

SCALE: 1" = 1,200'

FLUCFCS CODE	DESCRIPTION	ACREAGE	% OF TOTAL
221	CITRUS GROVE	4857.80 Ac.±	68.8%
224	ABANDONED GROVES	145.52 Ac.±	2.2%
262	LOW PASTURE, HYDRIC	13.35 Ac.±	0.2%
3219E1	PALMETTO PRAIRIE, DISTURBED (0-24% EXOTICS)	6.48 Ac.±	0.1%
3219E2	PALMETTO PRAIRIE, DISTURBED (25-49% EXOTICS)	1.58 Ac.±	0.0%
3219E3	PALMETTO PRAIRIE, DISTURBED (50-75% EXOTICS)	3.90 Ac.±	0.1%
3219E4	PALMETTO PRAIRIE, DISTURBED (76-100% EXOTICS)	0.03 Ac.±	0.0%
4119E1	PINE FLATWOODS, DISTURBED (0-24% EXOTICS)	12.61 Ac.±	0.2%
4119E1**	PINE FLATWOODS, DISTURBED, OSW (0-24% EXOTICS)	0.09 Ac.±	0.0%
4119E2	PINE FLATWOODS, DISTURBED (25-49% EXOTICS)	4.03 Ac.±	0.1%
4119E3	PINE FLATWOODS, DISTURBED (50-75% EXOTICS)	23.29 Ac.±	0.3%
4119E4	PINE FLATWOODS, DISTURBED (76-100% EXOTICS)	0.81 Ac.±	0.0%
4159E1	PINE, DISTURBED (0-24% EXOTICS)	13.21 Ac.±	0.2%
4159E2	PINE, DISTURBED (25-49% EXOTICS)	9.40 Ac.±	0.0%
4159E3	PINE, DISTURBED (50-75% EXOTICS)	0.33 Ac.±	0.0%
4159E4	PINE, DISTURBED (76-100% EXOTICS)	0.24 Ac.±	0.0%
422	BRAZILIAN PEPPER	3.69 Ac.±	0.1%
4221	BRAZILIAN PEPPER, HYDRIC	1.49 Ac.±	0.0%
4241	MELALEUCA, HYDRIC	99.34 Ac.±	1.5%
4279E1	LIVE OAK, DISTURBED (0-24% EXOTICS)	0.80 Ac.±	0.0%
4279E1**	LIVE OAK, DISTURBED, OSW (0-24% EXOTICS)	0.05 Ac.±	0.0%
4279E2	LIVE OAK, DISTURBED (25-49% EXOTICS)	0.19 Ac.±	0.0%
4281E1	CABBAGE PALM, HYDRIC (0-24% EXOTICS)	0.08 Ac.±	0.0%
4289E1	CABBAGE PALM, DISTURBED (0-24% EXOTICS)	0.68 Ac.±	0.0%
4289E2	CABBAGE PALM, DISTURBED (25-49% EXOTICS)	1.11 Ac.±	0.0%
4289E4	CABBAGE PALM, DISTURBED (76-100% EXOTICS)	1.23 Ac.±	0.0%
4291E1	WAX MYRTLE/WILLOW, HYDRIC (0-24% EXOTICS)	0.74 Ac.±	0.0%
4291E2	WAX MYRTLE/WILLOW, HYDRIC (25-49% EXOTICS)	0.41 Ac.±	0.0%
4291E3	WAX MYRTLE/WILLOW, HYDRIC (50-75% EXOTICS)	0.29 Ac.±	0.0%
4299E2	WAX MYRTLE, DISTURBED (25-49% EXOTICS)	2.05 Ac.±	0.0%
4299E3	WAX MYRTLE, DISTURBED (50-75% EXOTICS)	7.81 Ac.±	0.1%
4299E4	WAX MYRTLE, DISTURBED (76-100% EXOTICS)	9.33 Ac.±	0.1%
4349E1	HARDWOOD/CONIFER MIXED, DISTURBED (0-24% EXOTICS)	7.78 Ac.±	0.1%
4349E1**	HARDWOOD/CONIFER MIXED, DISTURBED, OSW (0-24% EXOTICS)	1.86 Ac.±	0.0%
4349E2	HARDWOOD/CONIFER MIXED, DISTURBED (25-49% EXOTICS)	2.11 Ac.±	0.0%
4349E2**	HARDWOOD/CONIFER MIXED, DISTURBED, OSW (25-49% EXOTICS)	0.23 Ac.±	0.0%
4349E3	HARDWOOD/CONIFER MIXED, DISTURBED (50-75% EXOTICS)	2.18 Ac.±	0.0%
4349E4	HARDWOOD/CONIFER MIXED, DISTURBED (76-100% EXOTICS)	5.17 Ac.±	0.1%
514	DRAINAGE CANAL/DITCH	256.11 Ac.±	3.8%
514*	DRAINAGE CANAL/DITCH, HYDRIC	19.20 Ac.±	0.3%
525*	CATTLE POND, HYDRIC	0.07 Ac.±	0.0%
533	RESERVOIRS (<10 ACRES BUT >100 ACRES)	47.96 Ac.±	0.7%
6179E1	MIXED WETLAND HARDWOODS, DISTURBED (0-24% EXOTICS)	1.85 Ac.±	0.0%
6179E2	MIXED WETLAND HARDWOODS, DISTURBED (25-49% EXOTICS)	0.81 Ac.±	0.0%
6179E3	MIXED WETLAND HARDWOODS, DISTURBED (50-75% EXOTICS)	0.30 Ac.±	0.0%
6189E1	WILLOW/POP ASH, DISTURBED (0-24% EXOTICS)	2.08 Ac.±	0.0%
6189E2	WILLOW/POP ASH, DISTURBED (25-49% EXOTICS)	0.25 Ac.±	0.0%
6189E3	WILLOW/POP ASH, DISTURBED (50-75% EXOTICS)	8.77 Ac.±	0.1%
6189E4	WILLOW/POP ASH, DISTURBED (76-100% EXOTICS)	11.51 Ac.±	0.2%
6215E1	CYPRESS, DISTURBED AND DRAINED (0-24% EXOTICS)	0.08 Ac.±	0.0%
6215E2	CYPRESS, DISTURBED AND DRAINED (25-49% EXOTICS)	0.08 Ac.±	0.0%
6215E3	CYPRESS, DISTURBED AND DRAINED (50-75% EXOTICS)	0.07 Ac.±	0.0%
6215E4	CYPRESS, DISTURBED AND DRAINED (76-100% EXOTICS)	4.75 Ac.±	0.1%
6219E1	CYPRESS, DISTURBED (0-24% EXOTICS)	455.69 Ac.±	6.8%
6219E2	CYPRESS, DISTURBED (25-49% EXOTICS)	55.67 Ac.±	0.8%
6219E3	CYPRESS, DISTURBED (50-75% EXOTICS)	94.57 Ac.±	1.4%
6219E4	CYPRESS, DISTURBED (76-100% EXOTICS)	16.17 Ac.±	0.2%
6245E1	CYPRESS/PINE, DISTURBED AND DRAINED (0-24% EXOTICS)	0.14 Ac.±	0.0%
6249E1	CYPRESS/PINE/CABBAGE PALM, DISTURBED (0-24% EXOTICS)	66.60 Ac.±	1.0%
6249E2	CYPRESS/PINE/CABBAGE PALM, DISTURBED (25-49% EXOTICS)	20.73 Ac.±	0.3%
6249E3	CYPRESS/PINE/CABBAGE PALM, DISTURBED (50-75% EXOTICS)	23.40 Ac.±	0.4%
6249E4	CYPRESS/PINE/CABBAGE PALM, DISTURBED (76-100% EXOTICS)	0.14 Ac.±	0.0%
6259E1	PINE, HYDRIC, DISTURBED (0-24% EXOTICS)	7.47 Ac.±	0.1%
6259E2	PINE, HYDRIC, DISTURBED (25-49% EXOTICS)	2.40 Ac.±	0.0%
6259E3	PINE, HYDRIC, DISTURBED (50-75% EXOTICS)	6.38 Ac.±	0.1%
6259E4	PINE, HYDRIC, DISTURBED (76-100% EXOTICS)	1.15 Ac.±	0.0%
6309E1	MIXED WETLAND FOREST, DISTURBED (0-24% EXOTICS)	9.64 Ac.±	0.1%
6309E2	MIXED WETLAND FOREST, DISTURBED (25-49% EXOTICS)	7.73 Ac.±	0.1%
6309E3	MIXED WETLAND FOREST, DISTURBED (50-75% EXOTICS)	2.79 Ac.±	0.0%
6309E4	MIXED WETLAND FOREST, DISTURBED (76-100% EXOTICS)	3.33 Ac.±	0.0%
6411E1	FRESHWATER MARSH, SAWGRASS (0-24% EXOTICS)	1.11 Ac.±	0.0%
6412E1	FRESHWATER MARSH, CATTAIL (0-24% EXOTICS)	13.07 Ac.±	0.2%
6419E1	FRESHWATER MARSH, DISTURBED (0-24% EXOTICS)	100.21 Ac.±	1.5%
6419E2	FRESHWATER MARSH, DISTURBED (25-49% EXOTICS)	2.82 Ac.±	0.0%
6419E3	FRESHWATER MARSH, DISTURBED (50-75% EXOTICS)	19.83 Ac.±	0.3%
6419E4	FRESHWATER MARSH, DISTURBED (76-100% EXOTICS)	57.24 Ac.±	0.9%
6439E1	WET PRAIRIES, DISTURBED (0-24% EXOTICS)	8.15 Ac.±	0.1%
6439E2	WET PRAIRIES, DISTURBED (25-49% EXOTICS)	0.42 Ac.±	0.0%
6439E3	WET PRAIRIES, DISTURBED (50-75% EXOTICS)	0.45 Ac.±	0.0%
6439E4	WET PRAIRIES, DISTURBED (76-100% EXOTICS)	24.22 Ac.±	0.4%
740	DISTURBED LAND	83.90 Ac.±	1.3%
7401	DISTURBED LAND, HYDRIC	26.11 Ac.±	0.4%
742	BORROW AREA	0.06 Ac.±	0.0%
742*	BORROW AREA, HYDRIC	0.23 Ac.±	0.0%
743	SPOIL AREA	8.96 Ac.±	0.1%
747	DIKES AND LEVEES (BERM)	157.75 Ac.±	2.4%
814	ROAD	0.24 Ac.±	0.0%
8146	UNPAVED ROAD	6.70 Ac.±	0.1%
8321	ELECTRICAL POWER TRANSMISSION LINE, HYDRIC	5.05 Ac.±	0.1%
TOTAL		6676.72 Ac.±	100.0%

* DENOTES 'WETLANDS'
**DENOTES 'OTHER SURFACE WATERS'

LEGEND:

- WETLANDS (1,192.81 Ac.±)
- "OTHER SURFACE WATERS" (306.35 Ac.±)
- SURVEYED WETLAND LINE

DRAFT

NOTES:

AERIAL PHOTOGRAPHS WERE ACQUIRED THROUGH THE LEE COUNTY PROPERTY APPRAISER'S OFFICE WITH FLIGHT DATES OF JANUARY - MARCH 2021.

PROPERTY BOUNDARY PER J.R. EVANS, INC. DRAWING NO. 857 KINSTON MASTER CONCEPT PLAN K.DWG DATED MARCH 7, 2022.

WETLAND AND SURVEY DITCH LINES PER BANKS ENGINEERING, INC DRAWING NO. 3370-JD-SR.DWG DATED FEBRUARY 12, 2009.

SURVEY DITCH LINES PER METRON SURVEYING & MAPPING, LLC DRAWING NO. DITCHES TO BE SURVEY LOCATED 12-03-08.DWG DATED DECEMBER 3, 2008.

WETLAND AND OSW LINES SHOWN PER FDEP FORMAL WETLAND JURISDICTIONAL DETERMINATION NO.FD-36-0284086-001 ISSUED AUGUST 26, 2009.

FLUCFCS LINES ESTIMATED FROM 1"-300' AERIAL PHOTOGRAPHS AND LOCATIONS APPROXIMATED.

FLUCFCS PER FLORIDA LAND USE, COVER AND FORMS CLASSIFICATION SYSTEM (FLUCFCS) (FDOT 1999).

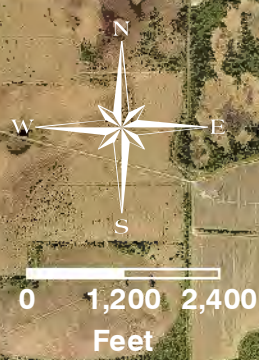
J:\2021\21CCL3707\2021 COUNTY SETTLEMENT AGREEMENT\AERIAL WITH FLUCFCS AND WETLANDS MAP 01\222.DWG TAB 24.X36 APR 13, 2022 - 10:46AM PLOTTED BY: HOJDN

DRAWN BY	DATE	13620 Metropolis Avenue Suite 200 Ft. Myers, FL 33912 Phone (239) 274-0067 Fax (239) 274-0069
H.H.	03/22/22	
DESIGNED BY	DATE	
S.J.	03/22/22	
REVISED	DATE	
T.S.	03/29/22	



KINGSTON
AERIAL WITH FLUCFCS AND WETLANDS

DRAWING No.
21CCL3707
SHEET No.



PROPOSED PARCEL TO LEE COUNTY

LEGEND

- KINGSTON
- SOILS

Soil Unit	Description
6	Brynwood fine sand, wet, 0 to 2 percent slopes
9	Eau Gallie sand, 0 to 2 percent slopes
10	Pompano fine sand, 0 to 2 percent slopes
11	Myakka fine sand, 0 to 2 percent slopes
13	Cypress Lake fine sand, 0 to 2 percent slopes
14	Valkaria fine sand, 0 to 2 percent slopes
26	Pineda-Pineda, wet, fine sand, 0 to 2 percent slopes
27	Pompano fine sand, frequently ponded, 0 to 1 percent slopes
28	Immokalee sand, 0 to 2 percent slopes
33	Oldsmar sand, 0 to 2 percent slopes
34	Malabar fine sand, 0 to 2 percent slopes
35	Wabasso sand, 0 to 2 percent slopes
36	Immokalee sand-Urban land complex, 0 to 2 percent slopes
40	Anclote sand, frequently ponded, 0 to 1 percent slopes
41	Valkaria fine sand, frequently ponded, 0 to 1 percent slopes
44	Malabar fine sand, frequently ponded, 0 to 1 percent slopes
45	Copeland fine sandy loam, frequently ponded, 0 to 1 percent slopes
49	Felda fine sand, frequently ponded, 0 to 1 percent slopes
51	Floridana sand, frequently ponded, 0 to 2 percent slopes
53	Myakka fine sand, frequently ponded, 0 to 1 percent slopes
62	Winder sand, frequently ponded, 0 to 1 percent slopes
73	Pineda fine sand, frequently ponded, 0 to 1 percent slopes

NOTES:

AERIAL PHOTOGRAPHS WERE ACQUIRED THROUGH THE LEE COUNTY PROPERTY APPRAISER'S OFFICE WITH A FLIGHT DATE OF JANUARY - MARCH 2021.

SOILS MAPPING WAS ACQUIRED FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE WEBSITE JANUARY 2022.

DRAFT

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DRAWN BY	DATE
H.H.	05/03/22
REVIEWED BY	DATE
S.J.	05/03/22
REVISED	DATE

13620 Metropolis Avenue
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Phone (239) 274-0067
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KINGSTON
SOILS MAP

DRAWING No.	21CL3707
SHEET No.	

FINAL REPORT

for

**Old Corkscrew Plantation
FD-36-0284086-001**

**FORMAL DETERMINATION OF THE LANDWARD EXTENT OF WETLANDS AND
OTHER SURFACE WATERS**

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Water Resource Management

Office of Submerged Lands and Environmental Resources

Wetland Evaluation and Delineation Section

Prepared by

Sarah L. Corbett

TABLE OF CONTENTS

FINAL REPORT

	<u>Page Number</u>
Formal Determination	3
Site Location	3
Project Area Description	5
Soils.....	18
Wetland Boundary Delineation.....	20
References	22

FIGURES

Figure 1: Location of Old Corkscrew Plantation property, Lee County, Florida	4
Figure 2: Typical wet prairie interior.	8
Figure 3: Typical upland/wetland ecotone.	8
Figure 4: Typical cypress dome and strand wetland interior.	9
Figure 5: Typical artificially created ditches and berms.	10
Figure 6: The author demonstrating the height of lichen lines near a palmetto island.....	11
Figure 7: Large treelike palmetto occurring in one of the palmetto islands that were frequently located as upland islands within the large wetland systems.	11
Figure 8: Hydrologically altered wetland.	11
Figure 9: Wet prairie wetlands.	12
Figure 10: Wildlife diversity on the Old Corkscrew Plantation site.	13
Figure 11: More wildlife diversity on the Old Corkscrew Plantation site.	14
Figure 12: Insect diversity on the Old Corkscrew Plantation site.	15
Figure 13: Notable plant: <i>Sacoila lanceolata</i> (Orchidaceae).	16
Figure 14: Notable plant: <i>Pteridium aquilinum</i>	16
Figure 15: Notable plant: <i>Vittaria lineata</i> (Vittariaceae).	17
Figure 16: Notable plant: <i>Encyclia tampensis</i> (Orchidaceae).	17
Figure 17: Soils Map and Legend for Old Corkscrew Plantation property, Lee County, Florida	19
Figure 18: Ditches from Section 12.	34
Figure 19: Point description location for point 772 TOB.	36

TABLES

Table 1: Plant Community and Soil Profile Descriptions.....	23
Table 2: Wetland Delineation Tests.....	37
Table 3: Hydrologic Indicators.....	38
Table 4: Hydric Soil Indicators.....	39
Table 5: Wetland Definition	39

ATTACHMENTS

Attachment A: Aerial Photograph Delineating Boundaries of Area Inspected and Landward Extent of Wetlands and Other Surface Waters of the State.....	Map Pocket
Attachment B: Certified Survey Delineating Boundaries of Area Inspected and Landward Extent of Wetlands and Other Surface Waters of the State.....	Map Pocket

**Final Report
for
Old Corkscrew Plantation
Formal Determination of the Landward Extent of Wetlands
and other Surface Waters of the State
(FD-36-0284086-001)**

Formal Determination

A field inspection of the above referenced property was conducted by the author, Sarah Corbett of the Florida Department of Environmental Protection, and Jennifer Evans, Passarella and Associates, Inc., representing the petitioner.

The landward extent of waters of the State subject to the wetland resources jurisdiction of the Florida Department of Environmental Protection (FDEP) for the property is delineated on the aerial photocopy appended as Attachment A (Map Pocket) and the certified survey appended as Attachment B (Map Pocket). The bold black line demarcates the boundary of the area inspected. The red hatched area surrounded by the bold red line represents the landward extent of wetlands and the bold red line that surrounds the blue hatched area represents other surface waters of the State both identified by certified survey. The red hatched areas contained within the bold green line indicates the landward extent of wetlands and the bold green line surrounding the blue hatched areas are other surface waters of the State both identified by variance approximate delineation methodology. The bold orange line surrounding the blue hatched areas are other surface waters of the State identified by approximate delineation methodology. These areas are subject to the wetland resources jurisdiction of the FDEP in accordance with Rule 62-340, F.A.C. (Table 2). The remaining portions of the area inspected are not wetlands or other surface waters of the State within the wetland resources jurisdiction of the FDEP. The wetland boundary line was flagged by the Department and subsequently surveyed by the petitioner. In some areas, specifically linear artificially created ditches, the petitioner elected not to have the wetland delineation line surveyed; therefore pursuant to Section 62-343.040(4)(b), F.A.C., the line so drawn for the artificially created ditches may represent only an approximation of the actual extent of the landward extent of wetlands and other surface waters of the State because of inherent accuracy in drafting or cartography. The accuracy of the delineation is determined by the level of detail and accuracy of the aerial photographs provided. Numerous points along the wetland boundary were checked for variability pursuant to Section 62-343.040, F.A.C. and were within 25 feet of the actual boundary.

Site Location

The property for which the formal determination was requested is an irregularly shaped parcel of 6,652.69 acres located in Section 2,3,10,11,14,15,24,25,26,34,35, and 36, Township 46 South, Range 27 East and Section 36, Township 45 South, Range 27 East, Lee County (Figure 1). The site is located south of SR 82 and begins approximately 5 miles east of the intersection of Daniels Pkwy and SR 82. The site continues to Corkscrew Rd. The site then continues on the other side of Corkscrew Rd for approximately 1.5 miles to the south.

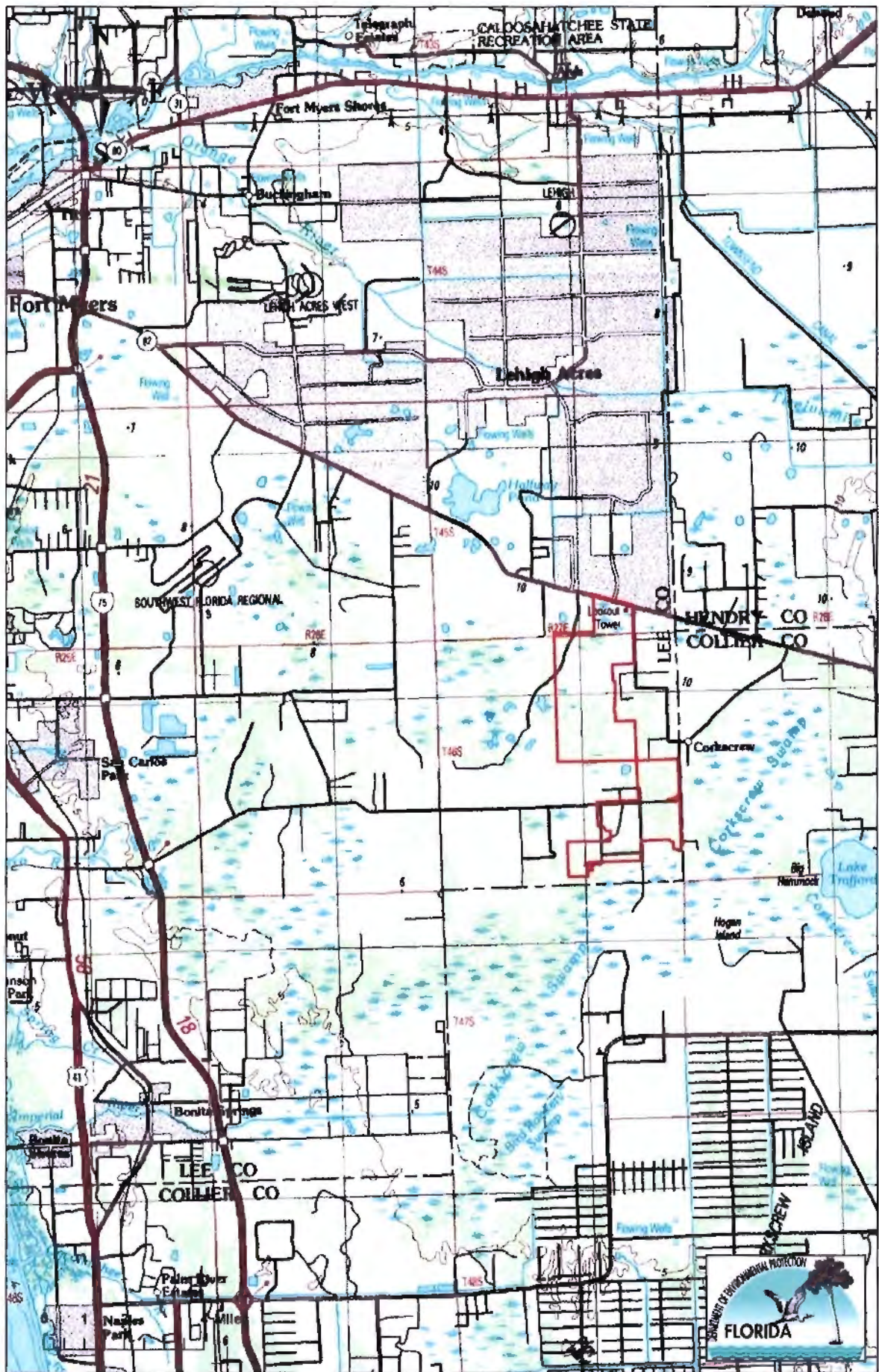


Figure 1. Location map for Old Corkscrew Plantation and Vicinity, Lee County, Florida.

File No. FD-36-0284086-001

Project Area Description

The property is located within the Big Cypress Physiographic Province and the Immokalee-Pompano general soil association, nearly level, poorly drained, deep soils that are sandy throughout, some having organic subsoil, of Lee County. The planned use of the property is a limestone mine. The current use is primarily agriculture (orange groves). The Old Corkscrew Plantation site is immediately adjacent to the Corkscrew Swamp Sanctuary. Outflow of water from the site is into Corkscrew Swamp.

Usually, the outer edge of the wetlands is dominated by shrub and forested wetlands, while the wetland interiors are frequently open marsh or wet prairie (Figure 2). The wetlands are contained within created berms with deep perimeter ditches outside of the berm (Figure 5). A series of culverts and agricultural pump stations connect the deep ditches on site to the wetland systems. The wetlands on site are generally of good to high quality (suggested UMAM scores typically 8 or above for community structure and water environment), except some areas where melaleuca (*Melaleuca quinquenervia*) and Brazilain pepper-tree (*Schinus terebinthefolius*) are major problems. The transition from wetland to upland was typically easily identified based on the change in vegetation (Figure 3).

There were 80 FLUCCS units identified on site by Passarella and Associates, Inc. Many of these, however, are subsets or derivations of larger categories. For simplification, listed below are the general plant community types found on site. Within each of these categories, there may be variations based on percent of exotics present, disturbance, or drainage. Approximately 17 general community types were identified.

Cypress Swamp (Figure 4)- The Cypress Swamp community was the most common plant community on site. Over 620 acres of this community type was found. Dominant plants included pond cypress (*Taxodium ascendens*), sweetbay magnolia (*Magnolia virginica*), swamp bay (*Persea palustris*), myrsine (*Myrsine guianensis*), and wax myrtle (*Myrica cerifera*).

Cypress/Pine/Cabbage Palm- Comprising a little over 115 acres of the site, this wetland community type was the second most common. Dominant plants included Pond Cypress (*Taxodium ascendens*), South Florida slash pine (*Pinus elliottii* var. *densa*), cabbage palm (*Sabal palmetto*), swamp bay (*Persea palustris*), myrsine (*Myrsine guianensis*), and wax myrtle (*Myrica cerifera*).

Freshwater Marsh/Artificial Ditches (Figures 5, 18)- The Freshwater Marsh habitat occurred in the artificial ditches on site. Over 300 acres of this community type existed on site. The dominant plants were cattails (*Typha latifolia* and *Typha domengensis*), sawgrass (*Cladium jamaicense*), peruvian primrose willow (*Ludwigia peruviana*), bulltongue arrowhead (*Sagittaria lancifolia*), torpedo grass (*Panicum repens*), creeping primrosewillow (*Ludwigia repens*), *Lemna* spp., Bladderworts (*Utricularia* spp.), mosquito fern (*Azolla caroliniana*), *Centella asiatica*, *Hydrocotyle umbellata*, carolina willow (*Salix caroliniana*), and other floating and emergent aquatic and obligate plants.

Wet Prairie (Figure 2, 9)- About 35 acres of wet prairie communities occurred on site. Dominant plants included *Eleocharis* sp., *Rhynchospora* sp., *Xyris caroliniana*, and seaside heliotrope (*Heliotropium curravaseum*).

Melaleuca Swamp- Approximately 100 acres of melaleuca-dominated swampland occurred on site. Dominant species representatives in this community type included melaleuca (*Melaleuca quiquenervia*), swamp fern (*Blechnum serrulatum*), and pond cypress (*Taxodium ascendens*).

Schinus Swamp- Just over 1 acre of representative habitat existed for this community type. The dominant plant was the invasive-exotic Brazilian pepper-tree (*Schinus terebinthefolius*).

Hardwood/Conifer Mixed Forest and Live Oak Hammock- Approximately 6 acres existed on site for these community types. The Hardwood/Conifer Mixed Forest was dominated primarily by live oak (*Quercus virginiana*), South Florida slash pine (*Pinus elliottii* var. *densa*), and cabbage palm (*Sabal palmetto*), while the Live Oak Hammock community was dominated primarily by live oak (*Quercus virginiana*).

Mixed Wetland Forest and Mixed Wetland Hardwoods- These areas lacked a distinctively dominate canopy species, and accounted for approximately 30 acres of the site. The Mixed Wetland Forest had representation by conifer species such as pond cypress (*Taxodium ascendens*) and South Florida slash pine (*Pinus elliottii* var. *densa*), with other hardwood species being equally dominant, including sweetbay magnolia (*Magnolia virginiana*), carolina willow (*Salix caroliniana*), myrsine (*Myrsine guianensis*), wax myrtle (*Myrica cerifera*), and others. The Mixed Wetland Hardwoods lacked a significant conifer presence. In both community types, exotic species such as melaleuca (*Melaleuca quinquenervifolia*) and Brazilian pepper-tree (*Schinus terebinthefolius*) occurred frequently.

Willow and Wax Myrtle/Willow Wetlands- Approximately 44 acres of the site were these community types. As would be expected, the areas were dominated largely by the species carolina willow (*Salix caroliniana*) and wax myrtle (*Myrica cerifera*). In both community types, exotic species such as melaleuca (*Melaleuca quinquenervifolia*) and Brazilian pepper-tree (*Schinus terebinthefolius*) occurred frequently. Few other species occurred with these dominant species.

Hydric Pine Flatwoods- Accounting for approximately 22 acres of the site, the hydric pine flatwoods were dominated by a canopy of *Pinus elliottii* var. *densa*. Subcanopy species (and occasionally canopy trees) included pond cypress (*Taxodium ascendens*) and sweetbay magnolia (*Magnolia virginiana*). Other subcanopy species included myrsine (*Myrsine guianensis*) and wax myrtle (*Myrica cerifera*). Groundcover species including seaside heliotrope (*Heliotropium curassavicum*), meadowbeauty (*Rhexia* spp.), chocolate weed (*Melochia corchorifolia*) hatpins (*Eriocaulon* spp.), brown-eyed susans (*Coreopsis* spp.), and spurge (*Euphorbia* spp.).

Pine Flatwoods- The Pine Flatwoods community accounted for approximately 60 acres of the site. It was dominated by canopy of *Pinus elliottii* var. *densa* and groundcover of saw palmetto (*Serenoa repens*). Often, small “palmetto islands,” which were pockets of Pine Flatwoods community, occurred surrounded by wetlands (Figure 6, 7). These islands were typically no more than 0.5-3 acres in size.

Palmetto Prairie- About 10 acres of palmetto prairie existed on site. These areas were typified by a near monoculture of saw palmetto (*Serenoa repens*) in the groundcover and lacked a dominate canopy species.

Upland Berm- Comprising approximately 133 acres of the site, the dominant plant on the upland berms was bahia grass (*Paspalum notatum*). Occasionally, this habitat was dominated by various vines, including grapevine (*Vitis rotundifolia*), corkystem passionflower (*Passiflora suberosa*), rosary pea (*Abrus praetorius*), and white twinevine (*Sarcostemma clausum*). It was also occasionally dominated by sword fern (*Nephrolepis* sp.).

Orange Grove- Over 4,840 acres of the site were dedicated to active Citrus farming operations. The dominant plant was various cultivated *Citrus* spp. Between the tree rows, bahia grass (*Paspalum notatum*) was common.

The Old Corkscrew Plantation site is a haven for wildlife. In the author’s travel and work throughout the rest of the state of Florida, never has the incredible diversity of wildlife that exists on this site been observed. Some wildlife species were directly visually observed, while the presence of others was inferred by sign (scratch marks, scat, tracks) (Figures 10, 11). In addition, dozens of fascinating and colorful insect species were observed (Figure 12). Below is a partial listing of species observed.

Wildlife directly observed: White-tailed deer; Raccoon; Opossum; feral hogs; Eastern Gray Squirrel; Fox Squirrel; various songbirds; water birds including Coot, Hooded Merganser, Great Egret, Great Blue Heron, Green Heron, Little Blue Herons, Glossy Ibis, White Ibis, Limpkin, Wood Stork, and Night Heron; Black Vultures; Turkey Vultures; Wild Turkey; Caracara; Swallow-tailed Kites; Red-shouldered Hawk; Barred Owl; American Alligators; Yellow Rat Snake; Black Racer; Southern Toad; Pine Woods Treefrog; Cuban Anole; Green Anole; Cuban Treefrog; Green Treefrog

Wildlife sign observed: Possibly from either a Florida panther, a bobcat, and/or a black bear

In addition to wildlife, many interested plants were observed on site. At least one State Threatened species was identified (leafless lady tresses, *Sacoila lanceolata*) (Figure 17), as well as one commercially exploited species (Florida butterfly orchid, *Encyclia tampensis*) (Figure 16). In addition, some species of general interest were noted (Figures 14, 15).



Figure 2. Typical wet prairie interior. Note the ground is carpeted by *Eleocharis sp.* and other obligate herbs.



Figure 3. Typical upland/wetland ecotone on the Old Corkscrew Plantation site. The grasses and other herbaceous groundcover were typical of the interior of many of open wetlands on site.



Figure 4. Typical cypress dome and strand wetland interior. In all cypress domes on site, there is a dominance of *Taxodium ascendens*, however depending on the hydroperiod, the groundcover was often substantially different. A. Short hydroperiod cypress dome with sparse understory. B. Long hydroperiod cypress dome with a dominant groundcover of *Blechnum serrulatum*, *Osmunda cinnamomea*, and *Boehmeria cylindrica*.



Figure 5. Typical artificially created ditches and berms on the Old Corkscrew Plantation site. A. View of one of the wetland rim ditches as seen standing atop the berm that forms the perimeter of most of the large wetland systems on site looking toward the orange grove. B. A ditch located along roads within the orange groves was smaller in diameter and depth than the wetland rim ditches.



Figure 6. The author demonstrating the height of lichen lines near a palmetto island. When lichen lines consistently occurred above the elevation of the palmetto islands that occurred within the large wetland systems, these palmetto islands were not claimed as uplands, but as other surface waters of the state.



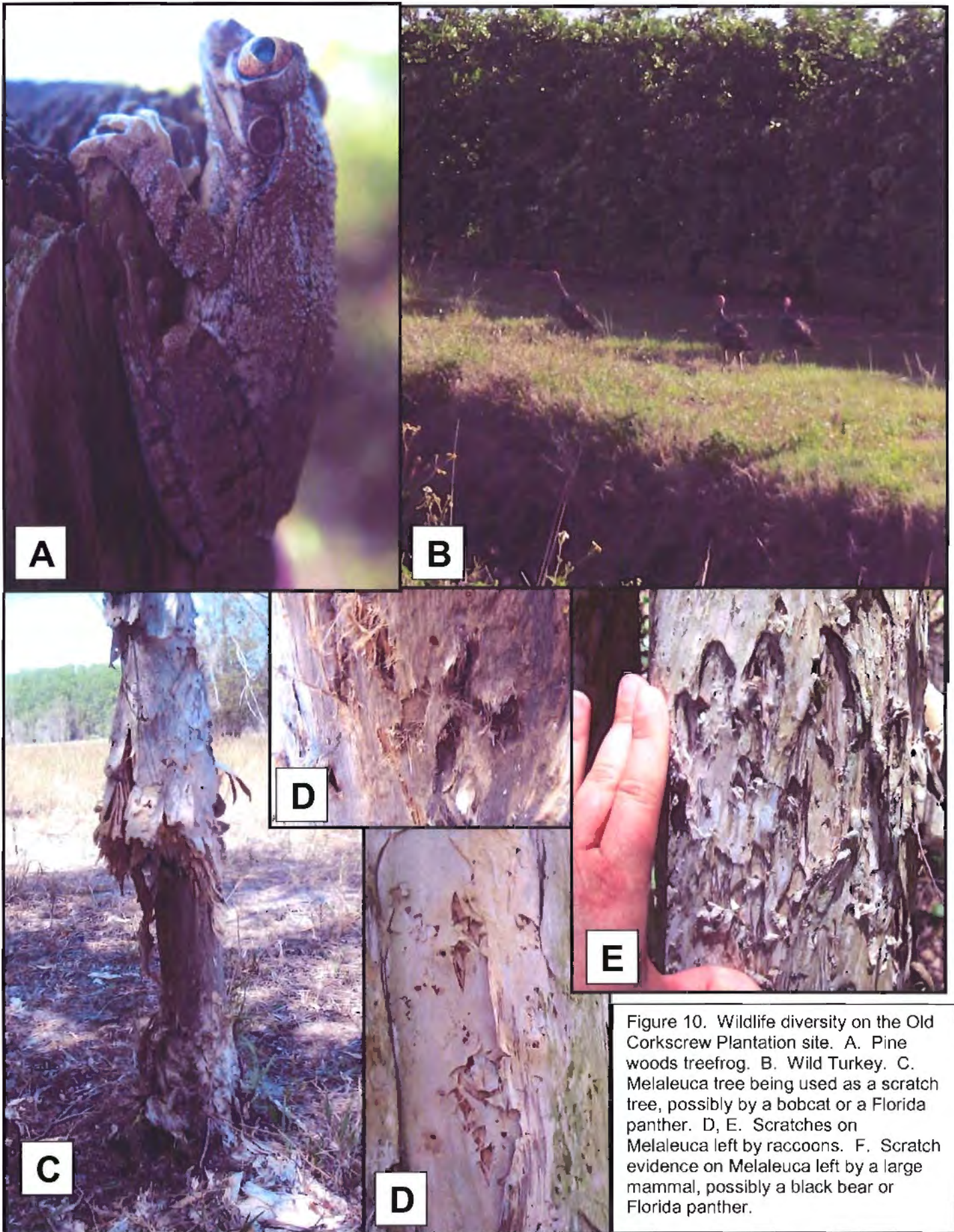
Figure 7. Large tree-like palmetto that occurring in one of the palmetto islands that were frequently located as upland islands within the large wetland systems.



Figure 8. Hydrologically altered wetland. This small area appeared to be a wetland on aerial photographs, however closer inspection revealed that it was altered beyond minimum wetland criteria. Two such areas occurred on site.



Figure 9. Wet prairie wetlands (also see Figure 2). A. Wetland plants such as *Xyris sp.*, *Rhexia sp.*, and *Polygala spp.* occurred in the wet prairie wetlands. B. Occasionally, dense grasses dominated the groundcover of the herbaceous marshes, especially in areas adjacent to ditches as pictured here.



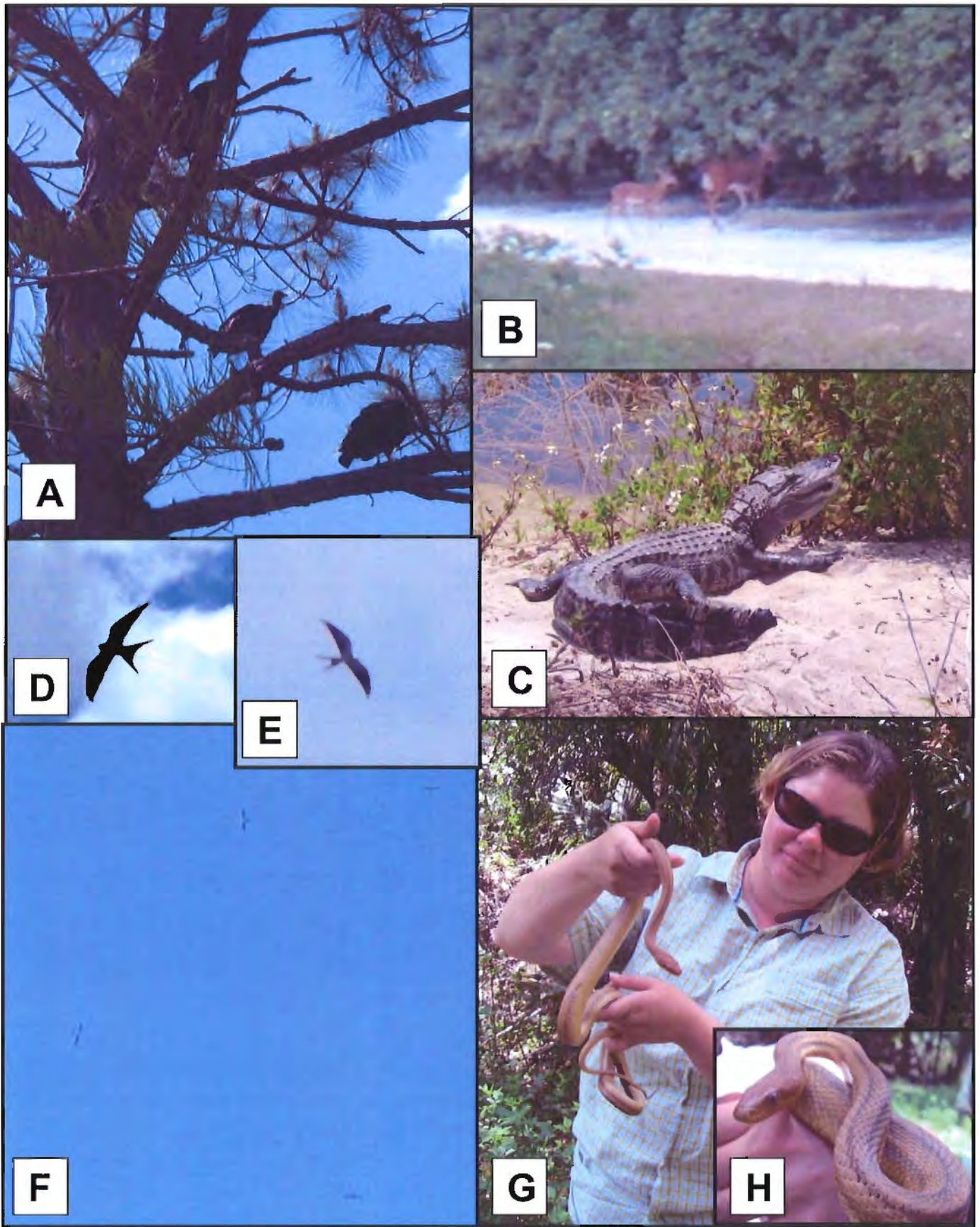


Figure 11. More wildlife diversity on the Old Corkscrew Plantation site. A. Black vultures. B. White-tailed deer. C. American alligator. D-F. Swallow-tailed kites. G-H. The author holding a yellow rat snake and a close up of the yellow rat snake.



Figure 12. Insect diversity on the Old Corkscrew Plantation site.



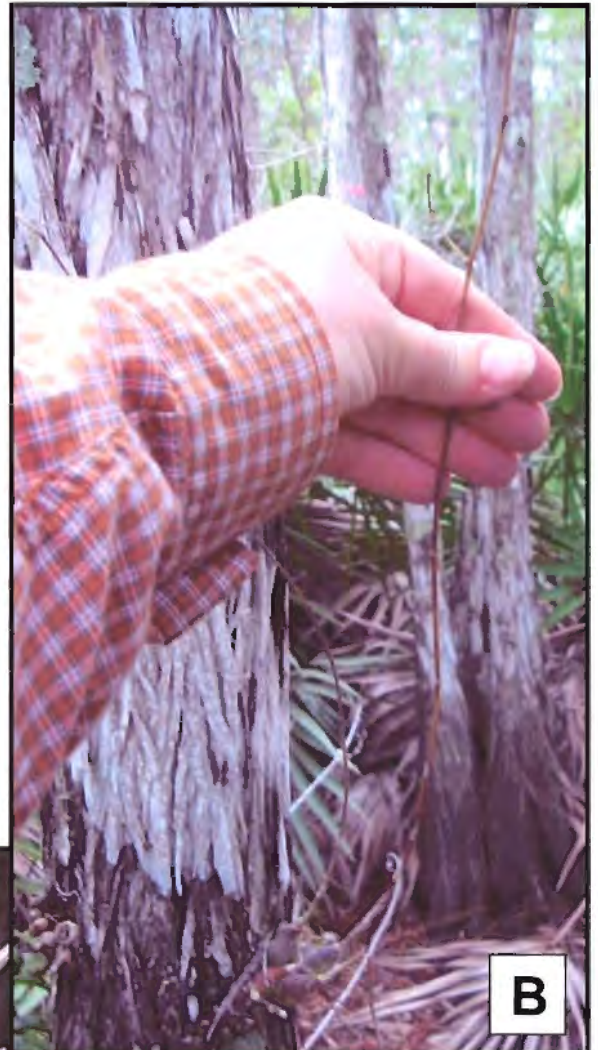
Figure 13. Notable Plant: *Sacoila lanceolata* (Orchidaceae). An orchid listed as state Threatened, *Sacoila lanceolata*, also known as "Leafless Beaked Ladytresses," occurred on spoil mounds and berms throughout the site.



Figure 14. Notable Plant: *Pteridium aquilinum*. A dense thicket of *Pteridium aquilinum* was encountered on site, with plants shooting 6-7 feet up.



Figure 15. Notable Plant: *Vittaria lineata* (Vittariaceae). The unusual shoestring fern (*Vittaria lineata*) was found growing attached to *Sabal palmetto* in hammock areas.



B



A



C

Figure 16. Notable Plant: *Encyclia tampensis* (Orchidaceae). This example of *Encyclia tampensis* (Florida Butterfly Orchid) was located attached to the trunk of *Taxodium ascendens*. A. Plant base. B. Long stem of plant. C. Detail of fruit.

Soils

A soil survey of Lee County (1984) has been produced by the United States Department of Agriculture/Soil Conservation Service (USDA-SCS). As of 1994 the USDA-SCS was renamed the Natural Resources Conservation Service (NRCS). The soil survey delineates 23 map units within the project area boundaries (Figure 2). Seventeen of the mapping units have hydric soils as either a major component or inclusions (Hydric Soils of Florida Handbook, 1995).

The map units with greater than 50% of the area as hydric soils are:

Map Symbol	Map Unit Name	% Hydric Component
10	Pompano fine sand	80
14	Valkaria fine sand	85
19	Gator muck	100
26	Pineda fine sand	90
27	Pompano fine sand, depressional	100
34	Malabar fine sand	85
40	Anclote sand, depressional	100
41	Valkaria fine sand, depressional	100
44	Malabar fine sand, depressional	100
45	Copeland sandy loam, depressional	100
49	Felda fine sand, depressional	100
51	Floridana sand, depressional	100
53	Myakka fine sand, depressional	100
73	Pineda fine sand, depressional	100

The map units with hydric soil inclusions of less than 50% of the map unit area are:

6	Hallandale fine sand	30
9	EauGallie sand	30
28	Immokalee sand	30
33	Oldsmar sand	30

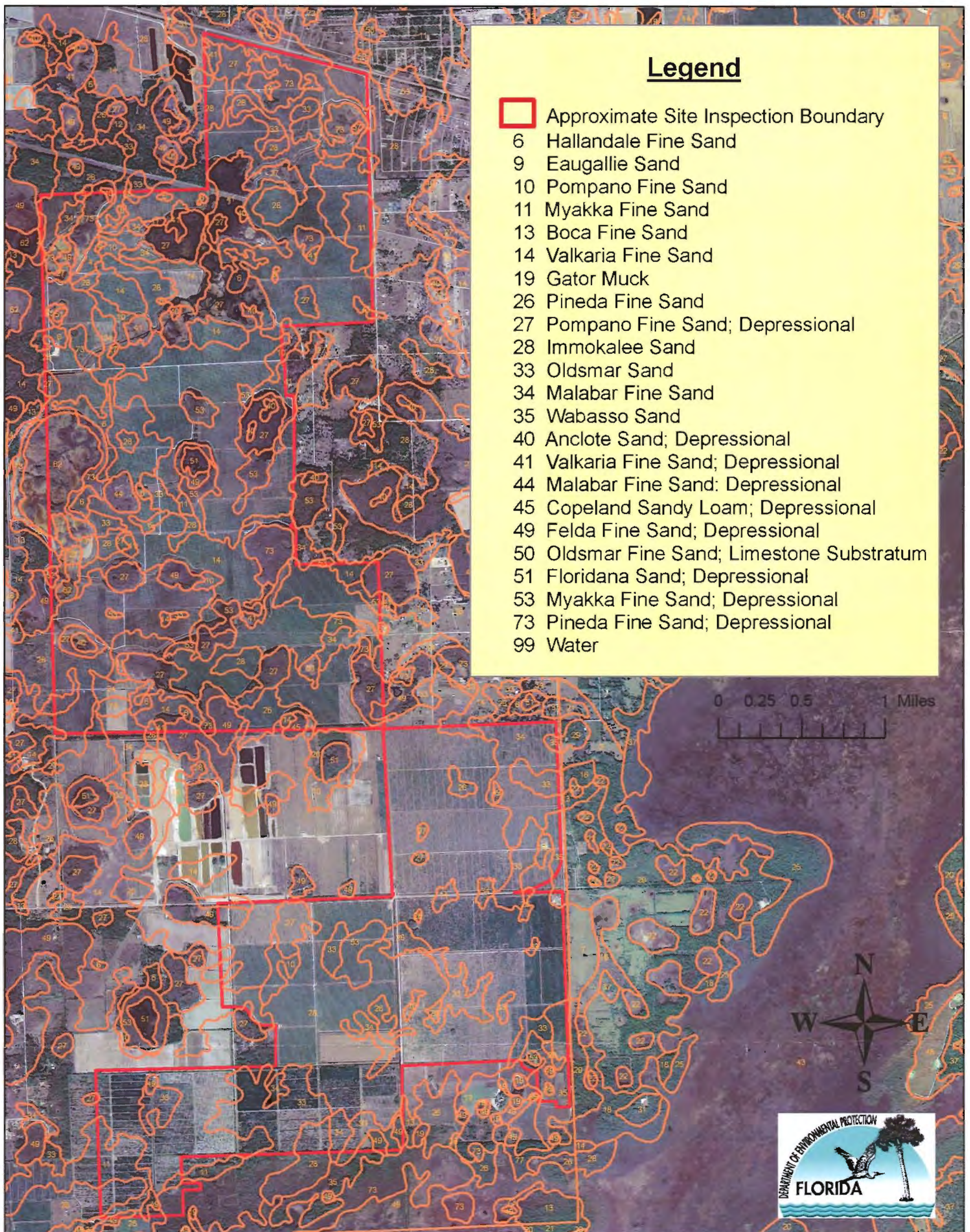


Figure 17. Soils map for Old Corkscrew Plantation, Lee County, Florida.

Wetland Boundary Delineation

On-site observations confirmed that the project area is contiguous to wetlands and other surface waters of the State as described in Section 62-312.030, F.A.C. The landward extent of wetlands and other surface waters of the State were established through ground reconnaissance and photo-interpretation. The wetland boundary was determined by the continual interpretation of vegetation, soils, and hydrologic indicators. The hydrologic contiguity, vegetation and soils were examined at specific points along the entire wetland/upland interface in order to corroborate the positioning of the wetland boundary. Ten sites are listed in Table 1; there were 17 plant communities on site. The approximate locations of the described sites are marked on Attachment A. In Table 1 plant species are listed by common and scientific names (See Plant Taxonomic References) for each stratum (canopy, subcanopy and ground cover). The classification of each plant species was pursuant to Section 62-340.450, F.A.C. The wetlands are delineated by the red hatched area on Attachments A and B.

The delineation methodology on site was based largely on the implementation of the “A” and “B” tests. The wetland lines on site were identified using the available vegetation. Soils were examined at intervals to establish correct placement of the wetland line. Stripped matrix soils were the most common hydric soils on site. Oftentimes, hydric indicators were very difficult to see in the high value sandy soils. In addition, due to drought, the soil profiles were often extremely dry, which sometimes masked the presence or absence of hydric indicators. In these cases, the soils were often inferred to be hydric due to their location within a hydric soil mapping unit, with the understanding that the seasonally dry soils in South Florida often lose hydric characteristics during the dry season and prolonged droughts. There was no evidence to suggest that the dry soils with obscured or lacking hydric indicators were drained, with a couple small areas that proved to be exceptions. Despite extremely dry, difficult soils, hydrological indicators were often present, especially adventitious roots, stain lines, lichen lines, and pneumatophores. Thus, in most cases, even if soils could not be used reliably, the areas still passed the “A” and “B” tests due to the presence of wetland vegetation and a hydrologic indicator.

In most parts of the site, topography was an obvious clue to aid delineation. Due to the extremely high berms (5-10 feet) surrounding most of the wetland areas, in these areas, the wetland was identified simply as toe of the slope of the berms. Also, areas that transitioned from wetland to pine flatwoods or palmetto islands were typically 6 to 18 inches higher than surrounding wetland areas.

In some areas on site, hydrologic indicators suggested that the Ordinary High Water Line (OHWL) was a good deal higher than suggested by the vegetation (Figure 6). In these cases, the areas without hydrophytic vegetation, but with hydrologic indicators present indicating that the OHWL was above the topographic/vegetation break were identified as surface waters of the state. It is thought that this circumstance occurs; because during heavy rain events, the agricultural pumps are turned on, thus flooding areas that typically remain flooded. As long as the agricultural activity continues on site and the agricultural pumps remain, this situation will occur. Thus, these areas were identified as jurisdictional surface water areas. Several palmetto

islands, pine flatwoods areas, and one hardwood/conifer mixed forest area were identified as surface water areas due to this circumstance.

Many of the agricultural ditches on site were identified using aerial interpretation rather than groundtruthing. Typically, some degree of groundtruthing would be utilized to complete an aerial delineation. This involves setting reference points on the ground at 1000 foot intervals along the feature that is being aerially interpreted. However, a variance to Rule 62-343.040(2)(c)2.a. F.A.C. was granted by the Department on December 4, 2008. This variance states that areas specified by the department as having sufficient aerial signatures to allow delineation from aerial photography will not be required to have the aid of field located boundary points every 1000 feet. This variance was granted due to the large number of ditches (116+/- miles) on site. Thus, in these areas, the delineation procedures described above did not apply. Instead, aerial photographs were studied, and the wetland lines were estimated based on the wetland signatures alone.

A couple of areas were identified as being hydrologically drained areas (Figure 8). In these cases, though a canopy of pond cypress (*Taxodium ascendens*) may have persisted, the groundcover recruitment was primarily upland or facultative species and no contemporary hydrologic indicators or hydric soils were identified. In addition, in the two areas identified as being hydrologically drained (and thus non-jurisdictional), the canopy of pond cypress appeared to be stressed, showing a large amount of dying or dead wood and little to no leaf sprout.

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TABLE 1.
Plant Community and Soil Profile Descriptions

SITE 1 –Flag 24-30

Plant Community: Cypress Swamp

CANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Taxodium ascendens</i>	pond cypress	OBL
<i>Pinus elliottii var. densa</i>	South Florida slash pine	UPL

SUBCANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Taxodium ascendens</i>	pond cypress	OBL
<i>Pinus elliottii var. densa</i>	South Florida slash pine	UPL
<i>Schinus terebinthifolius</i>	Brazilian pepper-tree	FAC

GROUND COVER

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Taxodium ascendens</i>	pond cypress	OBL
<i>Pinus elliottii var. densa</i>	South Florida slash pine	UPL
<i>Schinus terebinthifolius</i>	Brazilian pepper-tree	FAC
<i>Myrica cerifera</i>	southern bayberry	FAC
<i>Bidens pilosa</i>	hairy beggar-ticks	FAC
<i>Urena lobata</i>	Caesarweed	UPL
<i>Panicum hemitomon</i>	maidencane	OBL
<i>Pluchea rosea</i>	rosy camphorweed	FACW
<i>Heliotropium curassavicum</i>	seaside heliotrope	FAC
<i>Eupatorium capillifolium</i>	dogfennel	FAC
<i>Phyla nodiflora</i>	turkey tangle fogfruit	FAC
<i>Emilia fosbergii</i>	Florida tasselflower	UPL

Soil description on next page.

Soil Profile Description*

Horizon	Depth	Description
A	0-1.5	charcoal gray (10YR 3/1) medium sand with 50% organic coating
E1	1.5-7.5	light gray (10YR 6/1) medium sand with light gray (10YR 7/1) depletions
E2	7.5+	light gray (10YR 7/1) medium sand

Observed water table depth? None observed
Hydric: *Yes, Stripped matrix (S6) present.*

* All depths are in inches and all colors were determined on moist soil.

Jurisdiction

Wetland? Yes, passes "A" test.

Comments: Immediately upland of the wetland line is a 6 foot tall berm covered with Bahiagrass (*Paspalum notatum*).

**TABLE 1 (Continued).
Plant Community and Soil Profile Descriptions**

SITE 2 –Flag 10-59

Plant Community: Cypress Swamp

CANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Taxodium ascendens</i>	pond cypress	OBL
<i>Pinus elliottii</i>	slash pine	UPL
<i>Sabal palmetto</i>	cabbage palm	FAC

SUBCANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Taxodium ascendens</i>	pond cypress	OBL
<i>Pinus elliottii</i>	slash pine	UPL
<i>Sabal palmetto</i>	cabbage palm	FAC
<i>Myrsine guianensis</i>	guiana myrsine	FAC
<i>Psidium cattleianum</i>	strawberry guava	FAC
<i>Schinus terebinthifolius</i>	Brazilian pepper-tree	FAC

GROUND COVER

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Taxodium ascendens</i>	pond cypress	OBL
<i>Pinus elliottii</i>	slash pine	UPL
<i>Sabal palmetto</i>	cabbage palm	FAC
<i>Myrsine guianensis</i>	guiana myrsine	FAC
<i>Psidium cattleianum</i>	strawberry guava	FAC
<i>Schinus terebinthifolius</i>	Brazilian pepper-tree	FAC
<i>Blechnum serrulatum</i>	swamp fern	FACW
<i>Urena lobata</i>	Caesarweed	UPL
<i>Myrica cerifera</i>	southern bayberry	FAC
<i>Vitis rotundifolia</i>	muscadine	vine
<i>Commelina communis</i>	Asiatic dayflower	FACW
<i>Eupatorium capillifolium</i>	dogfennel	FAC

Soil profile description on next page.

Soil Profile Description*

Horizon	Depth	Description
A1	0-3.5	dark gray (10YR 4/1) medium sand
E1	3.5-6	medium gray (10YR 6/1) medium sand with light gray (10YR 7/1) mottles (depletions)
E2	6-11+	light gray (10YR 7/1) medium sand with medium gray (10YR 6/1) mottles.

Observed water table depth? None observed.

Hydric: Yes, Stripped Matrix (S6) present.

* All depths are in inches and all colors were determined on moist soil.

Jurisdiction

Wetland? Yes, passes the "A" test.

Comments: Pneumatophores present throughout area. Upland of the flag was a 6 foot tall berm covered with grapevine (*Vitis rotundifolia*), sword fern (*Nephrolepis* sp.) and some swamp fern (*Blechnum serrulatum*).

**TABLE 1 (Continued).
Plant Community and Soil Profile Descriptions**

SITE 3 -- Flag no. 55-4

Plant Community: Hydric Pine Flatwoods

CANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Pinus elliottii</i> var. <i>densa</i>	South Florida slash pine	UPL
<i>Quercus laurifolia</i>	laurel oak	FACW
<i>Acer rubrum</i>	red maple	FACW
<i>Sabal palmetto</i>	cabbage palm	FAC

SUBCANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Pinus elliottii</i> var. <i>densa</i>	South Florida slash pine	UPL
<i>Quercus laurifolia</i>	laurel oak	FACW
<i>Acer rubrum</i>	red maple	FACW
<i>Sabal palmetto</i>	cabbage palm	FAC
<i>Persea palustris</i>	swamp bay	OBL

GROUND COVER

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Pinus elliottii</i> var. <i>densa</i>	South Florida slash pine	UPL
<i>Quercus laurifolia</i>	laurel oak	FACW
<i>Acer rubrum</i>	red maple	FACW
<i>Sabal palmetto</i>	cabbage palm	FAC
<i>Persea palustris</i>	swamp bay	OBL
<i>Psychotria sulzneri</i>	shortleaf wild coffee	FAC
<i>Morus rubra</i>	red mulberry	FAC
<i>Toxicodendron radicans</i>	eastern poison ivy	UPL
<i>Phoenix reclinata</i>	Senegal date palm	UPL
<i>Vitis rotundifolia</i>	muscadine	vine
<i>Rivina humilis</i>	rougeplant	UPL
<i>Bidens pilosa</i>	hairy beggar-ticks	FAC
<i>Phytolacca americana</i>	American pokeweed	UPL
<i>Panicum hemitomon</i>	maidencane	OBL
<i>Ampelopsis arborea</i>	peppervine	vine
<i>Myrsine guianensis</i>	guiana myrsine	FAC

Soil Profile Description: Not available for this location.

Jurisdiction

Wetland? Yes, passes the "A" test

**TABLE 1 (Continued).
Plant Community and Soil Profile Descriptions**

**SITE 4 –Small area near wetland 56
Plant Community: Drained Cypress Swamp**

CANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Taxodium ascendens</i>	pond cypress	OBL

SUBCANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
None.		

GROUND COVER

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Taxodium ascendens</i>	pond cypress	OBL
<i>Urena lobata</i>	Caesarweed	UPL
<i>Nephrolepis sp.</i>	sword ferns	FAC
<i>Sida rhombifolia</i>	cuban jute	UPL
<i>Bidens pilosa</i>	hairy beggar-ticks	FAC
<i>Panicum maximum</i>	guineagrass	UPL
<i>Vitis rotundifolia</i>	muscadine	vine
<i>Rivina humilis</i>	rougeplant	UPL
<i>Phytolacca americana</i>	American pokeweed	UPL
<i>Justicia brandegeana</i>	shrimp plant	UPL
<i>Paspalum notatum</i>	bahiagrass	UPL
<i>Citrus sinensis</i>	sweet orange	UPL
<i>Abrus precatorius</i>	rosarypea	vine
<i>Schinus terebinthifolius</i>	Brazilian pepper-tree	FAC
<i>Eupatorium capillifolium</i>	dogfennel	FAC
<i>Gnaphalium obtusifolium var. obtusifolium</i>	rabbit tobacco	UPL
<i>Lantana camara</i>	lantana	UPL
<i>Parthenocissus quinquefolia</i>	Virginia creeper	vine
<i>Pennisetum sp.</i>	kikuyugrass	
<i>Sabal palmetto</i>	cabbage palm	FAC
<i>Ambrosia artemisiifolia</i>	annual ragweed	UPL

Soil Profile Description: Not available for this location. Soils were determined to be non-hydric.

Jurisdiction
Wetland? No

Comments on next page.

Comments: Despite a canopy of pond cypress (*Taxodium ascendens*), this area exhibited no other characteristics of a wetland. Soils were non-hydric, there were no hydrologic indicators, and all plants except for the uppermost canopy of pond cypress were Upland or Facultative plants. In addition, the pond cypress appeared to be declining and showed signs of stress, including a large amount of dead wood, bases of the trees were often rotten, and there were little to no leaves on the living branches.

**TABLE 1 (Continued).
Plant Community and Soil Profile Descriptions**

SITE 5 --Flag no. 31-29

Plant Community: Freshwater Marsh

CANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
None.		

SUBCANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>

GROUND COVER

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Panicum repens</i>	torpedo grass	FACW
<i>Eleocharis sp.</i>	spikerush	OBL
<i>Utricularia purpurea</i>	eastern purple bladderwort	OBL
<i>Typha domingensis</i>	southern cattail	OBL
<i>Salix caroliniana</i>	coastal plain willow	OBL

Soil Profile Description: Not available for this location.

Jurisdiction

Wetland? Yes, passes the "A" test.

**TABLE 1 (Continued).
Plant Community and Soil Profile Descriptions**

SITE 6 –Flag 7-10

Plant Community: Hydric Pine Flatwoods

CANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Pinus elliottii var. densa</i>	South Florida slash pine	UPL

SUBCANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Pinus elliottii var. densa</i>	South Florida slash pine	UPL
<i>Myrica cerifera</i>	southern bayberry	FAC

GROUND COVER

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Pinus elliottii var. densa</i>	South Florida slash pine	UPL
<i>Myrica cerifera</i>	southern bayberry	FAC
<i>Baccharis halimifolia</i>	eastern false-willow	FAC
<i>Coreopsis leavenworthii</i>	Leavenworth's tickseed	FACW
<i>Sabatia grandiflora</i>	largeflower rosegentian	FACW
<i>Heliotropium curassavicum</i>	seaside heliotrope	FAC
<i>Eupatorium sp.</i>	thoroughworts	FAC
<i>Erigeron quercifolius</i>	fleabane	FAC
<i>Aristida stricta</i>	wiregrass	FAC
<i>Panicum repens</i>	torpedo grass	FACW
<i>Pluchea rosea</i>	rosy camphorweed	FACW
<i>Urena lobata</i>	Caesarweed	UPL
<i>Gratiola sp.</i>	hedgelyssop	FACW
<i>Phyla nodiflora</i>	turkey tangle fogfruit	FAC
<i>Melochia corchorifolia</i>	chocolate-weed	FAC
<i>Euphorbia sp.</i>	spurge	

Soil Profile Description: Not available at this location.

Jurisdiction

Wetland? Yes, passes the “B” test.

Comments: Stripped Matrix (S6) present throughout.

**TABLE 1 (Continued).
Plant Community and Soil Profile Descriptions**

SITE 7 –Flag 48-117

Plant Community: Cypress Swamp

CANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Taxodium ascendens</i>	pond cypress	OBL
<i>Pinus elliottii</i> var. <i>densa</i>	South Florida slash pine	UPL

SUBCANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Taxodium ascendens</i>	pond cypress	OBL
<i>Pinus elliottii</i> var. <i>densa</i>	South Florida slash pine	UPL
<i>Schinus terebinthifolius</i>	Brazilian pepper-tree	FAC

GROUND COVER

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Taxodium ascendens</i>	pond cypress	OBL
<i>Pinus elliottii</i> var. <i>densa</i>	South Florida slash pine	UPL
<i>Schinus terebinthifolius</i>	Brazilian pepper-tree	FAC
<i>Eriocaulon</i> sp.	pipewort	OBL
<i>Phyla nodiflora</i>	turkey tangle fogfruit	FAC
<i>Heliotropium curassavicum</i>	seaside heliotrope	FAC
<i>Sarcostemma clausum</i>	white twinevine	vine

Soil Profile Description: Not available for this area.

**TABLE 1 (Continued).
Plant Community and Soil Profile Descriptions**

SITE 8 –Flag 96-30

Plant Community: Cabbage Palm/Pine/Cypress Swamp

CANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Taxodium ascendens</i>	pond cypress	OBL
<i>Pinus elliottii var. densa</i>	South Florida slash pine	UPL
<i>Sabal palmetto</i>	cabbage palm	FAC

SUBCANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Taxodium ascendens</i>	pond cypress	OBL
<i>Pinus elliottii var. densa</i>	South Florida slash pine	UPL
<i>Sabal palmetto</i>	cabbage palm	FAC

GROUND COVER

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Taxodium ascendens</i>	pond cypress	OBL
<i>Pinus elliottii var. densa</i>	South Florida slash pine	UPL
<i>Sabal palmetto</i>	cabbage palm	FAC
<i>Urena lobata</i>	Caesarweed	UPL

Soil Profile Description: Not available for this area.

**TABLE 1 (Continued).
Plant Community and Soil Profile Descriptions**

SITE 9 –Ditch 152-A (Figure 18)

Plant Community: Freshwater Marsh

CANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>None.</i>		

SUBCANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>None.</i>		

GROUND COVER

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Rumex acetosella</i>	common sheep sorrel	FACW
<i>Hydrocotyle umbellata</i>	manyflower marshpennywort	FACW
<i>Bidens pilosa</i>	hairy beggar-ticks	FAC
<i>Cyperus sp.</i>	flatsedge	
<i>Ludwigia repens</i>	creeping primrosewillow	OBL
<i>Sagittaria lancifolia</i>	bulltongue arrowhead	OBL
<i>Commelina communis</i>	Asiatic dayflower	FACW
<i>Eupatorium sp.</i>	thoroughworts	FAC
<i>Panicum repens</i>	torpedo grass	FACW
<i>Lemna sp.</i>	duckweed	aquatic
<i>Azolla caroliniana</i>	Carolina mosquitofern	aquatic
<i>Carex sp.</i>	sedges	
<i>Centella asiatica</i>	coinwort	FACW
<i>Digitaria sp.</i>	crabgrass	
<i>Ambrosia artemisiifolia</i>	annual ragweed	UPL
<i>Parietaria floridana</i>	Florida pellitory	FAC

Soil Profile Description: Not available for this area.

See photos on next page.



Figure 18. Ditches from Section 12. A. The ditch was identified as a wetland ditch. B. The ditch identified as other surface waters. Though floating aquatic vegetation was present, ditches identified as surface water ditches had little to no littoral zone with emergent vegetation.

**TABLE 1 (Continued).
Plant Community and Soil Profile Descriptions**

SITE 10 –Flag 772 TOB, Waterward

Plant Community: Willow Swamp, located within “the reservoir”

CANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>None.</i>		

SUBCANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Salix caroliniana</i>	coastal plain willow	OBL

GROUND COVER

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Salix caroliniana</i>	coastal plain willow	OBL
<i>Carex sp.</i>	sedges	
<i>Ludwigia peruviana</i>	Peruvian primrosewillow	OBL
<i>Myrica cerifera</i>	southern bayberry	FAC
<i>Andropogon glomeratus</i>	bushy bluestem	FACW

Soil Profile Description: Not available for this area.

**TABLE 1 (Continued).
Plant Community and Soil Profile Descriptions**

SITE 9 --Flag 772 TOB, Landward

Plant Community: Bahia grass pasture, located within “the reservoir”

CANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>None.</i>		

SUBCANOPY

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>None.</i>		

GROUND COVER

<u>Scientific Name</u>	<u>Common Name</u>	<u>Indicator status</u>
<i>Paspalum notatum</i>	bahiagrass	UPL
<i>Baccharis halimifolia</i>	eastern false-willow	FAC
<i>Urena lobata</i>	Caesarweed	UPL
<i>Andropogon virginicus</i>	broom-sedge	FAC
<i>Eupatorium capillifolium</i>	dogfennel	FAC

Soil Profile Description: Not available for this area.



Figure 19. Point description location for point 772 TOB. Note wetland flag at left with *Salix caroliniana* in wetland. Note *Eupatorium* and *Baccharis halimifolia* to right with *Paspalum notatum* in groundcover.

TABLE 2.
Wetland Delineation Tests

The following are abbreviated versions of the wetland delineation tests of Section 62-340.300, F.A.C.

"A Test" [62-340.300(2)(a), F.A.C.] A positive wetland test requires that the aerial extent of obligate plant species is greater than that of the upland plants in the appropriate stratum and hydric soils or hydrologic indicators are present.

"B Test" [62-340.300(2)(b), F.A.C.] A positive wetland test requires that the aerial extent of obligate and facultative wet plant species in the appropriate stratum is greater than 80% of the plants in that stratum and hydric soils or hydrologic indicators are present.

"C Test" [62-340.300(2)(c), F.A.C.] A positive wetland test requires an affirmative demonstration of specific soil conditions for areas that are not pine flatwoods, improved pastures or drained areas.

"D Test" [62-340.300(2)(d), F.A.C.] A positive wetland test requires one or more hydrologic indicators and hydric soils.

"Altered Site Test" [62-340.300(3), F.A.C.]

Note: See Tables 3 and 4 for a list of the Hydrologic and Hydric Soil Indicators.

TABLE 3.
Hydrologic Indicators

The following is an abbreviated version of the various hydrological indicators pursuant to Section 62-340.500, F.A.C. Although not specifically listed in Section 62-301.400, F.A.C., these indicators would be applicable to determinations done under this rule as well.

1. Algal mats
2. Aquatic mosses or liverworts on trees or substrates
3. Aquatic plants
4. Presence of aufwuchs
5. Drift lines and rafted debris
6. Elevated lichen lines
7. Evidence of aquatic fauna
8. Hydrologic data
9. Morphological plant adaptations
10. Secondary flow channels
11. Sediment deposition
12. Presence of vegetated hummocks or tussocks
13. Water marks

**TABLE 4.
Hydric Soil Indicators**

The following is an abbreviated version of the hydric soil indicators developed by the U.S.D.A.-S.C.S. (Now known as the Natural Resources Conservation Service) for Florida in 1992. A complete explanation of the hydric soil indicators above can be obtained from Florida Soil Conservation Service, (1992). See References.

All Soils

1. Hydrogen Sulfide
2. Stratified Layers
3. Organic Bodies
4. Mucky Mineral
5. Muck Presence (S. FL. only)
6. 1 cm Muck (N. FL. only)

Loamy and Clayey Soils

1. Loamy Gleyed Matrix
2. Depleted Matrix
3. Thick Dark Surface (S. FL. only)
4. Iron/Manganese Masses (N. FL. only)
5. Marl (S. FL. only)
6. Umbric Surface

Sandy Soils

1. Sandy Gleyed Matrix
2. Sandy Redox
3. Stripped Matrix
4. Dark Surface

**TABLE 5.
Wetland Definition pursuant to 62-340.200, F.A.C.**

"Wetlands," as defined in subsection 373.019(17), F.S., means those areas that are inundated or saturated by surface water or ground water at a frequency and a duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils. Soils present in wetlands generally are classified as hydric or alluvial, or possess characteristics that are associated with reducing soil conditions. The prevalent vegetation in wetlands generally consists of facultative or obligate hydrophytic macrophytes that are typically adapted to areas having soil conditions described above. These species, due to morphological, physiological, or reproductive adaptations, have the ability to grow, reproduce or persist in aquatic environments or anaerobic soil conditions. Florida wetlands generally include swamps, marshes, bayheads, bogs, cypress domes and strands, sloughs, wet prairies, riverine swamps and marshes, hydric seepage slopes, tidal marshes, mangrove swamps and other similar areas. Florida wetlands generally do not include longleaf or slash pine flatwoods with an understory dominated by saw palmetto.

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RECEIVED

AUG 28 2009

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Passarella & Associates Inc.

In the matter of a petition for a Formal Determination of the Landward Extent of Wetlands and Other Surface Waters of the State by: Old Corkscrew Plantation
DEP file No. FD-36-0284086-001
Lee County

Old Corkscrew Plantation, LLC
c/o Kenneth C. Passarella
Passarella & Associates, Inc.
13620 Metropolis Ave. Suite 200
Fort Myers, FL 33912

**Formal Determination Issued:
August 26, 2009**

**Expiration Date:
August 26, 2014**

NOTICE OF AGENCY ACTION

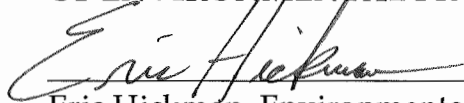
Enclosed is a Formal Determination of the Landward Extent of Wetlands and Other Surface Waters of the State (File No. FD-36-0284086-001) for the Old Corkscrew Plantation property located in Section 2, 3, 10, 11, 14, 15, 24, 25, 26, 34, 35, and 36, Township 46 South, Range 27 East, and Section 35, Township 45 South, Range 27 East, Lee County. This action is authorized pursuant to Sections 373.414 and 373.421(2), Florida Statutes and Florida Administrative Code Rule 62-343.040. This determination is strictly for purposes of establishing the landward extent of wetlands and other surface waters of the State and does not relieve you from the responsibility of obtaining

a federal permit from the U.S. Army Corps of Engineers, where applicable, and any permits that may be required from your Water Management District or local government.

Any party to this Order has the right to seek judicial review of the application pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**



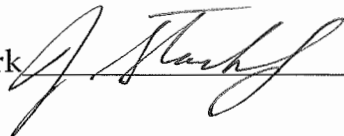
Eric Hickman, Environmental Administrator
Wetland Evaluation and Delineation Section
Office of Submerged Lands and Environmental
Resources
Division of Water Resource Management
2600 Blair Stone Road, MS 2500
Tallahassee, Florida 32399-2400
(850) 245-8496

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF AGENCY ACTION and all copies were mailed before the close of business on August 26, 2009 to the persons listed below.

FILING AND ACKNOWLEDGEMENT

FILED, on this date, pursuant to 120.52(9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk  Date 8/26/09

Copies furnished to:
w/ enclosures

cc: Lucy Blair, FDEP, South District, Ft. Myers
Carol Wehle; SFWMD; PO Box 24680; West Palm Beach, FL 33416-4680
Skip Bergmann; USACOE; Ft. Myers Regulatory Office; 2301 McGregor Blvd., Suite 300;
Ft. Myers, FL 33901-3353

DEPARTMENT OF ENVIRONMENTAL PROTECTION
FORMAL DETERMINATION OF THE LANDWARD EXTENT OF
WETLANDS AND OTHER SURFACE WATERS OF THE STATE

APPLICATION NO. FD-36-0284086-001

Old Corkscrew Plantation Property

Old Corkscrew Plantation, LLC c/o Kenneth Passarella, Passarella & Associates, Inc., 13620 Metropolis Ave. Suite 200; Fort Myers, FL 33912, has filed an application (FD-36-0284086-001) pursuant to Sections 373.414 and 373.421(2), Florida Statutes, and Rule 62-343.040, Florida Administrative Code for a Formal Determination of the Landward Extent of Wetlands and Other Surface Waters of the State. The applicant seeks the determination for a 6,652.69-acre tract located in Section 2, 3, 10, 11, 14, 15, 24, 25, 26, 34, 35, and 36, Township 46 South, Range 27 East, and Section 35, Township 45 South, Range 27 East, Lee County. The application was received on November 15, 2007. The Department via a letter dated December 15, 2008 advised the applicant that the application was complete pending receipt of five copies of maps delineating the wetlands and other surface waters of the State as determined by the Department from March 30, 2008 through April 28 of 2008.

Upon review of information submitted by the applicant and a detailed site evaluation performed by the Department's staff (report enclosed), the landward extent of wetlands and other surface waters of the State subject to the Department's environmental resource permitting procedures at the property has been determined. The Formal Determination of the Landward Extent of Wetlands and Other Surface Waters of the State is shown on Attachments A and B of

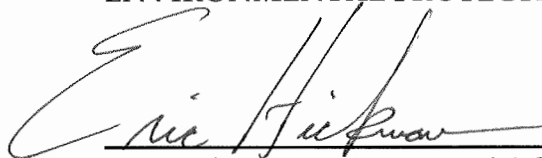
the final report. The bold black line delineates the boundaries of the area inspected. The red hatched area surrounded by the bold red line represents the landward extent of wetlands and the bold red line that surrounds the blue hatched area represents other surface waters of the State both identified by certified survey. The red hatched areas contained within the bold green line indicates the landward extent of wetlands and the bold green line surrounding the blue hatched areas are other surface waters of the State both identified by variance approximate delineation methodology. The bold orange line surrounding the blue hatched areas are other surface waters of the State identified by approximate delineation methodology. The applicant elected not to have all of the formal determination line surveyed; therefore pursuant to Section 62.312.040(3), Florida Administrative Code, the line so drawn may represent only an approximation of the actual demarcation of wetland boundaries because of inherent characteristics in drafting or cartography. The accuracy of the demarcation will be commensurate with the level of detail and accuracy of the information provided. Also, a variance to Rule 62-343.040(2)(c)2.a. F.A.C. was granted by the Department on December 4, 2008. This variance states that areas specified by the department as having sufficient aerial signatures to allow delineation from aerial photography will not be required to have the aid of field located boundary points every 1000 feet. This variance was granted due to the large number of ditches (116+/- miles) on site. The applicant elected to have part of the formal determination line surveyed, and has provided the Department with five copies of the survey properly certified in accordance with Chapter 472, Florida Statutes.

Notice of the Agency's intent to grant a Formal Determination of the Landward Extent of Wetlands and Other Surface Waters of the State for the Old Corkscrew Plantation property

(FD-36-0284086-001) was published on June 12, 2009 in the daily newspaper in Lee County, Florida. No petition for hearing has been filed concerning this matter.

The Formal Determination of the Landward Extent of Wetlands and Other Surface Waters of the State is binding for a period of five (5) years from the date of this determination provided physical conditions on the property do not change so as to alter wetland boundaries during this time. The Department may revoke this formal determination if it finds that the applicant has submitted inaccurate information in the application.

**STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION**

A handwritten signature in black ink, appearing to read "Eric Hickman", written over a horizontal line.

Eric Hickman, Environmental Administrator
Wetland Evaluation and Delineation Section