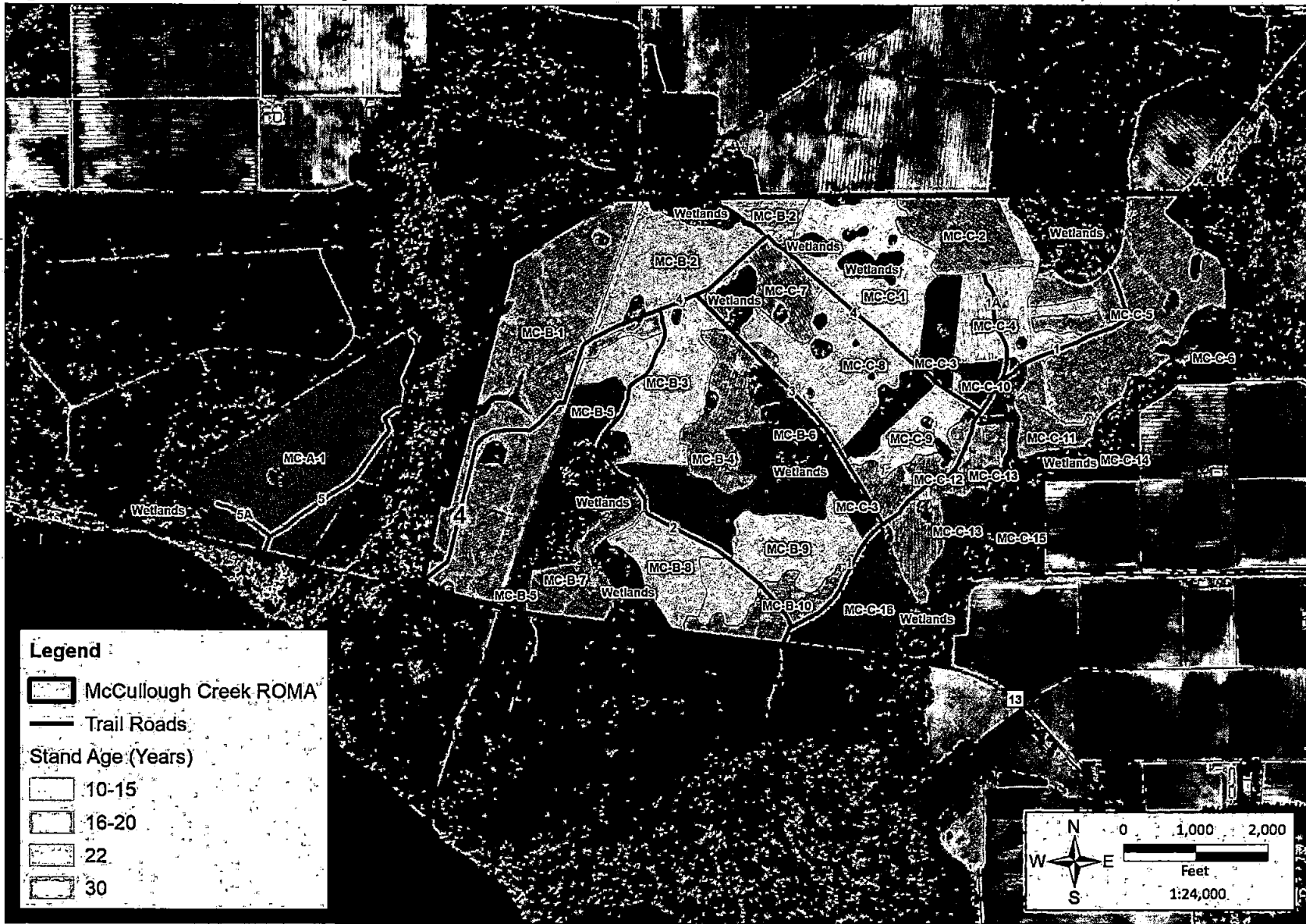


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Figure 4-2 Existing Land Cover Map (FNAI 2010)



**Figure 4-3 Timber Stand Map**



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### **4.3 XERIC HAMMOCK – 14.6 ACRES**

This area of habitat occurs in the southeast corner of the McCullough Creek ROMA on the east side of an unnamed creek system. The community was likely a Xeric Pine community but has been encroached upon by oaks such as sand live oak (*Quercus geminata*), live oak (*Quercus virginiana*), water oak (*Quercus nigra*), laurel oak (*Quercus laurifolia*), and sweetgum (*Liquidambar styraciflua*) with and an open patchy understory dominated by saw palmetto, bracken fern, and wiregrass (*Aristida stricta*).

### **4.4 BOTTOMLAND FOREST – 71.0 ACRES**

This community comprises approximately 71.0 acres and represents an unnamed stream in the east side of the McCullough Creek ROMA that drains a large wetland to the north. Bald cypress (*Taxodium distichum*), black gum (*Nyssa sylvatica*), buttonbush (*Cephalanthus occidentalis*), highbush blueberry, lizardstail (*Saururus cernuus*), sedges (*Cyperus* spp.), cattail, and pickerelweed (*Pontedaria cordata*) dominate. The trees in this community appear stressed and the canopy has opened up in many locations. This community receives drainage from hundreds of acres of row-crops, which may be altering the hydrology of this wetland.

### **4.5 BASIN SWAMP – 183 ACRES**

This community comprises approximately 183 acres of the subject property. The canopy in this habitat is comprised of primarily bald cypress, black gum, and red maple (*Acer rubrum*). Dominant understory species include cinnamon fern (*Osmunda cinnamomea*), Virginia chain fern (*Woodwardia virginica*), royal fern (*Osmunda regalis*), netted chain fern (*Woodwardia areolata*), sedges, and rushes (*Juncus* spp.). The historical silvicultural management practices that occur along the perimeter of these pockets has allowed the encroachment of slash pine into the wetland area.

### **4.6 PINE PLANTATION – WET – 587.9 ACRES**

The wetland pine plantation habitat occurs on approximately 587.9 acres of the project site. This community is a monoculture of planted slash pine canopy. These areas are heavily bedded due to the high water-table and occurs in blocks of even-aged stands. Numerous varying age stands of this community are found on-site (Figure 4-3) and little to no mid-story or competing canopy species exist. Ground cover varies from sparse to dense and is dominated by Carolina redroot (*Lachnanthes caroliniana*), Virginia chain fern, cinnamon fern, bog buttons (*Lachnocaulon* sp.), sedges, rushes, and Indian coinwort (*Centella asiatica*).

Trail roads, two parking lots, and a Florida Power and Light electrical transmission line easement (8320) comprise the remaining 34 acres (Figure 4-1).

## **5 MITIGATION WORK PLAN**

The County proposes to implement ecological enhancement activities within five primary assessment areas. Several activities are proposed to generate functional gain by enhancing on-site wetland and upland habitats to improve wildlife utilization for non and listed species such as the gopher tortoise. This proposed Work Plan and the future management of the

property are intended to restore and maintain the natural community diversity that supports wetland functions and wildlife habitat. Additionally, the site will provide opportunities for limited public resource-based recreation such as hiking.

As previously mentioned, the County will implement these activities identified in this Plan before any proposed wetland impacts associated with County capital improvement transportation projects. Before initiating mitigation activities, the entire project area will be placed in a conservation easement. Table 5-1 summarizes the proposed mitigation activities in each assessment area. The following section describes site-wide mitigation activities in each assessment area and the proposed ecological enhancement activities.

## **5.1 PRESCRIBED FIRE**

Within the McCullough Creek ROMA, approximately 1,070 acres of upland and wetland habitat will be restored to native communities that thrive on fire, specifically assessment areas WEA1 and WBEA1 (Figure 5-1). In addition, the gopher tortoise, a State listed Threatened species, is found in several more xeric upland areas that occur on the property. However, this habitat is planted pine plantation and very low quality due to canopy closure and poor ground cover forage. Numerous abandoned burrows were observed where the canopy was dense. Without the implementation of prescribed fire and habitat enhancement proposed in this Work Plan, the long-term viability of this species on-site would be very low and it would likely not exist in 5 to 10 years (Figure 5-2).

Management of the site will include prescribed burning and/or mechanical clearing of all appropriate habitats in 25 burn units to ensure the success of the native communities (Figure 5-3). Due to the site's isolation from residential, commercial, or industrial areas, performing controlled burns should not be limited. All prescribed burning will be performed in accordance with a time-specific Burn Management Plan (Appendix A). Prescribed burning may also be used in the initial restoration activities depending upon fuel loads and other considerations. Permanent firebreaks will be maintained around each fire unit using the existing network of logging roads where possible. Additional firebreaks will be maintained free of underbrush by routine disking. No firebreaks will be created around wetlands so that fires conducted in the uplands can burn down into wetlands if conditions are suitable and will also help facilitate burning of WEA1.

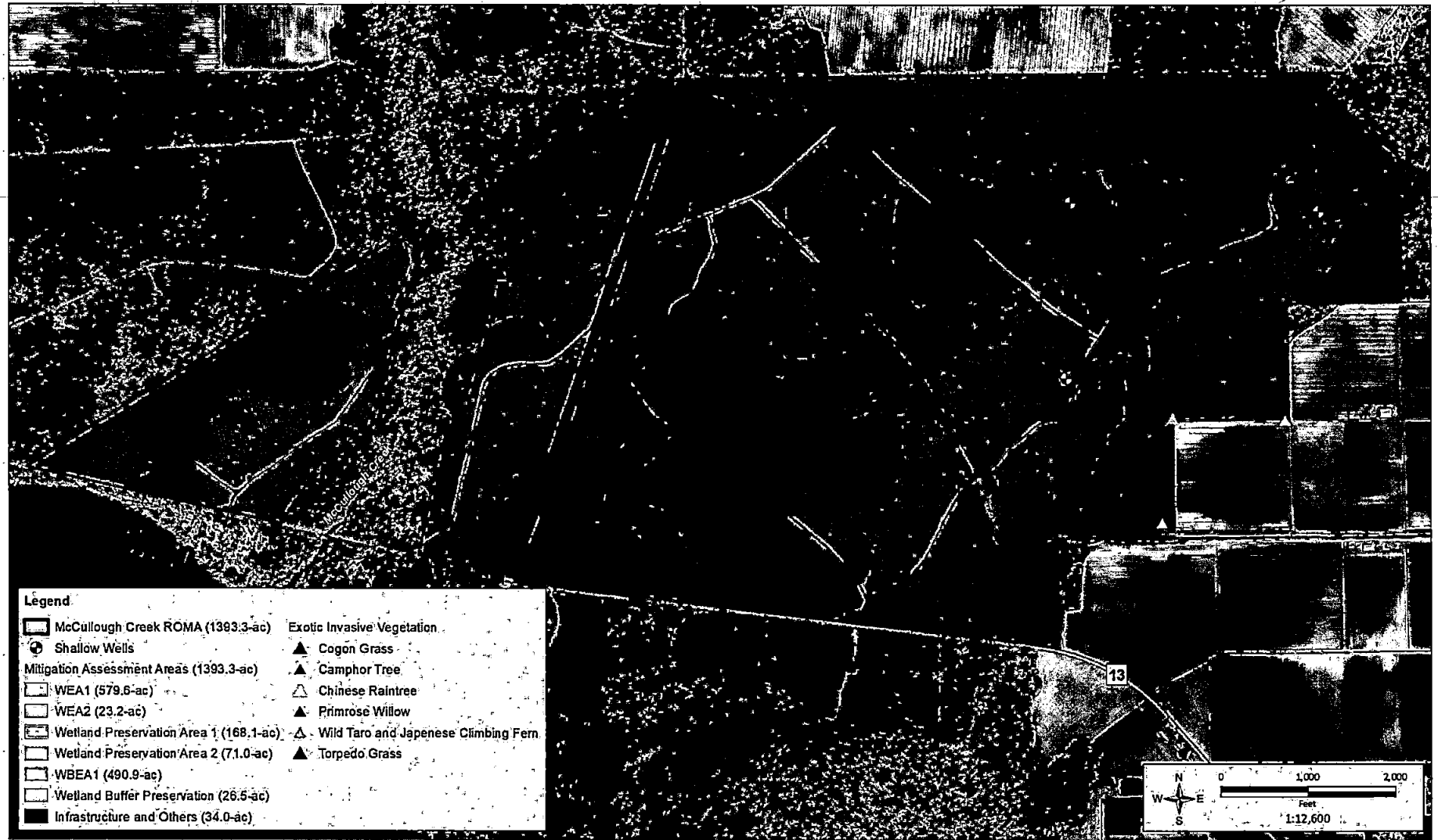
## **5.2 NUISANCE AND EXOTIC SPECIES MANAGEMENT**

The following exotic invasive vegetation has been documented in several locations throughout the site (Figure 5-1); (1) Cogon grass (*Imperata cylindrica*), (2) Camphor tree (*Cinnamomum camphora*), (3) Chinaberry tree (*Melia azedarach*), (4) Primrose willow (*Ludigia peruviana*), (5) Wild taro (*Colocasia esculenta*), (6) Japanese climbing fern (*Lygodium japonicum*), and (7) Torpedo grass (*Panicum repens*). These species will be chemically controlled to prevent the spread of these species into the proposed assessment areas. A foliar application of Garlon 4 (2-percent water solution) will be directly applied to the plants. Treatments will occur semi-annually with the first event occurring in late spring between April and June and the second event occurring between August and October. Treatments will occur semi-annually thereafter for 2 additional years to prevent the seedlings from flowering and setting seed. These areas will then be monitored semi-annually to confirm success. Additional treatments will also be conducted in accordance with

**Table 5-1 Assessment Area and Mitigation Activity Summary Table**

Assessment Area	Acreage	Activity	Mitigation Activity				
			Hydrological	Breaching Bedrows	Thinning/ Harvesting	Prescribed Burning	Exotic/Nuisance Species Control
Wetland Preservation (Area 1)	168.1	Preservation	-	-	-	-	-
Wetland Preservation (Area 2)	71.0	Preservation	-	-	-	-	-
WEA1	579.6	Preservation and Enhancement	X	-	X	X	X
WEA2	23.2	Enhancement	X	X	X	-	X
WBEA1	490.9	Enhancement	-	-	X	X	X
Wetland Buffer Preservation	26.5	Preservation	-	-	-	-	X
Infrastructure	34.0						
<b>TOTAL=</b>	<b>1,393.3</b>						

Figure 5-1 Mitigation Activities Map



**Figure 5-2 Gopher Tortoise Burrow Location Map**



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**Figure 5-3 Burn Units Map**



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the Land Management Plan (Appendix B) to ensure that the McCullough Creek ROMA maintains the goals and objectives of the mitigation Work Plan. Any other occurrences of these species identified during site inspections and monitoring events will be treated using this chemical management plan.

### **5.3 CESSATION OF SILVICULTURAL ACTIVITIES**

Following approval and execution of the Memorandum of Agreement (MOA) between SJRWMD and the County, the practice of silviculture will be terminated. The application of herbicide or fertilizer for silviculture purposes will no longer occur. Following the proposed thinning of overstocked habitats, no additional clearing or harvesting of the remaining native plant communities will occur. In addition, no additional drainage improvements, seeding, bedding, or site preparation for timber production will occur.

### **5.4 ELIMINATION OF UNRESTRICTED HUNTING AND HUNT LEASES**

In the past, hunting for all game species was allowed. Feeders, food plots, and permanent stands were permissible. Once the conservation easement is recorded, the County will cease all hunting on the site with the exception of twice annual youth hunts, veterans' hunts, and public quota hunts, totaling six events per year. These events will be managed by the Florida Forest Service or the Florida Fish and Wildlife Conservation Commission (FWC) with a check-in station at the main parking lot on CR 13. Target species will be limited to feral hog, deer, and turkey. Hunters will be limited to traversing the site during hunts only on existing trail roads.

Feral hogs are known to negatively impact wetlands and other habitats by "rooting" up the soil while searching for food. Feral hog damage is widespread on the site and the County has already contracted a licensed trapper/hunter to begin hog removal. The removal and management of feral hogs will be conducted to control their numbers to the greatest extent possible. The County will harvest hogs from the property on an ongoing basis, if necessary, to minimize their adverse effects to vegetative ground cover. Records will be kept of hogs eliminated, and this information will be included in the annual monitoring reports supplied to the US Army Corps of Engineers (USACE) and SJRWMD. Poaching will be controlled through posting of signage and use of wildlife cameras if necessary.

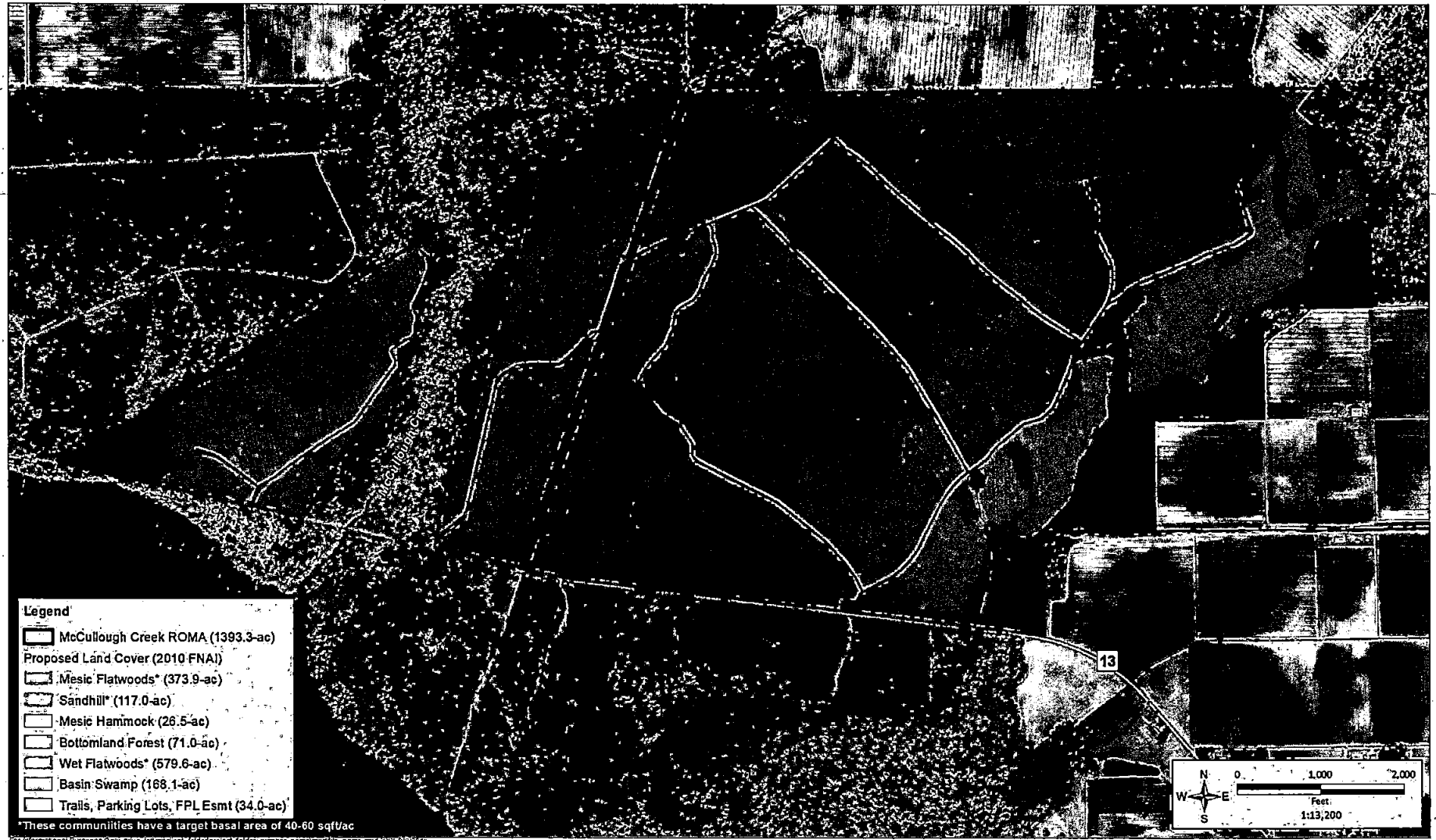
Appendix B provides a Hunt Plan.

### **5.5 WETLAND ENHANCEMENT AND RESTORATION**

#### **5.5.1 WETLAND PRESERVATION AREA 1**

This assessment area comprises approximately 168.1 acres, is characterized as Basin Swamps, and occurs throughout the site. These areas are to be preserved and managed in their current state (Figures 5-1 and 5-4). Due to the existing mature canopy, functioning hydrology, and varied under-story, supplemental planting and earthwork are not proposed in this area. However, should invasive species be identified at a density of more than 1 percent, the habitat will be treated with herbicide semi-annually, or as necessary, to control the growth of those species. Leaving this wetland in its current state will provide immediate benefit to wildlife and ecological functions.

Figure 5-4 Proposed Land Cover Map (FNAI 2010)



### 5.5.2 WETLAND PRESERVATION AREA 2

Approximately 71.0 acres are Bottomland Forest, which represents an unnamed creek system that drains a large wetland north and east of the McCullough Creek ROMA site. This wetland will not be logged in the future but will be preserved and managed in its current state (Figure 5-1). Due to the existing mature canopy, functioning hydrology, and varied under-story, supplemental planting and earthwork are not proposed in this area. Leaving this wetland in its current state will provide immediate benefit to wildlife and ecological functions.

### 5.5.3 WETLAND ENHANCEMENT AREA 1 (WEA1)

This assessment area, comprising 579.6 acres, was likely historically Wet Flatwoods but is currently Pine Plantation – Wet (Figure 5-1). This assessment area will be restored to Wet Flatwoods via vegetation enhancement. This work will dramatically reduce canopy density, promote development of a high-quality herbaceous understory, and restore the hydroperiod consistent with pre-silvicultural alterations.

Slash pines are planted on approximately 8- to 10-foot centers and will be thinned in two phases to minimize tree mortality. Mechanized thinning will occur during the dry season to minimize soil disturbance. The first thinning will be a third row thin with selection to a target basal area as close to 60 ft<sup>2</sup>/ac as possible without removing greater than 50 percent of the stand. The second cut will occur approximately 5 years after the first cut and will be a seed tree cut that will reduce the basal area to the target of 40 to 60 ft<sup>2</sup>/ac with 100 to 150 trees per acre.

Several exotic invasive plant species have been documented in this assessment area, which will be chemically treated and monitored in accordance with Section 5.1.

A controlled-burn program will be established to enhance the habitat quality and increase plant diversity of the mitigation area with an emphasis on groundcover restoration. However, burning of WEA1 will likely occur less frequently (7- to 10-year rotation) than Mesic Flatwoods community due to the high water-table and duff moisture content.

The intent of this mitigation activity is to promote a high-quality uneven-aged Wet Flatwoods (Figure 5-4).

### 5.5.4 WEA2

This assessment area, comprising 23.2 acres, is an approximately 50-foot-wide fringe characterized as Pine Plantation – Wet that surrounds existing Basin Swamp (Figure 5-1). The assessment area is jurisdictional wetlands that have been significantly bedded and planted with slash pine. The planted slash pine are in poor condition since it is too wet to support this species. In addition, these areas have hardwood and/or bald cypress sapling recruitment and were likely historically Basin Swamp. All slash pine will be mechanically removed from the assessment area to allow for maturation of existing wetland hardwood and cypress saplings and subcanopy. In addition, the logging contractor will equip their feller bunchers with a box blade and breach an approximately 6-foot-wide section of several adjacent bedding rows to restore the hydrology of this assessment area. This breaching will push the bed into the furrow so that no net fill occurs. Bedding rows will be breached approximately every 100 feet in a given assessment area.

The intent of this mitigation activity is to restore a Basin Swamp community (Figure 5-4).

## **5.6 WETLAND BUFFER**

### **5.6.1 WETLAND BUFFER ENHANCEMENT AREA 1 (WBEA1)**

This assessment area is currently characterized as Pine Plantation that is comprised of densely planted slash pine that occurs in blocks of even-aged stands and comprises approximately 490.9 acres (Figure 5-1). Numerous varying aged stands of this community are found on-site (Figure 4-3) and little to no mid-story or competing canopy species exist.

Slash pines are planted on approximately 6- to 10-foot centers and will be thinned in two to three phases depending on stage age to minimize tree mortality. Mechanized thinning will occur during the dry season to minimize soil disturbance. The target basal area for WBEA1 is approximately 40 to 60 with 100 to 150 trees per acre. As with WEA1, the first thinning will be a third row thin with selection to a target basal area as close to 60 ft<sup>2</sup>/ac as possible without removing greater than 50 percent of the stand. The second cut will occur approximately 5 years after the first cut and will be a seed tree cut that will reduce the basal area to the target of 40 to 60 ft<sup>2</sup>/ac with 100 to 150 trees per acre.

After the initial thin, a controlled burn will be completed in the winter or spring to minimize tree stress and mortality. Prescribed fire management will then occur at 3- to 4-year intervals as necessary to reduce hardwoods and shrubs, enhance the habitat quality, and increase plant diversity of the mitigation area with an emphasis on groundcover restoration.

Several exotic invasive plant species have been documented in this assessment area, which will be chemically treated (Figure 5-1). The intent of this mitigation activity is to promote a high-quality uneven-aged Mesic Flatwoods or Sandhill community with a high quality and diverse herbaceous understory (Figure 5-4).

### **5.6.2 WB PRESERVATION**

This assessment area comprises 26.5-acres along the east side of the site (Figure 5-1). It consists of mature forest dominated by large mature slash and loblolly pine and hardwoods species such as sweetgum, live oak, laurel oak, and pignut hickory. The understory is dominated by saw palmetto, yaupon holly, highbush blueberry, and bracken fern. This assessment area will be preserved in its current state (Figure 5-4).

## **6 IMPLEMENTATION TIMETABLE**

Implementation of the proposed management activities will commence upon execution of the MOA. Table 6-1 describes the various vegetation management activities that will be completed within the timeframe. The sequence of activities is a relative estimate to be used as a guideline. Variations in this schedule may be authorized with prior approval from SJRWMD and USACE. Thinning of pine in the WEA1 and WBEA1 areas will occur in two phases to minimize tree mortality due to factors that would occur with a single harvest such as high winds, soil disturbance, and increased susceptibility to disease and pests, and to retain the healthiest trees. Table 6-1 summarizes the proposed mitigation activities with their proposed implementation date, completion date, and/or ongoing schedule.

Figure 4-3 depicts timber stand IDs and Table 6-2 provides the expected year of thinning. All stands, except MC-B-10, will be thinned in 2021 and 2026. Stand MC-C-3 is a 30-plus-year-old stand that is at or near the target basal area.

**Table 6-1 Proposed Activities and Approximate Schedule Summary Table**

Mitigation Tasks	Estimate Implementation Date	Schedule or Completion Date
WEA1 Exotic Treatment	Spring 2021	Quarterly for first 3 years, followed by semi-annually then annually if necessary
WEA1 Pine Thinning	Spring/Winter 2021	2026
WEA1 Controlled Burn	Winter 2021	Every 7 to 10 years
WEA2 Pine Removal and Bedrow Disruption	Spring/Winter 2021	Winter 2021/Spring 2022
WBEA1 Pine Thinning and Exotic Treatment	Spring/Winter 2021	Pine Thinning – 2026 Exotic Treatment – See WEA1
WBEA1 Controlled Burn	Winter 2021/2022	Every 3 to 5 Years

**Table 6-2 Schedule of Harvest**

Stand ID	Number of Cuts	Year of First Cut	Year of Final Cut
Mc-C-16	2	2021	2026
Mc-B-10	1	2021	NA
Mc-B-9	2	2021	2026
Mc-C-3	1	2026	NA
Mc-C-12	2	2021	2026
Mc-C-10	2	2021	2026
Mc-C-4	2	2021	2026
Mc-C-5	2	2021	2026
Mc-C-5	2	2021	2026
Mc-C-9	2	2021	2026
Mc-C-7	2	2021	2026
Mc-C-8	2	2021	2026
Mc-C-7	2	2021	2026
Mc-B-2	2	2021	2026
Mc-B-3	2	2021	2026
Mc-B-4	2	2021	2026
Mc-B-6	2	2021	2026
Mc-B-8	2	2021	2026
Mc-B-7	2	2021	2026
Mc-B-1	2	2021	2026
Mc-B-5	2	2021	2026
Mc-A-1	2	2021	2026

## **7 PROPOSED TARGET CONDITIONS**

Upon completion of the proposed mitigation work and meeting the success criteria, six types of "post-project" target communities will occur within the McCullough Creek ROMA. Three of these habitats are wetland and three are upland. Each habitat is classified using the FNAI 2010 Classification System (Figure 5-4). Table 7-1 summarizes the proposed target conditions.

**Table 7-1 Target Communities**

Existing Vegetation Community (2010 FNAI)	Assessment Area ID	Acreage	Target Vegetation Community (2010 FNAI)	Target Conditions
Basin Swamp	Wetland Preservation Area 1	168.1	Basin Swamp	Mature, mixed canopy age with diverse mid-story and understory. Understory dominated by Facultative Wet (FACW) and Obligate (OBL) wetland species.
Bottomland Forest	Wetland Preservation Area 2	71.0	Bottomland Forest	Mature, mixed closed canopy age with diverse mid-story and understory. Understory dominated by FACW and OBL wetland species. Exotics absent or less than 1-percent cover.
Pine Plantation - Wet	WEA1	579.6	Wet Flatwoods	Mature, open canopy with mixed pine tree age classes. Limited hardwood mid-story and or shrubs. Dense understory dominated by a diversity of FACW and OBL wetland species such as dicots, sedges, rushes, and ferns. Exotics absent or less than 1-percent cover.
Pine Plantation - Wet	WEA2	23.2	Basin Swamp	Mature, mixed closed canopy with diverse mid-story and understory. Understory dominated by FACW and OBL wetland species. Exotics absent or less than 1-percent cover.
<b>TOTAL=</b>		<b>841.9</b>		
Mesic Hammock	Wetland Buffer Preservation	26.5	Mesic Hammock	Mature, diverse canopy, mid-story, and ground cover. Exotics absent or less than 1-percent cover.
Pine Plantation	WBEA1	373.9	Mesic Flatwoods	Mature, open canopy with mixed pine tree age classes. Limited oak mid-story and shrubs. Dense understory dominated by a diversity of dicots and graminoids such as wiregrass. Exotics absent or less than 1-percent cover.
Pine Plantation	WBEA1	117.0	Sandhill	Mature, open canopy with mixed pine tree age classes. Limited mid-story and shrub component. Dense understory dominated by a diversity of dicots and graminoids such as wiregrass. Exotics absent or less than 1-percent cover.
<b>TOTAL=</b>		<b>517.4</b>		
	FPL Easement=	15.1		
	Parking Lots and Trails=	18.9		
<b>TOTAL=</b>		<b>1,393.3</b>		

## 8 PROPOSED FUNCTIONAL GAIN

The Uniform Mitigation Assessment Method (UMAM) was used to determine the proposed Functional Gain Units (FGUs) credits the McCullough Creek ROMA would generate. UMAM assessments were conducted using the following mitigation categories to ensure that all mitigation areas were accurately evaluated:

1. WEA1.
2. WEA2.
3. Wetland Preservation.
4. WBEA1.
5. Wetland Buffer Preservation.

The Without Mitigation Community Structure for UMAM assessment areas WBEA1 and Wetland Buffer Preservation, which are being conducted in uplands, were scored as if the assessment area was developed for County infrastructure or residential development. The area is currently zoned Rural Silviculture but could easily be rezoned in the future due to the immense development pressure in this portion of the County.

Lift is proposed for the Location and Landscape Support category for assessment areas as large areas of adjoining low-quality industrial pine plantations will be significantly enhanced and subsequently provide far superior habitat quality for wildlife. In addition, adjacent uplands that support the wetland assessment areas will not be developed or be a herbicided monoculture of slash pine that is clear cut every 20 to 25 years, providing high-quality habitat for a wide range of species that can also utilize wetlands.

Lift is proposed for Water Environment in UMAM assessment areas WEA1, WEA2, and Wetland Preservation Area 1 due to the cessation of logging which heavily damages soil and affects drainage patterns and the increased hydroperiod due to a significant reduction in pine and evergreen shrub density.

Lift in Community Structure is attributed to the fact that UMAM assessment areas WEA1, WEA2, and Wetland Preservation Area 1 would be clear cut approximately every 20 years, bedded, and replanted for decades. Without mitigation, these communities would be low-quality monocultures of genetically modified slash pine and the understory would be herbicided. With mitigation, the UMAM assessment areas will no longer be clear-cut and the understory herbicided and will be restored to high quality Wet Flatwoods or Basin Swamp with a diverse understory. This will significantly improve habitat quality, and accordingly wildlife utilization of these habitats is expected to significantly increase. In addition, wetland preservation areas will not be logged in the future and will continue to mature, develop an uneven-age stand age, and develop snags that support cavity nesting species.

Table 8-1 summarizes the proposed activities and the resulting FGUs that the mitigation activities will generate. A total of 141.9 FGUs are expected to result from the multiple mitigation activities occurring within the project sites.

**Table 8-1 Uniform Mitigation Assessment Method Summary**

Assessment Area	Existing Habitat Type (FNAI 2010)	Proposed Habitat Type (FNAI 2010)	Location and Landscape Support		Water Environment		Community Structure		Delta	Time Lag	Risk	PAF	RFG	Acres	Functional Gain	
			Current or W/O Mit	W/Mit	W/O Mit	W/Mit	W/O Mit	W/Mit								
1	WEA1 (Thin Pine, Bedding Row Disruption, and Burn)	Pine Plantation-Wet	Wet Flatwoods	8	9	8	8	5	9	0.17	1.25	1.25	1.0	0.106	579.6	61.58
2	WEA2 (Pine Removal and Bedding Row Disruption)	Pine Plantation-Wet	Basin Swamp	8	9	7	8	6	9	0.17	1.25	1.25	1.0	0.107	23.2	2.48
3	Wetland Preservation Area 1	Basin Swamp	Basin Swamp	8	9	8	8	7	9	0.10	1.0	1.0	0.7	0.070	168.1	11.77
4	Wetland Preservation Area 2	Bottomland Forest	Bottomland Forest	8	9	7	7	8	9	0.07	1.0	1.0	0.6	0.040	71.0	2.84
5	WBEA1 (Thin and Burn)	Pine Plantation	Mesic Flatwoods/Sandhill	8	9	X	X	5	8	0.20	1.25	1.25	1.0	0.128	490.9	62.59
6	Wetland Buffer Preservation	Mesic Hammock	Mesic Hammock	8	8	X	X	6	7	0.05	1.00	1.00	0.5	0.025	26.5	0.66
—	Trail Roads, FPL Easement, and Parking Lots	—	—	—	—	—	—	—	—	—	—	—	—	—	34.0	—
													<b>TOTAL=</b>	<b>1,393.3</b>	<b>141.9</b>	

## 9 PERFORMANCE STANDARDS

To document the attainment of wetland functional units of lift, the County will submit comprehensive narratives and functional assessment analyses that document the generation of wetland functional lift at this site. To meet the objectives of this ROMA, the WEA1, WEA2, and wetland preservation assessment areas will achieve the following performance standards:

1. At least 80-percent cover by appropriate wetland species (i.e., FACW or OBL) in all strata.
2. Cover of Category I and II invasive exotic plant species pursuant to the most current list established by the Florida Exotic Pest Plant Council at <http://www.floridapeppc.org>, and the nuisance species primrose willow (*Ludwigia peruviana*), dog fennel (*Eupatorium capillifolium*), Bermuda grass (*Cynodon* spp.), Bahia grass (*Paspalum notatum*), and cattail (*Typha* spp.) will total less than 5 percent in all wetland and upland mitigation assessment areas.
3. Demonstrated diversity and usage by native wildlife species typical of that found in the target wetland community.
4. Target vegetation community and basal area (40 to 60 ft<sup>2</sup>/ac) is met or moving towards the target in WEA1.
5. Target vegetation community is achieved in WEA1, WEA2, and WBEA1.

## 10 MONITORING AND REPORTING REQUIREMENTS

At the McCullough Creek ROMA, annual monitoring (September/October) and reporting will be conducted for a minimum of 5 years. Annual monitoring reports will be submitted to SJRWMD by December 31 of each year. The following presents additional details regarding the proposed monitoring plan.

### 10.1 WEA1 AND WEA2

A minimum of 20 and 5 monitoring stations will be established at WEA1 and WEA2, respectively, to assess vegetation and wildlife utilization. Each station will be established by driving a 4-foot piece of rebar into the ground and placing a 2-inch piece of PVC over the rebar and will serve as the location for photographs. The rebar will help locate each monitoring station in the event that a controlled burn melts the PVC pole. The station will be located using a handheld global positioning system (GPS) unit with sub-meter accuracy or by the County surveyor. In addition, two shallow wells were installed and equipped with continuous water-level recorders in June 2019 to assess hydrologic changes pre- and post-enhancement in WEA1 (Figure 5-4).

At each monitoring station, an approximately 10-square-meter (m<sup>2</sup>) area will be qualitatively assessed for the following:

- Photograph in each cardinal direction (North, East, South, and West).
- Dominant vegetation species in each strata.
- Approximate range of cover of each dominant species.
- Overall condition of the community.

- Presence of nuisance or exotic species.
- Presence of mesic or upland-encroaching vegetation.
- Any signs of disturbance.
- Hydrologic indicators (e.g., depth of standing water, water marks, adventitious roots, standing water) will be recorded.

## **10.2 WBEA1**

A minimum of 12 monitoring stations will be established in WBEA1 assessment areas to assess vegetation and wildlife utilization. At each monitoring station, an approximately 10-m<sup>2</sup> area will be qualitatively assessed for the following:

- Photograph in each cardinal direction (North, East, South, and West).
- Dominant vegetation species in each strata.
- Approximate range of cover of each dominant species.
- Overall condition of the community.
- Presence of nuisance or exotic species.
- Any signs of disturbance.

The County will perform a pre-enhancement monitoring event before conducting any mitigation activities. The County will complete a time-zero (baseline) monitoring event of the ROMA within 60 days of the work authorized being completed. A time-zero report will be submitted to SJRWMD and USACE within 90 days of the monitoring event completion. The report will include a paragraph describing pre-enhancement and baseline conditions and photographs of the project areas before the work is initiated and a detailed plan view drawing of all enhanced areas and monitoring locations. Water-level data from the two shallow wells in WEA1 will also be compiled and presented in the annual monitoring report.

## **11 LONG-TERM MANAGEMENT PLAN**

This site is and will remain under County management and will be the responsible entity for the long-term management of the mitigation site after it is released from compliance monitoring. Once compliance monitoring is no longer required, County staff will conduct the following activities to ensure the functional gain achieved is not impacted in the future.

### **11.1.1 TRAIL ROADS**

County staff will inspect existing trail roads at a minimum annually to confirm that they are in good working shape. Trail roads will be mowed periodically and repaired as needed but will remain at grade and not impede water flow. Several existing culverts occur on the trail roads which will be inspected annually or after significant tropical storm/hurricanes to ensure that they are functioning properly. Culverts will be replaced on an as-needed basis and budgeted for a 20-year life span.

### **11.1.2 GATES**

The two location where site access and parking perimeter fencing occur will be inspected bi-annually by County staff and repaired as necessary.

### 11.1.3 CULVERTS

In addition to the annual inspections referenced above, existing culverts are functioning properly, perimeter gates are secure, and any other infrastructure is in good condition. The County will repair any trail road damage and replace culverts on an as-needed basis.

### 11.1.4 VEGETATION MANAGEMENT

#### *Forest Management*

Much of the site as described in the Burn Plan will be managed with perpetual prescribed fire which will occur on a 3 to 5-year return interval. After an estimated 3 winter burns, prescribed fire seasonality will be switched to summer burns given appropriate vegetation and fuel loading. If prescribed fire is not feasible due to various conditions/issues elevated water table for more than 5 years, alternative vegetation management such as roller chopping will be implemented.

Vegetation communities will be inspected annually. As trees reach their age limit, or experience mortality at high levels, replanting will occur as an alternative management strategy after natural recruitment has been attempted. Long term harvest operations will be conducted only for ecological improvement, as salvage cuts from storm or beetle damage, or to reduce fuel loading if necessary.

#### *Exotic Invasive and Nuisance Vegetation*

Exotic or nuisance plant species will be controlled to maintain coverage at negligible levels (less than 1%). The site will be inspected annually to determine the presence of exotic/nuisance vegetative species. If present, the percent cover will be determined and documented in the annual report. Where necessary, herbicide treatments by a qualified applicator will be utilized to control the species in accordance with industry standards.

### 11.1.5 REPORTING

Long-term management reports will be prepared that summarize how the APROMA is continuing to meet the goals and objectives of the Mitigation Work Plan. The site will be inspected annually and evaluated for the above-described factors. A brief annual Status Report will be prepared that documents results of this inspection and an itemized list of maintenance activities performed during the previous year and scheduled for the following year. In addition, the Status Report will include qualitative observations, including field notes, and relevant on-site photographs.

### 11.1.6 FUNDING

County staff will conduct the necessary trail road, culvert, gate, fencing, and other infrastructure maintenance and self-reporting. Perpetual funding requirements are primarily needed to pay contractors to conduct prescribed fire and periodic potential exotic nuisance vegetation control. The County will allocate \$40,000/year for long-term management of the site (Table 11-1).

## **12 ADAPTIVE MANAGEMENT PLAN**

This APROMA will remain in County ownership and thus will be managed by County staff or designated contractors/consultants on behalf of the County in perpetuity.

## **13 FINANCIAL ASSURANCES**

As previously stated, County staff will conduct the necessary trail road, culvert, gate, fencing, and other infrastructure maintenance and self-reporting. Estimated mitigation related expenditures are summarized on Table 11-1 and include short-term expenditures such as compliance monitoring and reporting as well as exotic invasive plant treatment. Timber harvests will generate revenue and thus will not be a cost to the County. Perpetual funding requirements are primarily needed to pay contractors to conduct prescribed fire and periodic potential exotic nuisance vegetation control. The County has allocated \$40,000/year for long-term management of the site (Table 11-1).

St. Johns County is a political subdivision of the State of Florida and thus has taxing and bonding authority. As such, it is a financially viable institution that will not go bankrupt. However, the County retains a Tree Bank Fund that will be used to fund short- and long-term mitigation activities outlined in Section 11. Tree impacts resulting from development within the County are mitigated by contributions made by developers into a Tree Bank Fund. The County's Tree Bank Fund typically has an annual operating budget of \$200,000. Appendix C provides documentation of this County fund.

## **14 RECREATIONAL USE PLAN**

The County proposes to allow passive recreational activities on the McCullough Creek ROMA. Allowable recreational activities will be limited to hiking, bird watching, biking, and horseback riding. These activities will be limited to the improved trail roads. Equestrian activities will not occur on the west parcel due to restricted parking. No public vehicle or ATV use will be allowed on the property. The County will work with County law enforcement to resolve any poaching, unauthorized vehicle use, or other activities that occur.

**Appendix A**  
**Burn Management Plan**

**JonesEdmunds**



**APPENDIX A – BURN MANAGEMENT PLAN  
FOR THE  
McCULLOUGH CREEK BASIN 8 ROMA**

September 2020

**McCULLOUGH CREEK BASIN 8  
REGIONAL OFF-SITE MITIGATION AREA  
BURN MANAGEMENT PLAN**

**Prepared for:**

St. Johns County

500 San Sebastian View

St. Augustine, Florida 32084

**Prepared by:**

Jones Edmunds & Associates, Inc.

730 NE Waldo Road

Gainesville, Florida 32641

Jones Edmunds Project No.: 19270-155-02

September 2020

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## **1 SITE LOCATION**

The McCullough Creek Regional Off-Site Mitigation Area (McCullough Creek ROMA) is at latitude 30 02'26.06" N and longitude 81 24' 32.85" W in St. Johns County, Florida. Figure 1-1 shows that this location includes all or portions of Sections 28, 29, and 30, Township 5S, Range 29E and fronts County Road (CR) 13 north of Hastings, Florida.

The site is surrounded on all sides by silviculture or agriculture land with only one homestead directly adjacent to the site. It is approximately 3 miles from any major roads (SR 214) with minimal low-impact residential in the vicinity. Additionally, the SJRWMD Deep Creek Conservation Area and the Jaxport Mitigation Bank are directly south. Additional fire breaks can be used should unforeseen development occur in the areas immediately surrounding the McCullough Creek ROMA. Figure 1-2 provides a smoke shed map.

## **2 PLAN PRIMARY OBJECTIVE**

The goal of the Burn Management Plan is to replicate a natural fire regime that occurred before conversion of the site to industrial silviculture. To achieve this goal, fire-dependent communities will be subjected to prescribed burns at intervals consistent with the natural conditions historically and typically present in these habitats. Following completion of the restoration efforts described in the McCullough Creek ROMA Work Plan, a perpetual prescribed Fire Management Plan will be initiated since fire is a critical factor in the ecological success of this ROMA.

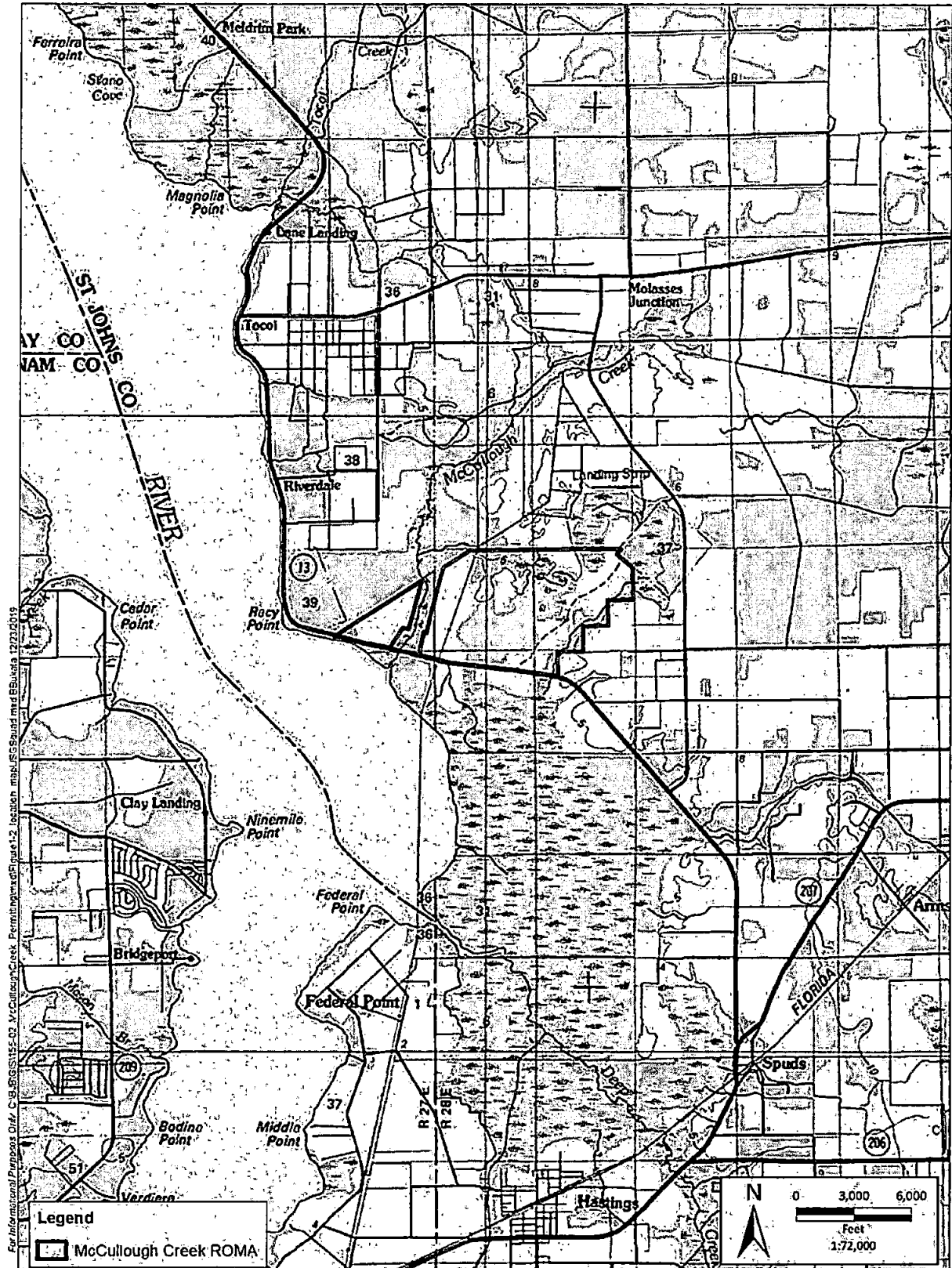
## **3 SILVICULTURAL HISTORY**

Figure 3-1 shows that before 1942, most of the uplands appeared to be relatively open canopy pine flatwood community interspersed with herbaceous and forested wetlands. Figures 3-2 and 3-3 show that roads were built between 1971 and 1980, respectively, and the site was clear-cut and bedded. For the last several decades, the site was owned by Rayonier and Plum Creek and was used for industrial silviculture and hunting. Aggressive alterations including land clearing, bedding, and planting have converted a majority of the site into heavily managed slash pine (*Pinus elliottii*) plantations. Pine plantation has replaced large areas of historical wetlands. Figure 3-4 provides an overview of the timber-stand ages.

## **4 PRESCRIBED BURNING PROGRAM**

Figure 4-1 shows that the prescribed burning program will occur on the following proposed land cover categories: the Mesic Flatwoods and Sandhill community (WBEA1) and the Wet Flatwoods community (WEA1). The goal of the prescribed burning program will be to closely replicate the natural fire regime present on the site before industrial silvicultural activities and to restore a diverse herbaceous understory, manage shrub density, maintain a mixed-age canopy, and control exotic and invasive species establishment.

**Figure 1-1 Site Location Map**



**Figure 1-2 Smokeshed Map**

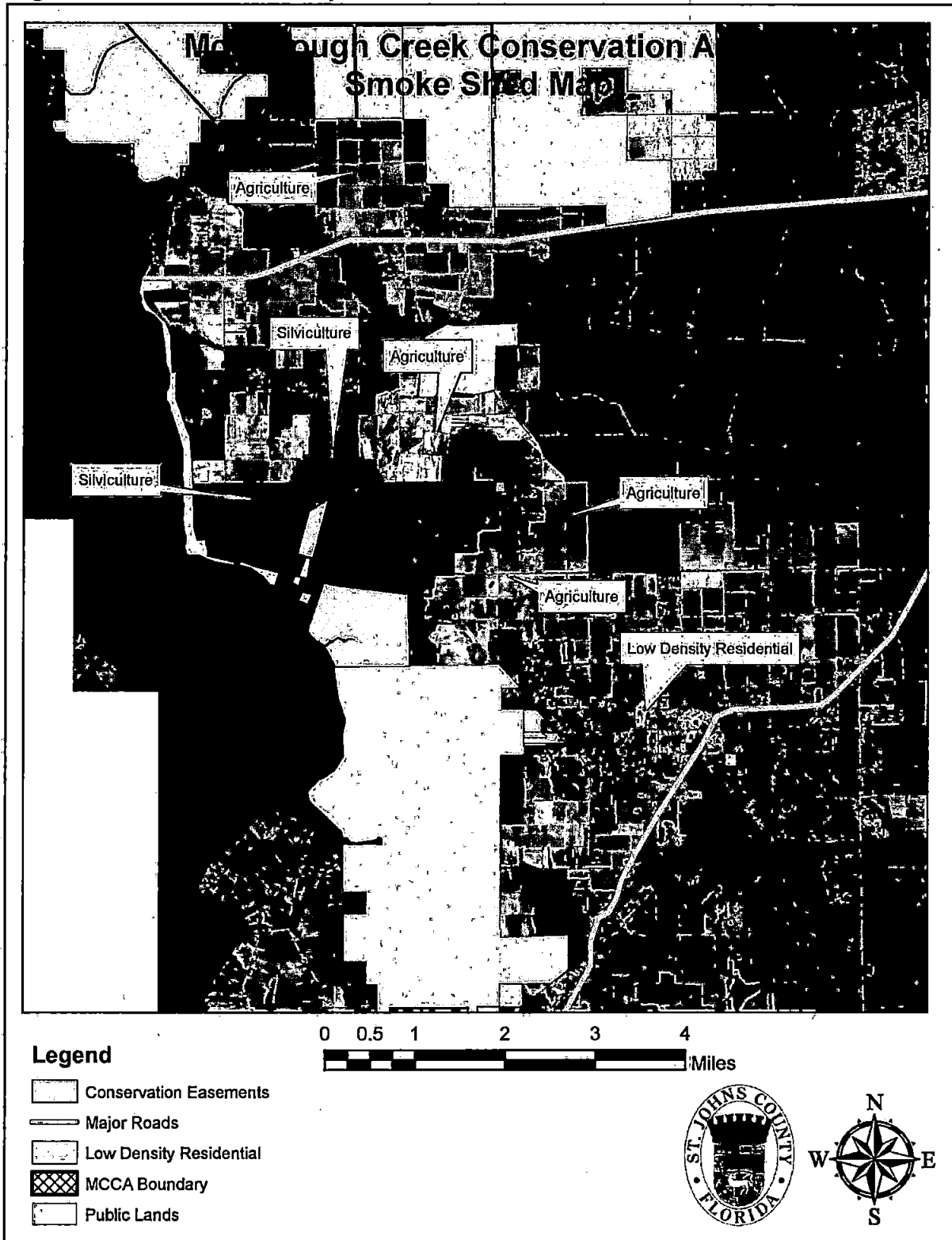
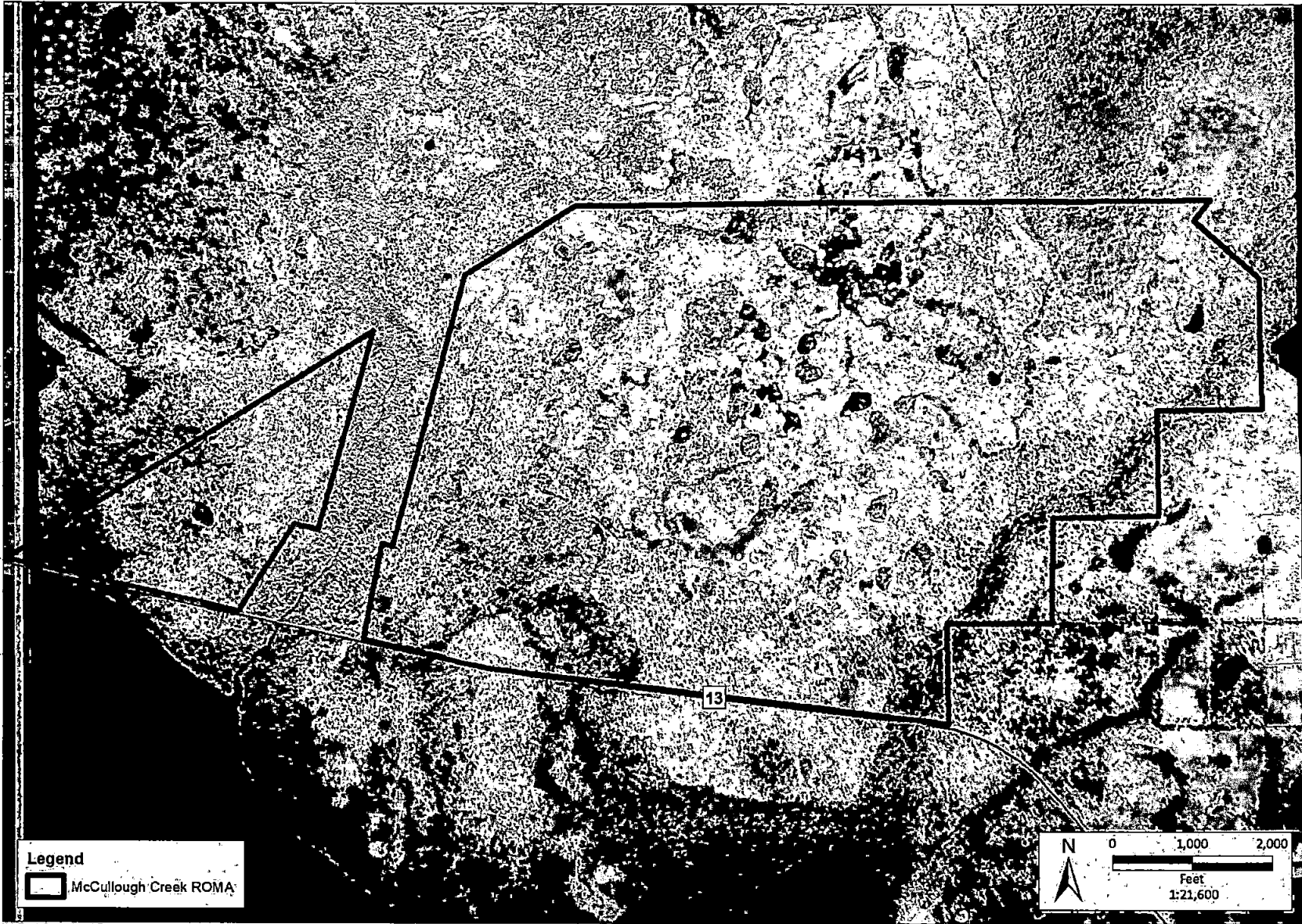
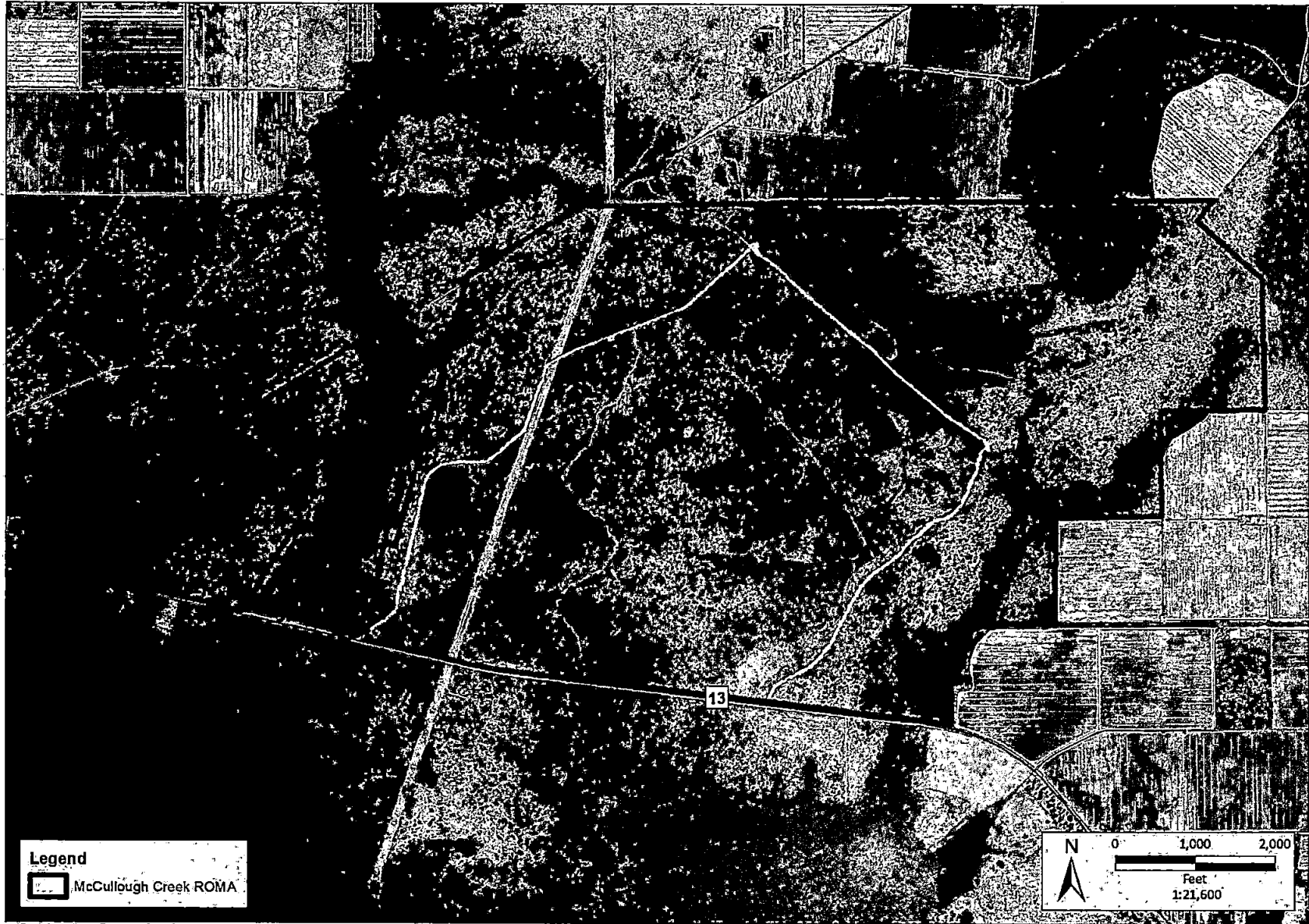


Figure 3-1 1942 Aerial Map



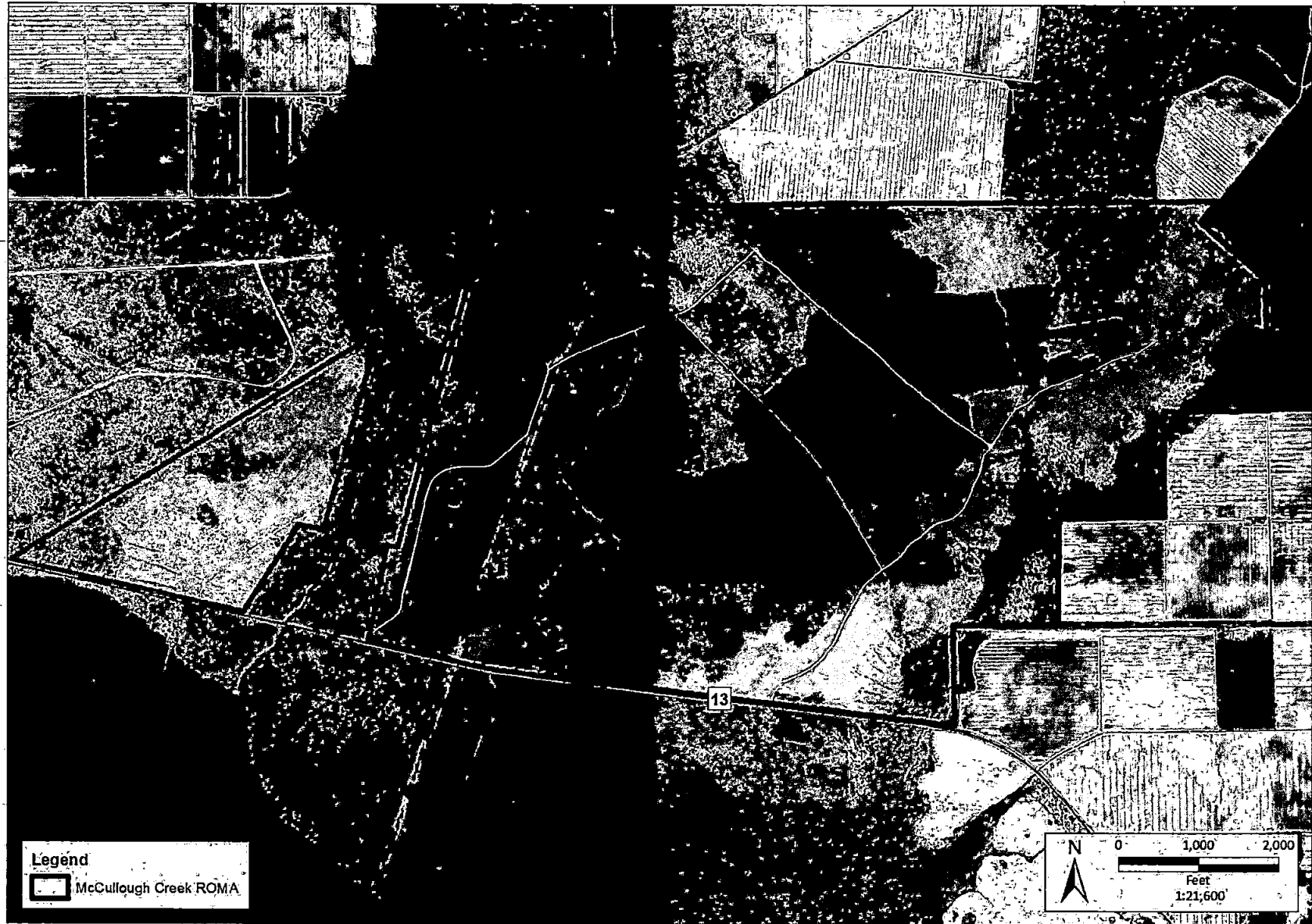
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**Figure 3-2 1971 Aerial Map**



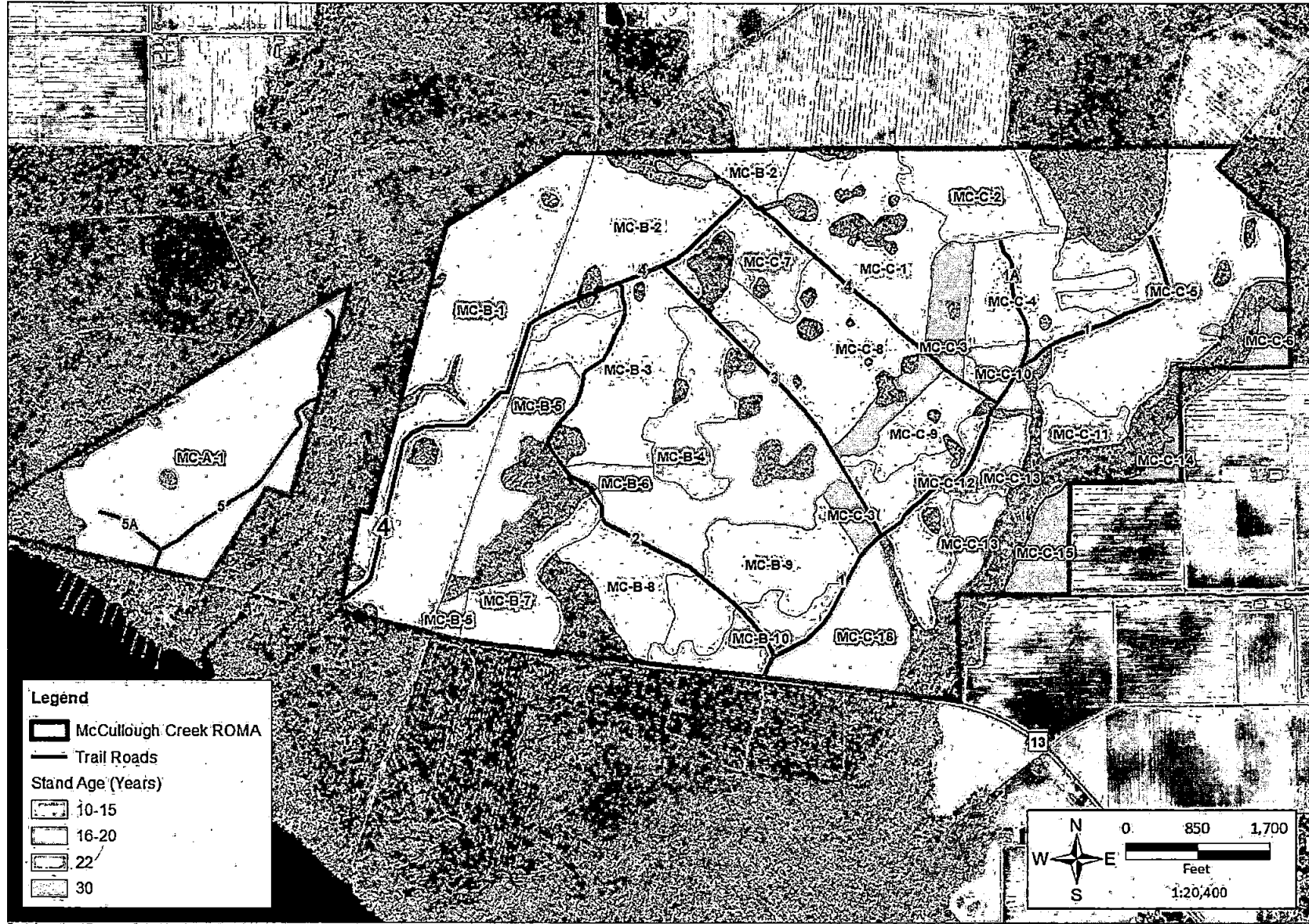
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**Figure 3-3 1980 Aerial Map**



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**Figure 3-4 Timber Stand Age, Stand ID, and Existing Trail Road Location Map**



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## 4.1 BURN PRESCRIPTION

Burn conditions cannot be given for each of the four natural communities since parameters will vary greatly from stand to stand. Conditions that will change the burn parameters include burn history of the stand, days since rain, fuel loading, basal area of the site, wildfire danger levels, recent disturbances, seasonality of burn, objectives, draught levels, and surrounding conditions (have surrounding stands been burned, if so, how frequently and how recently).

## 4.2 FUEL MODEL

The fuel model will be an evolving process since stand conditions will change due to burning, harvesting, weather, and other restoration activities.

## 4.3 PRESCRIBED BURNING

Summer and winter burns will be used. Winter burns will be conducted initially to reduce fuel loads and stress on canopy trees. At least two cooler winter burns are expected to be required every 1 to 2 years until the fire regime is sufficiently established. Summer burns will be preferred and will be implemented every 3 to 5 years for the long-term management of the site. Table 4-1 provides the proposed burn schedule.

**Table 4-1 Summary of Stand Thinning and Burn Schedule**

Stand ID	Burn Unit	Number of Thins	Date of Initial Thin	Proposed Burn Date
Mc-C-16	E-1	2	2021	Spring/Winter 2021
Mc-B-10	S-1, S-2	1	2021	Spring/Winter 2021
Mc-B-9	S-2	2	2021	Spring/Winter 2021
Mc-C-3	N-1, N-4	1	2026	Spring/Winter 2026
Mc-C-10	N-4, E-3	2	2021	Spring/Winter 2021
Mc-C-11	E-5	2	2021	Spring/Winter 2021
Mc-C-12	N1, E-2	2	2021	Spring/Winter 2021
Mc-C-4	N4, E-4	2	2021	Spring/Winter 2021
Mc-C-5	E-4, E-5	2	2021	Spring/Winter 2021
Mc-C-9	N-1	2	2021	Spring/Winter 2021
Mc-C-7	N-1	2	2021	Spring/Winter 2021
Mc-C-8	N-1	2	2021	Spring/Winter 2021
Mc-C-7	N-1	2	2021	Spring/Winter 2021
Mc-B-2	FPL-6	2	2021	Spring/Winter 2021
Mc-B-3	S-4	2	2021	Spring/Winter 2021
Mc-B-4	S-4	2	2021	Spring/Winter 2021
Mc-B-6	S-6	2	2021	Spring/Winter 2021
Mc-B-8	S-1	2	2021	Spring/Winter 2021
Mc-B-7	FPL-4	2	2021	Spring/Winter 2021
Mc-B-1	FPL-1, FPL-2, FPL-3	2	2021	Spring/Winter 2021

Stand ID	Burn Unit	Number of Thins	Date of Initial Thin	Proposed Burn Date
Mc-B-5	FPL-5	2	2021	Spring/Winter 2021
Mc-A-1	W-1 – W-5	2	2021	Spring/Winter 2021

Figure 4-2 shows that the site has been broken up into 26 burn units. These burn units primarily use existing trail roads as natural fire breaks but also include several pine-stand boundaries that have a 6- to 10-foot-wide break in planted pine that can be disked.

Sections 4.1 and 4.2 provide a detailed description of the proposed fire intervals for the upland and wetland fire-dependent communities. All burns will be conducted by a certified burn specialist.

## 4.4 UPLAND COMMUNITIES

### 4.4.1 MESIC FLATWOODS – 373.9 ACRES (WBEA1)

This community is throughout the site and is currently dominated by a dense planted slash pine canopy (Figure 4-1). Ground cover is sparse in most areas and includes saw palmetto (*Serenoa repens*), gallberry (*Ilex glabra*), wax myrtle (*Myrica cerifera*), and bracken fern (*Pteridium aquilinum*).

This community will receive perpetual prescribed fire treatments at a 3- to 5-year interval. Prescribed fire treatments will begin in Winter 2020 following a thinning. The 3- to 5-year fire regime and timber management will maintain a mixed-age canopy, maintain a basal area of approximately 40 to 60 square feet per acre (ft<sup>2</sup>/ac), retard the growth of exotic species, and foster a diverse understory. Upon completion, the resulting mature pine flatwoods community will support a much greater diversity of terrestrial and avian species due to the high-quality habitat that will be created.

### 4.4.2 SANDHILL – 117.0 ACRES (WBEA1)

This community will occur within the east portion of the site, east of Trail Road 1. The area is currently dense slash pine, which will be thinned to a few trees per acre. This management area will undergo an initial burn to remove excess fuel loads from portions not impacted by historical wildfires and to remove understory competition, improving survivability of the species to be planted. Upon completion, the resulting sandhill community will provide a seed source for wire grass and other desirable species and support a much greater diversity of terrestrial and avian species due to the high-quality habitat that will be created.

## 4.5 WETLAND COMMUNITIES

### 4.5.1 WET FLATWOODS – 579.6 ACRES (WEA1)

This habitat will occur on approximately 579.6 acres of the subject property (Figure 4-1). Following completion of the restoration plan, the area will be dominated by a diverse slash pine canopy with a target basal area of 40 to 60 ft<sup>2</sup>/ac. Ground cover will be thick with wetland grasses and various wetland fern species. The mid-story should be somewhat sparse but dominated by facultative wetland species.

**Figure 4-2 Proposed Burn Units Location Map**



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This community will receive perpetual prescribed fire treatments at a 3- to 7-year interval. However, this interval may be longer due to rebounding of the surficial aquifer resulting from significantly lower pine densities. This will reduce the frequency of dry conditions sufficient for prescribed fire.

The resulting community should mimic the Hydric Pine Flatwood habitat believed to have historically occurred in this area. The understory will be dominated by obligate and facultative wet grass and fern species, and the soils should exhibit characteristics consistent with sustained saturation or inundation during the wet season.

## **5 TRAIL ROAD SYSTEM**

To facilitate the ongoing restoration work and management operations, the existing trail roads that have been constructed across the site will remain to facilitate access (Figure 3-4). They will be used as fire breaks and primary access points for the prescribed fire applications.

In areas where fire breaks and management equipment cross natural drainage, temporary culverts, or hard surface, low water crossings will be used to best maintain the area's natural drainage pattern and flows. Should these be required, appropriate permits will be obtained. All roads will adhere to Florida's best management practices for silvicultural standards.

## **6 FIRE LINES**

Fire lines will be a combination of existing trail roads and existing 10- to 15-foot-wide gaps between different aged pine stands. The trail roads will not need disking but the timber stand gaps will be disked to a width of 10 to 12 feet at grade, with the blade depth set approximately 1 foot below surface. Fire lines will be maintained using disc harrows as needed on an annual basis by County staff. Trail roads will be mowed and maintained by County staff.

## **7 MECHANICAL REDUCTION OF FUEL LOADS**

Since prescribed fire depends on weather conditions and wind direction, using mechanical methods to control fuel loads or reduce them to levels where fire management can be conducted safely may sometimes be necessary. Burn units FPL-1 and those on the west parcel are designated as "Adaptive Fuel Management Areas" since they abut residential developments. In these areas, adaptive fuel management may need to be used when appropriate to meet the long-term habitat goals of this area when prescribed fire is not feasible.

Before initiating the proposed burn regime in these areas, a full reconnaissance will be conducted to determine if safe fuel loads occur. If fuel loads or recent weather patterns (drought for example) have created conditions in which fire behavior is unpredictable, mechanical clearing may be used to reduce the understory. Mechanical reduction is only expected to be required initially; once the fire regime is established, mechanical management will rarely be necessary.

## **8 ADAPTIVE MANAGEMENT PLAN**

Burn units will be evaluated on a case-by-case basis. If burning perimeter units becomes unsafe, roller chopping will be conducted. Contractors, in partnership with Florida Forest Service, will provide equipment as needed. Mitigation mowing is a lower cost-per-acre activity and will not create additional expenditures if supplementing prescribed fire activities with mowing becomes necessary. Burn boss contractors will evaluate stands on a case-by-case basis if sufficient development occurs to affect prescribed fire feasibility.

If prescribed fire is not feasible for several years after a future return-interval prescribed fire (3 to 5 years), then County staff will conduct mechanical vegetation management via the use of a roller chopper or other means that meets management objectives.

If development occurs in the future, the County will work with developers and homeowner associations to educate them on Firewise Communities and discuss the County's proposed prescribed fire program and schedule. The County will allocate additional funds if additional fire protection or greater contractor effort is needed as a result of encroaching development. Prescribed fire not being a viable option in perpetuity due to the large tracts of public lands to the south is very unlikely. This allows for burning when winds are from the north or northeast, which is common and would not result in smoke blowing to the east or north where development could occur.

**Appendix B**  
**Hunt Plan**

**JonesEdmunds**



**APPENDIX B – HUNT MANAGEMENT PLAN  
FOR THE  
McCULLOUGH CREEK BASIN & ROMA**

February 2020

**McCULLOUGH CREEK BASIN 8  
REGIONAL OFF-SITE MITIGATION AREA  
HUNT MANAGEMENT PLAN**

**Prepared for:**

St. Johns County  
500 San Sebastian View  
St. Augustine, Florida 32084

**Prepared by:**

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730 NE Waldo Road  
Gainesville, Florida 32641

Jones Edmunds Project No.: 19270-155-02

February 2020

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# **1 BACKGROUND**

In the past, hunting for all game species was allowed on the site. Feeders, food plots, and permanent stands were permissible. Due to the large size of the ROMA and a strong public request, limited public access hunting is proposed. Once the conservation easement is recorded, the County will cease all hunting on the site except for three sanctioned hunt events that will occur only on the east parcel. Section 2 describes these hunt events.

Limited hunting is an important land management tool and is strongly supported by the citizens of St. Johns County. Allowing limited hunting will ensure sustainable populations of deer and wild turkey but will also assist in reducing the wild hog populations, fostering greater support for land conservation in St. Johns County.

## **2 PROPOSED HUNTING FOR GAME SPECIES**

Once the conservation easement is recorded, the County will cease all hunting on the site with the exception of the following sanctioned hunt events that will occur: (1) Youth Hunts, (2) Veteran Hunts, and (3) Public Quota Hunts. A total not exceeding six hunts will occur annually. Hunting will be restricted to the east parcel, will only occur east of the Florida Power & Light utility easement, and will be limited to deer, turkey, and feral hogs (Figure 2-1). The following provides a description and frequency for these hunt events.

### **2.1 YOUTH HUNTS**

These hunts will be periodic weekend youth hunts (up to two events per year) managed by the Florida Fish and Wildlife Conservation Commission (FWC) for small groups of 10 or less hunters. Youth hunters and chaperones will be limited to traversing the site during hunts only on existing trail roads. County staff will work closely with FWC to coordinate all youth hunt activities and restrict general public use during these hunts.

### **2.2 VETERAN HUNTS**

These hunts will be periodic (up to two events per year) and managed by the Florida Forest Service and FWC. Hunters will be limited to traversing the site during hunts only on the existing trail roads.

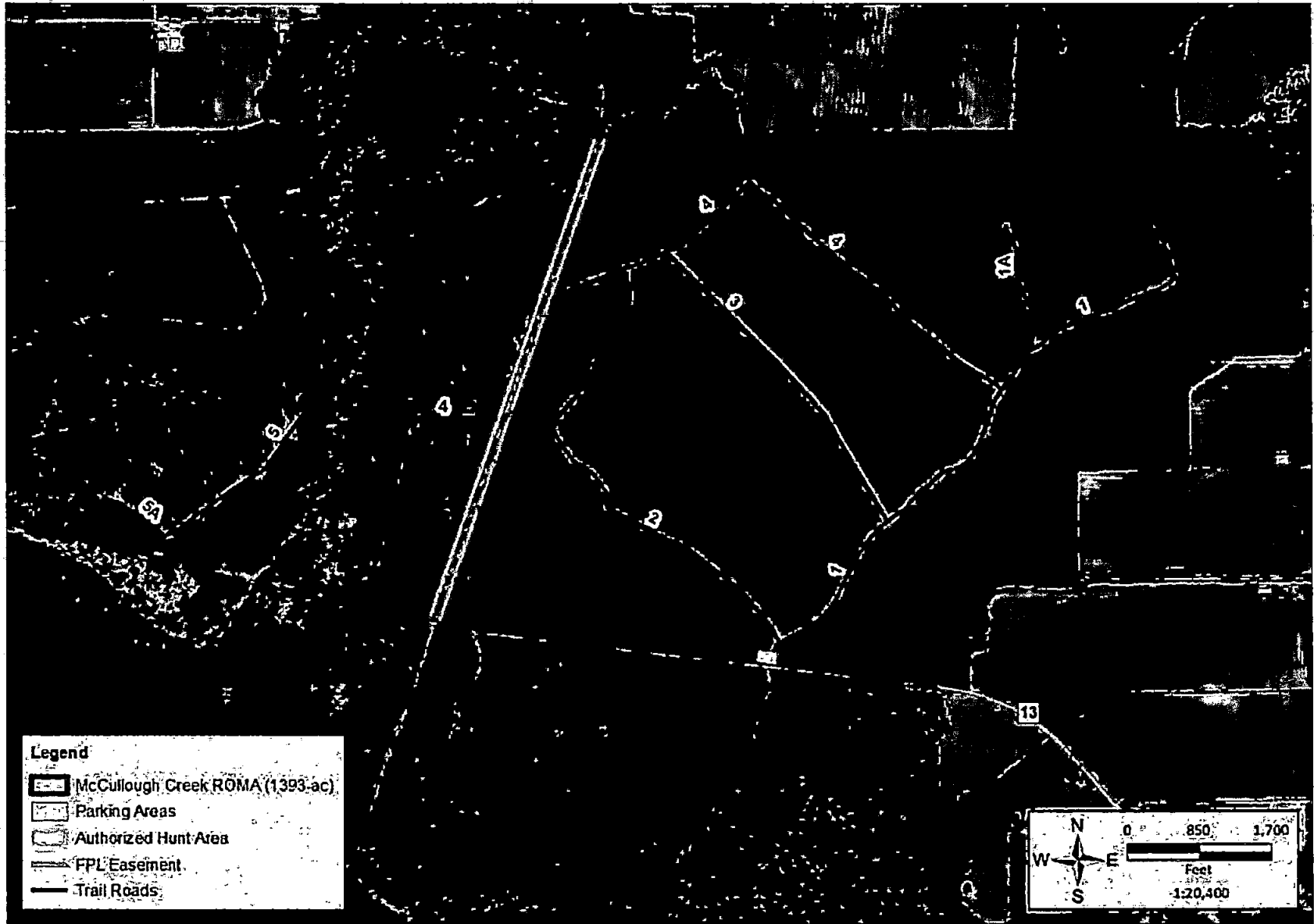
### **2.3 PUBLIC QUOTA HUNTS**

These hunts will be periodic (up to two events per year) and managed by FWC. Hunters will be limited to traversing the site during hunts only on existing trail roads.

## **3 FERAL HOGS**

Feral hogs are known to negatively impact wetlands and other habitats by "rooting" up the soil while searching for food. Feral hog damage is widespread on the site, and the County has already contracted a licensed trapper/hunter to begin hog removal. The removal and

Figure 2-1 Restricted Access Map



management of feral hogs will be conducted to control their numbers to the greatest extent possible. The County will harvest hogs from the property on an ongoing basis, if necessary, to minimize their adverse effects to vegetative groundcover. Records will be kept of hogs eliminated, and this information will be included in the annual monitoring reports supplied to the US Army Corps of Engineers and the St. Johns River Water Management District. Poaching will be controlled through posting of signage and use of wildlife cameras if necessary.

## **4 RESTRICTIONS**

The County hereby agrees to the following hunting restrictions on the site:

1. Only persons/groups authorized by the County can hunt on the property.
2. All blinds (if used) and/or stands used during hunting activities will be unobtrusive. All blinds and stands will be temporary.
3. All hunters using the site will be properly permitted by FWC.
4. All hunters using the site will employ only acceptable hunting practices as defined by FWC.
5. All hunters using the site will hunt for specific species within their appropriate season.
6. Hunting with dogs and the use of all-terrain vehicles will be prohibited for hunting.
7. The following activities will be prohibited:
  - Baiting.
  - Construction of food plots.
  - Clearing or cutting of vegetation (for the purpose of hunting).
  - Camping and campfire use (for the purpose of hunting).
8. All hunters using the site will limit harvest to the FWC bag limits or, if further restrictive, as follows:
  - Deer Limit: 1 per person/day.
  - Turkey Limit: 1 per person/day.
  - Hog Limit: Unlimited.

Proposed changes will be submitted for review and approval. The hunting restrictions will be managed by the County and FWC to ensure strict enforcement of the rules and regulations of the guidelines.

## **5 MONITORING**

The County will report on observations of wildlife utilization within the various restored and preserved communities on the site as a part of the short- and long-term monitoring associated with management of the site. Also, through close coordination with the FWC Game Manager, the County will provide data relating to the prior-season hunting activities

and will report this data, along with recommendations regarding hunting practices for the upcoming season, in the annual compliance monitoring reports.

All wildlife survey information and post-hunt report data, along with comments and recommendations from the Game Manager, will be included with the annual monitoring reports. Additional surveys will be conducted upon the Game Manager's recommendation to help manage game populations in accordance with McCullough Creek ROMA goals.

The County, in coordination with the FWC Game Manager, will prepare an annual report that will include:

- Property rules and restrictions.
- Harvest results of all game species with the recorded weight, measurements, age class, and gender data.
- Data and analysis based on the recorded herd health (i.e., weight measurements, age class, etc.).
- Population data (i.e., ratio of hours to observed wildlife, number of infant wildlife observed in spring, ratio of male/female wildlife observe, etc.).
- Qualitative assessment of health and management of the wildlife on the property.

If, at any time, the results of the monitoring efforts indicate an adverse effect to wildlife resulting from hunting activities on the property, the County will cease all hunting activities for such time as required to reevaluate this Hunt Plan. The County will then submit a revised Hunt Plan to correct any adverse impacts resulting from hunting activities.

## EXHIBIT B

**Table 1.** Success Criteria for Phase 1 Target Communities at McCullough Creek ROMA. "Target species" are those appropriate for the target community according to *Guide to the Natural Communities of Florida* (<https://www.fnai.org/naturalcommguide.cfm>) or other credible publications. Plant strata are defined by 62-340.200, F.A.C.

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Note: When determining whether a community is successful and credit releases are warranted, all communities must meet all the following general criteria:

1. The mitigation bank complies with all mitigation bank permit conditions;
2. Mitigation activities have been completed and successful.
3. Monitoring reports are sent to SJRWMD annually.
4. Native plant community compositions remain in same or better condition compared to baseline monitoring; enhancement areas should continuously trend toward final success.
5. Evidence of wildlife use, appropriate for the targeted community type.
6. Evidence of recruitment and regeneration of plant species appropriate to targeted community type; in each stratum.
7. Plant species in all strata are healthy, growing, and regenerating as appropriate for each species and in assemblages and densities appropriate for the target community given the current successional stage.
8. Invasive, exotic vegetation percent-cover is maintained to less than 1% and nuisance vegetation maintained to less than 5%, both thresholds are measured in any given acre.
9. Pyrogenic target communities must be fire maintained in accordance with the prescribed burn plan.
10. A minimum of one year has passed since success has been determined for the previous level for the purpose of credit releases.
11. There are no outstanding compliance issues. The SJRWMD shall be the final arbiter in determining whether a non-compliance issue is sufficiently grave to prevent credit-release.

Target community success criteria shall be determined according to reasonable scientific judgment. The enhanced target communities shall also be subject to the specific credit-release thresholds described below.

## EXHIBIT B

**Table 1** Success Criteria for Target Communities at McCullough Creek Regional Offsite Mitigation Area, St. Johns County.

### ( A ) MESIC FLATWOODS (WBEA 1)

PARAMETER	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	COMMENTS
<b>Canopy:</b> target species relative abundance	≥70%	≥75%	≥80%	≥85%	≥90%	# target species / # all species
<b>Canopy:</b> relative abundance of target species ≥ 20 ft tall	-	-	-	-	≥ 50%	# target species / # all species
<b>Canopy:</b> basal area (per acre) of pines ≥10 ft tall	≤ 70 ft <sup>2</sup>	≤ 70 ft <sup>2</sup>	≤ 70 ft <sup>2</sup>	≤ 70 ft <sup>2</sup>	40 – 70 ft <sup>2</sup>	Perpetual management shall maintain pine basal area of 40 – 70 ft <sup>2</sup> per acre
<b>Canopy:</b> evidence of target seed production?	-	-	-	Yes	Yes	Target tree cones, mast, seedlings, etc., observed
<b>Canopy:</b> evidence of target species recruitment	-	-	Yes	Yes	Yes	Multiple year-classes observed at proportions appropriate for the target community
<b>Subcanopy:</b> target species relative abundance	≥ 30%	≥ 50%	≥ 70%	≥ 80%	≥ 90%	# target species / # all species
<b>Subcanopy:</b> pine sapling (<10 ft tall) density	<400/ac	<400/ac	<400/ac	<400/ac	<400/ac	Averaged over the entire target community
<b>Subcanopy:</b> cover by target species	≤ 40%	≤ 40%	≤ 40%	≤ 40%	≤ 40%	target species areal cover / target community area
<b>Groundcover:</b> target species relative abundance	≥ 30 %	≥ 50 %	≥ 70 %	≥ 80 %	≥ 90%	# target species / # all species
<b>Groundcover:</b> diversity of target species	≥ 5 spp.	≥ 10 spp.	≥ 15 spp.	≥ 18 spp.	≥ 20 spp.	# of target species per assessment area
<b>Groundcover:</b> areal cover by target species	≥ 40%	≥ 50%	≥ 60%	≥ 70%	≥ 80%	target species areal cover / target community area not occupied by shrubs or trees
<b>Groundcover:</b> evidence of target reproduction?	Yes	Yes	Yes	Yes	Yes	Seedlings, flower production, etc., observed at proportions appropriate for the target community
<b>All strata:</b> invasive/non-native/nuisance species abundance	< 5%	< 4%	< 3%	< 2%	≤ 1%	Problematic-plant areal cover / target community area for a given stratum
<b>All strata:</b> effective prescribed-fire management?	Yes	-	Yes	-	Yes	≥ 80% of each Fire Management Unit burned every 2 to 5 years (≤ 3-year average) according to the goals of the prescribed fire plan *

\*Must maintain a perpetual burn rotation. The Level 5 burn may occur during the perpetual management phase if all success criteria are met and the District agrees that conditions do not allow for a timely burn.

**EXHIBIT B**

Table 1. (cont.)

**( B ) WET PINE FLATWOODS (WEA 1 & WEA 2)**

PARAMETER	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	COMMENTS
<b>Canopy:</b> target species relative abundance	≥70%	≥75%	≥80%	≥85%	≥ 90%	# target species / # all species
<b>Canopy:</b> mean % of target species ≥ 20 ft tall	-	-	-	-	≥ 50%	# target species / # all species
<b>Canopy:</b> basal area (per acre) of pines ≥ 10 ft tall	≤ 70 ft <sup>2</sup>	≤ 70 ft <sup>2</sup>	≤ 70 ft <sup>2</sup>	≤ 70 ft <sup>2</sup>	40 – 70 ft <sup>2</sup>	Perpetual management shall maintain pine basal area of 40 – 70 ft <sup>2</sup> per acre
<b>Canopy:</b> evidence of target seed production?	-	-	-	Yes	Yes	Target tree cones, mast, seedlings, etc., observed
<b>Canopy:</b> evidence of target recruitment/ regeneration?	-	-	Yes	Yes	Yes	Multiple year-classes observed at proportions appropriate for the target community
<b>Subcanopy:</b> target species relative abundance	≥ 30%	≥ 50%	≥ 70%	≥ 80%	≥ 90%	# target species / # all species
<b>Subcanopy:</b> pine sapling (<10 ft tall) density	<400/ac	<400/ac	<400/ac	<400/ac	<400/ac	Averaged over the entire target community
<b>Subcanopy:</b> areal cover by target species	≤ 40%	≤ 40%	≤ 40%	≤ 40%	≤ 40%	target species areal cover / target community area
<b>Groundcover:</b> target species relative abundance	≥ 30 %	≥ 50 %	≥ 70 %	≥ 80 %	≥ 90%	# target species / # all species
<b>Groundcover:</b> diversity of target species	≥ 5 spp.	≥ 10 spp.	≥ 15 spp.	≥ 20 spp.	≥ 20 spp.	# of target species per assessment area
<b>Groundcover:</b> areal cover by target species	≥ 50%	≥ 60%	≥ 70%	≥ 80%	≥ 80%	target species areal cover / target community area not occupied by shrubs or trees
<b>Groundcover:</b> evidence of target reproduction?	Yes	Yes	Yes	Yes	Yes	Seedlings, flower production, etc., observed at proportions appropriate for the target community.
<b>All strata:</b> invasive/non-native/ nuisance species abundance	< 5%	< 4%	< 3%	< 2%	≤ 1%	Problematic-plant areal cover / target community area for a given stratum
<b>All strata:</b> adequate prescribed-fire management?	Yes	-	Yes	-	Yes	≥ 80% of each Fire Management Unit burned every 2 to 5 years (≤ 3-year average) according to the goals of the prescribed fire plan *

\*Must maintain a perpetual burn rotation. The Level 5 burn may occur during the perpetual management phase if all success criteria are met and the District agrees that conditions do not allow for a timely burn.

## EXHIBIT B

**Table 2.** Habitat value assessment by the Uniform Mitigation Assessment Method (UMAM; 62-345, F.A.C.) for McCullough Creek Regional Offsite Mitigation Area, St. Johns County.










Assessment Area:	Mitigation Type	trees thinned?	beds removed?	Habitat: Present	Habitat: Target	Landscape & Location		Water environment		Community structure		Time Lag	Risk Factor	PAF	RFG	Acres	Functional Gain
						w/o bank	w/ bank	w/o bank	w/ bank	w/o bank	w/ bank						
<b>WETLANDS</b>																	
WEA 1	enhancement	Y	N	pine plantation	hydric flatwoods	8	9	8	8	5	9	1.25	1.25	1.0	0.10667	579.6	61.82
WEA 2	enhancement	Y	Y	pine plantation	savanna ecotone	8	9	7	8	6	9	1.25	1.25	1.0	0.10667	23.2	2.47
WPA 1	preservation only	n/a	n/a	basin swamp	basin swamp	8	9	8	8	7	9	1.00	1.00	0.7	0.07000	168.1	11.76
WPA 2	preservation only	n/a	n/a	bottomland forest	bottomland forest	8	9	7	7	8	9	1.00	1.00	0.6	0.04000	71.0	2.84
<b>UPLANDS</b>																	
WBEA 1	enhancement	Y	N	pine plantation	mesic flatwoods	8	9	x	x	5	8	1.25	1.25	1.0	0.12800	490.9	62.83
WBEA 2	preservation only	n/a	n/a	sandhill	sandhill	8	8	x	x	6	7	1.00	1.00	0.5	0.02500	14.6	0.36
WBP	preservation only	n/a	n/a	mesic hammock	mesic hammock	8	8	x	x	6	7	1.00	1.00	0.5	0.02500	11.9	0.29
<b>TOTAL:</b>															<b>1359.3</b>	<b>142.37</b>	

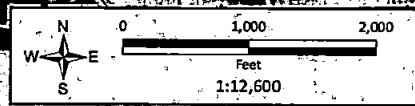
## EXHIBIT B

**Table 3.** Credit release schedule for McCullough Creek Regional Offsite Mitigation Area (ROMA), St. Johns County. Credit values are Functional Gain Units (62-345 (3), F.A.C.).

Step	Action Completed	% Credit Release	Credits Released
1	<b>Documents:</b> <ul style="list-style-type: none"> <li>• execute MOA to establish ROMA</li> <li>• provide acceptable title insurance</li> <li>• record conservation easement</li> <li>• obtain District permit to authorize silvicultural bed earthwork.</li> </ul>	25	35.59
2	<b>Construction and implementation:</b> eliminate/thin pines and regrade silvicultural beds in WEA2.	25	35.58
3	<b>Level 1:</b> enhanced communities achieve Level 1 success after ≥ 1 year of monitoring	10	14.24
4	<b>Level 2:</b> enhanced communities achieve Level 2 success after ≥ 2 years of monitoring	10	14.24
5	<b>Level 3:</b> enhanced communities achieve Level 3 success after ≥ 3 years of monitoring.	10	14.24
6	<b>Level 4:</b> enhanced communities achieve Level 4 success after ≥ 4 years of monitoring.	10	14.24
7	<b>Level 5:</b> enhanced communities achieve Level 5 success after ≥ 5 years of monitoring.	10	14.24
<b>TOTAL:</b>		<b>100</b>	<b>142.37</b>

Transects are approximately 100' apart  
 Assume 6' berm breach  
 Total length of Transects X 6' in Width = 1.4-acres  
 1/2' of Transect acreage would be fill acreage  
 Thus, ~0.7-acres of Fill Proposed

- Legend**
-  McCullough Creek ROMA (1393.3-ac)
  -  Bedding Row Breaching Transects
  - Mitigation Assessment Areas (1393.3-ac)
    -  WEA 1 (579.6-ac)
    -  WEA2 (23.2-ac)
    -  Wetland Preservation Area 1 (168.1-ac)
    -  Wetland Preservation Area 2 (71.0-ac)
    -  WBEA1 (490.9-ac)
    -  Wetland Buffer Preservation (26.5-ac)
    -  Infrastructure and Others (34.0-ac)



Prepared by:  
St. Johns County  
500 San Sebastian View  
St. Augustine, FL 32084

Return original or certified recorded document to:  
**St. Johns River Water Management District**  
4049 Reid Street  
Palatka, FL 32177

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## Deed of Conservation Easement

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**THIS DEED OF CONSERVATION EASEMENT** ("Conservation Easement") is given this        day of       , 20       , by St. Johns County, Florida, whose mailing address is 500 San Sebastian View, St. Augustine, Florida 32084, ("Grantor") to the St Johns River Water Management District, a public body existing under Chapter 373, Florida Statutes, whose mailing address is 4049 Reid Street, Palatka, Florida 32177 and the Florida Department of Environmental Protection whose mailing address is 2600 Blairstone Road, Tallahassee, Florida 32399 (collectively "Grantee") As used herein, the term "Grantor" shall include any and all heirs, successors, or assigns of the Grantor, and all subsequent owners of the "Conservation Easement Area" (as hereinafter defined); the term "Grantee" shall include any successor or assignee of Grantee.

### WITNESSETH

**WHEREAS**, the Grantor is the fee simple owner of certain lands situated in St. Johns County, Florida, and more specifically depicted on the location map in Exhibit "A" attached hereto and incorporated herein (the "Property"); and

**WHEREAS**, the Florida Department of Environmental Protection Permit 55-0397039001-SFI McCullough Creek Basin 8 ROMA ("DEP Permit") authorizes certain activities in the waters of the United States and requires this site protection instrument over the lands identified in Exhibit A as mitigation for such activities;

**WHEREAS**, the Grantor, in consideration of the consent granted by the Permit or other good and valuable consideration provided to Grantor, is agreeable to granting and securing to the Grantee a perpetual Conservation Easement as defined in Section 704.06, Florida Statutes (F.S.); over the area of the Property described on Exhibit "B" ("Conservation Easement Area"); and

**WHEREAS**, Grantor grants this conservation easement in connection with the "Memorandum of Agreement between the St. Johns River Water Management District and St. Johns County for McCullough Creek Basin 8 Regional Offsite Mitigation Area (ROMA)," District File of Record No. 2021-04 ("MOA"), which sets forth Grantor's provision of mitigation for future permits to be issued by Grantee; and

**WHEREAS**, Grantor desires to preserve the Conservation Easement Area in perpetuity in its natural condition, or, in accordance with the MOA, in an enhanced, restored, or created condition; and

**NOW, THEREFORE**, in consideration of the issuance of the Permit to construct and operate the permitted activity, and as an inducement to Grantee in issuing the Permit, together with other good and valuable consideration provided to the Grantor, the adequacy and receipt of which are hereby acknowledged, Grantor hereby voluntarily grants, creates, conveys, and establishes a perpetual Conservation Easement for and in favor of the Grantee upon the Conservation Easement Area which shall run with the land and be binding upon the Grantor, and shall remain in full force and effect forever.

The scope, nature, and character of this Conservation Easement shall be as follows:

1. **Recitals.** The recitals hereinabove set forth are true and correct and are hereby incorporated into and made a part of this Conservation Easement.

2. **Purpose.** It is the purpose of this Conservation Easement to retain land or water areas in their existing, natural, vegetative, hydrologic, scenic, open, or wooded condition and to retain such areas as suitable habitat for fish, plants, or wildlife in accordance with Section 704.06, F.S. Those wetland and upland areas included in this Conservation Easement which are to be preserved, enhanced, restored, or created pursuant to the MOA which has been approved in writing by the Grantee, shall be retained and maintained in the preserved, enhanced, restored, or created condition required by any permit issued for the work contemplated in the MOA (Permit) or any permit modification thereto issued by Grantee..

To carry out this purpose, the following rights are conveyed to Grantee by this Conservation Easement:

a. To enter upon the Conservation Easement Area at reasonable times with any necessary equipment or vehicles to inspect, determine compliance with the covenants and prohibitions contained in this Conservation Easement, and to enforce the rights herein granted in a manner that will not unreasonably interfere with the use and quiet enjoyment of the Conservation Easement Area by Grantor at the time of such entry; and

b. To proceed at law or in equity to enforce the provision of this Conservation Easement and the covenants set forth herein, to prevent the occurrence of any of the prohibited activities set forth herein, and to require the restoration of such areas or features of the Conservation Easement Area that may be damaged by any activity or use that is inconsistent with this Conservation Easement.

3. **Prohibited Uses.** Except for activities that are permitted or required by a permit (or any modification thereto) (which may include restoration, creation, enhancement, maintenance, monitoring activities, or surface water management improvements) or other activities described herein or in the MOA, any activity on or use of the Conservation Easement Area inconsistent with the purpose of this Conservation Easement is prohibited. Without limiting the generality of the foregoing, the following activities are expressly prohibited in or on the Conservation Easement Area (except as authorized or required by the Permit (or any modification thereof) issued by the Grantee or the MOA which has been approved in writing by the Grantee):

a. Construction or placing of buildings, roads, signs, billboards or other advertising, utilities, or other structures on or above the ground;

b. Dumping or placing of soil or other substance or material as landfill, or dumping or placing of trash, waste, or unsightly or offensive materials;

c. Removing, destroying or trimming trees, shrubs, or other vegetation, except:

i. The removal of dead trees and shrubs or leaning trees that could cause damage to property is authorized;

ii. The destruction and removal of noxious, nuisance or exotic invasive plant species as listed on the most recent Florida Exotic Pest Plant Council's List of Invasive Species is authorized;

iii. Activities authorized by the Permit or described in the Management Plan or otherwise approved in writing by the Grantee are authorized; and

iv. Activities conducted in accordance with a wildfire mitigation plan developed with the Florida Forest Service that has been approved in writing by the Grantee are authorized. No later than thirty (30) days before commencing any activities to implement the approved wildfire mitigation plan, Grantor shall notify the Grantee in writing of its intent to commence such activities. All such activities may only be completed during the time period for which the Grantee approved the plan;

d. Excavation, dredging, or removal of loam, peat, gravel, soil, rock, or other material substance in such manner as to affect the surface;

e. Surface use except for purposes that permit the land or water area to remain in its natural, restored, enhanced, or created condition;

f. Activities detrimental to drainage, flood control, water conservation, erosion control, soil conservation, or fish and wildlife habitat preservation including, but not limited to, ditching, diking, clearing, and fencing;

g. Acts or uses detrimental to such aforementioned retention of land or water areas; and

h. Acts or uses which are detrimental to the preservation of the structural integrity or physical appearance of sites or properties having historical, archaeological, or cultural significance.

4. **Grantor's Reserved Rights.** Grantor reserves all rights as owner of the Conservation Easement Area, including the right to engage or to permit or invite others to engage in all uses of the Conservation Easement Area that are not prohibited herein and which are not inconsistent with the Permit (or any modification thereto) issued by Grantee, the MOA, or the intent and purposes of this Conservation Easement.

a. The right to take action to preserve and protect the environmental value of the Conservation Easement Area;

b. The right to prevent any activity on or use of the Conservation Easement Area that is inconsistent with the purpose of this Conservation Easement, and to require the restoration of areas or features of the Conservation Easement Area that may be damaged by any inconsistent activity or use;

c. The right to enter upon and inspect the Conservation Easement Area in a reasonable manner and at reasonable times to determine if Grantor or its successors and assigns are complying with the covenants and prohibitions contained in this Conservation Easement; and

d. The right to enforce this Conservation Easement by injunction or proceed at law or in equity to enforce the provisions of this Conservation Easement and the covenants set forth herein, to prevent the occurrence of any of the prohibited activities set forth herein, and the right to require Grantor, or its successors or assigns, to restore such areas or features of the Conservation Easement Area that may be damaged by any inconsistent activity or use or unauthorized activities.

5. **No Dedication.** No right of access by the general public to any portion of the Conservation Easement Area is conveyed by this Conservation Easement.

6. **Enforcement.** Enforcement of the terms, provisions, and restrictions of this Conservation Easement shall be at the reasonable discretion of Grantee, and any forbearance on behalf of Grantee to exercise its rights hereunder in the event of any breach hereof by Grantor, shall not be deemed or construed to be a waiver of Grantee's rights hereunder. Grantee shall not be obligated to Grantor, or to any other person or entity, to enforce the provisions of this Conservation Easement.

7. **Assignment.** Grantee will hold this Conservation Easement exclusively for conservation purposes. Grantee will not assign its rights and obligations under this Conservation Easement except to another organization or entity qualified to hold such interests under the applicable state laws.

8. **Severability.** If any provision of this Conservation Easement or the application thereof to any person or circumstances is found to be invalid, the remainder of the provisions of this Conservation Easement shall not be affected thereby, as long as the purpose of the Conservation Easement is preserved.

9. **Terms and Restrictions.** Grantor shall insert the terms and restrictions of this Conservation Easement (or incorporate the terms and restrictions by reference) in any subsequent deed or other legal instrument by which Grantor divests itself of any interest in the Conservation Easement.

10. **Written Notice.** All notices, consents, approvals or other communications hereunder shall be in writing and shall be deemed properly given if sent by United States certified mail, return receipt requested, addressed to the appropriate party or successor-in-interest.

11. **Modifications.** This Conservation Easement may be amended, altered, released, or revoked only by written agreement between the parties hereto or their heirs, assigns, or successors-in-interest, which shall be filed in the public records in St. Johns County, Florida.

12. **Recordation.** Grantor shall record this Conservation Easement in timely fashion in the Official Records of St. Johns County, Florida, and shall rerecord it at any time Grantee may require to preserve its rights. Grantor shall pay all recording costs and taxes necessary to record this Conservation Easement in the public records. Grantor will hold Grantee harmless from any recording costs or taxes necessary to record this Conservation Easement in the public records.

**TO HAVE AND TO HOLD** unto Grantee forever. The covenants, terms, conditions, restrictions, and purposes imposed with this Conservation Easement shall be binding upon Grantor, and shall continue as a servitude running in perpetuity with the Conservation Easement Area.

Grantor hereby covenants with Grantee that Grantor is lawfully seized of said Conservation Easement Area in fee simple; that the Conservation Easement is free and clear of all encumbrances that are inconsistent with the terms of this Conservation Easement; all mortgages and liens on the Conservation Easement Area, if any, have been subordinated to this Conservation Easement; that Grantor has good right and lawful authority to convey this Conservation Easement; and that it hereby warrants and defends record title to the Conservation Easement Area hereby conveyed against the lawful claims of all persons whomsoever, to the extent permitted by law.

IN WITNESS WHEREOF, St. Johns County ("Grantor") has hereunto set its authorized hand this \_\_\_\_\_ day of \_\_\_\_\_, 2021.

ST. JOHNS COUNTY, a political subdivision of the State of Florida; by its Board of County Commissioners

By: \_\_\_\_\_  
Jeremiah R. Blocker  
Chair, St. Johns County Board of County Commissioners

ATTEST: Brandon J. Patty, Clerk of the Circuit Court & Comptroller

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Deputy Clerk

\_\_\_\_\_  
Print Name

STATE OF FLORIDA  
COUNTY OF ST. JOHNS

The foregoing instrument was acknowledged before me by means of  physical presence or  online notarization, this \_\_\_\_ day of \_\_\_\_\_, 2021, by Jeremiah R. Blocker, Chair of the St. Johns County Board of County Commissioners, who is personally known to me or who has produced (type of identification) as identification.

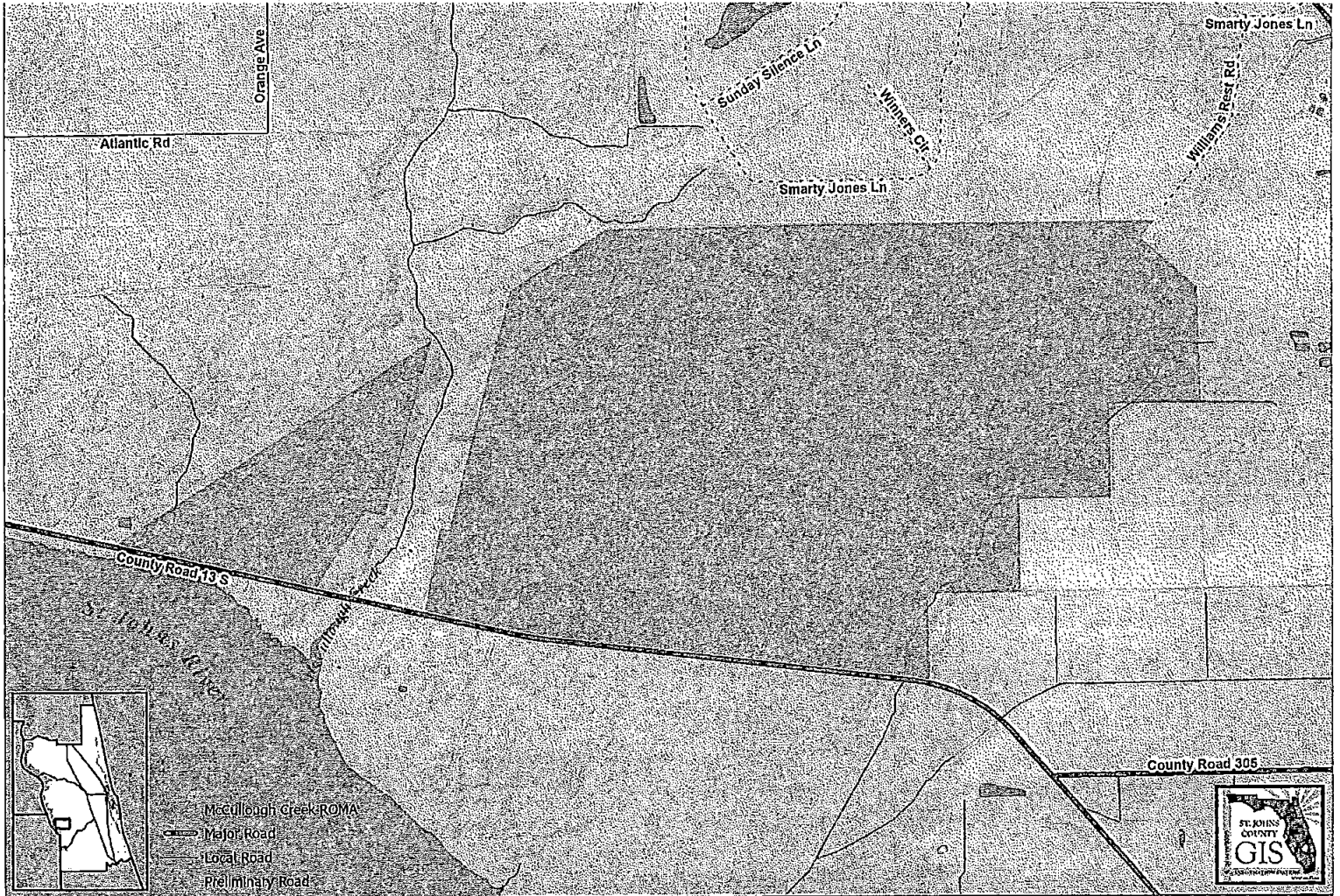
\_\_\_\_\_  
[Notary Seal] Notary Public

\_\_\_\_\_  
Name typed, printed or stamped

My Commission Expires: \_\_\_\_\_

**EXHIBIT A**

[LOCATION MAP]



# EXHIBIT A

Date Prepared: 1/15/2021



**DISCLAIMER**  
 This map is for reference use only. Data provided are derived from multiple sources with varying levels of accuracy. The St. Johns County GIS Division disclaims all responsibility for the accuracy or completeness of the data shown hereon. 1187804

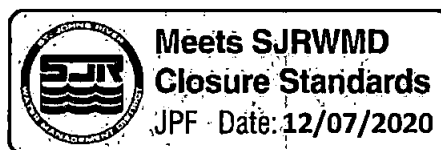


**EXHIBIT B**

[LEGAL DESCRIPTION OF CONSERVATION EASEMENT AREA]

EXHIBIT B

A parcel of land, being a portion of Sections 17, 18, 19 and 20, Township 8 South, Range 28 East and being a portion of Sections 13 and 24, Township 8 South, Range 27 East, all in St. Johns County, Florida and being more particularly described as follows: Begin at the Northwest corner of Section 17, Township 8 South, Range 28 East, St. Johns County, Florida; thence on the North line of said Section 17, N 89°37'37" E, a distance of 4719.94 feet to the Northeast corner of Government Lot 1 of said Section 17; thence departing said North line and on the Easterly line of said Government Lot 1 for the next 2 courses, S 39°19'51" W, a distance of 321.33 feet; thence S 49°05'47" E, a distance of 1071.01 feet to a point on the East line of said Government Lot 1; thence departing said Easterly line and on the said East line and also being on the East line of Government Lot 8 of said Section 17, S 01°18'50" E, a distance of 1662.13 feet to the Southeast corner of said Government Lot 8; thence departing said East line and on the South line of said Government Lot 8, S 89°09'54" W, a distance of 1313.34 feet to the Southwest corner of said Government Lot 8 said point also being the Northeast corner of Government Lot 10 of said Section 17; thence departing said South line and on the East line of said Government Lot 10, S 00°55'37" E, a distance of 1329.57 feet to the Southeast corner of said Government Lot 10; thence departing said East line and on the South line of said Government Lot 10, S 89°10'06" W, a distance of 1322.32 feet to the Southwest corner of said Government Lot 10 said point also being the Northeast corner of Government Lot 14 of said Section 17; thence departing said South line and on the East line of said Government Lot 14, S 00°32'23" E, a distance of 1329.51 feet to the Southeast corner of said Government Lot 14; thence departing said East line and on the South line of said Government Lot 14, S 89°10'18" W, a distance of 1331.31 feet to the Southwest corner of said Government Lot 14 said point also being the Northeast corner of the Northwest 1/4 of the Northwest 1/4 of Section 20, Township 8 South, Range 28 East, St. Johns County, Florida; thence departing said South line and on the East line of said Northwest 1/4 of the Northwest 1/4 of Section 20, S 01°03'42" E, a distance of 1254.93 feet to a point on the Northerly Right of Way line of County Road No. 13 (66 foot Right of Way as per Florida Department of Transportation Right of Way Map, Section 78070-2510) said point also being on a curve, concave Southwest, having a radius of 2325.38 feet and a central angle of 06°13'16"; thence departing said East line and on said Northerly Right of Way line and on the arc of said curve for the next 6 courses, a distance of 252.49 feet said arc being subtended by a chord which bears N 80°06'29" W, a distance of 252.37 feet to the curves end; thence N 83°13'07" W, a distance of 5185.23 feet to the beginning of a curve, concave Northeast, having a radius of 6317.00 feet and a central angle of 05°57'57"; thence on the arc of said curve a distance of 657.75 feet said arc being subtended by a chord which bears N 80°14'09" W, a distance of 657.46 feet to the curves end; thence N 77°15'10" W, a distance of 229.30 feet; thence N 18°52'40" E, a distance of 17.10 feet to a point on the Northerly Right of Way line of County Road No. 13 (100 foot Right of Way per Boundary Survey by St. Johns Survey Company, Project No. 149-001, dated 12/08/1988); thence continue on said Northerly Right of Way line, N 77°15'10" W, a distance of 1030.67 feet to the Southeast corner of those lands described in Deed Book 148, Page 191 of the Public Records of St. Johns County, Florida; thence departing said Northerly Right of Way line and on the East line of said lands N 10°56'53" E, a distance of 1219.88 feet to the Northeast



corner of said lands; thence departing said East line and on the North line of said lands, N 77°09'18" W, a distance of 1119.30 feet to the Northwest corner of said lands; thence departing said North line and on the West line of said lands, S 32°34'23" W, a distance of 1298.13 feet to the Southwest corner of said lands said point also being on the aforesaid Northerly Right of Way line of County Road No. 13; thence departing said West line and on the Northerly Right of Way line, N 77°15'10" W, a distance of 2952.84 feet to a point on the Northwesterly line of Section 13, Township 8 South, Range 27 East, St. Johns County, Florida; thence departing said Northerly Right of Way line and on said Northwesterly line of Section 13 and on the Northwesterly line of Section 18, Township 8 South, Range 28 East, St. John County, Florida, N 57°53'19" E, a distance of 8345.69 feet to the Northwest corner said Section 18; thence departing said Northwesterly line and on the North line of said Section 18 for the next 2 courses, N 89°42'29" E, a distance of 532.19 feet; thence N 88°58'25" E, a distance of 2652.25 feet to the Point of Beginning.

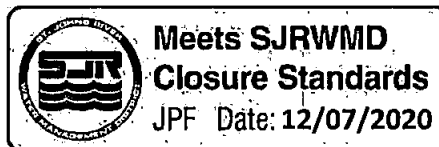
Less and except the following described three parcels:

**Parcel A**

A parcel of land, being a portion of Section 18, Township 8 South, Range 28 East and being a portion of Section 13, Township 8 South, Range 27 East, all in St. Johns County, Florida and being more particularly described as follows: Commence at the Northeast corner of Section 18, Township 8 South, Range 28 East, St. Johns County, Florida; thence on the North line of said Section 18 for the next 2 courses, S 88°58'25" W, a distance of 2652.25 feet; thence S 89°42'29" W, a distance of 532.19 feet to the Northwest corner of said Section 18; thence departing said North line and on the Northwesterly line of said Section 18, S 57°53'19" W, a distance of 1625.89 feet to the Point of Beginning; thence departing said Northwesterly line, S 14°39'22" W, a distance of 3522.77 feet to a point on the Easterly prolongation of the North line of those lands described in Deed Book 148, Page 191 of the Public Records of St. Johns County, Florida; thence on said Easterly prolongation of the North line and on said North line, N 77°09'18" W, a distance of 950.41 feet to a point; thence departing said North line, N 15°25'49" E, a distance of 2579.68 feet to a point on the aforesaid Northwesterly line of Section 18; thence on said Northwesterly line, N 57°53'19" E, a distance of 1335.97 feet to the Point of Beginning.

**Parking Area East:**

A parcel of land, being a portion of Section 19, Township 8 South, Range 28, St. Johns County, Florida, and being more particularly described as follows: Commence at the Northeast corner of Section 19, Township 8 South, Range 28 East, St. Johns County, Florida; thence on the East line of said Section 19, S 01°01'14" E, 1063.05 feet to a point on the Northerly right-of-way of County Road No. 13 (66 foot Maintained right-of-way, no right-of-way map found in this area); thence departing said East line and on said Northerly right-of-way line, N 83°13'07" W, a distance of 884.17 feet to the Point of Beginning; thence continue on said Northerly right-of-way line, N 83°13'07" W, a



distance of 234.00 feet; thence departing said Northerly right-of-way line, N 06°46'53" E, a distance of 143.00 feet; thence S 83°13'07" E, a distance of 234.00 feet; thence S 06°46'53" W, a distance of 143.00 feet to the Point of Beginning.

**Parking Area West:**

A parcel of land, being a portion of Section 13, Township 8 South, Range 27 East, St. Johns County, Florida and being more particularly described as follows: Commence at the intersection of the Northerly right-of-way line of County Road No. 13 (83 foot right-of-way per Florida Department of Transportation Right-of-Way Map Section 78070-2511) with the Northwesterly line of Section 13, Township 8 South, Range 27 East, St. Johns County, Florida; thence on said Northerly right-of-way line, S 77°15'10" E, a distance of 2262.21 feet to the Point of Beginning; thence departing said Northerly right-of-way line, N 12°44'50" E, a distance of 56.00 feet; thence S 77°15'10" E, a distance of 120.00 feet; thence S 12°44'50" W, a distance of 56.00 feet to a point on the aforesaid Northerly right-of-way line; thence on said Northerly right-of-way line, N 77°15'10" W, a distance of 120.00 feet to the Point of Beginning.

