



August 10, 2012

Ms. Cindy Mulkey
Program Administrator
Siting Coordination Office (SCO)
3900 Commonwealth Blvd. MS 48
Tallahassee, FL 32399-3000

RE: Florida Power Corporation d/b/a Progress Energy Florida, Inc.
Central Florida – Kathleen Transmission Line (TA81-02)
Request for Letter Modification to Conditions of Certification

Dear Ms. Mulkey:

Please let this letter serve as a request from Progress Energy Florida (PEF) to modify the Conditions of Certification for the Central Florida – Kathleen (CFK) Transmission Line (TA81-02) to allow the clearing of trees within the existing CFK transmission line corridor. Provided below is a summary of the justification for these modifications, followed by detailed list of each modification that is requested. Following the information relevant to the modification, we provide information as to the most recent environmental data collection efforts that have been conducted, for your information.

PEF conducted a LiDAR analysis on the 230kV lines (CFBE and CFW) within the corridor of our Central Florida substation. For your information, the CFBE line is west of the CFK line and the CFW line is east of the CFK line. It was determined that the trees between the lines do not meet minimum clearance requirements per the North American Electric Reliability Corporation (NERC) Standard FAC-003-1. This is based on line ratings at maximum operating temperature and blowout of the line due to storms or other contingencies. These lines may sag 10 feet or more beyond normal line ratings based on load and environmental conditions (temperature and humidity). Based on the current easement widths and clearing parameters, the trees will require removal to ensure future reliability under all rating conditions and to maintain public safety. During the LiDAR analysis, these trees were identified for removal to ensure compliance with minimum clearances within the NERC requirements. If the trees are not removed, the severe trimming necessary to comply with these requirements would likely impact the health and future survival of the trees. As part of this project the trees will be removed and disposed of properly. The site will receive regular herbicide treatments in the future to promote native grasses and low growing plants and discourage invasive exotic plant growth.

Progress Energy Florida, Inc.
P.O. Box 14042
St. Petersburg, FL 33733

The specific Conditions of Certification requested for modification to remove the restriction on tree clearing are as follows:

XI. Other Construction Activities C. The outer 20 feet of the ROW shall not be clear-cut but rather selectively cleared of danger trees. Danger trees are tall dead or diseased trees, or trees leaning toward the line which would contact the line by falling and

XII. Maintenance B. When maintenance trimming is necessary the outer 20 feet shall be selectively cleared of danger trees and not clear-cut.

This modification complies with condition XV(a)(1) and (2) within the Conditions of Certification. These condition state that the FDEP Secretary is delegated the authority, pursuant to 403.5315(1), F.S., to modify conditions of certification, provided the modification 1) does not cause any significant adverse environmental impact and 2) are necessary to meet licensing conditions or requirements imposed by any federal agency.

This modification does will not result in any significant adverse environmental impact (see summary of recent environmental surveys below) and is necessary to meet requirements imposed on the permittee by NERC and the Federal Energy Regulatory Commission (FERC). For this reason, we respectfully request the modification be granted.

Please contact Wayne Richardson with Progress Energy Florida at (727) 820-5148 or wayne.richardson@pgnmail.com if you have any questions regarding the modification request.

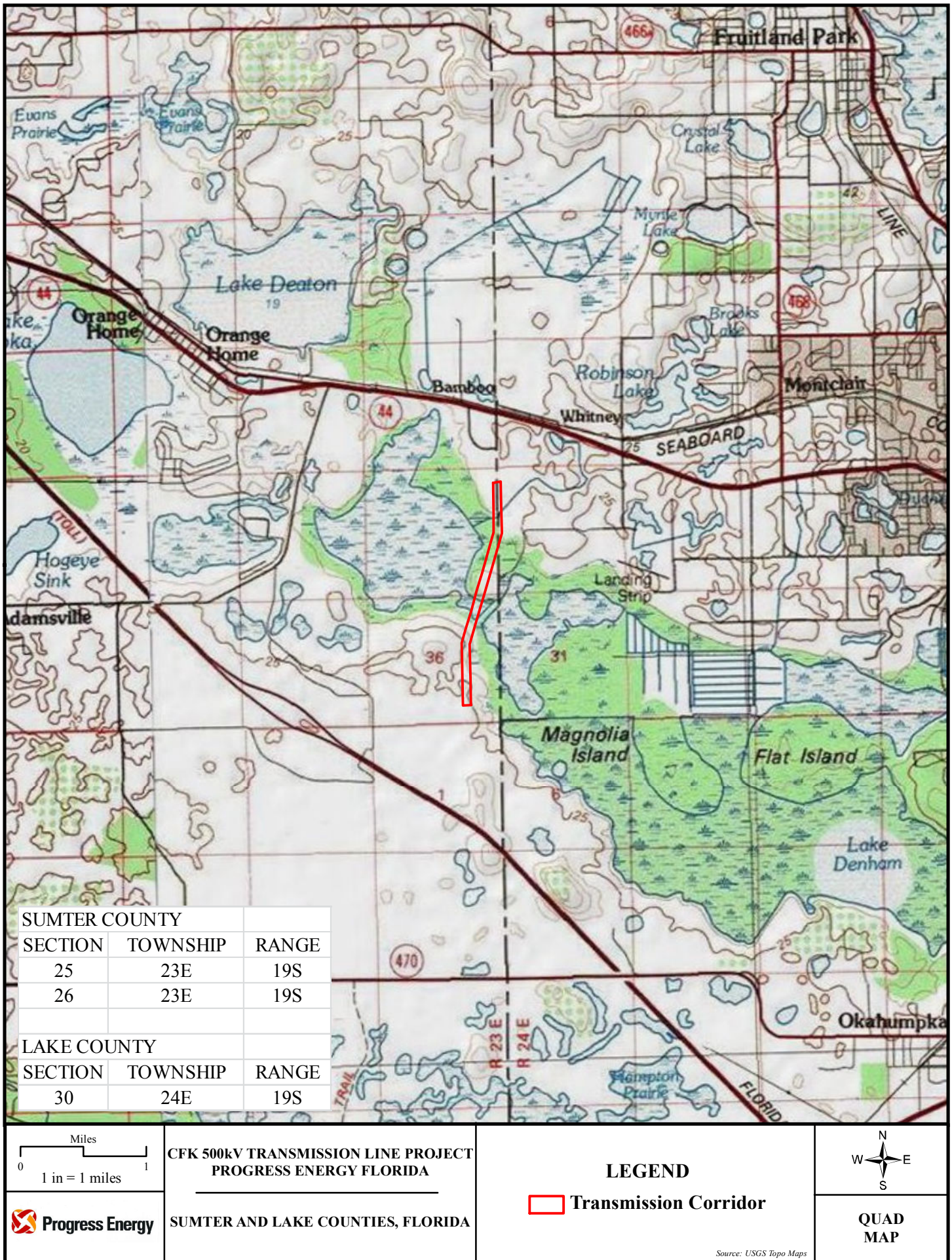
Sincerely,

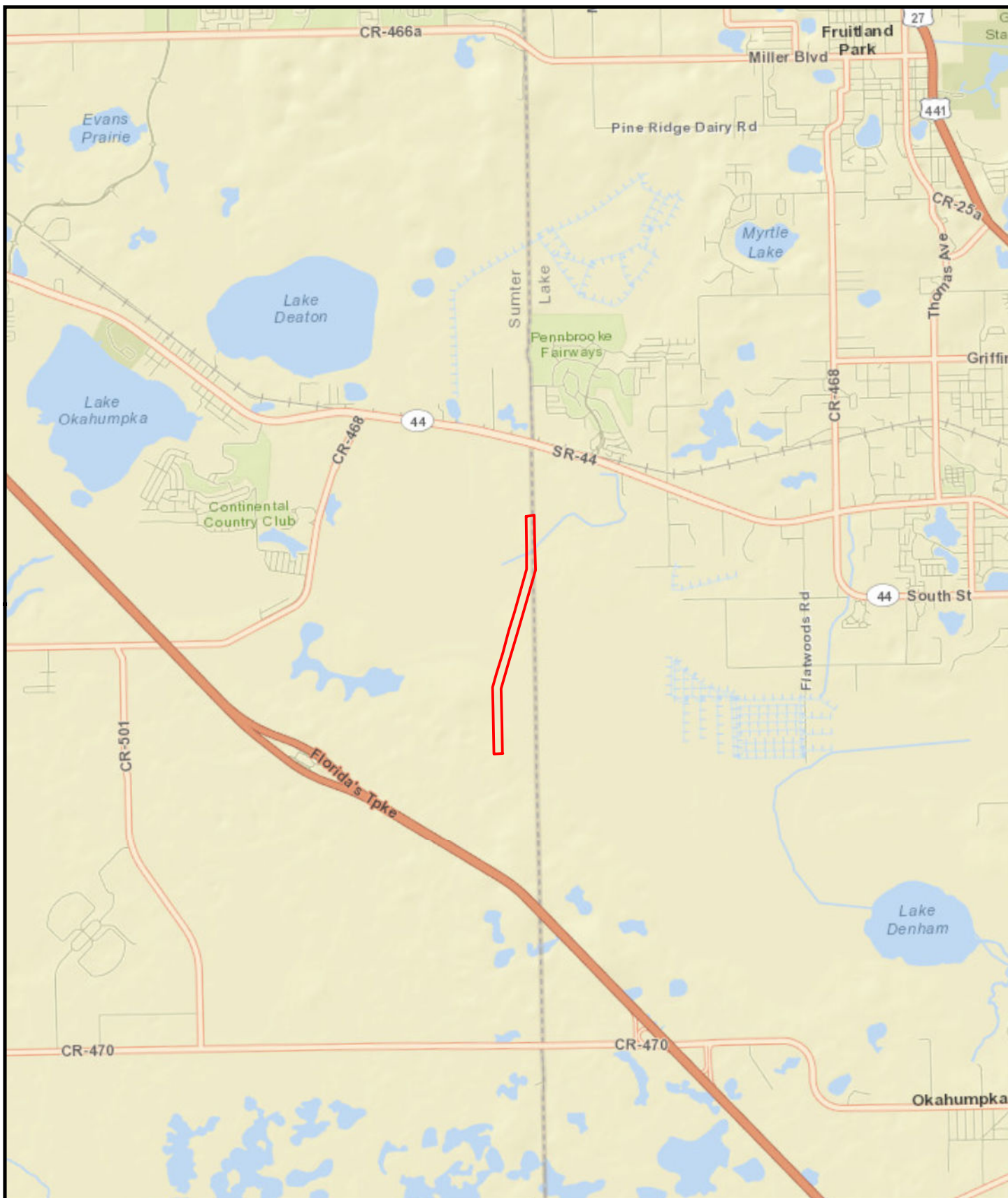


Wayne Richardson
Lead Environmental Specialist

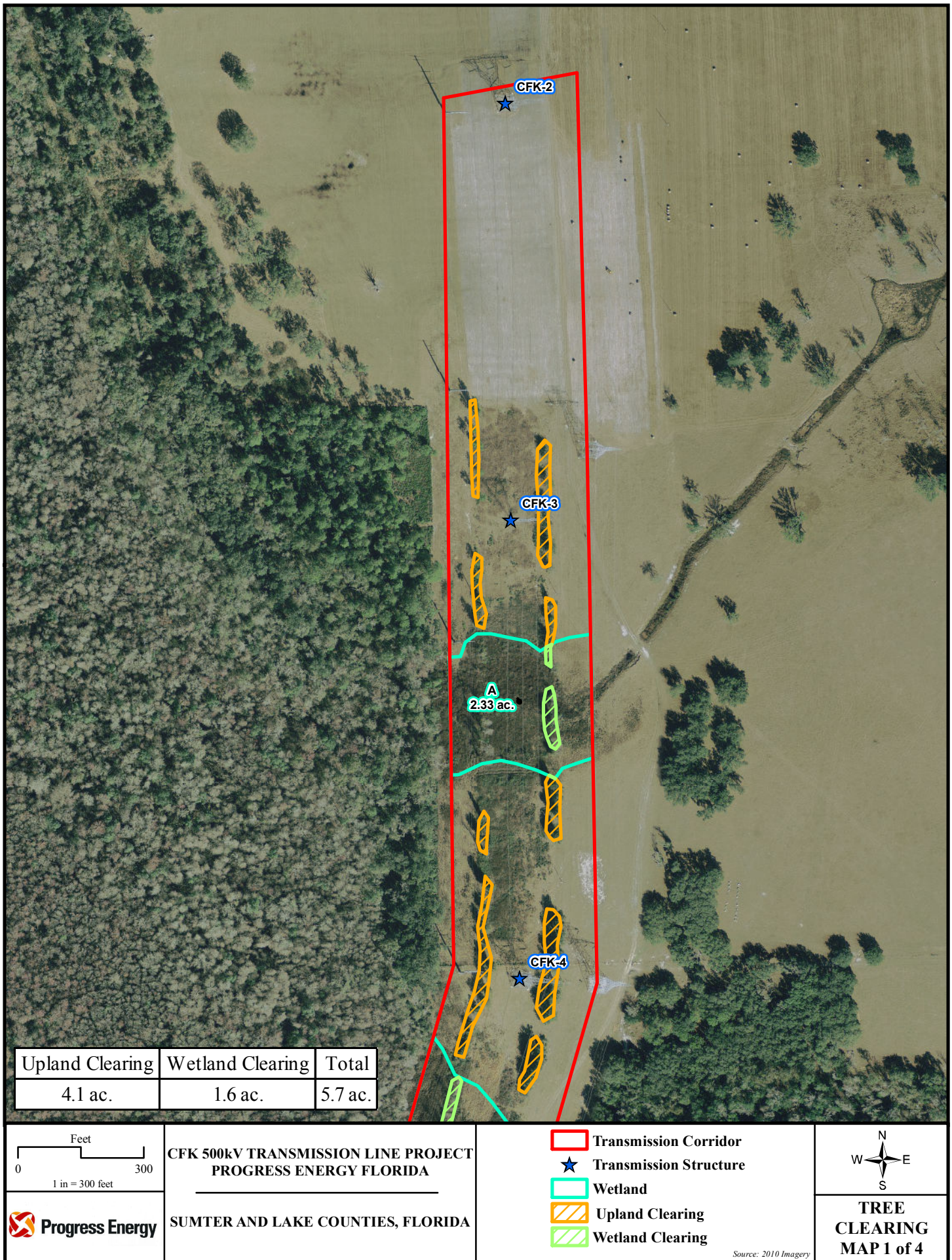
Enclosures: 1. Quad Map
 2. Location Map
 3. Tree Clearing Map Book
 4. Summary of Recent Environmental Surveys
 5. Wetland Determination and Listed Species Survey Report
 6. CD containing all enclosures

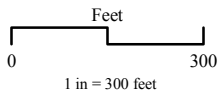
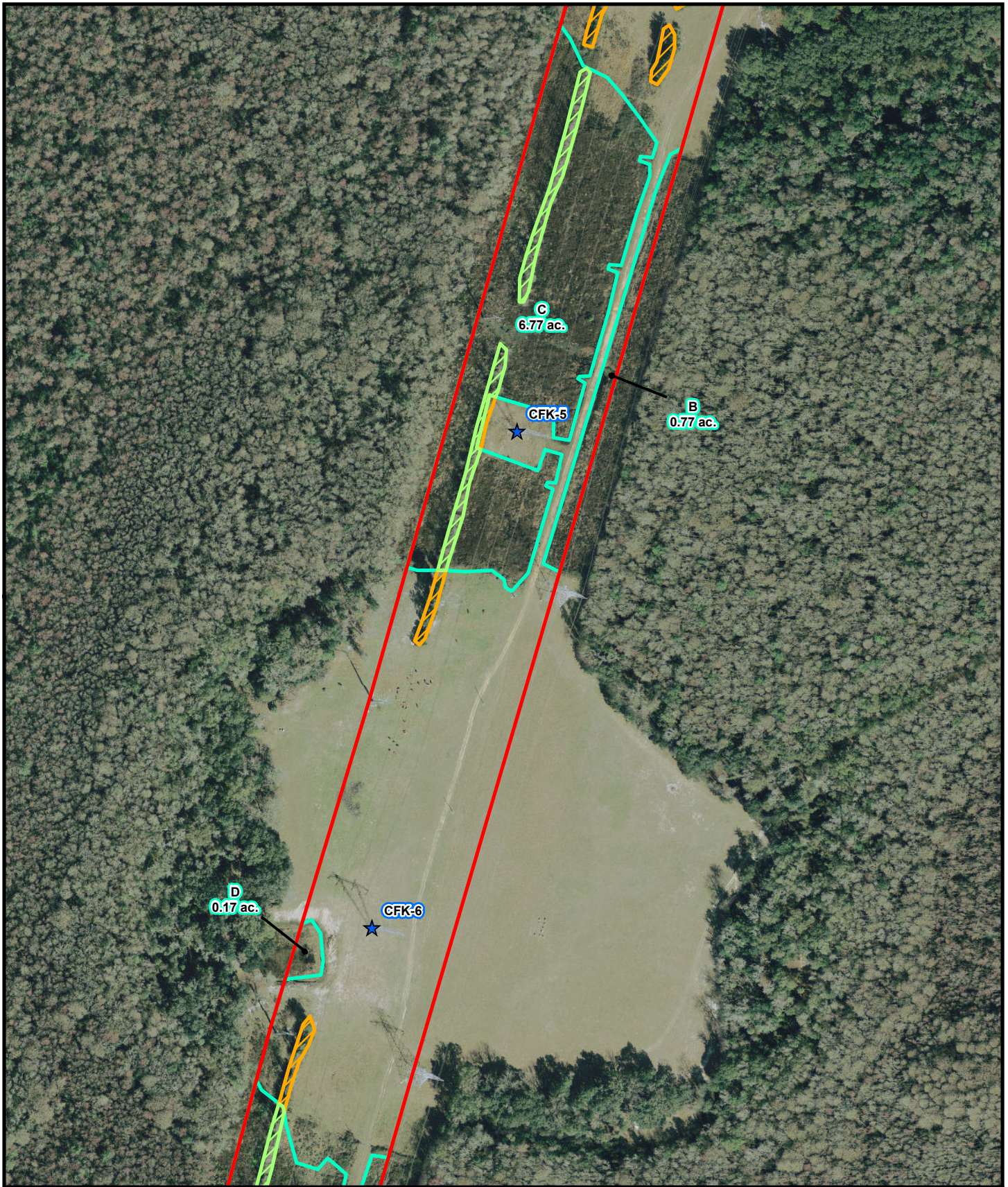
cc: Lee Walton/Flatwoods Consulting Group: with enclosures





Miles 0 1 1 in = 1 miles	CFK 500kV TRANSMISSION LINE PROJECT PROGRESS ENERGY FLORIDA	LEGEND Transmission Corridor	N W E S
 Progress Energy	SUMTER AND LAKE COUNTIES, FLORIDA		LOCATION MAP





**CFK 500kV TRANSMISSION LINE PROJECT
PROGRESS ENERGY FLORIDA**

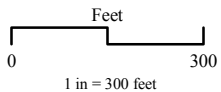
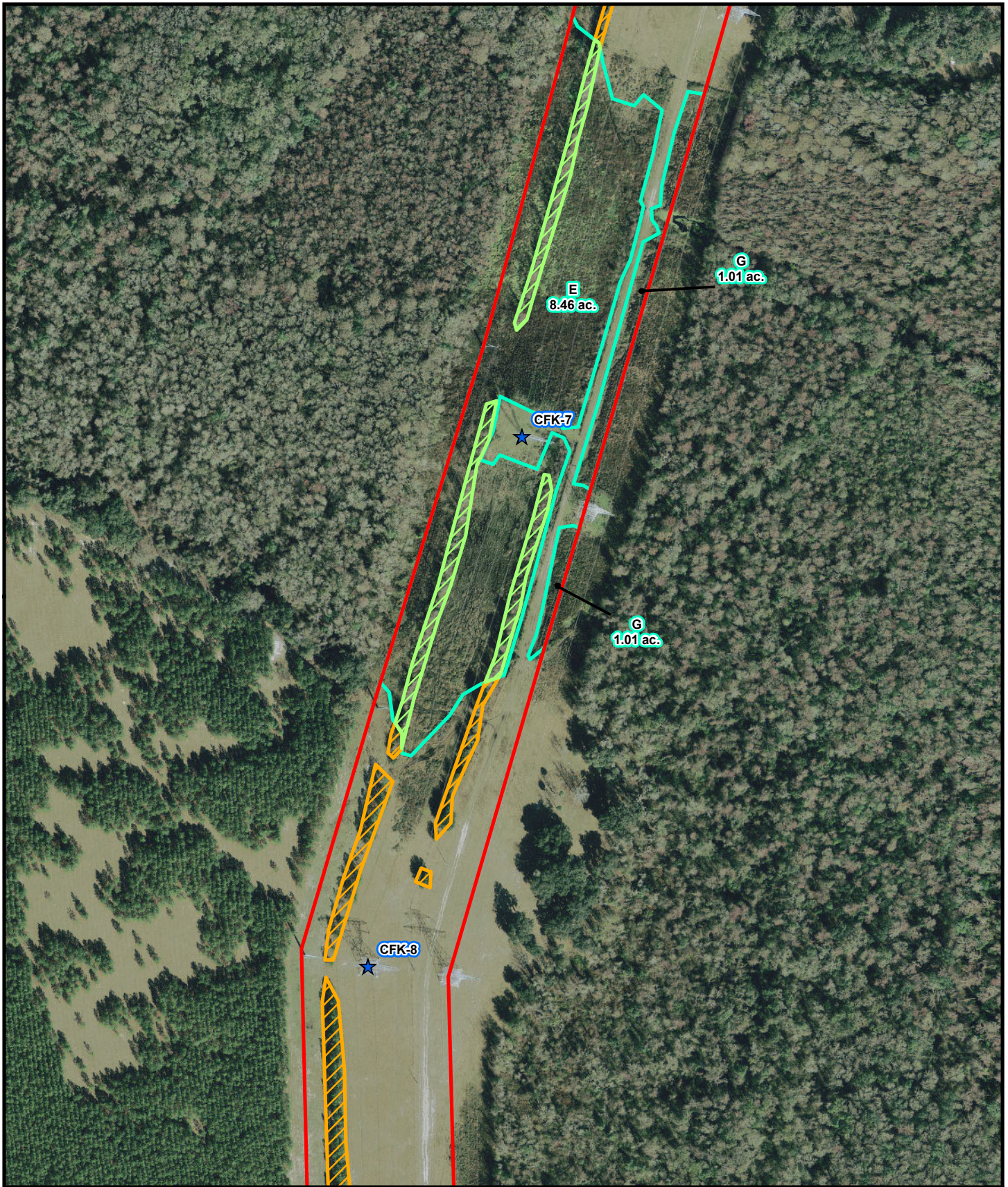
SUMTER AND LAKE COUNTIES, FLORIDA

- Transmission Corridor
- ★ Transmission Structure
- Wetland
- Upland Clearing
- Wetland Clearing

Source: 2010 Imagery



**TREE
CLEARING
MAP 2 of 4**



**CFK 500kV TRANSMISSION LINE PROJECT
PROGRESS ENERGY FLORIDA**

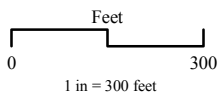
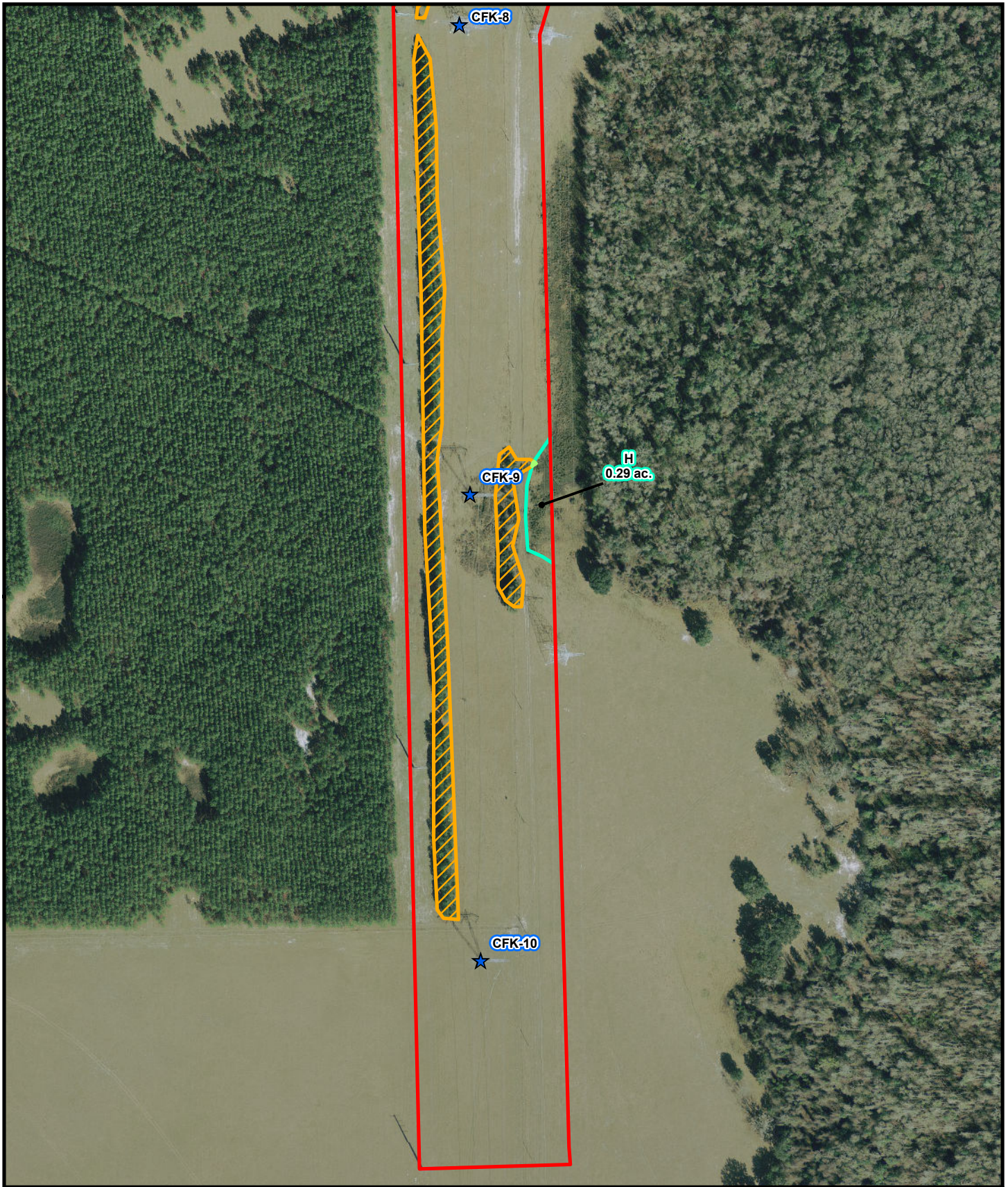
SUMTER AND LAKE COUNTIES, FLORIDA

- Transmission Corridor
- ★ Transmission Structure
- Wetland
- Upland Clearing
- Wetland Clearing

Source: 2010 Imagery



**TREE
CLEARING
MAP 3 of 4**



**CFK 500kV TRANSMISSION LINE PROJECT
PROGRESS ENERGY FLORIDA**

SUMTER AND LAKE COUNTIES, FLORIDA

- Transmission Corridor
- ★ Transmission Structure
- Wetland
- Upland Clearing
- Wetland Clearing



**TREE
CLEARING
MAP 4 of 4**

Source: 2010 Imagery



Summary of Recent Environmental Surveys

For your information, Flatwoods Consulting Group Inc. (Flatwoods) was retained by Progress Energy Florida to delineate wetlands and assess the status of listed plant and wildlife species on the CFK 500kV Transmission Line Project located in Sections 25 and 26, Township 19 South, Range 23 East in Sumter County and Section 30, Township 19 South, Range 24 East in Lake County, Florida (Quad Map). More specifically the project is located south of State Road 44, east State Road 468 and north of the Florida Turnpike (Location Map).

Flatwoods delineated the wetland boundaries within the project area on June 18, 2012. The wetlands limits were determined in accordance with The Florida Wetlands Delineation Manual (Chapter 62-340, F.A.C.) suitable for submittal to the Florida Department of Environmental Protection (FDEP) and the 1987 Wetlands Delineation Manual, 2008 Supplement suitable for submittal to the U.S. Army Corps of Engineers (USACE). The locations of the wetlands are shown on the Wetland Map Book in the attached Wetland Determination and Listed Species Survey Report for the CFK 500kV Transmission Line. We are proposing 1.6 acres of tree clearing in wetlands and 4.1 acres of tree clearing in uplands according to the wetland determination (Tree Clearing Map Book). The cut trees will be removed from the wetlands and uplands and properly disposed.

Flatwoods also conducted a listed species survey to identify the presence and relative abundance of species considered Endangered, Threatened, or of Special Concern by the U.S. Fish and Wildlife Service (FWS) under Title 50 Code of Federal Regulation (CFR) 11-12 or the Florida Fish and Wildlife Conservation Commission (FWC) under Chapter 68A-27 F.A.C. One listed species, the gopher tortoise was observed within the project area (Listed Species Survey Map Book in the Wetland Determination and Listed Species Survey Report for the CFK 500kV Transmission Line). The five gopher tortoise burrows observed will not be impacted by the tree clearing activity. No other listed species were observed during the survey and no impacts to listed species are likely to occur from the tree clearing.

**CFK 500kV TRANSMISSION LINE PROJECT
SUMTER AND LAKE COUNTIES, FLORIDA
WETLAND DETERMINATION AND LISTED SPECIES REPORT**

Prepared For:



Mr. Wayne Richardson
Lead Environmental Specialist
Environmental Permitting & Compliance
Progress Energy Florida, Inc.
P.O. Box 14042; PEF 903
St. Petersburg, FL 33733

June 21, 2012

Prepared by:



**10150 Highland Manor Drive•Suite 200
Tampa, FL 33610•813-600-5747**

A blue ink signature of Lee M. Walton, written in a cursive style.

Lee M. Walton
Senior Ecologist/Principal

A blue ink signature of Carrie E. Kelly, written in a cursive style.

Carrie E. Kelly
Ecologist

Contents

1.0	INTRODUCTION.....	3
2.0	METHODOLOGY	3
2.1	Preliminary Review	3
2.2	Survey Methods	4
2.2.1	Wetland Determination.....	4
2.2.2	Standard Listed Species Survey	4
2.2.3	Listed Plant Survey.....	5
2.2.4	Gopher Tortoise Survey.....	5
2.2.5	Bird Cavity and Nest Survey	5
3.0	RESULTS.....	5
3.1	Soil Descriptions.....	5
3.2	Existing Upland and Wetland Communities.....	5
3.3	Wetland Determination Results	7
3.4	Listed Species Survey Results	8
3.4.1	Gopher Tortoise.....	9
3.4.2	Nests on Structures	9
4.0	SUMMARY	9
5.0	REFERENCES.....	10

Figures

Quad Map.....	Follows Text
Location Map	Follows Text
Soil Map Book	Follows Text
Land Use Map Book	Follows Text
Photo Point Map Book.....	Follows Text
Wetland Map Book	Follows Text
Listed Species Survey Map Book.....	Follows Text
FWC and FNAI Map	Follows Text

Appendix

Photo Document.....	Follows Text
---------------------	--------------

1.0 INTRODUCTION

Flatwoods Consulting Group Inc. (Flatwoods) was retained by Progress Energy Florida, Inc. to delineate wetlands and assess the status of listed plant and wildlife species on the CFK 500kV Transmission Line Project located in Sections 25 and 26, Township 19 South, Range 23 East in Sumter County and Section 30, Township 19 South, Range 24 East in Lake County, Florida (Quad Map). More specifically the project is located south of State Road 44, east State Road 468 and north of the Florida Turnpike (Location Map). The purpose of the wetland survey was to determine the jurisdictional limits of wetlands within the project corridor in accordance with The Florida Wetlands Delineation Manual (Chapter 62-340, F.A.C.) suitable for submittal to the Florida Department of Environmental Protection (FDEP) and the 1987 Wetlands Delineation Manual, 2008 Supplement suitable for submittal to the U.S. Army Corps of Engineers (USACE). The purpose of the listed species survey was to identify the presence and relative abundance of species considered Endangered, Threatened, or of Special Concern by the U.S. Fish and Wildlife Service (FWS) under Title 50 Code of Federal Regulation (CFR) 11-12 or the Florida Fish and Wildlife Conservation Commission (FWC) under Chapter 68A-27 F.A.C.

2.0 METHODOLOGY

The following sections describe the methods used by Flatwoods to determine the wetland limits and detect the potential presence and relative abundance of listed wildlife and plants within the CFK 500kV Transmission Line Project. The project area is a 325-foot wide mostly cleared transmission corridor starting at structure CFK-2 and running south to structure CFK-10. The width of the project area covered from the centerline of the CFBE 230kV structures on the west to the centerline of the CFW 230kV structures on the east.

2.1 Preliminary Review

Flatwoods reviewed information from the FWS, the FWC, the Florida Natural Areas Inventory (FNAI), the Southwest Florida Water Management District (SWFWMD), and the Florida Department of Environmental Protection (FDEP) geographic information system (GIS) databases regarding the occurrence of wetlands, listed species and protected habitats.

To further identify which federally and state listed plant and animal species have the potential to occur within the transmission corridor, upland and wetland vegetative communities were assessed to determine their plant species composition, approximate boundaries, and general condition and quality. To establish the approximate locations and boundaries of existing upland and wetland communities within the transmission corridor, available site-specific data were collected and reviewed using the following resources and methods (see References for complete source information):

- Infrared and true color aerial imagery of the study area
- U.S. Department of Agriculture (USDA)/Natural Resource Conservation Service (NRCS) Soil Survey of Seminole County, Florida
- U.S. Geological Survey (USGS) Topographic Quadrangle maps

- FWS Critical Habitat Portal
- FNAI Biodiversity Matrix
- Florida Department of Transportation (FDOT) Florida Land Use, Cover, and Forms Classification System (FLUCCS)
- SWFWMD FLUCCS mapping
- FWS National Wetlands Index (NWI)

2.2 Survey Methods

2.2.1 Wetland Determination

Flatwoods delineated the wetland boundaries within the project area on June 18, 2012. The wetlands limits were determined in accordance with The Florida Wetlands Delineation Manual (Chapter 62-340, F.A.C.) suitable for submittal to the FDEP and the 1987 Wetlands Delineation Manual, 2008 Supplement suitable for submittal to the USACE. These delineation methods emphasize that wetland determinations are based on the identification of specific hydrologic requirements, including the presence of hydric soils, a dominance of hydrophytic vegetation, hydric soil conditions (periodic, continuous, or saturated), and other indicators of hydrologic conditions, such as inundation, moss collars, and the presence of muck soils. Wetlands observed in the field were delineated using the above criteria, and the location of each wetland flag used to mark wetland limits was recorded using a sub-meter GPS. The locations of the wetlands are shown on the Wetland Map Book.

In addition to establishing the wetland boundaries and characteristics, Flatwoods personnel evaluated each wetland to determine if it is within the Rivers and Harbors Act jurisdiction or Clean Water Act jurisdiction based on the 40 CFR 230.3 (2) definition of “*Waters of the United States*”.

2.2.2 Standard Listed Species Survey

Flatwoods conducted a listed species survey within the project area in accordance with the FWC Florida Wildlife Conservation Guide. Pedestrian transect surveys for listed species were conducted on June 18, 2012. During these surveys all habitats within the project area were canvassed for listed species. Any observations of listed species, as well as physical features that may indicate the presence of these species, such as tracks, scat, nests, burrows, and nest cavities in trees or poles, were mapped on color aerial prints of the project area. Direct observations of listed species were recorded using a sub-meter global positioning system (GPS), and their locations are shown on the Listed Species Survey Map Book.

2.2.3 Listed Plant Survey

Flatwoods completed a survey within the project area for plant species listed by the FWS as Threatened or Endangered. Any observations of listed plant species were recorded using a sub-meter GPS.

2.2.4 Gopher Tortoise Survey

Flatwoods conducted a 100 percent survey to locate all gopher tortoise (*Gopherus polyphemus*) burrows and estimate the density of gopher tortoises within the project area. The tortoise survey was conducted in accordance with the FWC methods as outlined in the Gopher Tortoise Permitting Guidelines April 2008 (revised November 2011). An Authorized Gopher Tortoise Agent supervised the gopher tortoise survey. Burrows that are considered potentially occupied (active or inactive but not abandoned) were flagged in the field and recorded using a sub-meter GPS. Their locations are shown on the Listed Species Survey Map Book.

2.2.5 Bird Cavity and Nest Survey

Flatwoods surveyed all existing utility structures within the project area to document nesting in (cavity) or nesting on (stick nest) the structures. Any observations of cavities in utility structures or nests on utility structures were recorded using a sub-meter GPS and their locations are shown on the Listed Species Survey Map Book.

3.0 RESULTS

3.1 Soil Descriptions

Based on the USDA/NRCS Soil Survey for Sumter County (1988) and Lake County (1975), 21 soil types are mapped within CFK 500kV Transmission Line Project (Soil Map Book). Ten soil types are classified as hydric according to the *Hydric Soils of Florida Handbook*: Paisley fine sand, bouldery subsurface (Soil Map Book Unit 9), Wabasso Fine Sand, Bouldery Subsurface (Soil Map Book Unit 26), Myakka Sand (Soil Map Book Unit 31), Everglades Muck, Frequently Flooded (Soil Map Book Unit 41), Adamsville Fine Sand (Soil Map Book Unit 42), Basinger Fine Sand, Depressional (Soil Map Book Unit 43), Okeelanta Muck, Frequently Flooded (Soil Map Book Unit 47), Immokalee Sand (Soil Map Book Unit 50), Immokalee Sand (Soil Map Book Unit 20), Swamp (Soil Map Book Unit 44) and Wabasso Sand (Soil Map Book Unit 48). The remaining soils are found in uplands.

3.2 Existing Upland and Wetland Communities

The habitats within the transmission corridor have been classified based on the FDOT FLUCCS. This land use classification is based on existing spatial data layers and may not represent current conditions (Land Use Map Book).

Upland Land Use Types

Cropland and Pastureland (FLUCCS 210)

The majority of the project area is classified as cropland and pastureland. Vegetation present in these areas is typically Bahia grass (*Paspalum notatum*). Cutting of sod is evident within the project area.

Tree Plantations (FLUCCS 440)

A portion of the transmission corridor is planted Florida slash pine (*Pinus elliottii*). The understory is Bahia grass and pine needles. Representative photographs are included in the photodocument. The Photo Point Map depicts the location and direction of each photograph (See Photographs from Photo Points 15-17).

Utilities (FLUCCS 830)

This land use describes the cleared transmission corridor. Most of the vegetation throughout the transmission corridor is typical of treeless flatwoods habitats and includes Bahia grass, saw palmetto (*Serenoa repens*) and various species of grasses and forbs. Please note that there are two rows of trees in portions of the corridor that remain (See Photographs from Photo Points 1-4, 6 and 8). The trees are live oak (*Quercus virginiana*), southern magnolia (*Magnolia grandiflora*), Florida slash pine, sweet gum (*Liquidambar styraciflua*), and laurel oak (*Quercus laurifolia*).

Wetland Land Use Types

Stream and Lake Swamps (FLUCCS 615)

This area within the transmission corridor describes a portion of previously forested wetlands that are periodically mowed and maintained. This area has a row of water oak (*Quercus nigra*), sweet bay (*Persea palustris*) and pond cypress (*Taxodium ascendens*) trees. The cleared portions have common buttonbush (*Cephalanthus occidentalis*), soft rush (*Juncus effusus*), Virginia chain fern (*Woodwardia virginica*), lizard's tail (*Saururus cernuus*) and maidencane (*Panicum hemitomon*).

Freshwater Marshes (FLUCCS 641)

This wetland land use type is regularly mowed and maintained. The dominant herbaceous species are a variety of sedges (*Carex* spp. and *Cyperus* spp.), soft rush and lizard's tail.

Wet Prairies (FLUCCS 643)

This wetland land use type is not accurate. The area defined is dominated by Bahia grass and saw palmetto.

Emergent Aquatic Vegetation (FLUCCS 644)

This wetland land use type is a surface water that was excavated in upland soils. The area is open water with 50% coverage of cattail (*Typha latifolia*).

3.3 Wetland Determination Results

Flatwoods personnel located six wetlands (Wetlands A, B, C, E, G, H) and one surface water pond (Wetland D) within the project area. The wetlands are shown on the Wetland Map Book. No Special Protection Waters, Outstanding Florida Waters, or Outstanding National Resource Waters as defined by 62-302.700 F.A.C. occur within or adjacent to the project area. The wetlands are considered to be within the USACE Clean Water Act jurisdiction because they are hydrologically connected to offsite wetlands and ultimately to the Harris Chain of Lakes, a Traditional Navigable Water (TNW). Descriptions of the wetlands are below and representative photographs of wetlands are included in the photodocument.

Wetland A (2.33 acres)

Historically this wetland was a stream and swamp system. It is currently a marsh dominated by common buttonbush, Peruvian primrosewillow (*Ludwigia peruviana*), Carolina willow (*Salix caroliniana*), goldenrod (*Solidago* spp.), cattail, bushy bluestem (*Andropogon glomeratus*), softrush, Virginia chain fern, lizard's tail and variety of sedges and rushes. There are two rows of trees east and west of the CFK transmission corridor that have not been cleared (See Photographs from Photo Points 2, 3, 5 and 7). The trees are pond cypress, red maple (*Acer rubrum*), dahoon holly (*Ilex cassine*), water oak, loblolly bay (*Gordonia lasianthus*), common persimmon (*Diospyros virginiana*), sweet bay and sweet gum.

Wetland B (0.77 acre)

Historically this wetland was a stream and swamp system. It is currently a marsh dominated by common buttonbush, elderberry (*Sambucus nigra*), Peruvian primrosewillow (*Ludwigia peruviana*), softrush, Virginia chain fern, lizard's tail and variety of sedges and rushes. The herbaceous portion of this wetland was being bush-hogged at the time of survey. A bermed access road is the western border of this wetland. Several culverts connect Wetlands B and C.

Wetland C (6.77 acres)

Historically this wetland was a stream and swamp system. It is currently a marsh dominated by common buttonbush, Peruvian primrosewillow, cattail, elderberry (*Sambucus nigra*), softrush, Virginia chain fern, lizard's tail and variety of sedges and rushes. There is a row of trees west of

the CFK transmission corridor that has not been cleared (See Photographs from Photo Points 8 and 9). The trees are pond cypress, red maple (*Acer rubrum*), water oak, sweet bay and sweet gum (*Liquidambar styraciflua*). A bermed access road is the eastern border of this wetland. Several culverts connect Wetlands B and C. The wetland contains several small fill pads for four distribution poles and a large fill area for lattice structure CFK-5. The herbaceous portion of this wetland was being bush-hogged at the time of survey.

Wetland D (0.17 acre)

This wetland is a surface water pond excavated in upland soils. Steep sandy slopes lead down to a cattail dominated water feature.

Wetland E (8.46 acres)

Historically this wetland was a stream and swamp system. It is currently a marsh dominated by common buttonbush, Peruvian primrosewillow, Carolina willow, cattail, elderberry, softrush, Virginia chain fern, lizard's tail and variety of sedges and rushes. There is a row of trees west of the CFK transmission corridor that has not been cleared (See Photographs from Photo Points 11-14). The trees are pond cypress, red maple, water oak, sweet bay and sweet gum. A bermed access road is the eastern border of this wetland. Several culverts and a large open water ditch connect Wetlands E and G. The wetland contains a large fill area for lattice structure CFK-7.

Wetland G (1.01 acres)

Historically this wetland was a stream and swamp system. It is currently a marsh dominated by common buttonbush, elderberry, Peruvian primrosewillow, goldenrod, softrush, Virginia chain fern, lizard's tail and variety of sedges and rushes. A bermed access road is the western border of this wetland. Several culverts and a large open water ditch connect Wetlands E and G. The wetland contains a large fill area for structure CFW-7.

Wetland H (0.29 acre)

Historically this wetland was part of the adjacent stream and swamp system. It is currently a marsh dominated by softrush, lizard's tail and variety of sedges and rushes. A bermed access road is the western border of this wetland.

3.4 Listed Species Survey Results

One listed species, the gopher tortoise was observed within the project area (Listed Species Survey Map Book). No other listed species were observed during the survey. Five osprey nests on existing structures were observed and are depicted on the Listed Species Survey Map Book. No listed plants were observed and none of the listed plants are likely to occur. One known bald eagle nest occurs within one mile of the project according to the FWC Eagle Nest Locator, which is current through the 2010-2011 nesting season. Bald Eagle nest SU015 is located 5,000 feet west of structure CFK-5 (FWC and FNAI Map). No communal roosts or rookeries were

observed on the site or within the vicinity of the site. According to the 1999 FWC wading bird colony database, no known wading bird colonies are located within one mile of the project area.

3.4.1 Gopher Tortoise

The gopher tortoise is listed as Threatened by the FWC and not listed by the FWS. Gopher tortoises are terrestrial turtles averaging 9 to 11 inches in length. They are typically found in sandhill, pine flatwoods, scrub, dry prairie, coastal dunes, and other well-drained, open habitats. Gopher tortoises dig half-moon-shaped burrows that average 15 feet long and 7 feet deep. Flatwoods personnel located 5 potentially occupied gopher tortoise burrows within project area (Listed Species Survey Map Book). Please note that the project area was recently bush-hogged (See Photographs from Photo Point 7). It is possible that tortoise burrows located under the recently cut brush could not be located at the time of survey.

3.4.2 Nests on Structures

Nests were observed on 5 of the existing utility structures during the survey (Listed Species Survey Map Book). Two of the nests were active osprey nests (CFK-5 and CFK-10). The active osprey nests had large juvenile ospreys on the structures during the survey. The remaining three nests likely were ospreys nests but were dilapidated and likely not active this year. Ospreys (*Pandion haliaetus*) are a large, fish-eating raptor intermediate in size between the bald eagle and red-tailed hawk. Ospreys are typically associated with permanent water habitats. They breed near open expanses of water that support fish. Ospreys consume fish almost exclusively, although crustaceans, frogs, turtles, birds, and rodents are occasionally eaten. No construction is proposed for the structures; although, active osprey nests are not permitted to be removed until the nest is no longer active (i.e., nest fails or nestlings fledge). Removing existing structures with an inactive nest is permitted under the Progress Energy Florida FWC Migratory Bird Nest Removal Permit (LSNR-09-0334). FWS approval regarding osprey nests should not be required for the project.

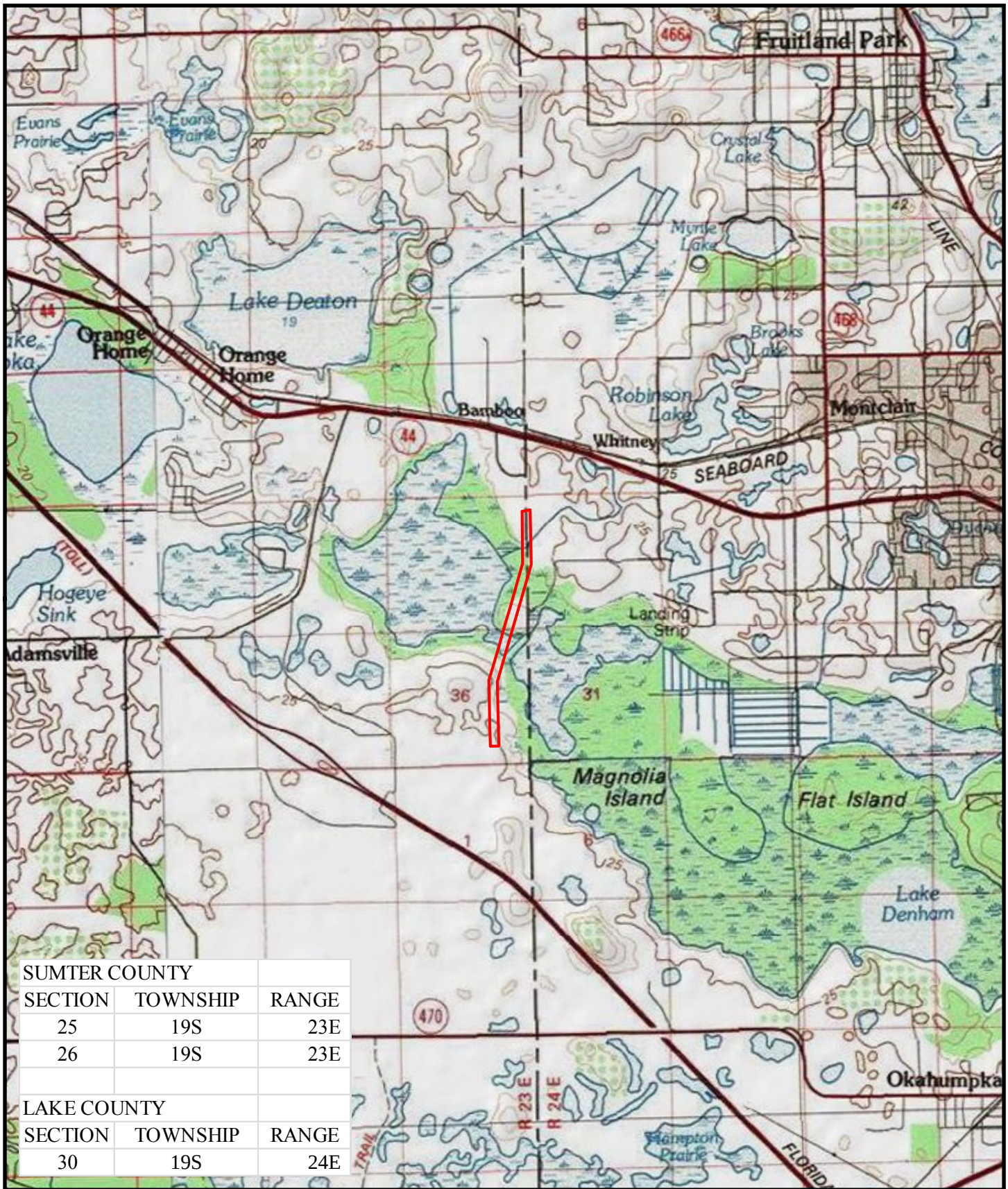
4.0 SUMMARY

Flatwoods personnel located six wetlands and one surface water pond within the project area. Wetlands permits from the FDEP and the USACE will not be required if permanent impacts to wetlands are not proposed. No Special Protection Waters, Outstanding Florida Waters, or Outstanding National Resource Waters as defined by 62-302.700 F.A.C. occur within or adjacent to the project area. Only one listed species, gopher tortoise, was observed within the transmission corridor. A permit from FWC to relocate tortoises will not be required if ground disturbance will not occur within 25 feet of the burrows. No permits concerning the osprey nests should be required.

5.0 REFERENCES

- Chafin, L. G. 2000. Field Guide to the Rare Plants of Florida. Natural Areas Inventory, Tallahassee, Florida.
- Coile, N.C. 1998. Notes on Florida's Regulated Plant Index (Rule 5B-40), Botany Contribution 38, 2nd edition. Florida Department of Agriculture & Consumer Services, Division of Plant Industry, Gainesville, FL.
- Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Jamestown, ND: Northern Prairie Wildlife Research Center.
- Florida Association of Environmental Soil Scientists. Hydric Soils of Florida Handbook. Fourth Edition. 2007.
- Florida Department of Transportation (FDOT) Florida Land Use, Cover, and Forms Classification System (FLUCCS), January 1999.
- Florida Fish and Wildlife Conservation Commission. 2003, January 6. Florida's breeding bird atlas: A collaborative study of Florida's birdlife. <http://www.myfwc.com/bba>.
- Florida Fish and Wildlife Conservation Commission Eagle Nest Locator. 2010 2011. Online resource available from <http://myfwc.com/eagle/eaglenests/nestlocator.aspx>.
- Florida Fish and Wildlife Conservation Commission, U.S. Fish and Wildlife Service, Florida Natural Areas Inventory. Florida Wildlife Conservation Guide. Tallahassee; Version August 2010
- Florida Natural Areas Inventory (FNAI). Online resources available from <http://www.fnai.org/index.cfm>
- Hipes, D., D .R. Jackson, K. NeSmith, D. Printiss, and K. Brandt. 2000. Field Guide to the Rare Animals of Florida. Natural Areas Inventory, Tallahassee, Florida.
- Humphrey, S.R. editor, 1992. "Rare and Endangered Biota of Florida, Volume I. Mammals". University Press of Florida.
- Kale, H. W., II, B. Pranty, B. M. Stith, and C. W. Biggs. 1992. The atlas of the breeding birds of Florida. Final Report. Florida Game and Fresh Water Fish Commission, Tallahassee, Florida.
- Moler, P.E., editor, 1992. "Rare and Endangered Biota of Florida, Volume III. Amphibians and Reptiles". University Press of Florida.
- Rodgers, J.A., H.W. Kale II and H.T. Smith, editors. 1992. "Rare and Endangered Biota of Florida Volume V. Birds". University Press of Florida.

- Runde, D.E., J.A. Gore, J.A. Hovis, M.S. Robson and P.D. Southall. 1991. "Florida Atlas of Breeding Sites for Herons and Their Allies: Update 1986-89." Florida Game and Freshwater Fish Commission, Division of Wildlife, Nongame Wildlife Program Technical Report, No. 10.
- U.S. Department of Agriculture (USDA)/Natural Resource Conservation Service (NRCS) Soil Survey of Lake County, Florida. 1975.
- U.S. Department of Agriculture (USDA)/Natural Resource Conservation Service (NRCS) Soil Survey of Sumter County, Florida. 1988.
- U.S. Geological Survey (USGS) Topographic Quadrangle Maps. Online resources available from <http://topomaps.usgs.gov/>.
- U.S. Fish and Wildlife Survey (FWS). National Wetland Inventory (NWI). Online resources available from <http://www.fws.gov/wetlands/Data/Mapper.html>.
- U.S. Fish and Wildlife Survey Critical Habitat Designations. Online resources available from <http://criticalhabitat.fws.gov/>.

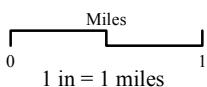


SUMTER COUNTY

SECTION	TOWNSHIP	RANGE
25	19S	23E
26	19S	23E

LAKE COUNTY

SECTION	TOWNSHIP	RANGE
30	19S	24E



**CFK 500kV TRANSMISSION LINE PROJECT
PROGRESS ENERGY FLORIDA**

SUMTER AND LAKE COUNTIES, FLORIDA

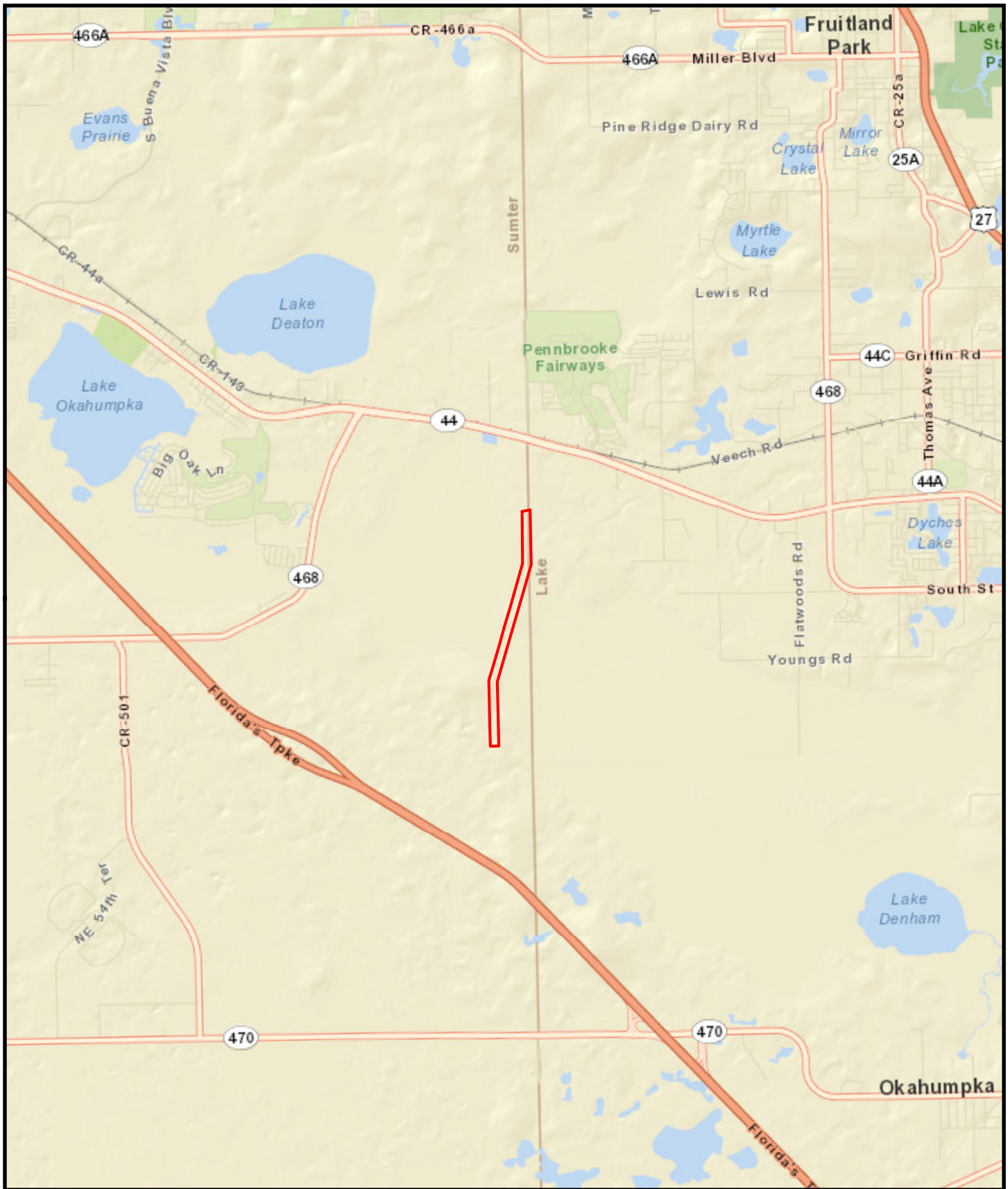
LEGEND

Transmission Corridor



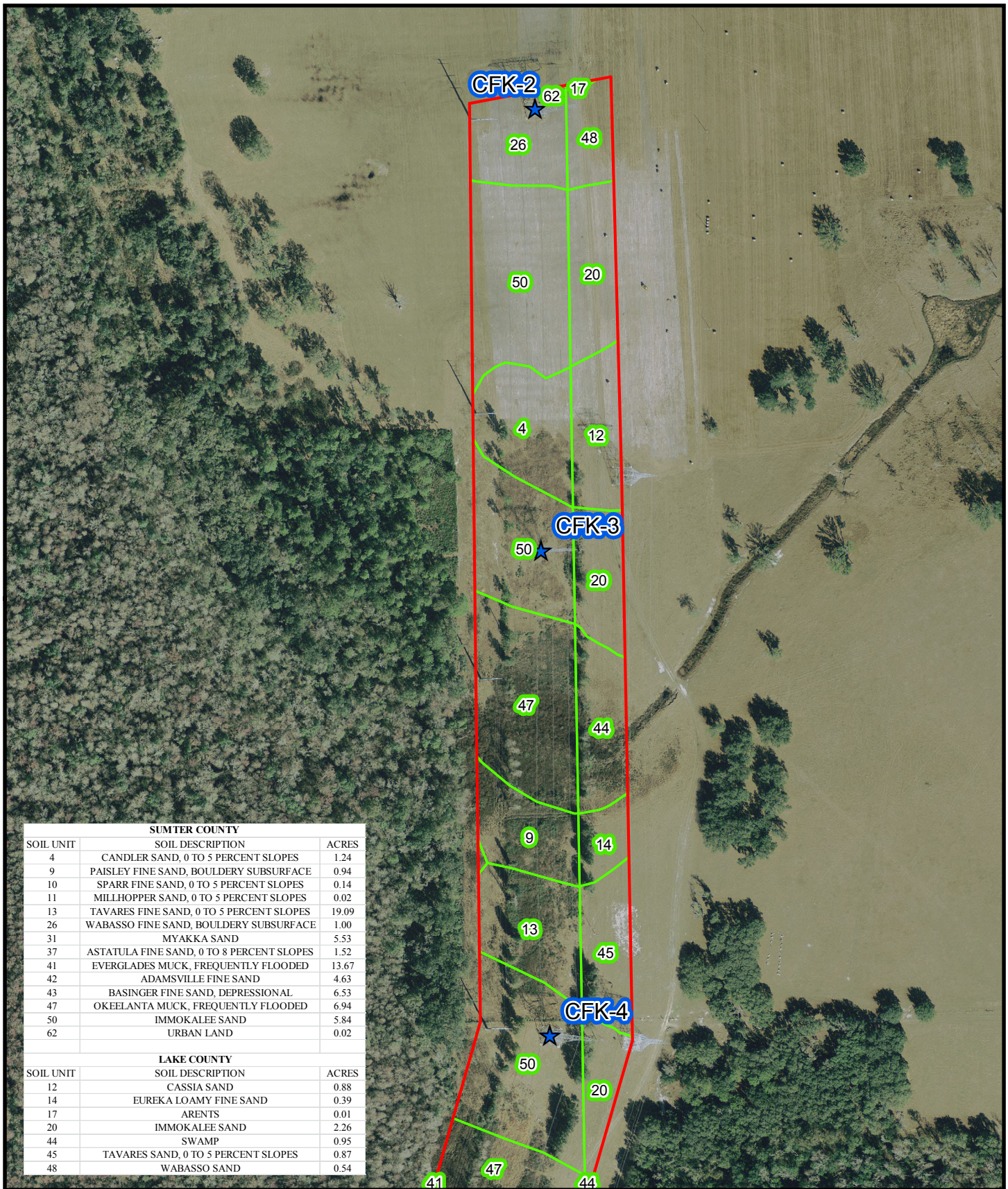
**QUAD
MAP**

Source: USGS Topo Maps

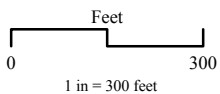


Miles 0 1 1 in = 1 miles	CFK 500kV TRANSMISSION LINE PROJECT PROGRESS ENERGY FLORIDA	LEGEND Transmission Corridor	N W E S
	SUMTER AND LAKE COUNTIES, FLORIDA		LOCATION MAP

Source: ESRI World Street Map



SUMTER COUNTY		
SOIL UNIT	SOIL DESCRIPTION	ACRES
4	CANDLER SAND, 0 TO 5 PERCENT SLOPES	1.24
9	PAISLEY FINE SAND, BOULDERY SUBSURFACE	0.94
10	SPARR FINE SAND, 0 TO 5 PERCENT SLOPES	0.14
11	MILLHOPPER SAND, 0 TO 5 PERCENT SLOPES	0.02
13	TAVARES FINE SAND, 0 TO 5 PERCENT SLOPES	19.09
26	WABASSO FINE SAND, BOULDERY SUBSURFACE	1.00
31	MYAKKA SAND	5.53
37	ASTATULA FINE SAND, 0 TO 8 PERCENT SLOPES	1.52
41	EVERGLADES MUCK, FREQUENTLY FLOODED	13.67
42	ADAMSVILLE FINE SAND	4.63
43	BASINGER FINE SAND, DEPRESSIONAL	6.53
47	OKEELANTA MUCK, FREQUENTLY FLOODED	6.94
50	IMMOKALEE SAND	5.84
62	URBAN LAND	0.02
LAKE COUNTY		
SOIL UNIT	SOIL DESCRIPTION	ACRES
12	CASSIA SAND	0.88
14	EUREKA LOAMY FINE SAND	0.39
17	ARENTS	0.01
20	IMMOKALEE SAND	2.26
44	SWAMP	0.95
45	TAVARES SAND, 0 TO 5 PERCENT SLOPES	0.87
48	WABASSO SAND	0.54



CFK 500kV TRANSMISSION LINE PROJECT PROGRESS ENERGY FLORIDA

SUMTER AND LAKE COUNTIES, FLORIDA

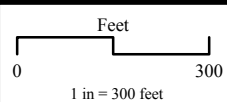
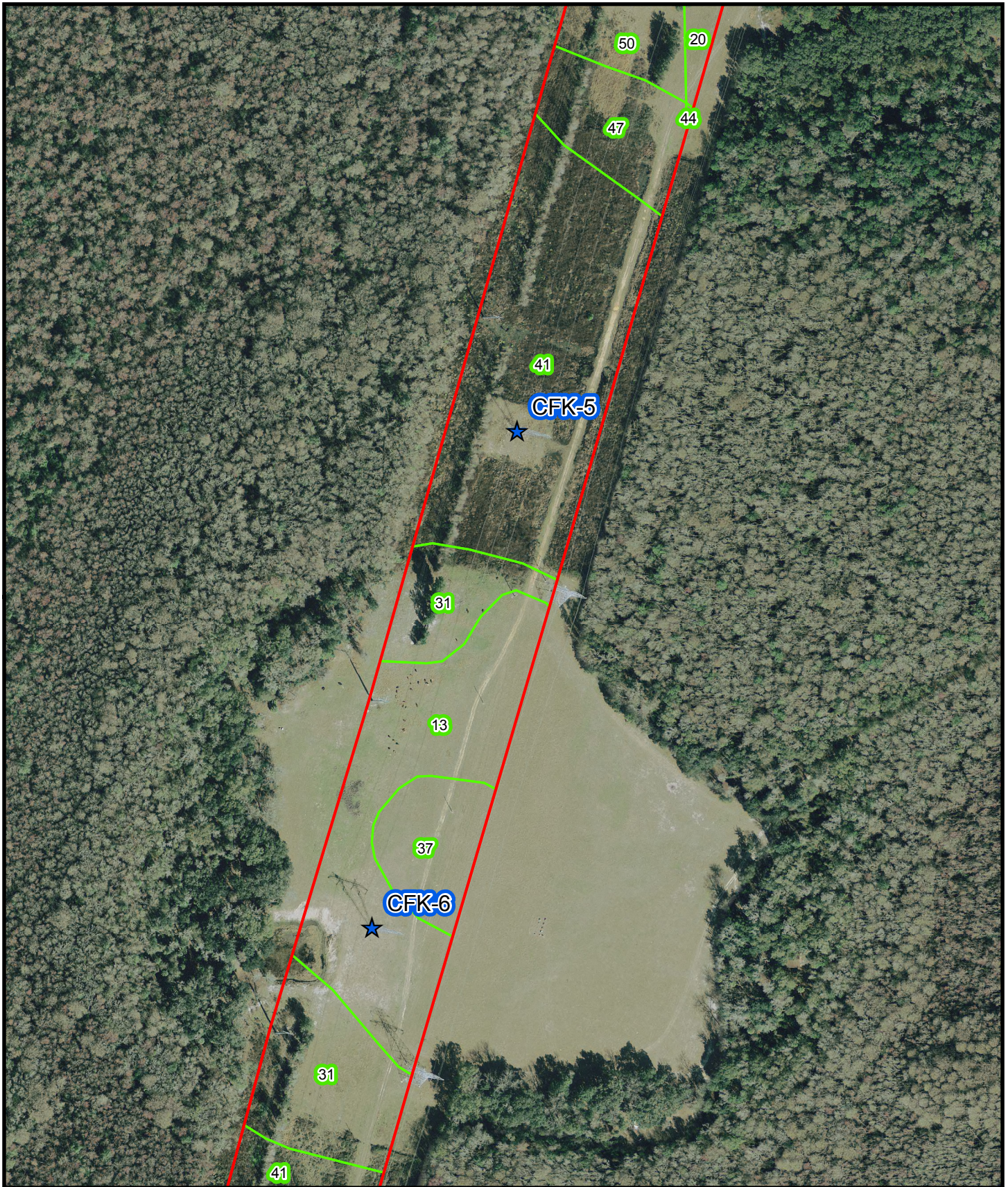
LEGEND

- Transmission Corridor
- ★ Transmission Structure
- Soil Unit Boundary



SOIL
MAP
1 of 4

Source: NRCS Soil Survey



**CFK 500kV TRANSMISSION LINE PROJECT
PROGRESS ENERGY FLORIDA**

SUMTER AND LAKE COUNTIES, FLORIDA

LEGEND

- Transmission Corridor**
- ★ **Transmission Structure**
- Soil Unit Boundary**



**SOIL
MAP
2 of 4**

Source: NRCS Soil Survey



Feet
0 300
1 in = 300 feet



CFK 500kV TRANSMISSION LINE PROJECT PROGRESS ENERGY FLORIDA

SUMTER AND LAKE COUNTIES, FLORIDA

LEGEND

- Transmission Corridor
- ★ Transmission Structure
- Soil Unit Boundary

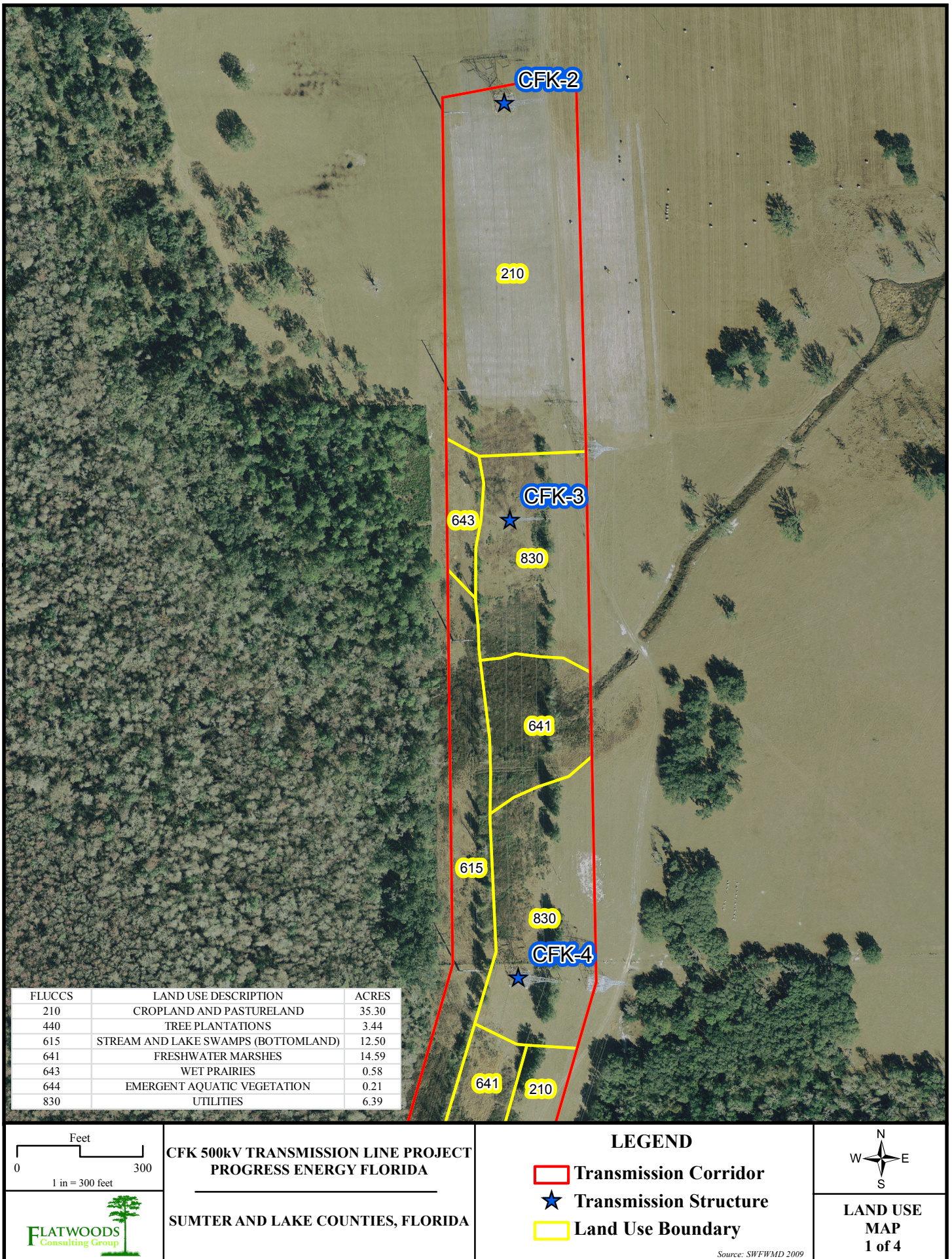


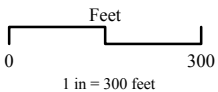
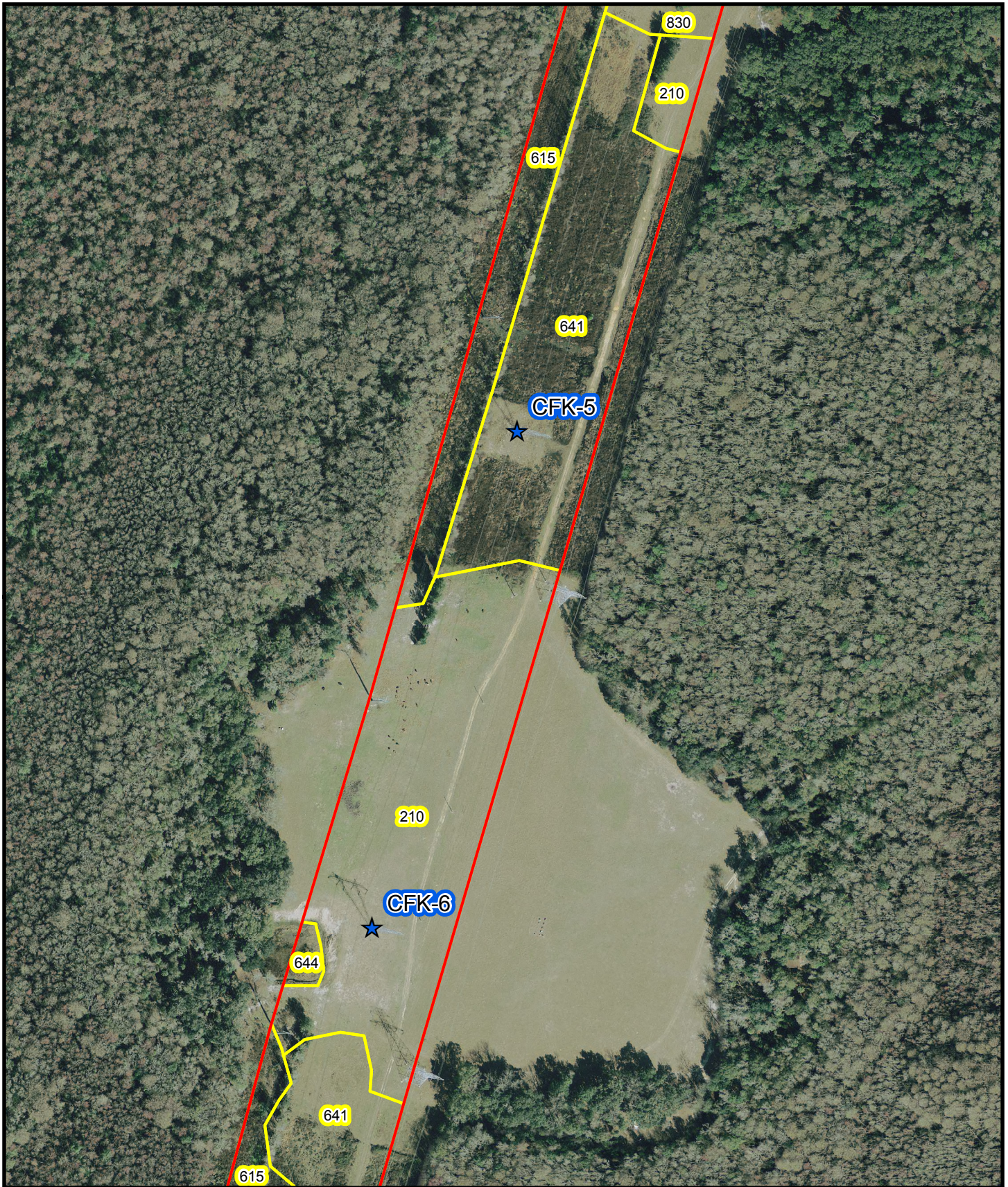
SOIL
MAP
3 of 4

Source: NRCS Soil Survey



Feet 0 300 1 in = 300 feet	CFK 500kV TRANSMISSION LINE PROJECT PROGRESS ENERGY FLORIDA	LEGEND Transmission Corridor ★ Transmission Structure Soil Unit Boundary	N W — E S
	SUMTER AND LAKE COUNTIES, FLORIDA		SOIL MAP 4 of 4





**CFK 500kV TRANSMISSION LINE PROJECT
PROGRESS ENERGY FLORIDA**

SUMTER AND LAKE COUNTIES, FLORIDA

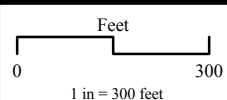
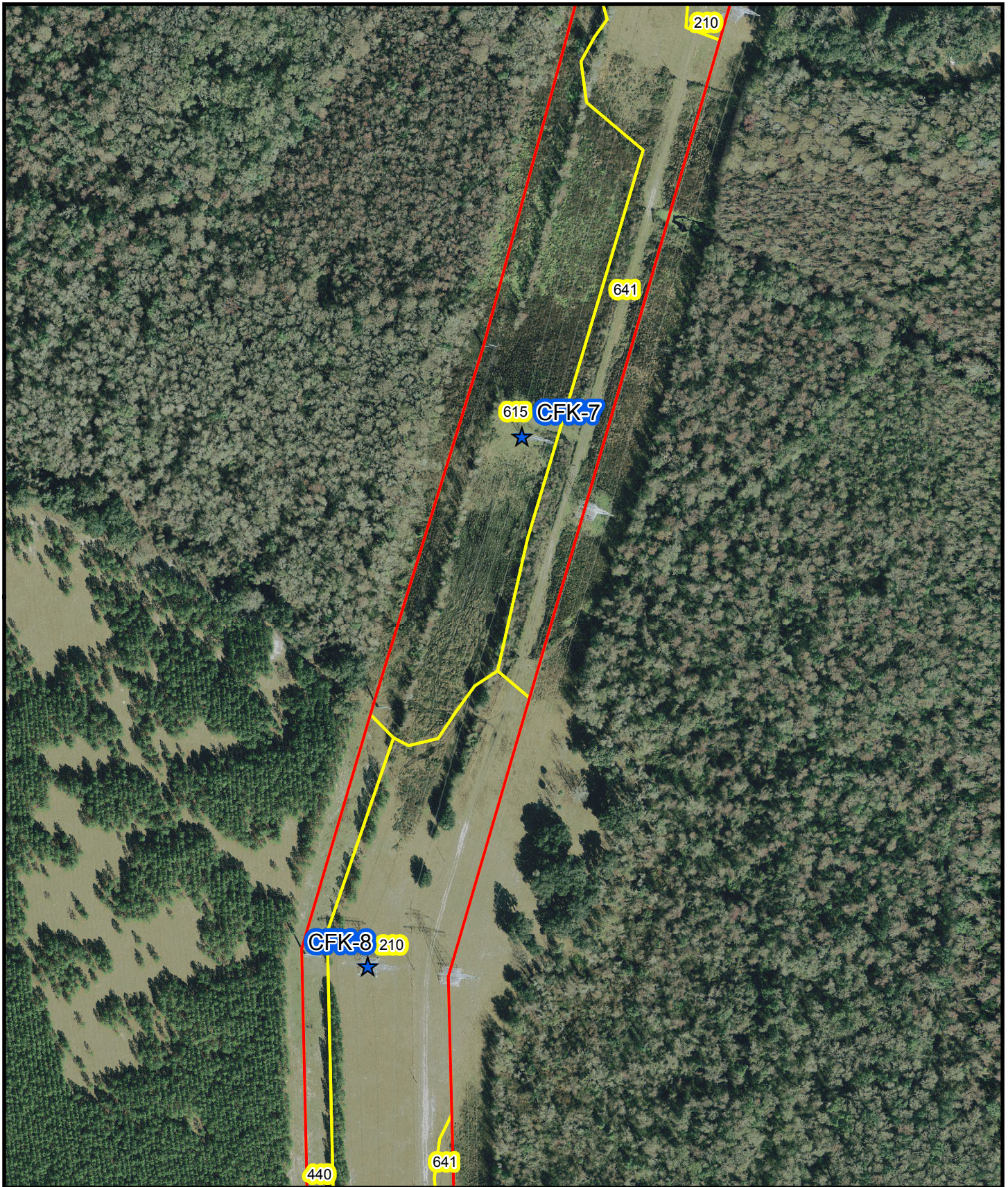
LEGEND

- Transmission Corridor**
- ★ **Transmission Structure**
- Land Use Boundary**



**LAND USE
MAP
2 of 4**

Source: SWFWMD 2009



CFK 500kV TRANSMISSION LINE PROJECT PROGRESS ENERGY FLORIDA

SUMTER AND LAKE COUNTIES, FLORIDA

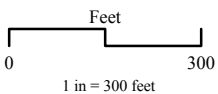
LEGEND

- Transmission Corridor**
- ★ **Transmission Structure**
- Land Use Boundary**



**LAND USE
MAP
3 of 4**

Source: SWFWMD 2009



**CFK 500kV TRANSMISSION LINE PROJECT
PROGRESS ENERGY FLORIDA**

SUMTER AND LAKE COUNTIES, FLORIDA

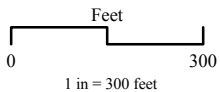
LEGEND

- Transmission Corridor**
- ★ **Transmission Structure**
- Land Use Boundary**



**LAND USE
MAP
4 of 4**

Source: SWFWMD 2009



**CFK 500kV TRANSMISSION LINE PROJECT
PROGRESS ENERGY FLORIDA**

SUMTER AND LAKE COUNTIES, FLORIDA

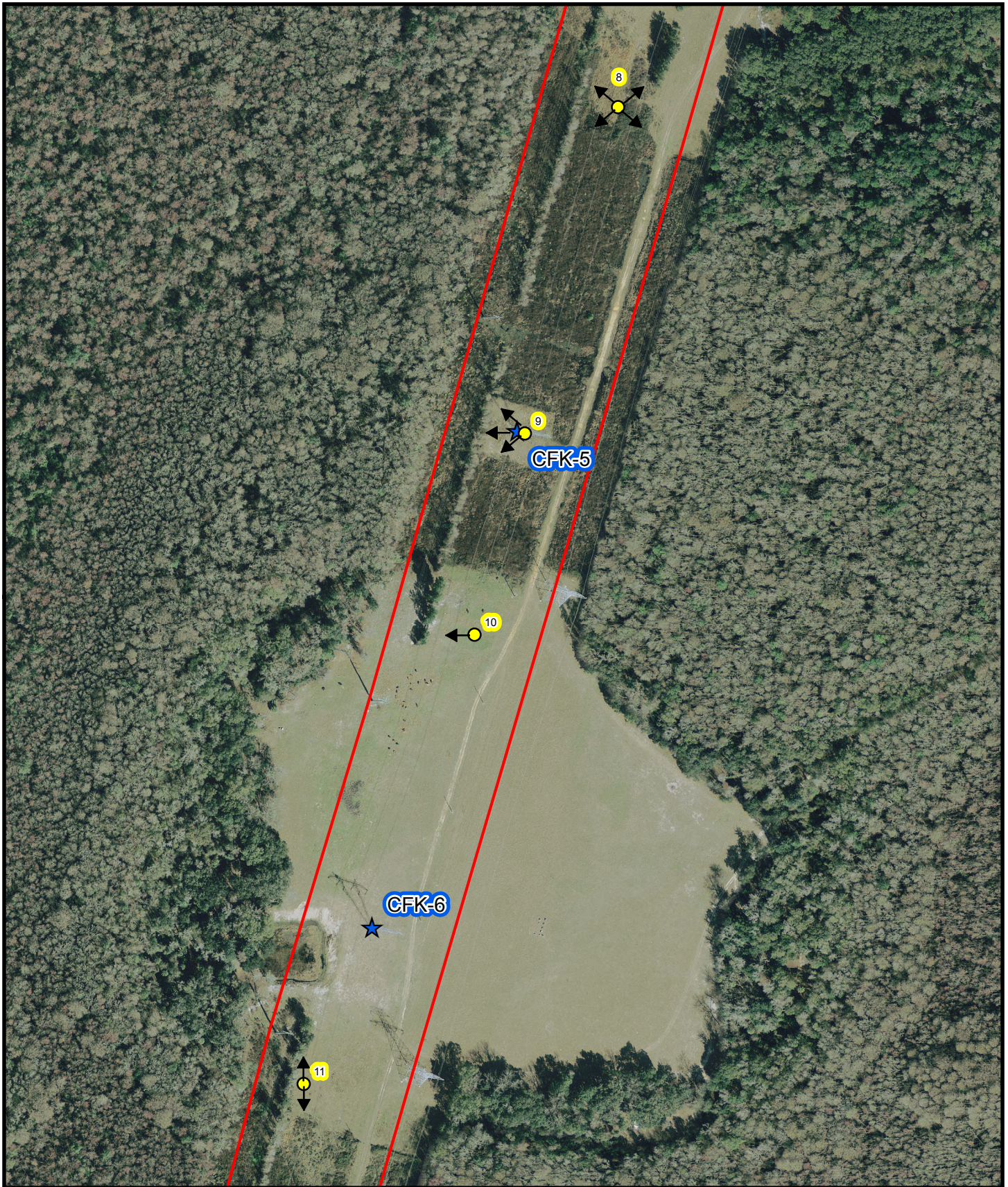
LEGEND

- Transmission Corridor
- ★ Transmission Structure
- Photo Point
- ➔ Photo Direction

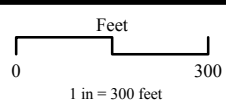
Source: 2011 Imagery



**PHOTO POINT
MAP
1 of 4**



Feet 0 300 1 in = 300 feet	CFK 500kV TRANSMISSION LINE PROJECT PROGRESS ENERGY FLORIDA	LEGEND Transmission Corridor ★ Transmission Structure ● Photo Point → Photo Direction Source: 2011 Imagery	N W E S
FLATWOODS Consulting Group	SUMTER AND LAKE COUNTIES, FLORIDA		PHOTO POINT MAP 2 of 4



**CFK 500kV TRANSMISSION LINE PROJECT
PROGRESS ENERGY FLORIDA**

SUMTER AND LAKE COUNTIES, FLORIDA

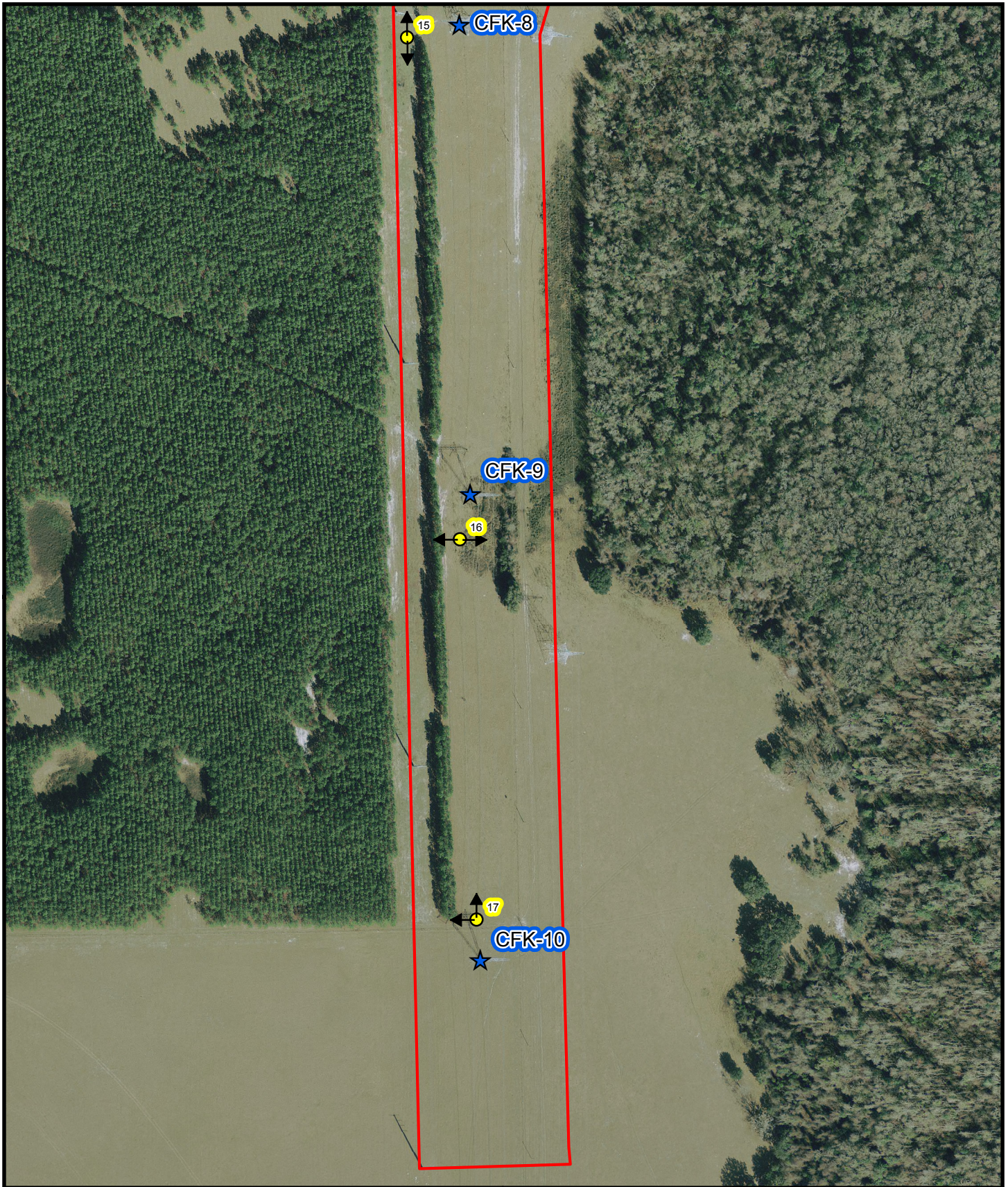
LEGEND

- Transmission Corridor**
- ★ **Transmission Structure**
- **Photo Point**
- **Photo Direction**

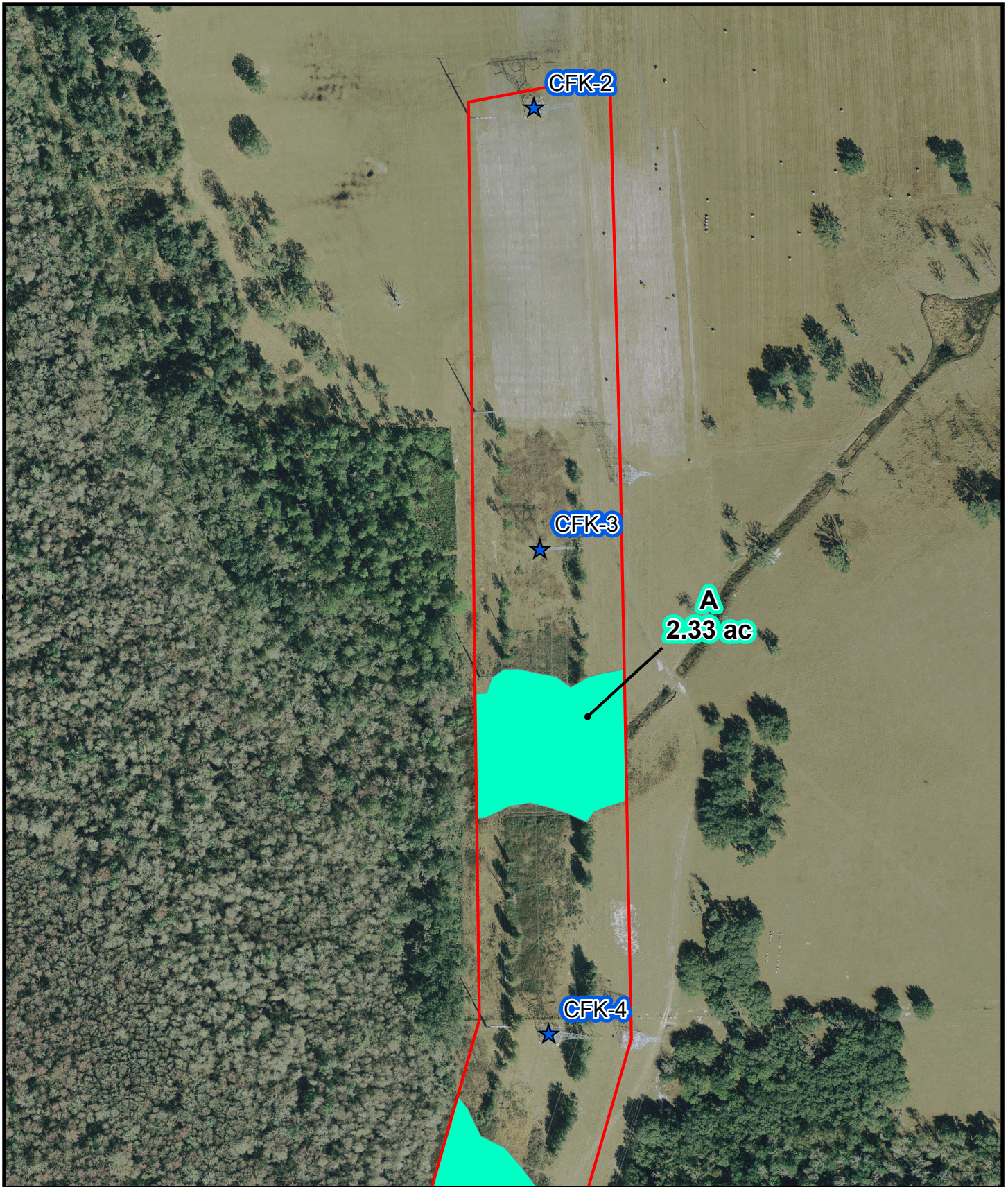
Source: 2011 Imagery



**PHOTO POINT
MAP
3 of 4**



Feet 0 300 1 in = 300 feet	CFK 500kV TRANSMISSION LINE PROJECT PROGRESS ENERGY FLORIDA	LEGEND Transmission Corridor ★ Transmission Structure ● Photo Point ➔ Photo Direction Source: 2011 Imagery	N W E S
FLATWOODS Consulting Group	SUMTER AND LAKE COUNTIES, FLORIDA		PHOTO POINT MAP 4 of 4



Feet
0 300
1 in = 300 feet



**CFK 500kV TRANSMISSION LINE PROJECT
PROGRESS ENERGY FLORIDA**

SUMTER AND LAKE COUNTIES, FLORIDA

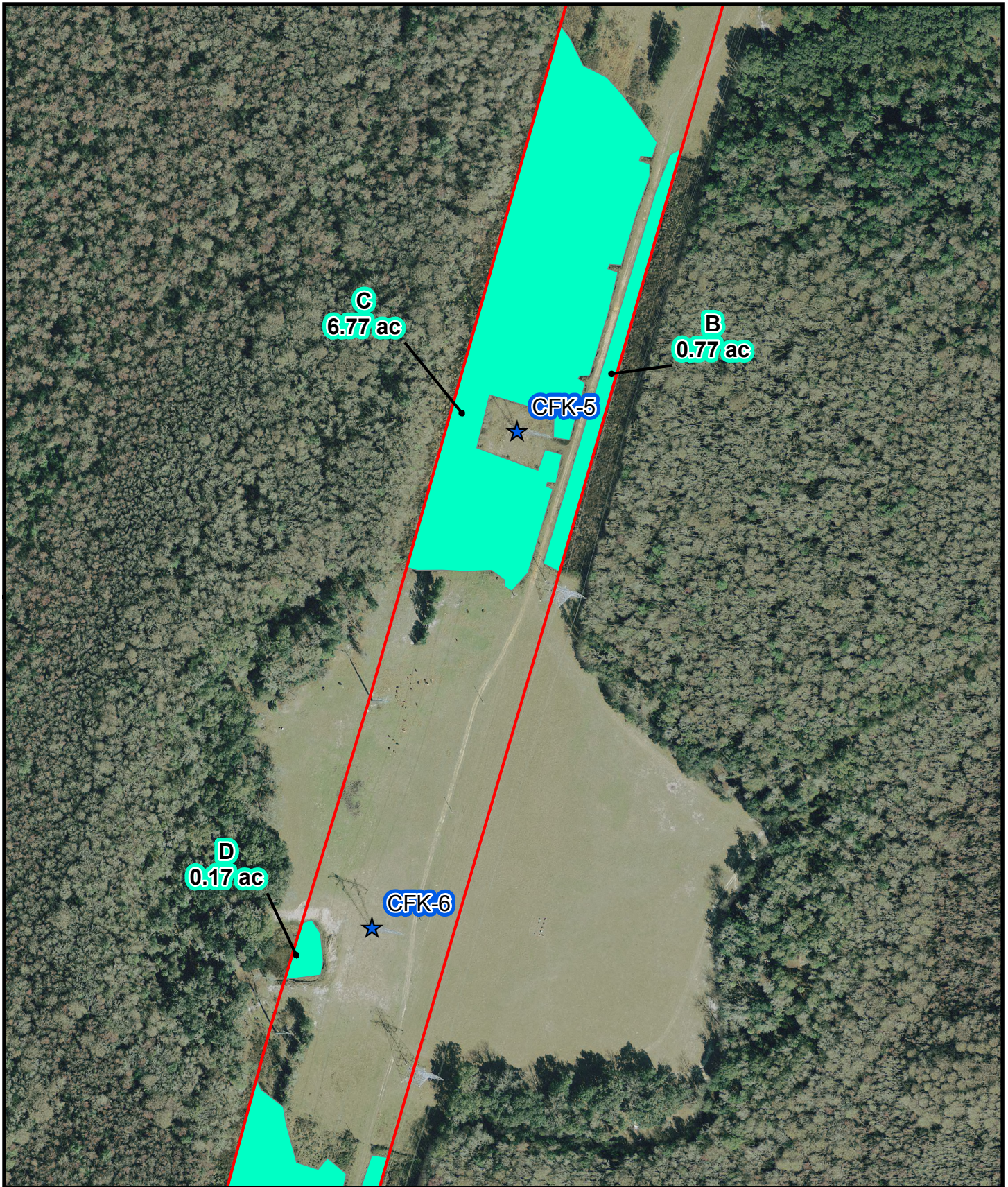
LEGEND

- Transmission Corridor**
- ★ **Transmission Structure**
- Wetland**

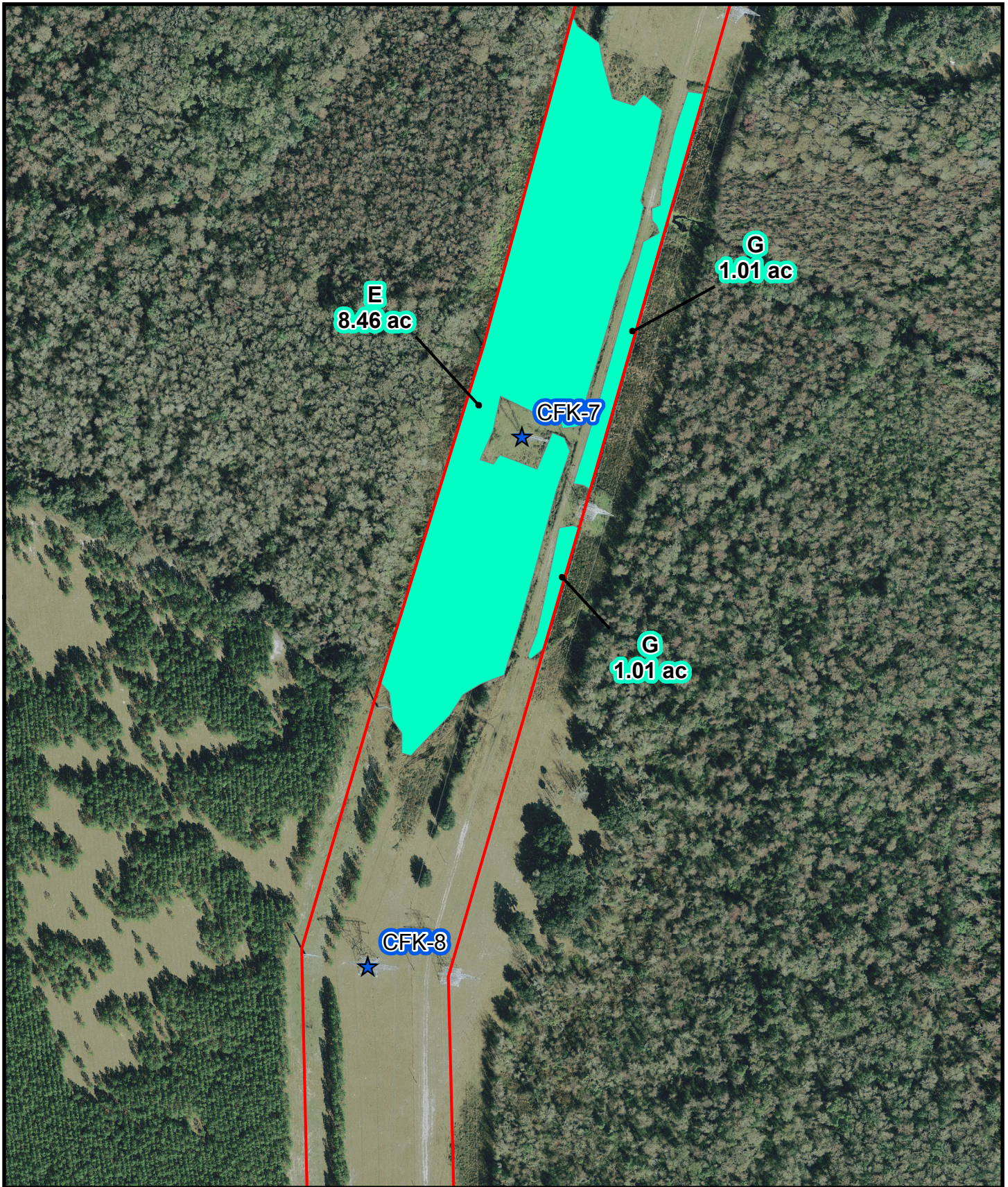
Source: 2011 Imagery



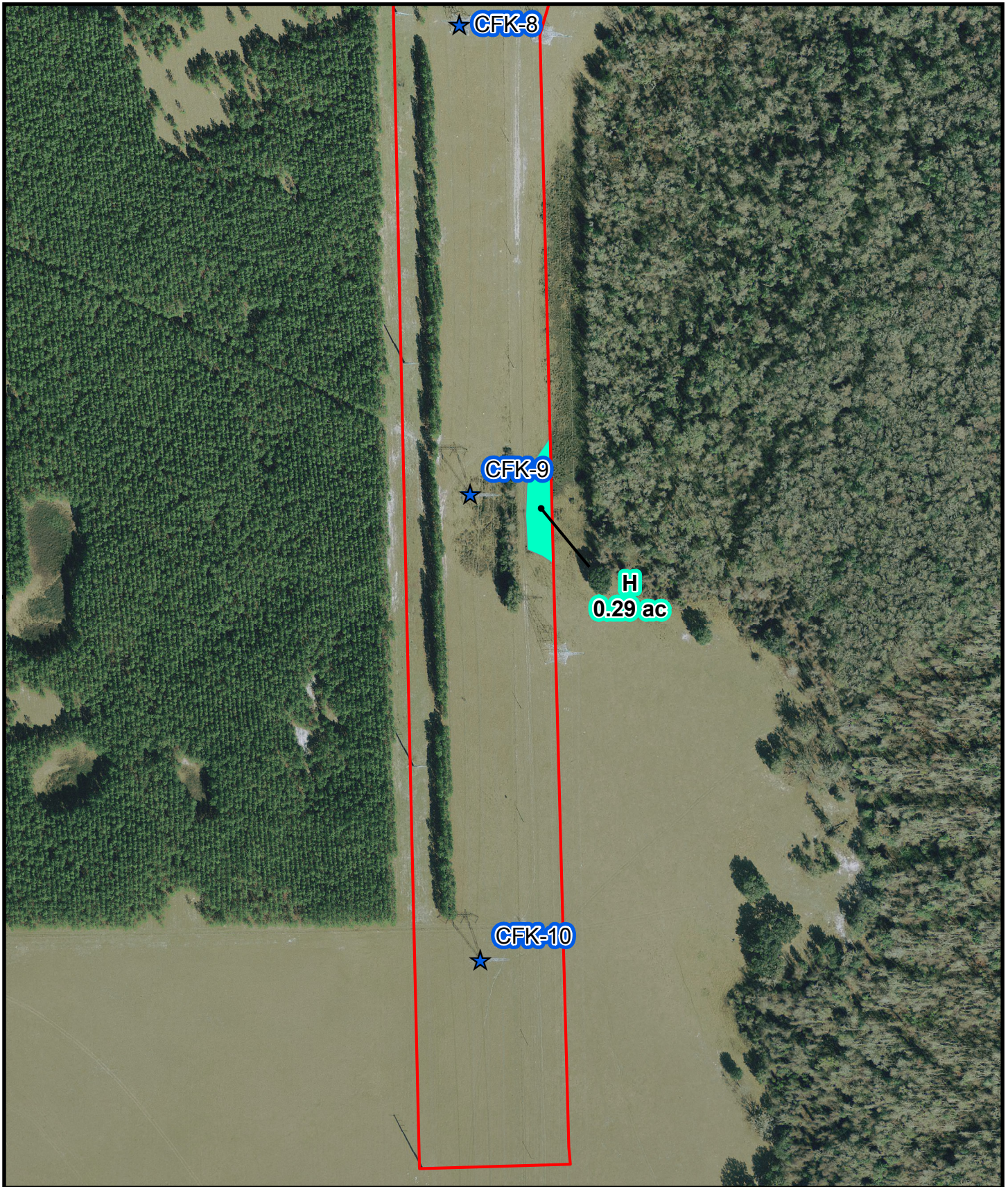
**WETLAND
MAP
1 of 4**



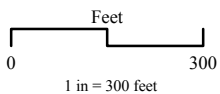
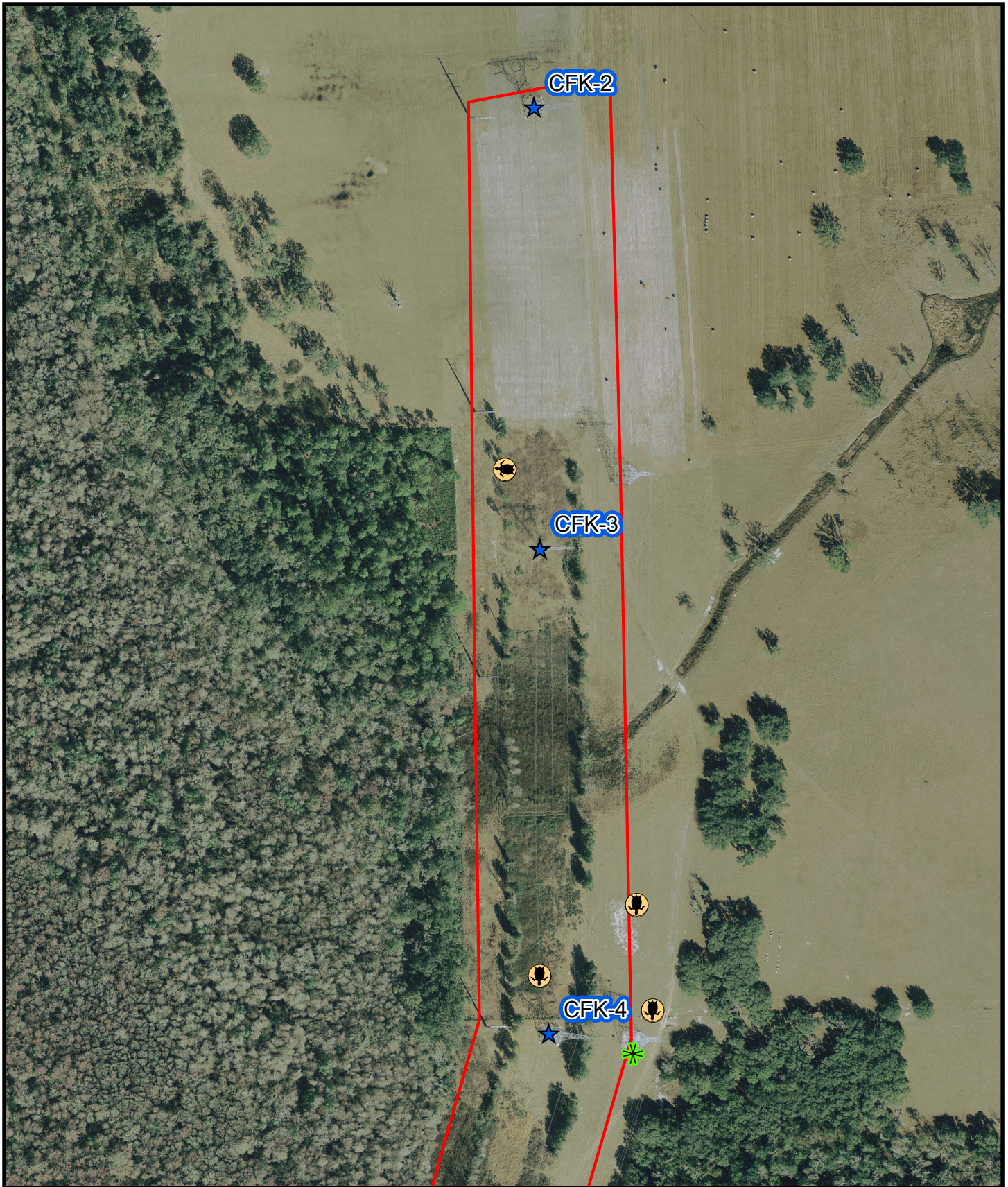
Feet 0 300 1 in = 300 feet	CFK 500kV TRANSMISSION LINE PROJECT PROGRESS ENERGY FLORIDA	LEGEND Transmission Corridor ★ Transmission Structure Wetland	N W — E S
	SUMTER AND LAKE COUNTIES, FLORIDA		WETLAND MAP 2 of 4



Feet 0 300 1 in = 300 feet	CFK 500kV TRANSMISSION LINE PROJECT PROGRESS ENERGY FLORIDA	LEGEND Transmission Corridor ★ Transmission Structure Wetland Source: 2011 Imagery	N W —+— E S
	SUMTER AND LAKE COUNTIES, FLORIDA		WETLAND MAP 3 of 4



Feet 0 300 1 in = 300 feet	CFK 500kV TRANSMISSION LINE PROJECT PROGRESS ENERGY FLORIDA	LEGEND Transmission Corridor ★ Transmission Structure Wetland	N W — E S
	SUMTER AND LAKE COUNTIES, FLORIDA		WETLAND MAP 4 of 4



**CFK 500kV TRANSMISSION LINE PROJECT
PROGRESS ENERGY FLORIDA**

SUMTER AND LAKE COUNTIES, FLORIDA

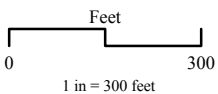
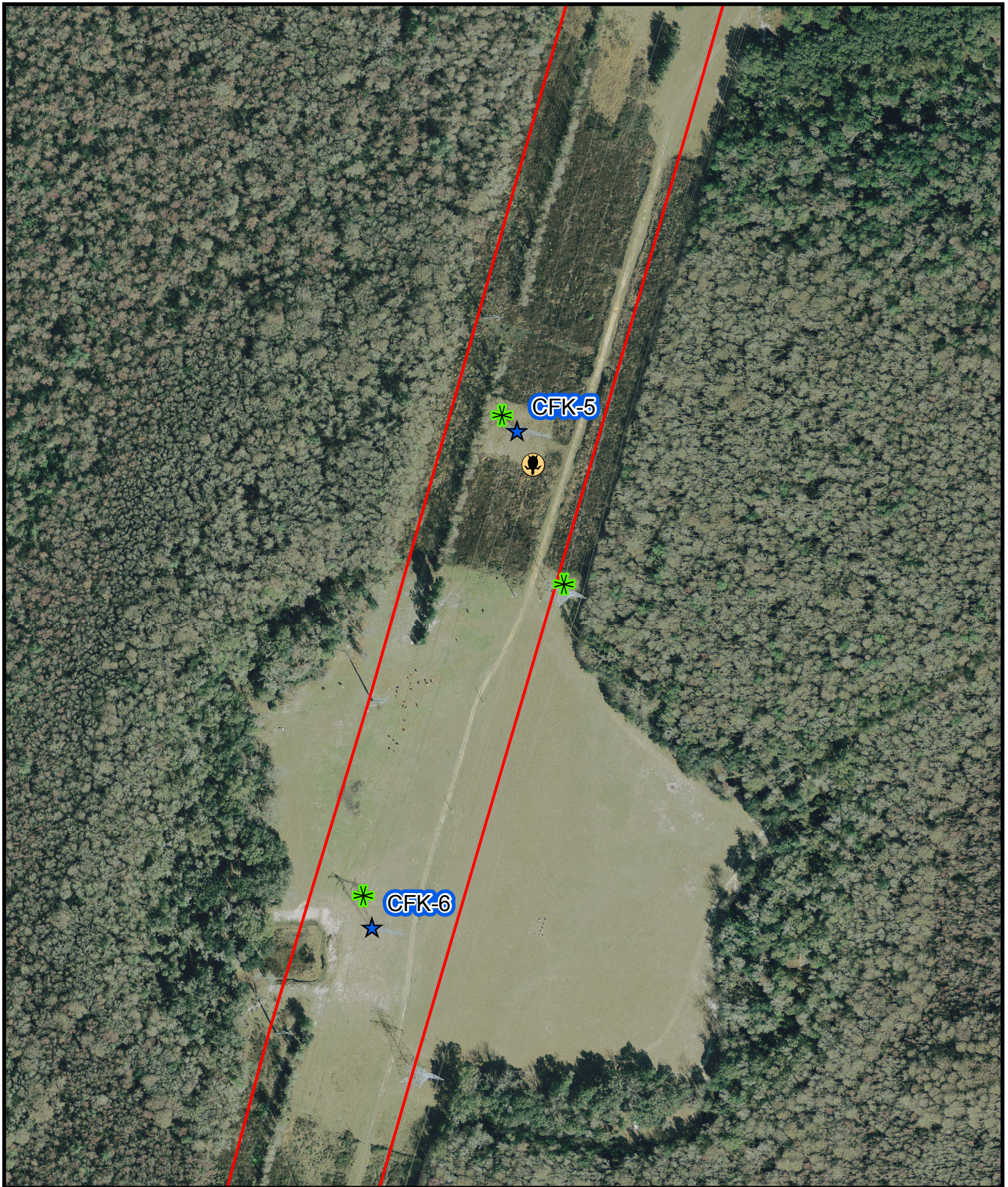
LEGEND

-  Transmission Corridor
-  Transmission Structure
-  Gopher Tortoise Burrow (5)
-  Osprey Nest (5)

Source: 2011 Imagery



**LISTED SPECIES
SURVEY MAP
1 of 4**



**CFK 500kV TRANSMISSION LINE PROJECT
PROGRESS ENERGY FLORIDA**

SUMTER AND LAKE COUNTIES, FLORIDA

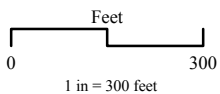
LEGEND

-  Transmission Corridor
-  Transmission Structure
-  Gopher Tortoise Burrow (5)
-  Osprey Nest (5)

Source: 2011 Imagery



**LISTED SPECIES
SURVEY MAP
2 of 4**



**CFK 500kV TRANSMISSION LINE PROJECT
PROGRESS ENERGY FLORIDA**

SUMTER AND LAKE COUNTIES, FLORIDA

LEGEND

-  Transmission Corridor
-  Transmission Structure
-  Gopher Tortoise Burrow (5)
-  Osprey Nest (5)

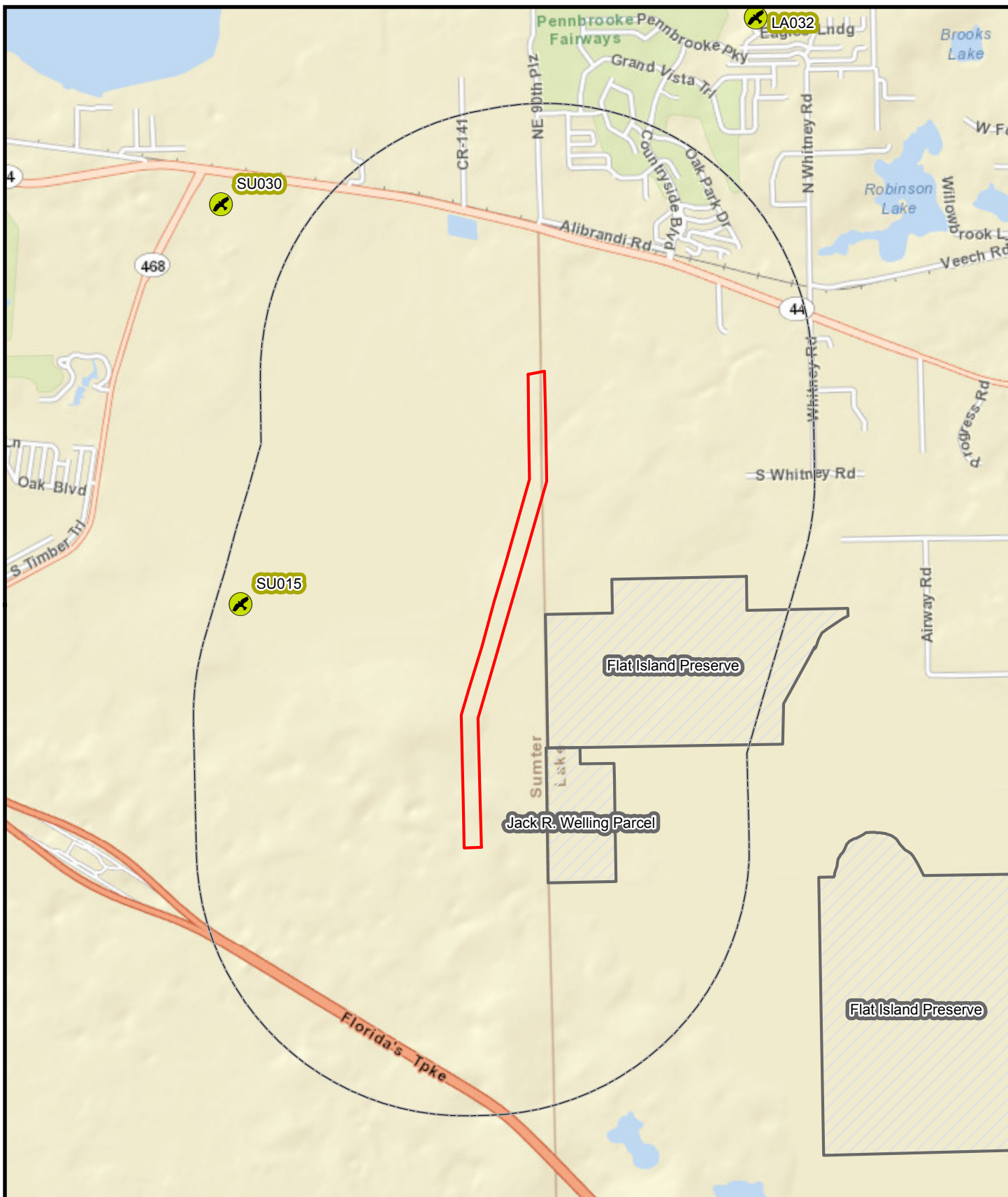
Source: 2011 Imagery



**LISTED SPECIES
SURVEY MAP
3 of 4**



Feet 0 300 1 in = 300 feet	CFK 500kV TRANSMISSION LINE PROJECT PROGRESS ENERGY FLORIDA	LEGEND Transmission Corridor ★ Transmission Structure ● Gopher Tortoise Burrow (5) ✱ Osprey Nest (5) Source: 2011 Imagery	N W — E S
	SUMTER AND LAKE COUNTIES, FLORIDA	LISTED SPECIES SURVEY MAP 4 of 4	



Miles 0 0.5 1 in = 0.5 miles	CFK 500kV TRANSMISSION LINE PROJECT PROGRESS ENERGY FLORIDA	LEGEND Transmission Corridor 1 Mile Buffer Protected Habitats ✖ Bald Eagle Nest Source: FNAI and FWC	N W E S
FLATWOODS Consulting Group	SUMTER AND LAKE COUNTIES, FLORIDA		FNAI AND FWC DATA MAP



Photo Point 1 - Looking south down the eastern right-of-way, trees are Florida slash pine and live oak.



Photo Point 2 - Looking north from Wetland A, trees are laurel oak and Florida slash pine.



Photo Point 2 - Looking south into Wetland A, trees are sweet bay, dahoon holly, sweet gum and red maple.



Photo Point 3 - Looking north from Wetland A, trees are loblolly bay, southern magnolia and Florida slash pine.



Photo Point 3 - Looking south into Wetland A, trees are common persimmon, sweet gum and pond cypress.



Wetland A - Looking south into wetland.



Photo Point 4 – Live oak and Florida slash pine trees are 40-feet tall.



Photo Point 5 - Looking north into Wetland A, trees are pond cypress and sweet gum.



Photo Point 5 - Looking south, trees are southern magnolia and live oak.



Photo Point 6 - Looking northwest, trees are live oak.



Photo Point 6 - Looking northeast, trees are live oak.



Photo Point 6 - Looking southeast, trees are live oak.



Photo Point 6 - Looking southwest, trees are live oak.



Photo Point 7 – Looking north, recently bush-hogged right-of-way near CFK-4.



Photo Point 7 - Looking south, recently bush-hogged right-of-way near CFK-4.



Photo Point 8 - Looking northwest, trees are live oak.



Photo Point 8 - Looking northeast, trees are live oak and Florida slash pine.



Photo Point 8 - Looking southeast into recently bush-hogged Wetland C.



Photo Point 8 - Looking southwest, trees are sweet gum, sweet bay, pond cypress, red maple and water oak.



Wetland C - Looking south into recently bush-hogged wetland.



Wetland B - Looking southeast into wetland.



Photo Point 9 - Looking northwest into Wetland C from CFK-5 fill pad.



Photo Point 9 - Looking west into row of trees in Wetland C from CFK-5 fill pad.



Photo Point 9 - Looking southwest into row of trees in Wetland C from CFK-5.



Photo Point 10 - Looking west, trees are live oak and sweet gum.



Photo Point 11 - Looking south into row of trees in Wetland E.



Photo Point 11 - Looking north.



Wetland D - Surface water pond excavated in upland soils.



Wetland E – Looking southwest from center of access road.



Wetland G - Looking southeast from center of access road.



Photo Point 12 - Looking northwest into Wetland E from CFK-7 fill pad.



Photo Point 12 - Looking west into row of trees in Wetland E from CFK-7 fill pad.



Photo Point 12 - Looking southwest into row of trees in Wetland E from CFK-7 fill pad.



Photo Point 13 - Looking north into row of trees on eastern edge of Wetland E.



Photo Point 13 - Looking south into row of trees on eastern edge of Wetland E.



Photo Point 14 - Looking northwest into southwestern edge of Wetland E.



Photo Point 14 - Looking northeast into southeastern edge of Wetland E.



Photo Point 14 - Looking southeast at a few live oaks.



Photo Point 14 - Looking southwest into two rows of planted Florida slash pines.



Wetland F – Looking north into wetland from southern edge.



Photo Point 15 - Looking north into rows of planted Florida slash pine.



Photo Point 15 - Looking south into rows of planted Florida slash pine.



Photo Point 16 - Looking west into row of planted Florida slash pine.



Photo Point 16 - Looking east into sweet gums and laurel oaks.



Photo Point 17 - Looking west into row of planted Florida slash pine.



Photo Point 17 - Looking north into row of planted Florida slash pine.