ECOLOGICAL ASSESSMENT REPORT

SR 35 (US 301)
FROM CR 470 TO SR 44
(FPID # 430132-1 & 430132-2)

SUMTER COUNTY, FLORIDA

DRMP Project No: 22-0107.000 May 2024

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ECOLOGICAL ASSESSMENT REPORT

1 INTRODUCTION

The Florida Department of Transportation (FDOT), District Five proposes to widen SR 35 (US 301) from County Road (CR) 470 to State Road (SR) 44, approximately 7.30 miles (project area). The project is in Sections 13, 35, 36, Township 19S, Range 22E; Sections 18, 19, 30, 31, Township 19S, Range 23E; Sections 01, 12, 13, Township 20S, Range 22E in Sumter County, Florida (Appendix A, Figure 1).

The purpose of this ecological assessment report is to describe the existing environmental conditions of the project area and as a support document for the Southwest Florida Water Management District (SWFWMD) Environmental Resource Permit (ERP) application package (62-330.054, Florida Administrative Code, (FAC) and the U.S. Army Corps of Engineers (USACE) Section 404 Permit application package.

1.1 Purpose and Need

The Project Development & Environment (PD&E) Study completed in 2018 by FDOT analyzed design alternatives that widen US 301, improve the US 301 interchange at Florida's Turnpike; and consider a new corridor for US 301 south of the City of Coleman. The purpose of this project is to increase the capacity of US 301 to respond to future travel demands from the intersection of CR 470 East, north through the City of Coleman, to SR 44 in the City of Wildwood. The project will also improve safety and provide multi-modal facilities for pedestrian and bicyclists along the corridor.

Improving freight capacity on US 301 is vital to the efficient movement of freight through Florida. This project is needed to address safety issues and provide a safe parallel alternative freight route to I-75. Additionally, there are deficiencies related to the projected capacity of the arterial based on the land use context of the City of Coleman. There are also social and economic opportunities related to proposed and ongoing development in Sumter County, particularly The Villages Community. The Florida Division of Emergency Management (FDEM) has designated US 301 as a hurricane evacuation route for Sumter County. US 301 is the primary roadway facility to move traffic and evacuees through Sumter Country as an alternative to I-75, Florida's Turnpike, SR 44, and SR 471

1.2 Project Description

The proposed improvements consist of widening US 301 from the existing two-lane, undivided rural facility to a four-lane, divided urban facility with pedestrian and bicycle accommodations. The proposed project also includes intersection improvements for traffic and safety, a new alignment portion of US 301 to bypass the city of Coleman, median modifications, a new bridge over Shady Brook, stormwater ponds, and floodplain compensation sites.

The US 301 roadway typical section from CR 470 to SR 44 will include a 4-lane divided urban curb and gutter typical section with a 12-foot multi-use trail on both sides. The proposed project includes the resurfacing, widening and new construction for US 301, ramps, trail, and side street pavement design. The total project area is 206.0 acres.

2 PERMITTING

2.1 Southwest Florida Water Management District (SWFWMD)

The project includes the construction of new works and a new stormwater management system. The proposed project will result in 6.64 acres of direct wetland impacts, 0.52 acres of remnant wetland impacts, 1.65 acres of direct surface water impacts, and 0.33 acres of direct other surface water (OSW) impacts. The project will require an Individual ERP in accordance with 62-330.054 FAC. A pre-application meeting with

SWFWMD staff was conducted on April 4, 2023. Agency coordination meeting minutes are included in Appendix B. Additional criteria including elimination and reduction of wetland impacts and listed species habitat evaluation are detailed in the following sections of this report and demonstrate the project's qualification under Section 62-330, FAC ERP requirements.

2.2 U.S. Army Corps of Engineers (USACE)

The proposed improvements will include impacts to wetlands jurisdictional to the USACE. The project will directly impact 6.08 acres of jurisdictional wetlands. As part of the permitting process, FDOT-District 5 is requesting authorization of an Individual Section 404 Permit from the USACE.

2.3 Florida Department of Environmental Protection (FDEP)

A National Pollutant Discharge Elimination System (NPDES) permit will be required for soil disturbance prior to construction.

2.4 Florida Fish and Wildlife Conservation Commission (FWC)

The proposed project is anticipated to result in the incidental take of the Southeastern American kestrel. An Incidental Take Permit (ITP) from FWC is anticipated. Based on the results of the species-specific surveys for the Florida sandhill crane, coordination with FWC during the design phase will be required to determine avoidance, minimization, and mitigation measures. A FWC Conservation Gopher Tortoise Relocation Permit will be obtained for gopher tortoises and burrows found within 25 feet of the limits of construction that cannot be avoided. Detailed information on data collection, survey results, agency coordination, and project commitments is discussed within Section 7 of this report.

2.5 U.S. Fish and Wildlife Service (USFWS)

The proposed project is not likely to adversely affect any federally listed or designated critical habitat protected by the Endangered Species Act of 1973 (Act), as amended (16 United States Code (U.S.C.) 1531 et. seq.), therefore, USFWS Section 7 Consultation is not required at this time. If further modifications are made to the design, if additional information involving potential effects to listed species becomes available, or if a new species is listed, FDOT will reinitiate consultation with USFWS. Detailed information on data collection, survey results, agency coordination, and project commitments is discussed within Section 7 of this report.

3 DATA ACQUISITION AND FIELD METHODOLOGY

Prior to conducting site assessments of the project area, literature review and Geographic Information Systems (GIS) data layer searches were performed to identify potential wetlands and documented occurrences of any protected species or their critical habitats within or adjacent to the project. Referenced materials include, but are not limited to, the following data sources:

- Natural Resources Conservation Service (NRCS) soils GIS data for Sumter County (2021);
- Florida Land Use/Cover Forms and Classification System (FLUCCS) (SWFWMD 2017);
- USFWS National Wetlands Inventory (NWI) database (2021);
- Environmental Science Research Institute's (ESRI) Online World Imagery (2023);
- United States Geological Survey (USGS) Quadrangle Map;
- USFWS GIS databases;
- FWC GIS databases;
- FWC Florida's Endangered and Threatened Species List (2022);
- The Florida Natural Areas Inventory (FNAI) Database and Biodiversity Matrix;
- Audubon's Florida EagleWatch Public Nest Map (2024)
- USFWS Wood Stork Key for Central and North Peninsular Florida (2008);

- USFWS Wood Stork Florida Nesting Colonies and Core Foraging Areas Active, GIS data (2022);
- USFWS Consultation Key for the Eastern Indigo Snake (2017)
- USFWS National Wetlands Inventory (2021);
- USFWS Threatened and Endangered Species Consultation Areas (2020);
- USFWS Critical Habitat (2022); and
- Various other USFWS and FWC GIS data, when available.

4 EXISTING CONDITIONS

This section describes the existing conditions within the project area with respect to soils and land use/vegetative cover types. The acreages listed in the sections below refer to areas proposed for new construction and do not include the areas proposed for milling and resurfacing of existing roads, which are underlain by fill soil and have a transportation land use (FLUCCS 8100).

4.1 Soils

According to the SSURGO Database (2021) and NRCS Soil Data (2021) for Sumter County, twenty-four soil types are present within the project area (Appendix A, Figure 2). Eight soils within the project area are considered hydric: Paisley Fine Sand, Bouldery Subsurface (Map ID #9), Placid Fine Sand, Frequently Ponded, 0-1% slopes (Map ID #30), Floridana Mucky Fine Sand, Frequently Ponded, 0-1% slopes (Map ID #36), Basinger Fine Sand, Depressional, 0-1% Slopes (Map ID #43), Okeelanta Muck, Frequently Ponded (Map ID #47), Terra Ceia Muck, 0-1% slopes, Frequently Flooded (Map ID #49), Monteocha Fine Sand, Depressional (Map ID #54), and Wabasso Fine Sand, Depressional (Map ID #56). Table 4.1 lists soil types within the project area, the hydrologic grouping, and hydric classification of the soils, as well as the acreages and percent of each soil type within the project area.

Table 4.1. Summary of soils within the project area

Map ID #	Soil Name	Hydrologic Group	Hydric Soil (Y/N)	Acres	Percent of Project Area (%)
4	Candler Sand (0-5% slopes)	A	N	4.52	2.19
9	Paisley Fine Sand, Bouldery Subsurface	B/D	Y	18.70	9.08
11	Millhopper Sand (0-5% slopes)	A	N	4.74	2.30
13	Tavares Fine Sand (0-5% slopes)	A	N	2.39	1.16
15	Adamsville Fine Sand, Bouldery Subsurface	A	N	10.85	5.27
21	Eaugallie Fine Sand, Bouldery Subsurface	A/D	N	15.10	7.33
23	Ona-Ona, Wet, Fine Sand (0-2% slopes)	B/D	N	6.05	2.94
26	Wabasso Fine Sand, Bouldery Subsurface	B/D	N	11.84	5.75
27	Sumterville Fine Sand, Bouldery Subsurface (0-5% slopes)	C/D	N	19.84	9.63
30	Placid Fine Sand, Frequently Ponded (0-1% slopes)	A/D	Y	0.11	0.05
33	Sparr Fine Sand, Bouldery Subsurface (0-5% slopes)	A/D	N	26.10	12.67
34	Tarrytown Sandy Clay Loam, Bouldery Subsurface	C/D	N	34.97	16.98
36	Floridana Mucky Fine Sand, Frequently Ponded (0-1% slopes)	C/D	Y	3.52	1.71
40	Millhopper Sand, Bouldery Subsurface (0-5% slopes)	A	N	2.20	1.07
42	Adamsville Fine Sand (0-2% slopes)	A	N	9.94	4.83
43	Basinger Fine Sand, Depressional (0-1% slopes)	A/D	Y	2.13	1.03
44	Oldsmar Fine Sand, Bouldery Subsurface	A/D	N	5.40	2.62

46	Ft. Green Fine Sand, Bouldery Subsurface	C/D	N	9.50	4.61
47	Okeelanta Muck, Frequently Ponded	A/D	Y	2.47	1.20
49	Terra Ceia Muck (0-1% slopes), Frequently Flooded	A/D	Y	1.42	0.68
51	Pits-Dumps Complex	N/A	N/A	4.64	2.25
54	Monteocha Fine Sand, Depressional	A/D	Y	3.80	1.84
56	Wabasso Fine Sand, Depressional	C/D	Y	0.08	0.04
65	Candler Sand, Bouldery Subsurface (0-5% slopes)	A	N	5.69	2.77
			Total	**206.0**	**100**
Data Source: Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database for Sumter County, FL. Available online. Accessed December 2023.					

4.2 Land Use

The land uses within the project area were defined using the SWFWMD 2017 FLUCCS data (Appendix A, Figure 3). The majority of the project area is mapped as Cropland and Pastureland (FLUCCS 2100) and Residential Low Density (FLUCCS 1100). Table 4.2 lists the land uses within the project area, including the acreages and percent of each land use within the project area.

Table 4.2. Summary of existing land use within the project area

FLUCCS	Description	Acres	Percent of Project Area (%)
1100	Residential, Low Density	57.02	27.73
1400	Commercial and Services	1.93	0.94
1500	Industrial	1.36	0.66
1800	Recreational	0.80	0.39
1820	Golf Courses	3.70	1.80
2100	Cropland and Pastureland	69.23	33.61
2300	Feeding Operations	6.45	3.13
2500	Specialty Farms	8.29	4.02
3100	Herbaceous	6.25	3.03
3200	Shrub and Brushland	6.21	3.01
4340	Upland Hardwood-Coniferous Mix	31.53	15.26
5300	Reservoirs	1.12	0.54
6150	Stream and Lake Swamps (Bottomland)	5.57	2.70
6410	Freshwater Marshes	0.49	0.24
6430	Wet Prairies	2.39	1.16
6440	Emergent Aquatic Vegetation	0.08	0.04
7400	Disturbed	0.95	0.46
8100	Transportation	0.53	0.26
8300	Utilities	2.10	1.02
	Total	**206.0**	**100**
Data Source: Southwest Florida Water Management District GIS Data Library – 2017 Land Use/Land Cover Dataset			

5 WETLAND AND SURFACE WATER ASSESSMENT

This section summarizes overall existing conditions and characteristics of wetlands located within and adjacent to the project area. The wetlands and surface water limits were evaluated and delineated by a Professional Wetland Scientist (PWS) in accordance with the State Unified Wetland Delineation Methodology (Chapter 62-340, FAC) and the USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (USACE 2010) on February 13th-14th, 2023, March 2nd, 2023, and December 13th, 2023. The occurrence of hydric soil characteristics, hydrophytic vegetation, and evidence of hydrology were used to identify the existence of wetland or surface waters within the project area.

Nineteen (19) wetlands, two (2) surface waters, and three (3) other surface waters (OSWs) were identified within the project area (Appendix A, Figure 4). The wetlands and surface waters within the project area fall within the regulatory jurisdiction of SWFWMD and the USACE. There are 5 wetland systems and 2 surface waters that are isolated, non-navigable, not tidally influenced and do not contain a hydrologic connection to any Waters of the U.S. (WOTUS) defined as jurisdictional waters pursuant to 40 CFR 120.2(1). Therefore, these impacted systems are non-jurisdictional to the USACE under Section 404 of the Clean Water Act (CWA). Section 5.1 provides descriptions of the wetland and surface water habitats impacted by the proposed project.

5.1 Wetland Habitats and Other Surface Waters

Wetland 1
FLUCCS 6150: Stream and Lake Swamps (Bottomland)
USFWS NWI: PFO1C – Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded
Wetland 1 is a mixed hardwood forested wetland located adjacent to the existing R/W on the east side of US 301. Wetland 1 is bordered by low density residential neighborhood to the north and US 301 to the west. Wetland 1 is hydrologically connected to the larger Shady Brook wetland system. Canopy species observed within Wetland 1 include sweetgum (*Limquidambar styraciflua*), bald cypress (*Taxodium distichum*), red maple (*Acer rubrum*), live oak (*Quercus virginiana*), and water hickory (*Carya aquatica*). Subcanopy and groundcover species were sparse in the system, consisting of cabbage palm (*Sabal palmetto*) and saw palmetto (*Serenoa repens*). Soils in the wetland area are mapped as Map Unit 44 - Oldsmar Fine Sand, Bouldery Subsurface. Soils were saturated; however, standing water was absent at the time of the assessment. Buttressing at the base of cypress trees and water marks on canopy trees was observed in the system which indicates periodical inundation.

Wetland 2
FLUCCS 6150: Stream and Lake Swamps (Bottomland)
USFWS NWI: PFO1C – Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded
Wetland 2 is a mixed hardwood forested wetland located adjacent to the existing R/W on the east side of US 301. Wetland 2 is bordered by low density residential neighborhood to the east and US 301 to the west. Canopy species observed within Wetland 2 include sweetgum, bald cypress, red maple, live oak, and water hickory. Subcanopy and groundcover species were sparse in the system, consisting of cabbage palm and saw palmetto. Soils in the wetland area are mapped as Map Unit 9 - Paisley Fine Sand, Bouldery Subsurface. Soils were saturated; however, standing water was absent at the time of the assessment. Buttressing at the base of cypress trees and water marks on canopy trees was observed in the system which indicates periodical inundation.

Wetland 3
FLUCCS 6150: Stream and Lake Swamps (Bottomland)

USFWS NWI: PFO6F – Palustrine, Forested, Deciduous, Semipermanently Flooded
Wetland 3 is a mixed hardwood forested wetland located at the Shady Brook bridge over US 301. Wetland 3 consists of a large stream and lake swamp associated with Shady Brook, which is listed as an Outstanding Florida Water (OFW). Canopy species observed within Wetland 3 include sweetgum, bald cypress, red maple, live oak, and water hickory. Subcanopy and groundcover species were sparse in the system, consisting of cabbage palm and saw palmetto. Soils in the wetland area are mapped as Map Unit 9 - Paisley Fine Sand, Bouldery Subsurface and Map Unit 49 – Terra Ceia Muck (0-1% slopes), Frequently Ponded. Soils were saturated and standing water was present at the time of the assessment. The water marks observed on canopy trees were higher than the water level at the time of the assessment. Drift deposits of branches were observed adjacent to the stream.

Wetland 4
FLUCCS 1100: Residential, Low Density
USFWS NWI: N/A
Wetland 4 is an isolated depressional feature located along US 301 just north of Shady Brook. Wetland 4 is bordered by a recreational park to the east and US 301 to the west. Canopy species observed include bald cypress, sweetgum, and cabbage palm. Groundcover consists of broomsedge (*Andropogon virginicus*) and saw palmetto. Soils in the wetland area are mapped as Map Unit 9 - Paisley Fine Sand, Bouldery Subsurface. Soils were saturated; however, standing water was absent at the time of the assessment.

Wetland 5
FLUCCS 1100: Residential, Low Density
USFWS NWI: N/A
Wetland 5 is an isolated depressional forested system located southeast of the County Road 525E and US301 intersection. Wetland 5 is bordered by low residential neighborhood and US 301. Subcanopy species observed include red maple and Carolina willow (*Salix caroliniana*). Herbaceous vegetation and groundcover were largely absent in the system. Soils in the wetland area are mapped as Map Unit 23 – Ona-Ona, Wet, Fine Sand (0 to 2 % slopes). Soils were saturated and standing water present at the time of the assessment. Water marks were present and grayish to black water-stained leaves were observed, which indicates a long period of inundation in the system.

Wetland 11
FLUCCS 1100: Residential, Low Density
USFWS NWI: N/A
Wetland 11 is an isolated depressional feature surrounded by upland hardwoods-coniferous mix. Canopy species observed include cabbage palm, live oak, sweetgum, and American elm (*Ulmus americana*). Groundcover was absent in the system. Soils in the wetland area are mapped as Map Unit 27 - Sumterville Fine Sand, Bouldery Subsurface (0 to 5 % slopes) and Map Unit 33 – Sparr Fine Sand, Bouldery Subsurface (0 to 5 % slopes). Soils were saturated and exhibited a dark surface. Standing water was present at the time of the assessment.

Wetland 12
FLUCCS 1100: Residential, Low Density
USFWS NWI: N/A
Wetland 12 is an isolated depressional feature surrounded by low density residential and US 301, located north of the Warm Springs Ave intersection. Canopy species observed include cabbage palm, laurel oak, and sweetgum. Groundcover was absent in the system. Soils in the wetland area are mapped as Map Unit 15 - Adamsville Fine Sand, Bouldery Subsurface. Soils were saturated; however, standing water was absent at the time of the assessment. Drainage patterns and water marks were observed within the system.

Wetland 13

FLUCCS 1100: Residential, Low Density

USFWS NWI: N/A

Wetland 13 is an isolated depressional feature surrounded by low density residential and US 301, located north of the Warm Springs Ave intersection. Canopy species observed include cabbage palm. Subcanopy species include Carolina willow. Groundcover was absent in the system. Soils in the wetland area are mapped as Map Unit 15 - Adamsville Fine Sand, Bouldery Subsurface. Soils were saturated and standing water was present at the time of the assessment.

Wetland 14

FLUCCS 6170: Mixed Wetland Hardwoods

USFWS NWI: PFO6F – Palustrine, Forested, Deciduous, Semipermanently Flooded

Wetland 14 is an isolated depressional mixed wetland hardwoods system located on the west side of US 301, south of NE 41st Lane. Canopy species observed include bay laurel (*Laurus nobilis*), sweetgum, red maple, and laurel oak. Subcanopy and groundcover were largely absent in the system. Soils in the wetland area are mapped as Map Unit 26 – Wabasso Fine Sand, Bouldery Subsurface. Soils were saturated and exhibited a dark surface. Standing water was present at the time of the assessment and water marks were observed on canopy trees.

Wetland 15

FLUCCS 6410: Freshwater Marshes

USFWS NWI: PEM1F – Palustrine, Emergent, Persistent, Semipermanently Flooded

Wetland 15 is a freshwater marsh wetland system located along US 301, north of NE 41ST Lane. Wetland 15 is bordered by high density residential neighborhood to the north, US 301 to the west, and low density residential to the south. Canopy species include laurel oak and red maple along the perimeter of the system. Subcanopy species observed include Carolina willow and wax myrtle. Herbaceous and groundcover vegetation include sawgrass (*Cladium jamaicensis*), soft rush, arrowhead (*Sagittaria spp.*), broomsedge, saw palmetto, bushy bluestem (*Andropogon glomeratus*), and various sedges. Soils in the wetland area are mapped as Map Unit 54 - Monteocha Fine Sand, Depressional. Soils were saturated and exhibited dark surface. Standing water was observed within the system.

Wetland 16

FLUCCS 6440: Emergent Aquatic Vegetation

USFWS NWI: PEM1F – Palustrine, Emergent, Persistent, Semipermanently Flooded

Wetland 16 is a freshwater marsh wetland system located along US 301, north of NE 41ST Lane across from Wetland 15. Wetland 16 is bordered US 301 to the east and pastureland to the north and south. There is no canopy or subcanopy species present. Herbaceous and groundcover vegetation is dominated by pickerelweed (*Pontederia cordata*). Two Florida sandhill cranes were observed nesting near the center of the system during the site assessment on February 14th, 2023. Soils in the wetland area are mapped as Map Unit 26 – Wabasso Fine Sand, Bouldery Subsurface. Soils were saturated, exhibited dark surface, and had a muck presence. Standing water was observed within the system.

Wetland 18

FLUCCS 6150: Stream and Lake Swamps (Bottomland)

USFWS NWI: PFO2F – Palustrine, Forested, Needle-leaved Deciduous, Semipermanently Flooded
PEM1F – Palustrine, Emergent, Persistent, Semipermanently Flooded

Wetland 18 consists of a freshwater marsh system surrounded by mixed wetland hardwoods system. Wetland 18 is located along US 301 at the Marsh Bend Trail intersection. The surrounding land use is upland hardwood-coniferous mix. Canopy species observed include sweetgum, red maple, and laurel oak. The subcanopy is dominated by Peruvian primrose-willow (*Ludwigia peruviana*), salt bush (*Baccharis halimifolia*) and Carolina willow. Herbaceous and groundcover include cattail (*Typha spp.*), arrowhead,

and maidencane (*Panicum hemitomon*). Soils in the wetland area are mapped as Map Unit 46 – Ft. Green Fine Sand, Bouldery Subsurface. Soils were saturated and exhibited a dark surface. Standing water was present at the time of the assessment and water marks were observed on canopy and subcanopy trees.

Wetland 19

FLUCCS 6150: Stream and Lake Swamps (Bottomland)

USFWS NWI: PFO6C – Palustrine, Forested, Deciduous, Seasonally Flooded
PSS1F – Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Semipermanently Flooded

Wetland 19 is a mixed hardwood forested wetland system located along the east side of US 301 extending from the powerline easement to Marsh Bend Trail intersection. Wetland 19 includes a disturbed scrub-shrub area within the powerline easement. Wetland 19 is bordered by high density residential neighborhood to the east and US 301 to the west. Canopy species observed within the forested system include sweetgum, slash pine (*Pinus elliottii*), red maple, laurel oak, water hickory. Subcanopy species were sparse in the system, consisting of cabbage palm and saw palmetto. Herbaceous and groundcover species include arrowhead, lizard's tail (*Saururus cernuus*), swamp dock (*Rumex verticillatus*), and water hyacinth (*Eichhornia crassipes*). Species observed in the scrub-shrub portion include Peruvian primrose willow, wax myrtle, cattail, broomsedge, and various sedges and rushes. Soils in the wetland area are mapped as Map Unit 46 – Ft. Green Fine Sand, Bouldery Subsurface. Soils were saturated and exhibited a dark surface. Standing water was present at the time of the assessment; water marks and elevated lichen lines were observed on canopy trees.

Wetland 20

FLUCCS 6410: Freshwater Marshes

USFWS NWI: PEM1F – Palustrine, Emergent, Persistent, Semipermanently Flooded

Wetland 20 is a freshwater marsh wetland system located along the west side of US 301 just south of the powerline easement. Wetland 20 is hydrologically connected to Wetland 19 via a culvert under US 301. Subcanopy species observed include Carolina willow and wax myrtle. Herbaceous and groundcover vegetation include sawgrass, soft rush, broomsedge, saw palmetto, and various sedges. Soils in the wetland area are mapped as Map Unit 47 – Okeelanta Muck, Frequently Flooded. Soils were saturated and had muck presence. Standing water was observed within the system.

Wetland 22

FLUCCS 6430: Wet Prairies

USFWS NWI: PEM1F – Palustrine, Emergent, Persistent, Semipermanently Flooded

Wetland 22 is an isolated freshwater marsh wetland system located north of the powerline easement along the east side of US 301 and Silvana Way. Wetland 22 has been altered due to the adjacent high density residential construction. Canopy and subcanopy species observed include red maple and wax myrtle. Herbaceous and groundcover vegetation include sawgrass, soft rush, and broomsedge. Soils in the wetland area are mapped as Map Unit 34 – Tarrytown Sandy Clay Loam, Bouldery Subsurface. Soils were saturated and exhibited dark surface. Standing water was observed within the system.

Wetland 23

FLUCCS 6410: Freshwater Marshes

USFWS NWI: PEM1F – Palustrine, Emergent, Persistent, Semipermanently Flooded

Wetland 23 is an isolated freshwater marsh wetland system located north of the powerline easement along the east side of US 301. Wetland 23 has been altered due to the adjacent high density residential construction and includes a retaining wall along the east side of the system. Subcanopy species observed include Carolina willow. Herbaceous and groundcover vegetation include soft rush, cattail, and broomsedge. Soils in the wetland area are mapped as Map Unit 54 – Monteocha Fine Sand, Depressional. Soils were saturated and exhibited dark surface. Standing water was observed within the system.

Wetland 25

FLUCCS 6410: Freshwater Marshes

USFWS NWI: PEM1F – Palustrine, Emergent, Persistent, Semipermanently Flooded

Wetland 25 is a freshwater marsh wetland system located north of the powerline easement along the west side of US 301. Wetland 25 appears to be disturbed and mowed with regularity. Subcanopy species observed include Peruvian primrose willow and wax myrtle. Herbaceous and groundcover vegetation include soft rush, cattail, and broomsedge. Soils in the wetland area are mapped as Map Unit 21 – Eaugallie Fine Sand, Bouldery Subsurface. Soils were saturated and exhibited dark surface. Standing water was observed within the system.

Wetland 26

FLUCCS 6410: Freshwater Marshes

USFWS NWI: PEM1F – Palustrine, Emergent, Persistent, Semipermanently Flooded

Wetland 26 is a freshwater marsh wetland system located north of the powerline easement along the west side of US 301. Wetland 26 appears to be disturbed and mowed with regularity. Subcanopy species observed include Carolina willow and wax myrtle. Herbaceous and groundcover vegetation include maidencane, soft rush, and cattail. Soils in the wetland area are mapped as Map Unit 21 – Eaugallie Fine Sand, Bouldery Subsurface and Map Unit 54 – Monteocha Fine Sand, Depressional. Soils were saturated and exhibited dark surface. Standing water was observed within the system.

Wetland 27

FLUCCS 6150: Stream and Lake Swamps (Bottomland)

USFWS NWI: PFO6C – Palustrine, Forested, Deciduous, Seasonally Flooded

Wetland 27 is a mixed wetland hardwood forested system located along US 301 just south of the Florida's Turnpike interchange. Wetland 27 extends from the railroad to the west and flows under US 301 via a box a culvert. Wetland 27 is bordered by herbaceous open land to the south and upland hardwood-coniferous mix to the north. Canopy species observed within the forested system include sweetgum, slash pine, bald cypress, red maple, and laurel oak. Subcanopy species were sparse in the system, consisting of cabbage palm and saw palmetto. Herbaceous and groundcover species include arrowhead, lizard's tail, Virginia chain fern. Soils in the wetland area are mapped as Map Unit 9 - Paisley Fine Sand, Bouldery Subsurface. Soils were saturated and exhibited a dark surface and muck presence. Standing water was present at the time of the assessment; water marks and elevated lichen lines were observed on canopy trees.

Surface Water 2 & 3

FLUCCS 5300: Reservoirs

USFWS NWI: PAB3H – Palustrine, Aquatic Bed, Rooted Vascular, Permanently Flooded

Surface Waters 2 & 3 are excavated water storage features utilized for the surrounding low density residential and pastureland land use. These small agricultural and recreational farm ponds exhibited standing water and submerged vegetation was observed during the site assessment.

Other Surface Waters 1, 2-4

OSW 1 is a seasonally inundated swale located within the pastureland east of US 301. OSWs 2-4 are channelized drainage ditches cut in uplands designed to provide stormwater management along the existing right-of-way of US 301.

5.2 Avoidance and Minimization

In accordance with federal and state regulations, avoidance and minimization of wetland impacts were considered in developing the widening alignment. The proposed project was designed to minimize impacts to wetlands and surface waters to the greatest extent practicable while keeping in mind the existing alignment, location constraints, agency regulations, and project objectives. Specific avoidance measures implemented include analyzing various alignments and proceeding with an optimized alignment, due to

R/W constraints. Pond sites that avoid excessive direct impacts to wetlands and other surface waters were selected when practicable. Specific minimization measures utilized include implementing Best Management Practices (BMPs) during construction to minimize water quality impacts, such as erosion and turbidity within wetlands and surface waters adjacent to construction activities. Sediment and turbidity control devices are shown on the roadway construction plans for the work within and adjacent to wetlands and surface waters. The proposed project will implement FDOT's Standard Specifications for Road and Bridge Construction.

5.3 Impacts to Wetlands and Water Quality

5.3.1 Direct Impacts

The proposed project will result in 6.64 acres of direct wetland impacts, 0.52 acres of remnant wetland impacts, 1.65 acres of direct surface water impacts, and 0.33 acres of direct OSW impacts (Appendix A, Figure 5). There will be less than 0.5 acres remaining from the direct wetland impacts to Wetlands 5, 11, 12, and 25 resulting in remnant impacts to each system. The direct impacts to the upland cut roadside drainage ditches (OSW) within the project area are temporary and will be replaced in the final configuration so there is no net loss of resources. Wetland and surface water impacts for the proposed project were calculated based on the proposed right-of-way. The proposed wetland and surface water impact totals are shown below in Table 5.3.1.

5.3.2 Secondary Impacts

For the wetland systems where a minimum 15-foot, 25-foot average wetland conservation area setback could not be achieved, secondary impacts were calculated 25 feet beyond the direct wetland impacts. The proposed project is anticipated to result in 3.25 acres of secondary wetland impacts (Table 5.3.1). Erosion control measures and the use of Best Management Practices (BMPs) during construction will be implemented to provide reasonable assurance that the proposed project will not contribute the violations of water quality standards.

Table 5.3.1: Proposed Wetland and Surface Water Impacts

Wetland or Surface Water	Direct Impacts (Ac)	Remnant Impacts (Ac)	Secondary Impacts (Ac)
Wetland 1	0.01		0.02
Wetland 2	0.07	-	0.13
Wetland 3	0.27	-	0.05
Wetland 4*	0.02	-	-
Wetland 5*	0.20	0.10	-
Wetland 11*	0.18	0.14	-
Wetland 12*	0.10	0.08	-
Wetland 13*	0.14	-	-
Wetland 14	0.03	-	0.10
Wetland 15	0.82	-	0.35
Wetland 16	0.18	-	0.22
Wetland 18	0.95	-	0.32
Wetland 19	1.13	-	0.60
Wetland 20	1.26	-	0.95
Wetland 22	0.18	-	0.16
Wetland 23	0.08	-	0.09
Wetland 25	0.46	0.20	-
Wetland 26	0.41	-	0.17
Wetland 27	0.15	-	0.09
Surface Water 2	0.18	-	-

Surface Water 3	1.47	-	-
OSW 1	0.08	-	-
OSW 2	0.18	-	-
OSW 4	0.07	-	-
Wetland Total:	**6.64**	**0.52**	**3.25**
Surface Water Total:	**1.65**	**-**	**-**
OSW Total:	**0.33**	**-**	**-**
*Isolated systems less than 0.5 acres in size. Wetland mitigation is not proposed per Section 10.2.2.1 of the SWFWMD Environmental Resource Permit Applicant's Handbook.			

5.3.3 Water Quality & Quantity Impacts

The proposed stormwater facility design will include, at a minimum, the requirements for water quality impacts as required by the SWFWMD in Rule 62-330, FAC, FDEP, and the Environmental Protection Agency (EPA). Therefore, no impacts to water quality are anticipated. All proposed control structures within the stormwater detention features are consistent with the existing "pop-off" elevations within the wetland systems.

5.3.4 Functional Loss

The proposed design will result in a total of 7.85 acres of direct and remnant wetland and surface water impacts, and 3.25 acres of secondary wetland impacts. The remnant wetland impact totals were added to the direct impacts total when calculating functional loss. The unavoidable wetland impacts for the proposed project were evaluated using Unified Mitigation Assessment Method (UMAM) analysis (Appendix C) as required pursuant to Chapter 62-345, FAC. No wetland mitigation is proposed for isolated wetland systems less than 0.5 acres in size per Section 10.2.2.1 of the SWFWMD Environmental Resource Permit Applicant's Handbook. Therefore, this results in a total of 11.10 acres of wetland and surface water impacts where mitigation is required to offset unavoidable direct and secondary impacts. The results of the UMAM analysis identified a total functional loss of 4.95 units, 4.71 units for direct wetland and surface water impacts and 0.24 units for secondary wetland impacts from the proposed project. Therefore, it is anticipated that 2.62 freshwater forested credits and 2.32 freshwater herbaceous credits will be required to offset the unavoidable wetland impacts. The results of the UMAM analysis are tabulated below in Table 5.3.4.

Unavoidable wetland impacts will be mitigated pursuant to Section 373.4137, Florida Statues (FS), to satisfy all mitigation requirements of Part IV of Chapter 373, FS and 33 U.S.C. § 1344. The project is located within the Withlacoochee River Drainage Basin. Mitigation Banks that serve the project area include the Withlacoochee, Boarshed Ranch, Green Swamp, and Hilochee Mitigation Bank. These areas provide habitat for many of the same species that may occur in the project area for this study. All the available Mitigation Banks provide palustrine credits to satisfy "type-for-type" USACE and SWFWMD mitigation requirements.

Table 5.3.4: Proposed Wetland Impacts and Associated Functional Loss

Wetland ID	Land Use Code	Direct & Remnant Impacts		Secondary Impacts	
	FLUCCS	Acres	Functional Loss	Acres	Functional Loss
Wetland 1	6150	0.01	0.01	0.02	0.00
Wetland 2	6150	0.07	0.05	0.13	0.01
Wetland 3	6150	0.27	0.22	0.05	0.01
Wetland 14	6170	0.03	0.02	0.10	0.01
Wetland 15	6410	0.82	0.57	0.35	0.02
Wetland 16	6440	0.18	0.14	0.22	0.02
Wetland 18	6150	0.95	0.73	0.32	0.02
Wetland 19	6150	1.13	0.79	0.60	0.04
Wetland 20	6410	1.26	0.88	0.95	0.07

Wetland 22	6430	0.18	0.07	0.16	0.01
Wetland 23	6410	0.08	0.03	0.09	0.01
Wetland 25	6410	0.66	0.26	-	-
Wetland 26	6410	0.41	0.16	0.17	0.01
Wetland 27	6150	0.15	0.12	0.09	0.01
Surface Water 2	5300	0.18	0.07	-	-
Surface Water 3	5300	1.47	0.59	-	-
	Total	**7.85**	**4.71**	**3.25**	**0.24**

6 CULTURAL AND HISTORICAL RESOURCES

A Cultural Resources Assessment (CRAS) was completed in 2017 as a part of the PD&E study. The assessment was conducted within the existing and proposed right-of-way. The archaeological survey resulted in the identification of eight new archaeological sites (8SM00929-8SM00936) and four archaeological occurrences. All but one archaeological site (8SM00933) and all four archaeological occurrences are ineligible for the NRHP. The Shady Brook archaeological site (8SM00933) is recommended eligible for listing in the NRHP under Criterion D. The architectural survey resulted in the identification and evaluation of 124 historic resources, which include five previously recorded resources and 119 newly recorded resources. Of these resources, the Coleman City Jail (8SM00376), Coleman Historic District (8SM00921), and 7102 E. Warm Springs Avenue (8SM00832) are recommended individually eligible for listing in the NRHP.

An updated survey of the project area is currently being completed during the design phase in accordance with the procedures contained in 36 CFR Part 800. If any archaeological, historical, or burial resources are unearthed during project construction, all excavation will stop, and the Project Manager will be notified immediately for evaluation.

7 THREATENED AND ENDANGERED SPECIES ASSESSMENT

7.1 Methodology

The protected species and habitat discussed in this document include those listed in accordance with the Endangered Species Act of 1973 (ESA), as amended (50 Code of Federal Regulations (CFR) 17); critical habitat as defined in the ESA (16 U.S.C. § 1531); Chapter 68A-27, FAC, Florida Endangered and Threatened Species List; Chapter 5B-40, FAC, Regulated Plant Index; and United States Migratory Bird Act, the Bald and Golden Eagle Protection Act.

Information regarding the occurrence, or likelihood of occurrence, for protected species was gathered for the project area in order to comply with agency regulations. The project area was evaluated during site visits in 2023-2024 to address the occurrence, or potential occurrence, of wildlife and plant species listed as threatened, endangered, and candidate, according to methodology outlined by USFWS, FWC, and FNAI. Compliance with the ESA must be met for federally listed plants, though the Florida Department of Agriculture and Consumer Services (FDACS) does not regulate state-listed plants.

7.2 Critical Habitat

The USFWS critical habitat database was consulted, and no critical habitat is found within or near the project area. However, the project area falls within the USFWS Consultation Areas for the Florida scrub-jay and the Everglades snail kite. A discussion regarding agency coordination for these species is presented below.

7.3 Listed Species with Potential to Occur in the Project Area

Based on a review of available literature and field observations, the following list of federally or state-protected species have the potential to occur within or adjacent to the project area. Table 7.3 includes the scientific and common name of each species, its protected status, habitat, and the potential of occurrence near the project area. Based on the site assessments conducted by biologists, the potential of species occurrence within the project area was classified as:

- Low: Species has been documented in the county, but there are no documented occurrences near the project area and the project area lacks suitable habitat.
- Moderate: Species have been documented in the county and potentially suitable habitat occurs in the project area; however, the species was not observed during field reviews.
- High: Species has been documented in and/or near the project area and suitable habitat occurs in the project area; however, the species was not observed.
- Observed: Species was observed within or near the project area during field reviews.

Table 7.3. Protected species with potential to utilize habitat near the project area

Species	Listing Status		Habitat Preference	Likelihood of Occurrence
	USFWS	FWC/ FDACS		
Reptiles and Amphibians				
American Alligator (*Alligator mississippiensis*)	T (S/A)	T (S/A)	Most permanent bodies of freshwater and brackish water.	Moderate
Eastern Indigo Snake (*Drymarchon couperi*)	T	T	Broad range of habitats including scrub, sandhill, wet prairies, and mangrove swamps. (During winter may be found in Gopher tortoise burrows)	Moderate
Gopher Tortoise (*Gopherus polyphemus*)	-	T	Dry upland habitats, including sandhills, scrub, xeric oak hammock, and dry pine flatwoods; also, commonly uses disturbed habitats (pastures, old fields, and road shoulders)	Observed
Short-tailed Snake (*Lampropeltis extenuate*)	-	T	Sandy soils, particularly longleaf pine and xeric oak sandhills	Moderate
Florida Pine Snake (*Pituophis melanleucus mugitus*)	-	T	Open canopies with dry sandy soils, gopher tortoise burrows	Moderate
Birds				
Florida Burrowing Owl (*Athene cunicularia floridana*)	-	T	High, sparsely vegetated, sandy ground. Dry prairies and sandhills.	Moderate
Red-cockaded Woodpecker (*Picoides borealis*)	E	E	Open mature pine woodlands with a diversity of grass, forb, and shrub species.	Low
Little Blue Heron (*Egretta caerulea*)	-	T	Fresh, salt, and brackish areas including swamps, estuaries, ponds, lakes, rivers	Moderate
Tricolor Heron (*Egretta tricolor*)	-	T	Fresh and saltwater marshes, estuaries, mangrove swamps, lagoons, and river deltas	Moderate

Table 7.3. Protected species with potential to utilize habitat near the project area

Species	Listing Status		Habitat Preference	Likelihood of Occurrence
	USFWS	FWC/ FDACS		
Florida Scrub-Jay (*Aphelocoma coerulescens*)	T	T	Low-growing oak scrub habitat in well-drained sand soils.	Low
Everglade Snail Kite *(Rostrhamus sociabilis plumbeus)*	E	E	Typically found in shallow freshwater marshes and lake shorelines.	Low
Florida Sandhill Crane (*Grus canadensis pratensis*)	-	T	Inhabit freshwater marshes, prairies, and pastures.	Observed
Southeastern American Kestrel (*Falco sparverius paulus*)	-	T	Found in open pine habitats, woodland edges, prairies, and pastures. Nest sites are tall dead trees or utility poles generally with unobstructed view of surroundings.	Observed
Bald Eagle (*Haliateetus leucocephalus*)	BGEPA & MBTA	68A-16.002 FAC**	Commonly includes areas close to bays, rivers, lakes, or other bodies of water that provide concentrations of food sources.	High
Wood Stork (*Mycteria americana*)	T	T	Wetlands, streams, lakes, swamps, manmade impoundments, and ditches	Low
Mammals				
Florida Black Bear (*Ursus americanus floridanus*)	-	68A-4.009 FAC*	Typically found in forested communities including forested wetlands.	Moderate
Plants				
Many-flowered grass-pink (*Calopogon multiflorus*)	-	T	Dry to moist flatwoods with longleaf pine, wiregrass, and saw palmetto	Low
Sand butterfly pea (*Centrosema Arenicola*)	-	E	Sandhill, scrubby flatwoods, dry upland woods.	Low
Piedmont jointgrass (*Coelorachis tuberculosa*)	-	T	Ephemeral ponds and margins of sandhill upland lakes or depression marshes where soils are sandy peat	Low
Scrub buckwheat (*Eriogonum longifolium var. gnaphalifolium*)	T	E	Sandhill, oak-hickory scrub on yellow sands, high pineland between scrub and sandhill	Low
Godfrey's swampprivet (*Forestiera godfreyi*)	-	E	Upland hardwood forests containing limestone at or near the surface, often near lakes and rivers.	Moderate
Cooley's water-willow (*Justicia cooleyi*)	E	E	Typically inhabits mesic hammocks among rock outcroppings and ravines in Hernando, Citrus, and Sumter County.	Moderate
Florida spiny-pod (*Matelea floridana*)	-	E	Sandhill, upland pine, and dry hammocks.	Low

Table 7.3. Protected species with potential to utilize habitat near the project area

Species	Listing Status		Habitat Preference	Likelihood of Occurrence
	USFWS	FWC/ FDACS		
Pygmy pipes (*Monotropic reynoldsiae*)	-	E	Inhabits upland forests, hammocks, sand pine, and oak scrubs.	Low
Celestial lily (*Nemastylis floridana*)	-	E	Often found in wet flatwoods, prairies, cabbage palm hammock edges, and marshes.	Moderate
Yellow fringeless orchid (*Platanthera integra*)	-	E	Open wet prairies, wet flatwoods, bogs, seepage slopes, wet pine barrens, peaty depressions	Low
Florida mountain-mint (*Pycnanthemum floridanum*)	-	T	Found in roadside ditches and sandhill communities.	Low
Florida filmy fern (*Trichomanes punctatum spp. floridanum*)	E	E	Hammocks, edges of lime sinks, and limestone boulders	Moderate
Craighead's nodding-caps (*Triphora craigheadii*)	-	T	Surface of rotting logs, shaded rock outcrops in mesic hardwood hammocks	Low
Florida willow (*Salix floridana*)	-	E	Wet, mucky soils in hydric hammocks, swamp edges	Moderate
Pinkroot (*Spigelia loganioides*)	-	E	Upland and hydric hardwood hammocks and floodplain forests.	Moderate
Clasping warea (*Warea amplexifolia*)	E	E	Limited to sunny openings with exposed sand in longleaf pine, turkey oak, wiregrass sandhills	Low

Table 7.3 Definitions:
USFWS = United States Fish and Wildlife Service, FWC = Florida Fish and Wildlife Conservation Commission, FDACS = Florida Department of Agriculture and Consumer Services
E = Endangered, T = Threatened, T(S/A) =Threatened due to Similarity of Appearance, FS = Florida Statute
* Removed from Florida's Endangered and Threatened Species List in 2012, but still protected under the FAC
** Removed from Florida's Endangered and Threatened Species List in 2008, but is still protected under the Bald and Golden Eagle Protection Act (BGEPA), Migratory Bird Treaty Act (MBTA), and FAC

Species with a "moderate", "high", or "observed" likelihood of occurrence or are within the USFWS designated Consultation Area are discussed in more detail below, including the anticipated effect of the proposed project on species viability.

7.3.1 Federally Listed Species

American Alligator

The American Alligator is listed as threatened by the USFWS due to its similar appearance to the American crocodile (*Crocodylus acutus*), which is restricted to southern Florida. The proposed project is outside of the range of the American crocodile. No American alligators were observed during the site assessments. Given this information and the inherent mobility of this species, the proposed project is anticipated to have "**no effect**" on the American alligator.

Eastern Indigo Snake

The eastern indigo snake is listed as threatened by the USFWS. This species uses a wide variety of habitats including pine flatwoods, scrubby flatwoods, high pine flatwoods, dry prairie, tropical hardwood hammocks, edges of freshwater marshes, agricultural fields, coastal dunes, and human-altered habitats.

They are known to utilize gopher tortoise burrows for refuge in the winter. Following the Programmatic Effect Determination Key for the Eastern Indigo Snake (USFWS, 2017):

A. The project area is not located solely in open water or saltmarsh;
B. The project will be conditioned to follow the USFWS's Standard Protection Measures for the Eastern Indigo Snake during site preparation and construction;
C. The project will impact less than 25 acres or more of eastern indigo habitat;
D. There are potential gopher tortoise burrows, holes, cavities, or other refugia within the study area;
E. The permit will be conditioned such that all potential eastern indigo refugia is excavated and/or inspected prior to construction and if an individual is encountered, it must be allowed to vacate the area prior to site manipulation.

A copy of the determination key for the eastern indigo snake is found in Appendix D. FDOT is committed to implementing the Standard Protection Measures for Eastern Indigo Snake (USFWS, 2021, included in Appendix D). The proposed project is **"not likely to adversely affect"** the eastern indigo snake.

Everglade snail kite

The Everglade is listed as endangered by the USFWS. The Everglade snail kite is a medium-sized raptor distinguished by its slender, downward curved bill that is adapted to extract its prey. The Everglade snail kite feeds almost exclusively on apple snails (*Pomacea paludosa*). Although the project area falls within the USFWS Consultation Area for this species, no evidence of activity from this species was observed within or adjacent to the project area. During the site assessments, no apple snails or apple snail egg masses were observed within the project area. Therefore, the project area lacks the habitat necessary to support the Everglades snail kite and the project is **"not likely to adversely affect"** the Everglade snail skite or its habitat.

Florida Scrub-Jay

The Florida scrub-jay is listed as threatened by the USFWS. Scrub-jays inhabit sand pine and xeric oak scrub, and scrubby flatwoods, which occur in the highest and driest areas of Florida. These small, blue, and gray birds are year-round residents in Florida, but are most likely to be observed between March and October. The project area falls within the Florida scrub-jay consultation area. Scrub-jays have been documented approximately 5 miles northwest of the project area north of Lake Panasoffkee. However, no suitable scrub-jay habitat was observed within or adjacent to the project area during the site assessments. Due to the lack of suitable habitat present within the project area, the project is **"not likely to adversely affect"** the Florida scrub-jay or its habitat.

Red Cockaded Woodpecker

The red-cockaded woodpecker (RCW) is listed as endangered by USFWS. RCWs are medium-sized birds with a barred, black and white back, black head, and black neck. Only the males have small red streaks above their cheeks that are rarely visible. The RCW inhabits mature pine forests, predominantly longleaf (*Pinus palustris*), slash (*P. elliottii*), and loblolly pine (*P. taeda*) in Florida. The project area falls within the USFWS consultation area for RCW; however, the project area lacks the old growth pines, and no documented sightings of RCW are found within or adjacent to the project area. The nearest recorded RCW colonies occur within the Withlacoochee State Forest, over seventeen miles away from the proposed project area. Due to the lack of suitable habitat present within the project area, the project is **"not likely to adversely affect"** the RCW or its habitat.

Wood Stork

The wood stork is listed as threatened by USFWS. Wood storks are colonial waterbirds nesting in large rookeries, primarily in cypress swamps but also in sloughs, mangrove swamps, and other hardwood forested wetlands. Suitable foraging habitat (SFH) for wood storks include a variety of both freshwater and estuarine

habitats including marshes, ponds, shallow roadside or agricultural ditches, seasonally flooded pastures, canals, creeks, managed impoundments, and depressional wetlands. The project area does provide suitable foraging and nesting habitat for wood storks. However, based on review of the 2022 USFWS wood stork core foraging habitat data, the project area does not fall within an identified Core Foraging Area (CFA) for the wood stork. The nearest nesting colony, Croom, is located approximately 19 miles southwest of the project area. Utilizing the Effect Determination Key for the Wood Stork in Central and North Florida (USACE 2008):

A. The project area is more than 2500 feet from an active colony site;
B. The project impacts suitable SFH;
C. The project impacts to suitable SFH are greater than or equal to 0.5 acre;
D. Project impacts to suitable SFH are not within a Core Foraging Area of a colony site, and no wood storks have been documented foraging on site.

A copy of the *Effect Determination Key for the Wood Stork in Central and North Florida* is found in Appendix D. The proposed project is **"not likely to adversely affect"** the wood stork.

7.3.2 State-listed Species

Gopher Tortoise

The gopher tortoise is listed as threatened by FWC. Gopher tortoises are found in dry upland habitats and pine flatwoods. More than 350 other species of animals, known as commensal species, such as the Florida pine snake and short-tailed snake, benefit from the gopher tortoises' extensive burrows. During the site assessments, gopher tortoise burrows were identified within the project area. FDOT will conduct a 100% gopher tortoise survey of the project area 90 days prior to construction. A FWC Gopher Tortoise Conservation Permit will be obtained for gopher tortoises and burrows found within 25 feet of the limits of construction that cannot be avoided. Captured tortoises will be relocated to an off-site, long-term, protected recipient site in accordance with the FWC Gopher Tortoise Permitting Guidelines (revised April 2023) prior to construction. Any commensals incidentally captured, including short-tailed and pine snakes, occurring from authorized gopher tortoise relocation activities will be released on-site or allowed to escape unharmed according to the current FWC Policy on the Relocation of Priority Commensals. Therefore, the proposed project will have **"no adverse effect anticipated"** for the gopher tortoise.

Short-tailed Snake

The short-tailed snake is listed as threatened by FWC. It is a small slender snake adapted to living underground in sandy soils and xeric habitat, such as longleaf pine and xeric oak sandhills. Short-tailed snakes feed predominately on small, smooth-scaled snakes. The short-tailed snake was not observed during site assessments of the project area. The short-tailed snake is considered a cryptic species and therefore field surveys are not recommended to document presence within the project area. FDOT proposes to include this commensal species in the project's FWC Gopher Tortoise Conservation Permit and address any interactions according to the current FWC guidelines. In accordance with the current FWC Gopher Tortoise permitting guidelines, FDOT will survey the project area for gopher tortoise burrows prior to construction and will acquire a FWC Gopher Tortoise Conservation Permit for gopher tortoises and associated commensal species, including the short-tailed snake, prior to construction. With the implementation of these measures, it has been determined that the proposed project will have **"no adverse effect anticipated"** for the short-tailed snake.

Florida Pine Snake

The Florida pine snake is listed as threatened by FWC. Florida pine snake is a large, stocky, tan colored snake with a relatively small head. This species spends most of its time below ground with occasional surface activity from spring through fall. Their preferred habitat includes relatively open canopies with dry sandy soils, in which they burrow and often coexist with pocket gophers and gopher tortoises. The Florida

pine snake was not observed during site assessments of the project area. The Florida pine snake is considered a cryptic species and therefore field surveys are not recommended to document presence within the project area. FDOT proposes to include this commensal species in the project's FWC Gopher Tortoise Conservation Permit and address any interactions according to the current FWC guidelines. In accordance with the current FWC Gopher Tortoise permitting guidelines, FDOT will survey the project area for gopher tortoise burrows prior to construction and will acquire a FWC Gopher Tortoise Conservation Permit for gopher tortoises and associated commensal species, including the Florida pine snake, prior to construction. With the implementation of these measures, it has been determined that the proposed project will have **"no adverse effect anticipated"** for the Florida pine snake.

Southeastern American Kestrel

The Southeastern American kestrel (kestrel) is listed as threatened by FWC. The kestrel is the only non-migratory, permanent resident kestrel in Florida and is the smallest falcon in the U.S. Kestrels nest in cavities excavated by woodpeckers or natural processes that create holes in trees or utility poles. Suitable foraging habitat includes land cover with open, low herbaceous vegetation or low scrub oaks with patchy open sandy areas such as sandhill and open pine savannah maintained by fire, open pine habitats, woodland edges, prairies, pastures, and other agricultural lands. Per the commitments in the 2018 PD&E study, FDOT conducted a species-specific survey in April-May 2024 for kestrel to determine if the project area provides foraging habitat or supports nesting kestrel pairs. Surveys were conducted in accordance with FWC survey and permitting guidelines (FWC 2020) and the survey methodology, including transect locations, were approved by FWC in April 2024 (Appendix B). During the 2024 species-specific survey, one nesting pair was observed utilizing a mounted kestrel box on a Duke Energy electrical transmission line pole along CR 523, south of Warm Springs Ave. Active kestrel nest box 1 (KB-1) is located approximately 129 ft from the proposed construction limits, within the 490 ft. FWC disturbance buffer. Any construction activity that causes disturbance within 490 ft (150 m) of an active nest cavity during the breeding season is expected to result in take via harassment by lowering productivity and significantly disrupting breeding. Therefore, in accordance with the FWC species conservation measures and permitting guidelines, coordination with FWC will be required for authorization for the incidental take the Southeastern American kestrel, whereas 'take' for the purpose of this project consists of non-lethal harassment and molestation by harassing a kestrel pair incidental to development activities, pursuant to Rules 68-1 and 68A-27, F.A.C., and in accordance with the Southeastern American Kestrel Species Conservation Measures and Permitting Guidelines.

Florida Burrowing Owl

The Florida burrowing owl is listed as threatened by FWC. The Florida burrowing owl is a small bird that lives in high, sparsely vegetated, sandy ground such as dry prairies and sandhills and spends the majority of its time on the ground. Burrowing owls traditionally inhabited native prairies but can now be found in a variety of cleared areas such as pastures, agricultural fields, golf courses, and airports. Based on the current permitting guidelines, the project area falls within the species' range and contains potential suitable habitat. No Florida burrowing owls have been found during the site assessments. Due to the overlap in preferred habitat for the gopher tortoise and Florida burrowing owl, pre-construction surveys for the Florida burrowing owl will be conducted concurrently with the 100% gopher tortoise survey, prior to project construction. Additionally, FDOT will adhere to the components of the Florida's Imperiled Species Management Plan (FWC 2016) and permitting guidelines. If Florida burrowing owls are identified within the project area during the pre-construction surveys and will be impacted based on the current guidelines, FDOT will initiate technical assistance with FWC to discuss avoidance, minimization, and permitting options. Therefore, it has been determined that the project will have **"no adverse effect anticipated"** on the Florida burrowing owl.

Florida Sandhill Crane

The Florida sandhill crane is listed as threatened by FWC. The Florida sandhill crane is a non-migratory bird that forage in a variety of open habitats, including shallow herbaceous wetlands, improved pastures, prairies, open pine forests, cropland, pastureland, and golf courses. They nest in freshwater ponds and marshes, with

an average water depth of 5 to 13 inches, and the nesting sites vary from year to year due to the fluctuation of water levels. Per the commitments in the 2018 PD&E study, FDOT conducted species-specific surveys during the 2024 nesting season. Sandhill cranes were observed on two of the three survey events within and adjacent to the project limits within shallow freshwater marsh systems. One sandhill crane nesting pair was seen foraging within Wetland 16 outside of the project limits. An active nest could not be verified due to the density of the vegetation within the system; however, the nesting pair was seen leaving the interior of the wetland system to forage within the adjacent pasture. Additionally, an active sandhill crane nest with birds on the nest was observed along US 301 approximately 368 feet north of the project limits. This freshwater marsh system is dominated by maidencane and is bordered by US 301 and new residential construction. This system will not be impacted by the proposed project limits. Based on the results of the 2024 species-specific survey, sandhill cranes appear to be actively using adjacent freshwater marsh systems for nesting and foraging. Due to nesting locations varying from year to year due to fluctuation in water levels in wetlands, a pre-construction survey within 30 days of commencement activities will be required to assure there is no take of active nests. Ongoing coordination with FWC and FDOT will continue during design to determine appropriate permitting efforts for the Florida Sandhill Crane. All wetland impacts associated with the proposed project will be mitigated for to prevent a net loss of wetland functions.

7.3.3 Protected Plant Species

The FDACS Division of Plant Industry is the regulatory agency responsible for the protection of plant species that are endangered, threatened, or commercially exploited in the State of Florida. The Florida Regulated Plant Index includes all plants listed as endangered, threatened, or commercially exploited as defined in Chapter 5B-40.0055, FAC. According to the FNAI, and FDACS, there are sixteen state and federal protected plant species have the potential to occur within the proposed project area (Table 7.3). Of those sixteen species, six have a “moderate” potential of occurrence within the project area due to the presence of potentially suitable habitat. No federally or state protected plant species were observed during the site assessments; therefore, it is anticipated that the proposed project will ***not adversely impact*** federally listed plants. Additionally, the State affords no protection to plants except from commercial exploitation; therefore, the proposed project will ***not adversely impact*** state listed plants.

7.3.4 Other Protected Species

Bald Eagle

The bald eagle was removed from the protection of the ESA in 2007 (72 FR 37345) and from the FWC imperiled list in 2008; however, it is still protected by state and federal rules. The bald eagle is protected under the U.S. Migratory Bird Act, the Bald and Golden Eagle Protection Act, and under the state bald eagle rule 68A-16.002, FAC. Bald eagles forage in expanses of fresh and salt water and nest in forested areas generally located along habitat edges that provide an unobstructed view of the surrounding habitat. Most bald eagle nests are relatively large and located within two miles from a water source, they prefer tall pine trees but will also utilize cypress, oaks, or manmade structures such as power poles or utility towers. The FWC has monitored the population of nesting eagles since 1972, however, has recently teamed with the Audubon’s Center for Birds and Prey EagleWatch program; the EagleWatch program will continue to maintain and update the nesting information while assigning nest identification numbers for new nests. In order to reduce the potential for human activity to adversely affect bald eagles, USFWS and FWC Management Guidelines suggest the protection of a 660-ft habitat buffer around each active and alternate bald eagle nest. According the FWC and EagleWatch data, the closest documented bald eagle nest (SU910) is located approximately 700 feet south of the proposed right-of-way, beyond the 660-ft protection zone. The project area contains suitable foraging and nesting habitat for the bald eagle; however, no individuals or nests were observed during the site assessments.

Florida Black Bear

The Florida black bear is not listed by the USFWS and was removed from FWC's list of threatened species in 2012; however, is still protected under the Bear Conservation Rule (68A-4.009, FAC) and the FWC Florida Black Bear Management Plan. Suitable habitat for black bears includes a mixture of flatwoods, swamps, scrub oak ridges, bayheads and hammock. Suitable habitat exists within the project area; however, movement is restricted due to the large roadways and residential development. The Florida black bear thrives in habitats that provide an annual supply of seasonally available food sources, secluded areas for denning, and some degree of protection from humans. FWC maintains a database of bear related calls, mortality occurrences, telemetry, and release data. There are several bear-related nuisance and mortality related calls within two miles of the project area, along I-75 and Florida's Turnpike. To avoid potential conflicts with bears during construction, FDOT will require contractors to remove garbage daily from the construction site or use bear proof containers for securing of food and other debris from the project work area to prevent these items from becoming an attractant for the Florida black bear. Any interaction with nuisance bears will be reported to the FWC Wildlife Alert hotline 888-404-FWCC (3922).

8 MITIGATION

FDOT is committed to avoiding and minimizing potential impacts to wetlands and listed species associated with this project. Coordination with the appropriate regulatory agencies will continue throughout the design phase and the construction phase to ensure environmental commitments are met and impacts to wetlands and listed species are minimized to the greatest extent practicable. Best Management Practices will be incorporated during construction to minimize water quality impacts in accordance with Rule 62-330, FAC.

The proposed project design is anticipated to result in 6.64 acres of direct wetland impacts, 0.52 acres of remnant wetland impacts, 1.65 acres of direct surface water impacts, and 0.33 acres of direct OSW impacts. No wetland mitigation is proposed for wetlands less than 0.5 acres in size per the SWFWMD Environmental Resource Permit Applicant's Handbook Section 10.2.2.1. The UMAM analysis identified a functional loss of 4.71 units for direct wetland and surface water impacts and a functional loss of 0.24 units for secondary wetland impacts. Unavoidable wetland impacts will be mitigated pursuant to Section 373.4137, Florida Statues (FS), to satisfy all mitigation requirements of Part IV of Chapter 373, FS and 33 U.S.C. § 1344. The project is located within the Withlacoochee River Drainage Basin. Mitigation Banks that serve the project area include the Withlacoochee, Boarshed Ranch, Green Swamp, and Hilochee Mitigation Bank. FDOT will coordinate with the mitigation banks to finalize mitigation credit purchase and submit to the agencies for review and approval.

In order to avoid impacts to gopher tortoises and protected commensal species, including the eastern indigo snake, FDOT is committed to relocating impacted gopher tortoises in accordance with the Gopher Tortoise Permitting Guidelines (FWC 2008, revised 2023) and any commensals, including short-tailed and pine snakes, incidentally, captured from authorized gopher tortoise relocation activities will be released on-site or allowed to escape unharmed. The USFWS Standard Protection Measures for the Eastern Indigo Snake (USFWS 2013b) will be followed during project construction. FDOT is committed to providing mitigation for incidental take of the Southeastern American kestrel and the Florida sandhill crane and will adhere to any potential commitments and implementation measures that result from coordination with FWC.

9 REFERENCES

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Appendix A: Figures

Figure 1 – Project Location Map

Figure 2 – Soils Map

Figure 3 – Land Use Map

Figure 4 – Wetland Location Map

Figure 5 – Wetland Impact Map

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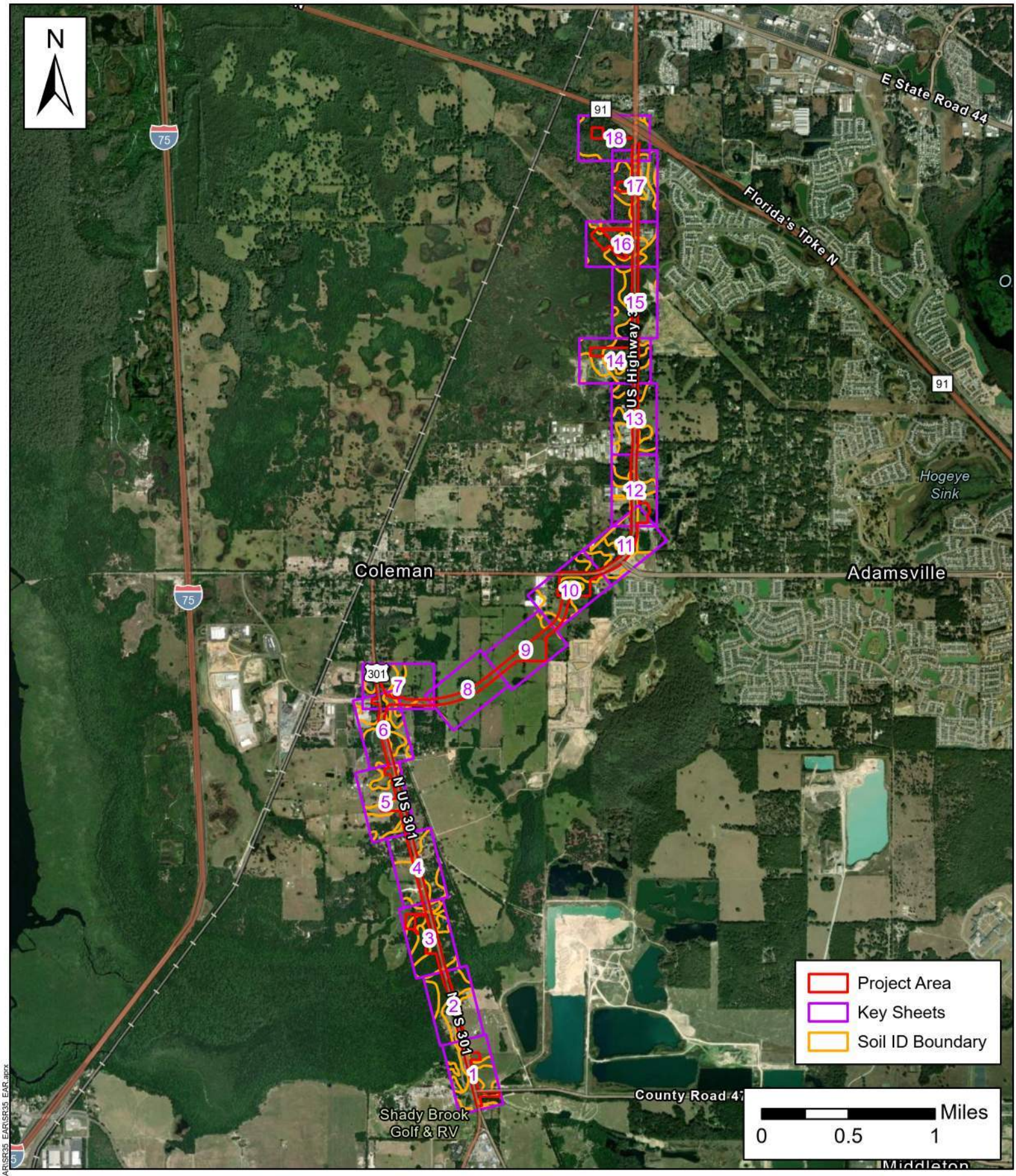
DATE: March 2024	DRAWN BY: BH	PROJECT # 22-0107.000		



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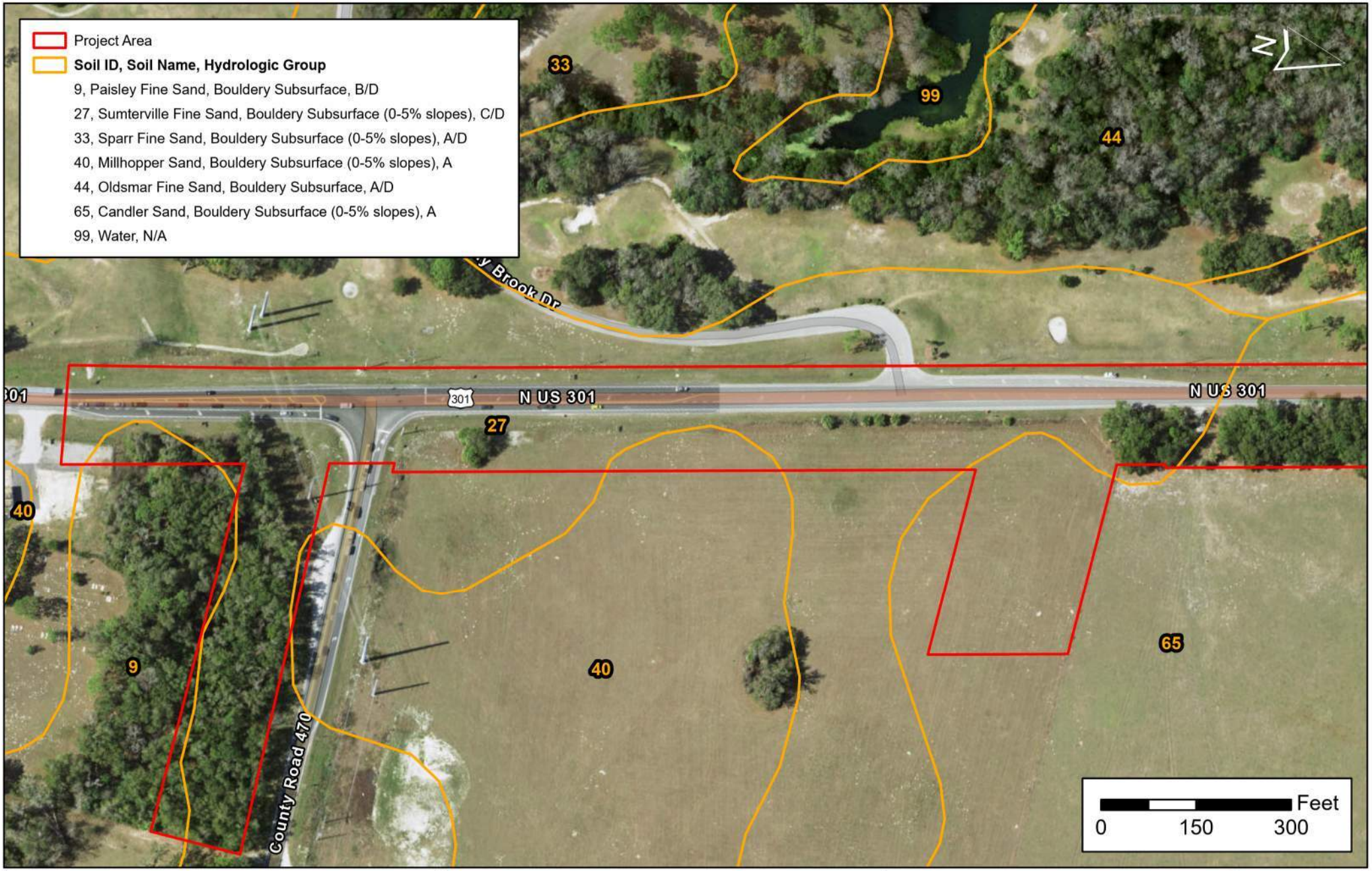

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NRCS Soils Map

Figure 2-1

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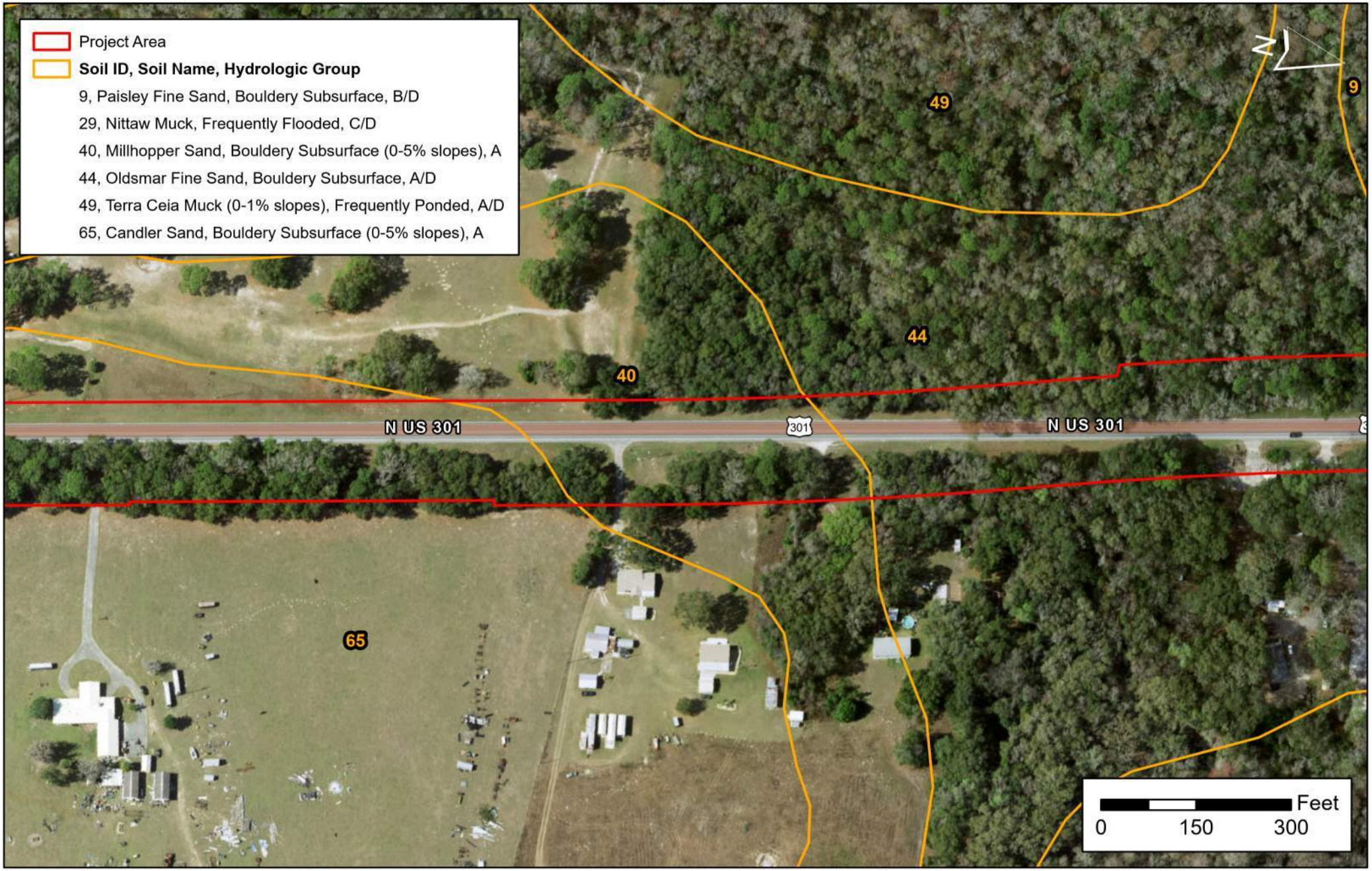

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NRCS Soils Map

Figure 2-2

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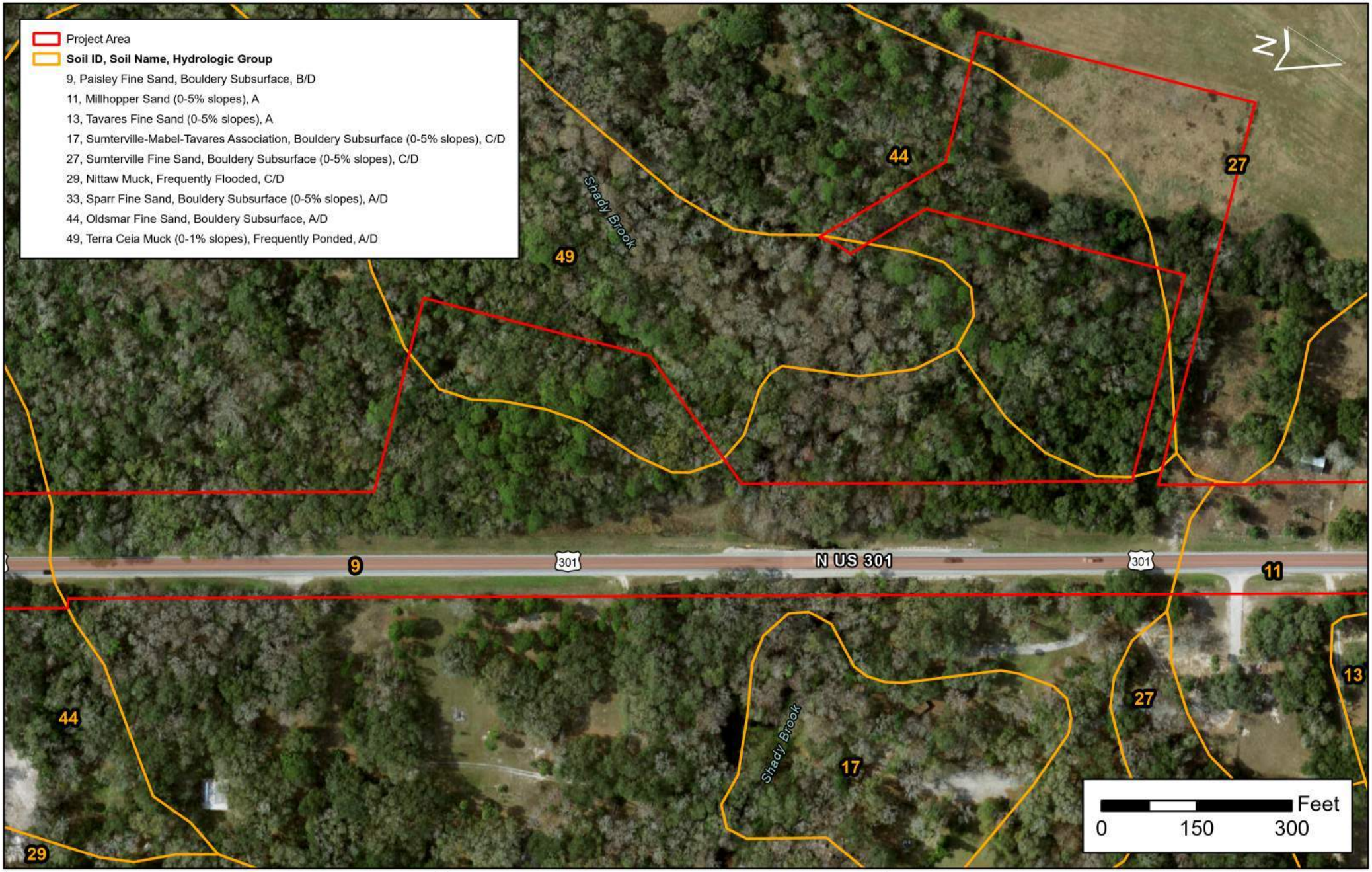

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NRCS Soils Map

Figure 2-3

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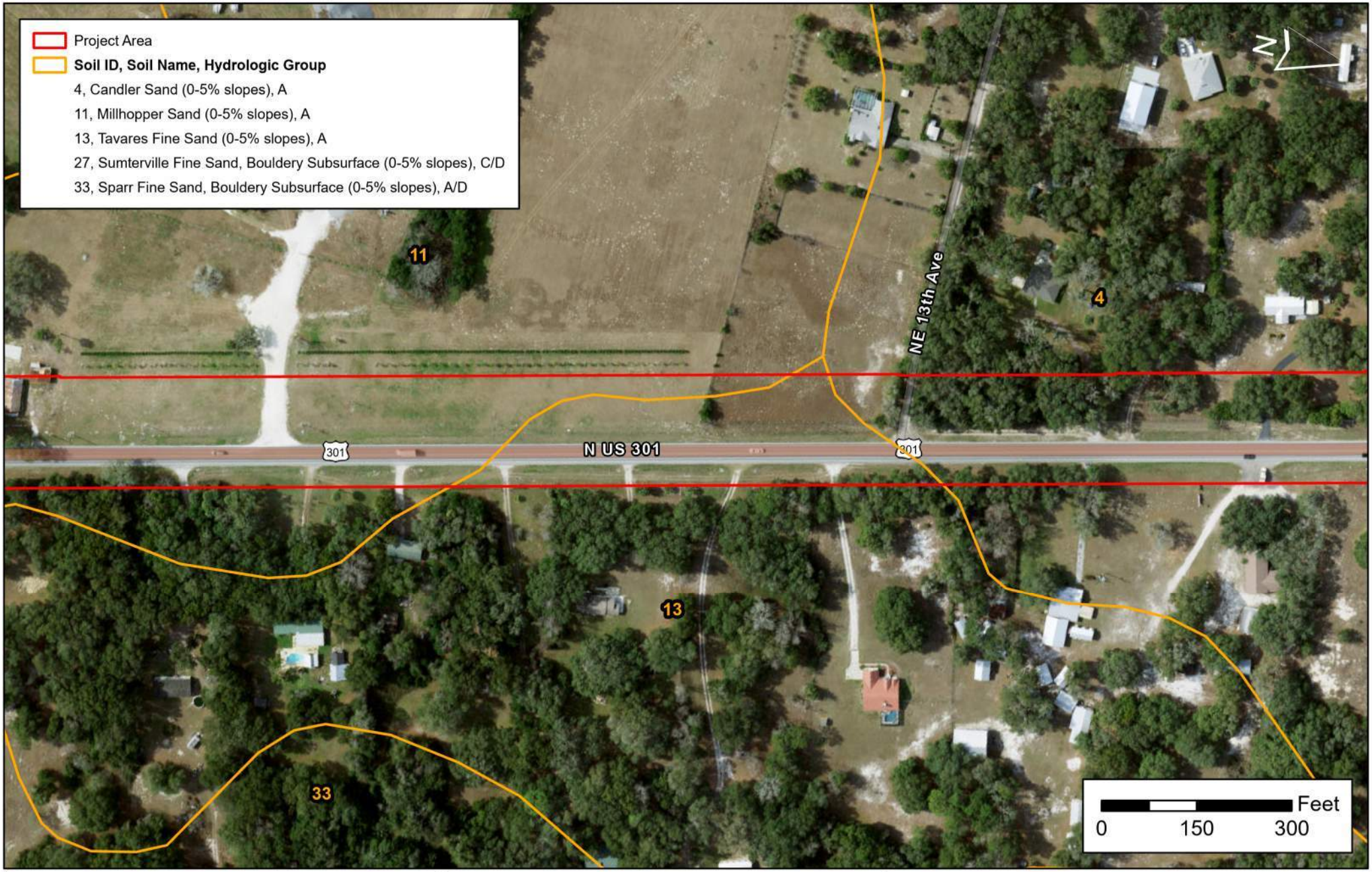
Soils: NRCS 2021



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NRCS Soils Map

Figure 2-4

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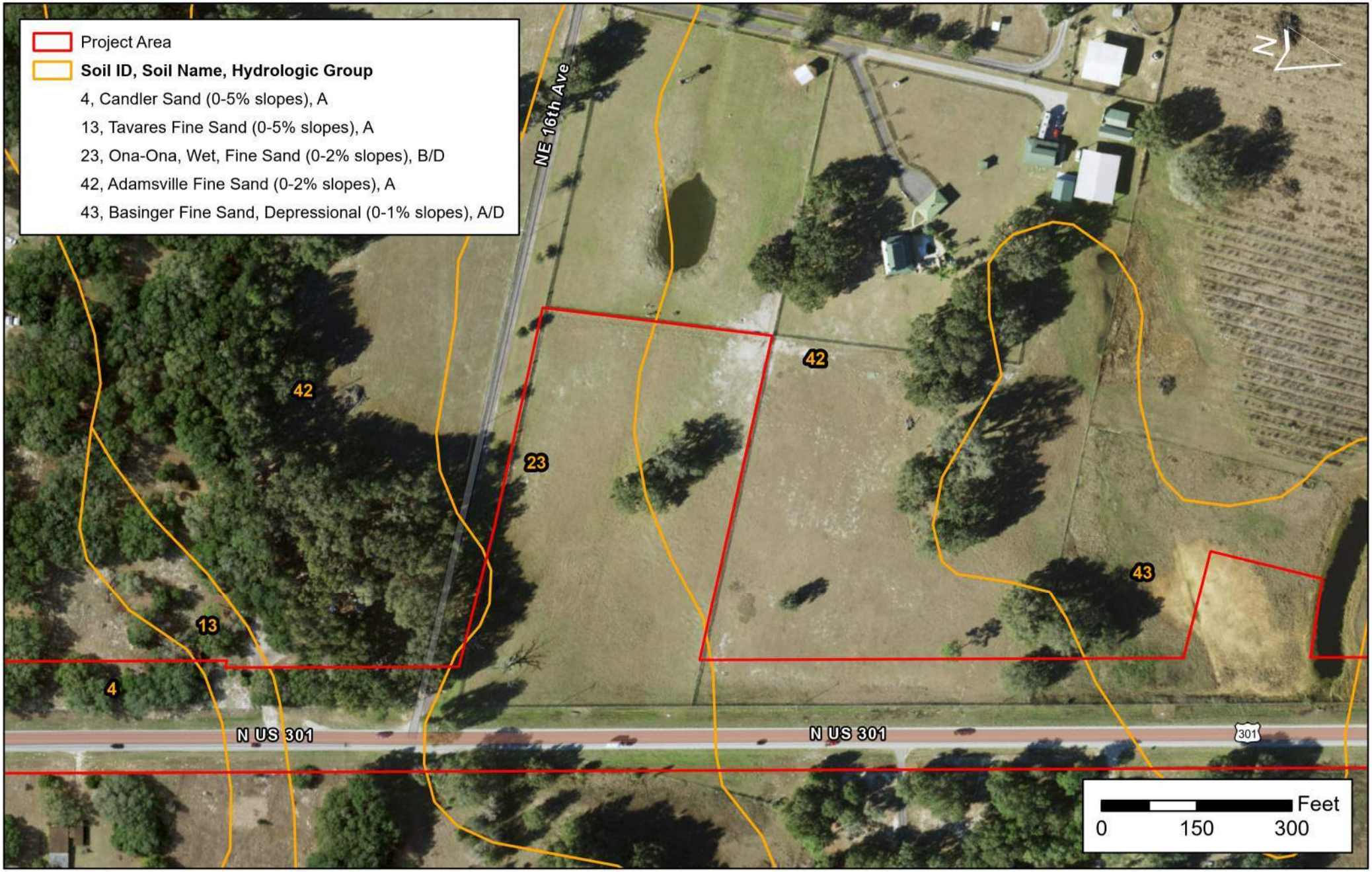

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NRCS Soils Map

Figure 2-5

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Figure 2-6

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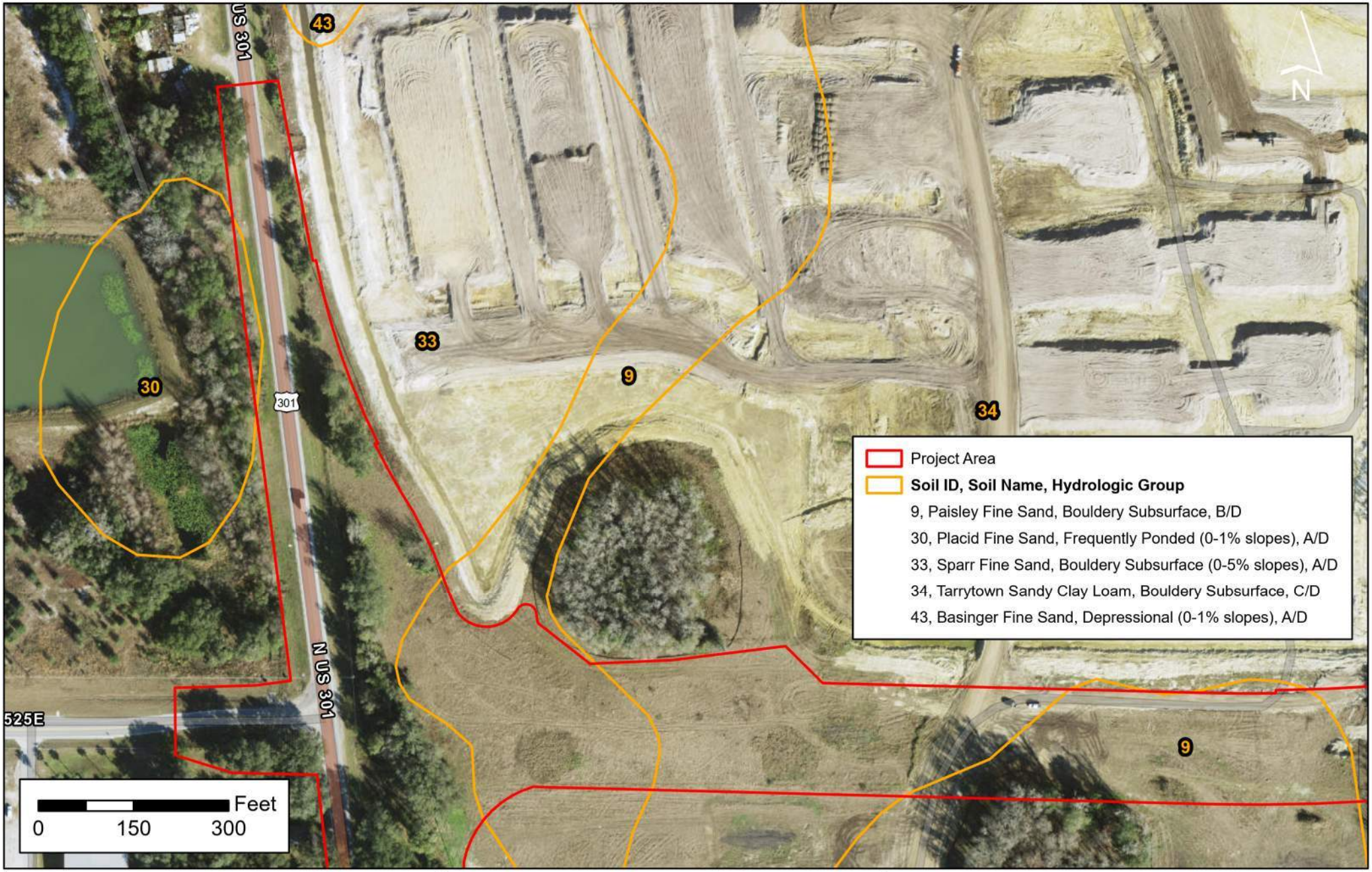

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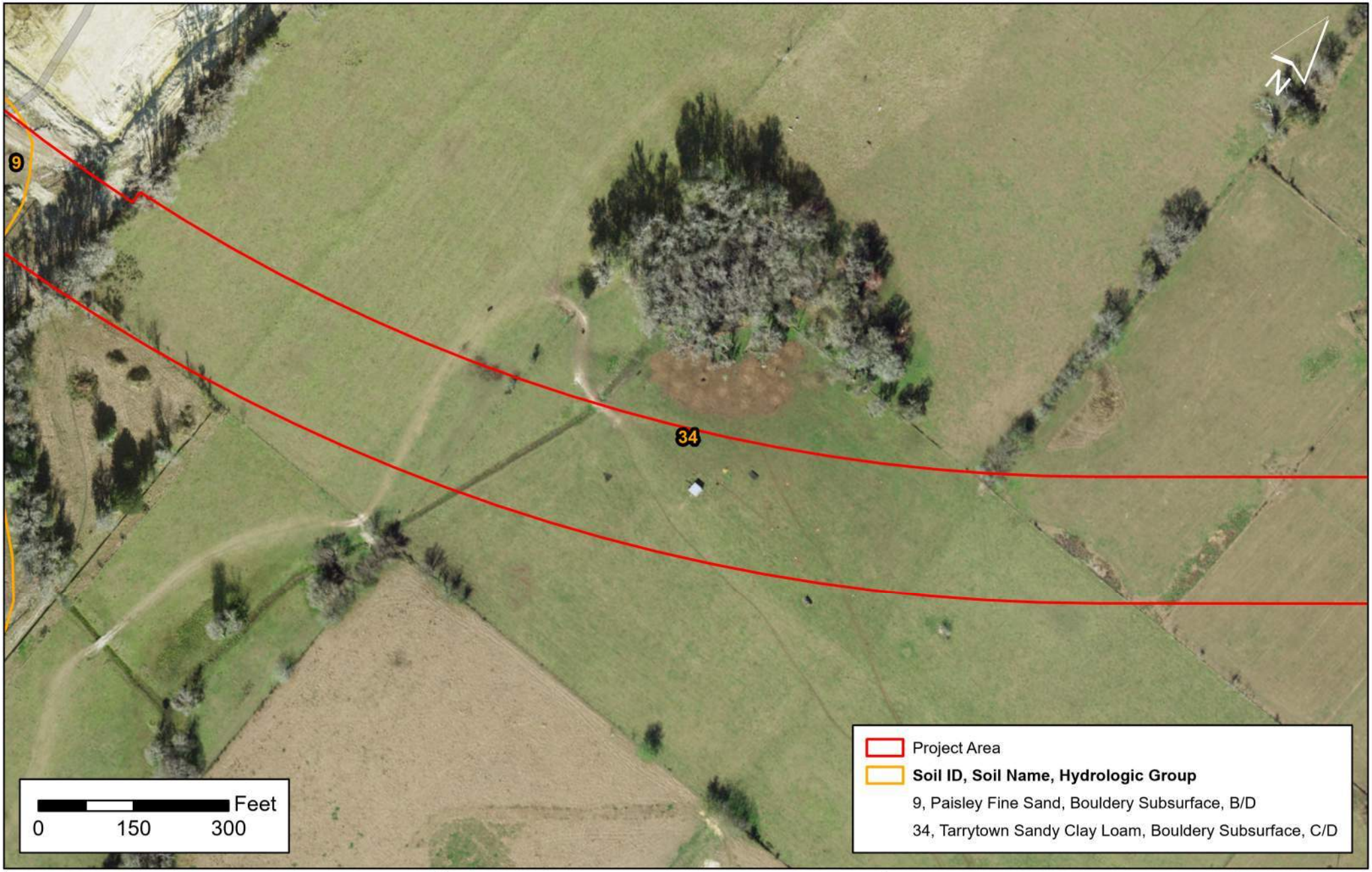
NRCS Soils Map

Date Source:
Imagery: ESRI 2024
Soils: NRCS 2021

Figure

2-7



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NRCS Soils Map

Figure 2-8

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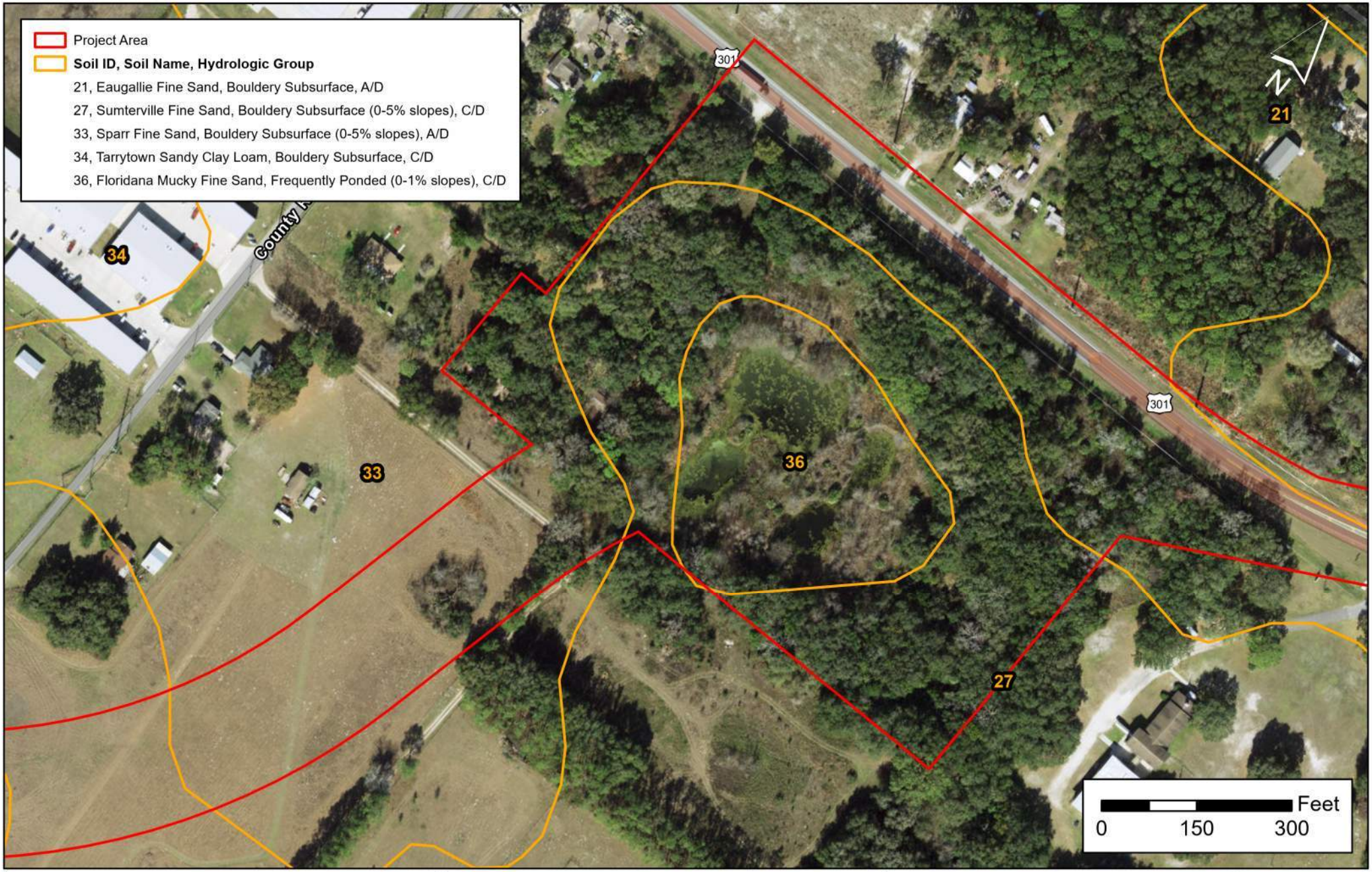
NRCS Soils Map

Date Source:
Imagery: ESRI 2024
Soils: NRCS 2021

Figure

2-9



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NRCS Soils Map

Figure 2-10

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NRCS Soils Map

Figure 2-11

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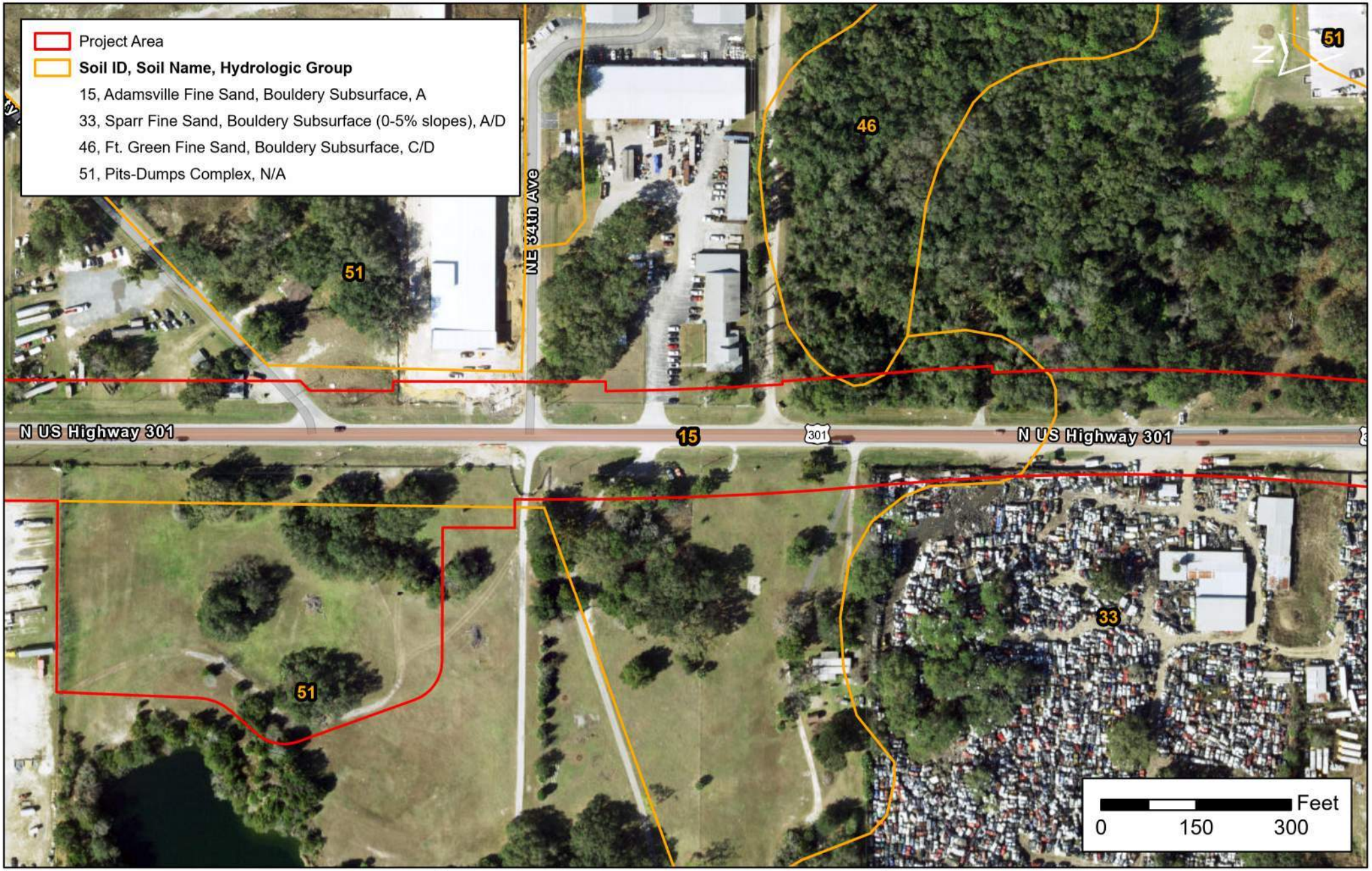

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NRCS Soils Map

Figure 2-12

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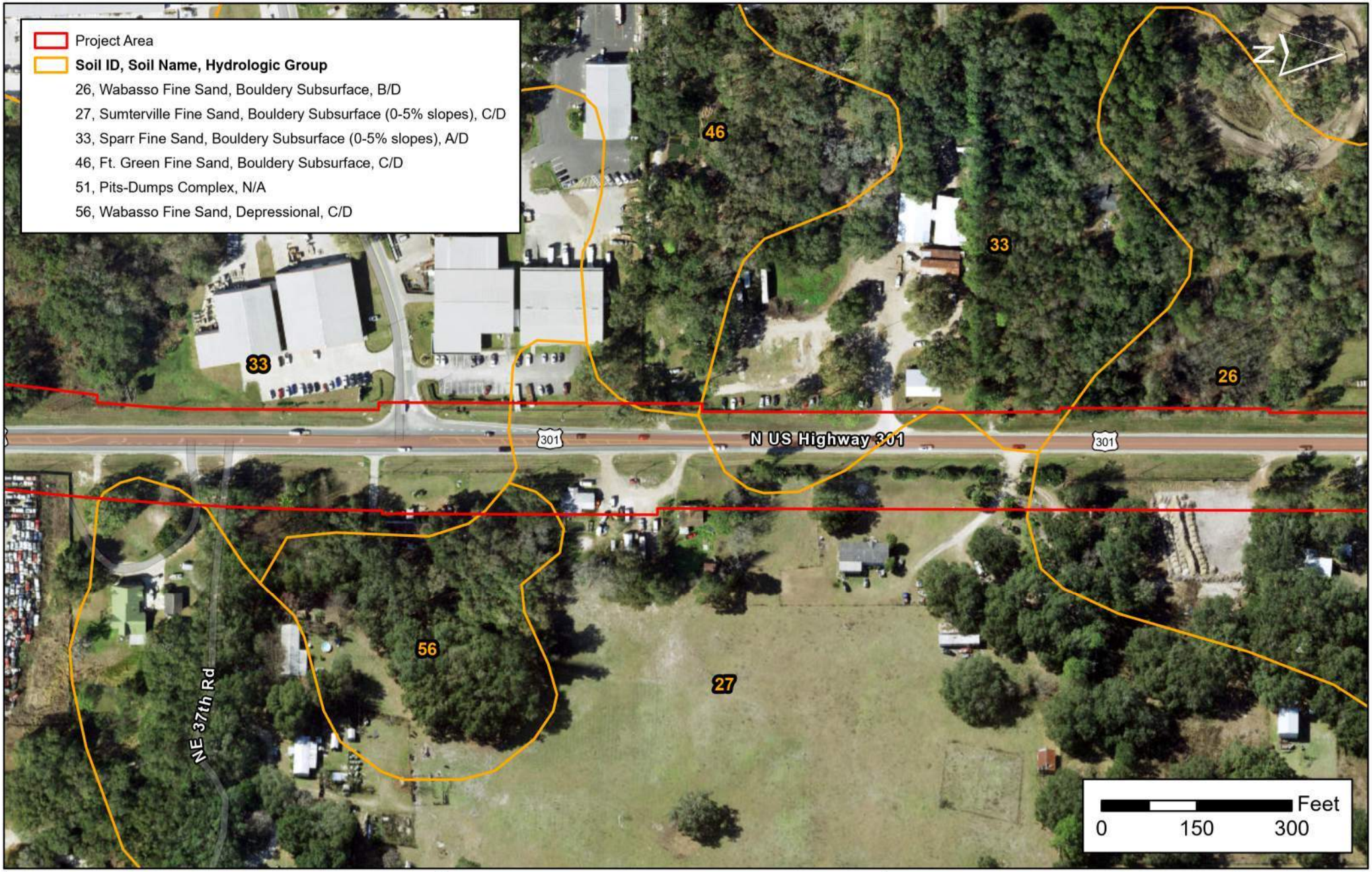

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NRCS Soils Map

Figure 2-13

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NRCS Soils Map

Figure 2-14

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NRCS Soils Map

Figure 2-15

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Sumter County, FL

NRCS Soils Map

Figure 2-16

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Soils: NRCS 2021

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NRCS Soils Map

Figure 2-17

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Soils: NRCS 2021

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Sumter County, FL

NRCS Soils Map

Figure 2-18

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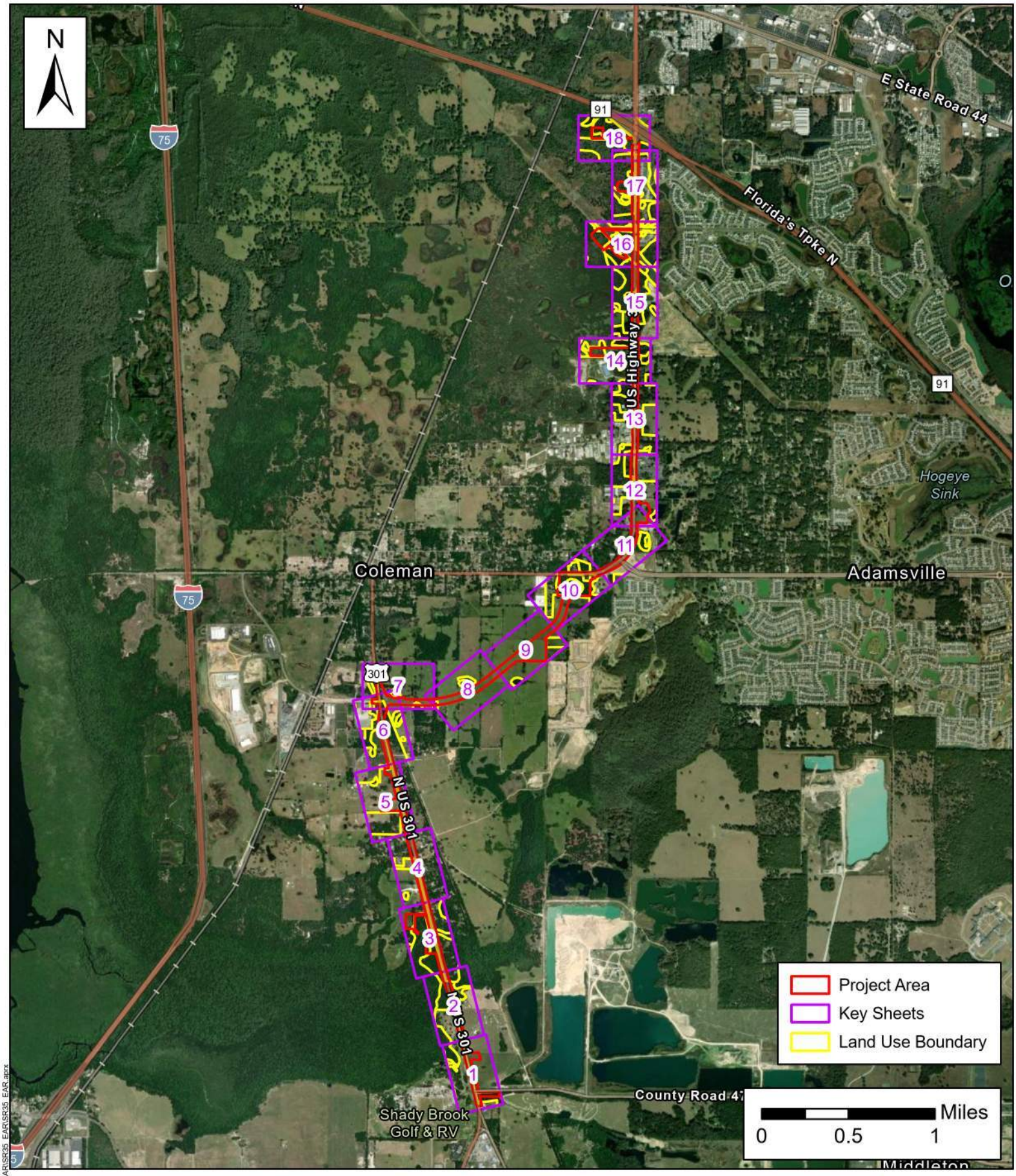

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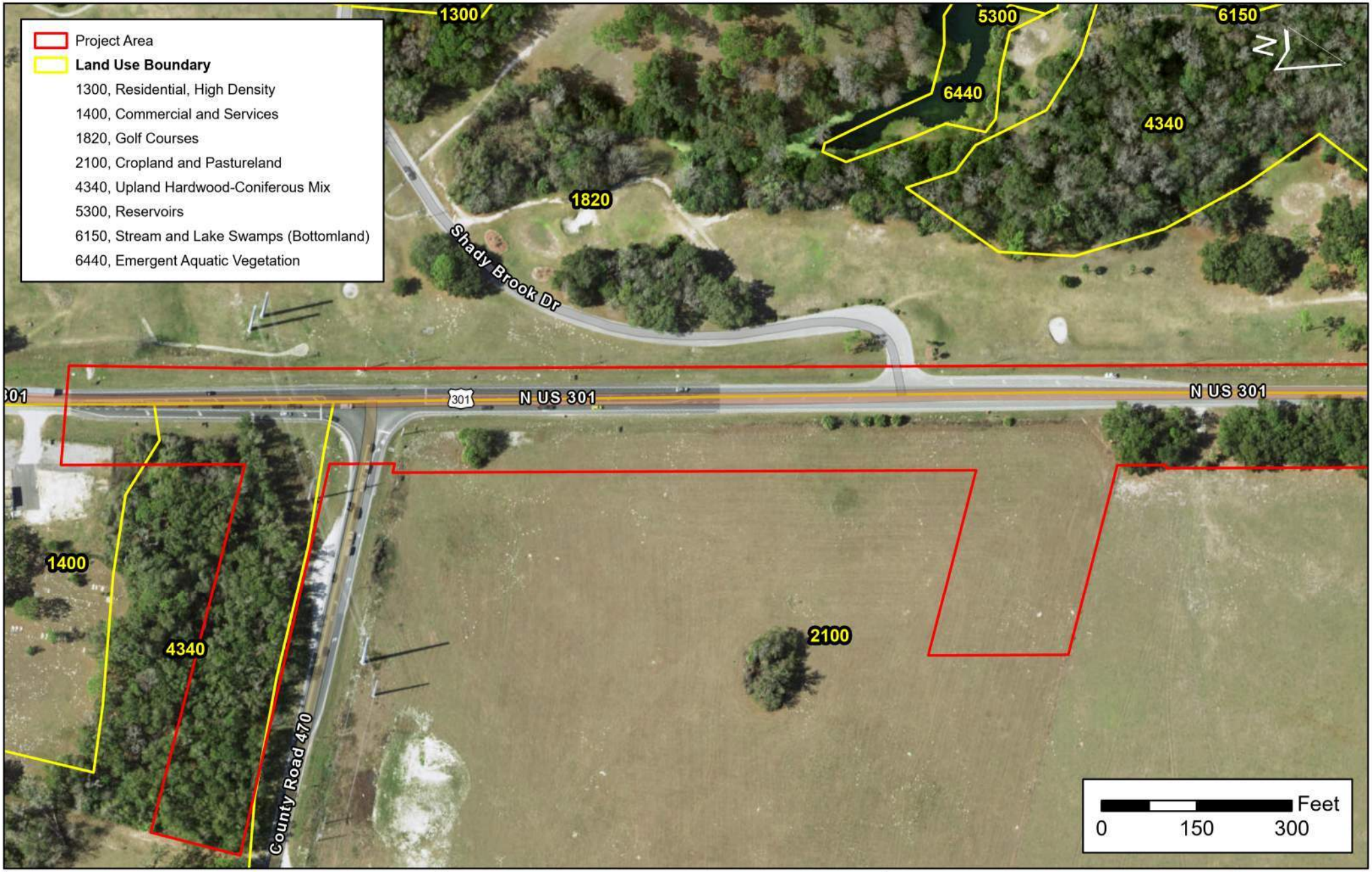
SWFWMD Land Use Map

DATA SOURCE:
Imagery: ESRI 2024
Land Use: SWFWMD 2017

Figure 3

Key Sheet



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Sumter County, FL

SWFWMD Land Use Map

Figure 3-1

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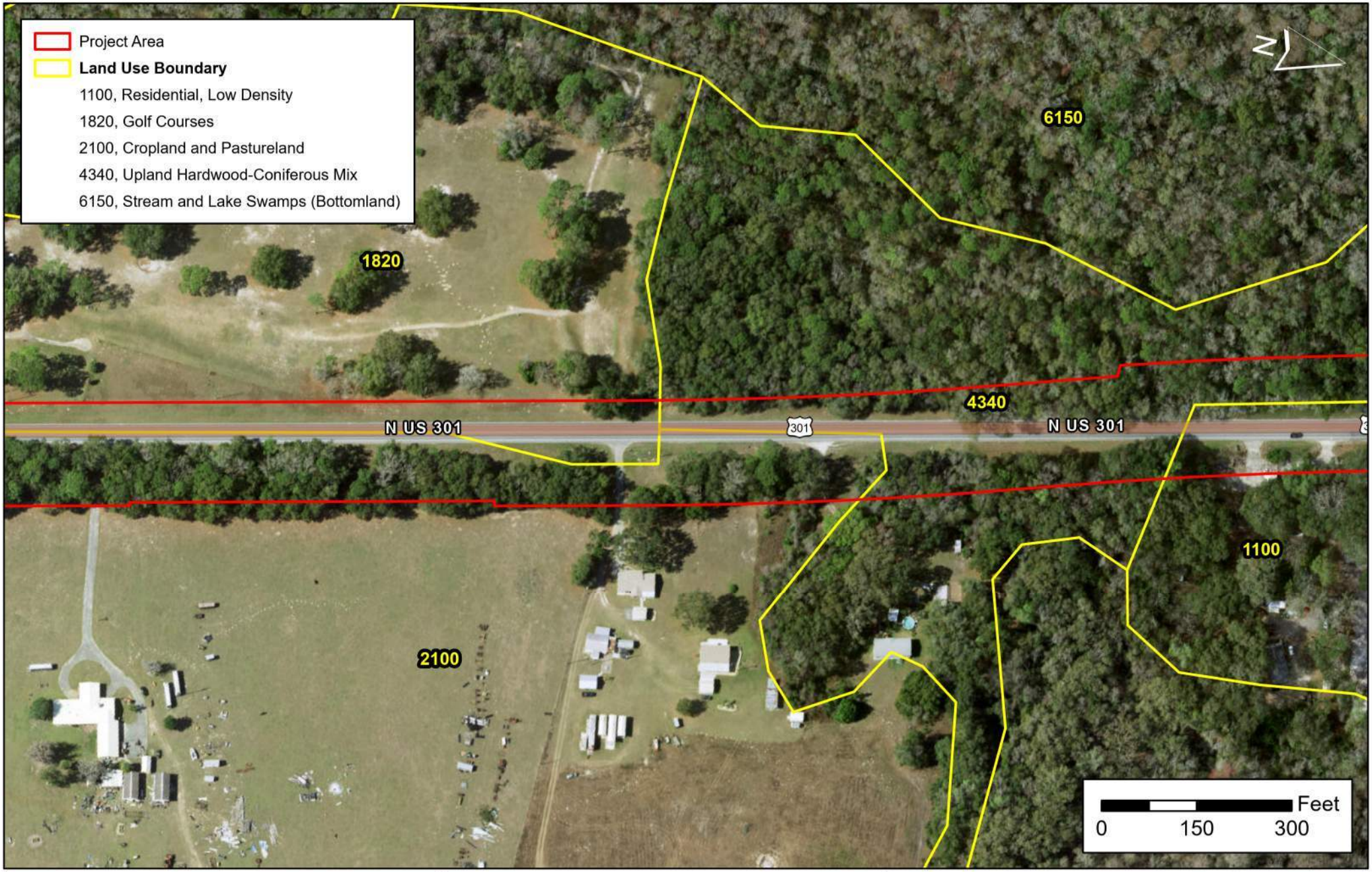
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Land Use: SWFWMD 2017



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SWFWMD Land Use Map

Figure 3-2

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Land Use: SWFWMD 2017

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941 Lake Baldwin Lane
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Phone: 407-896-0594
Fax: 407-896-4836

State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

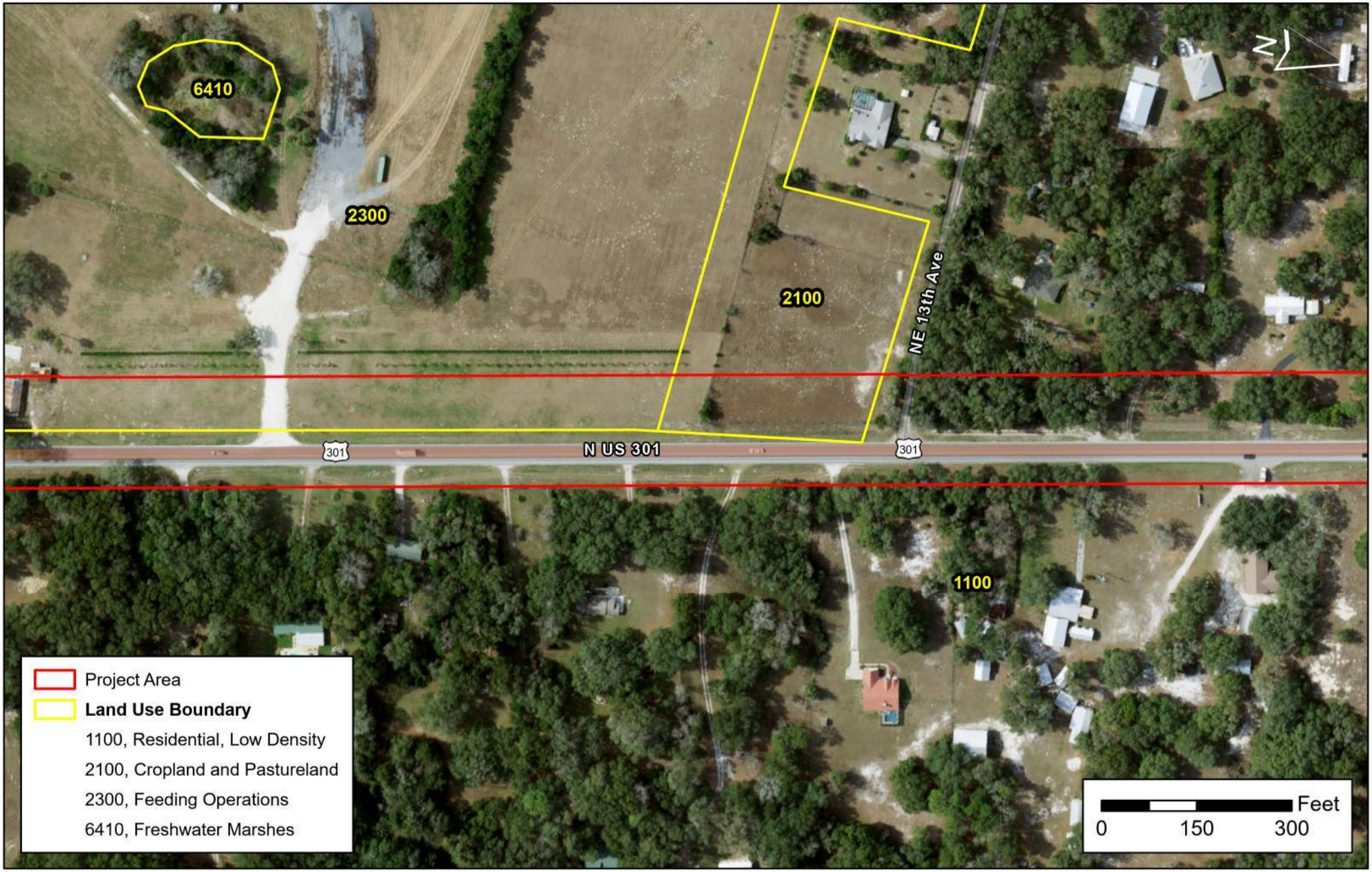
Sumter County, FL

SWFWMD Land Use Map

Figure 3-3

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Land Use: SWFWMD 2017



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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

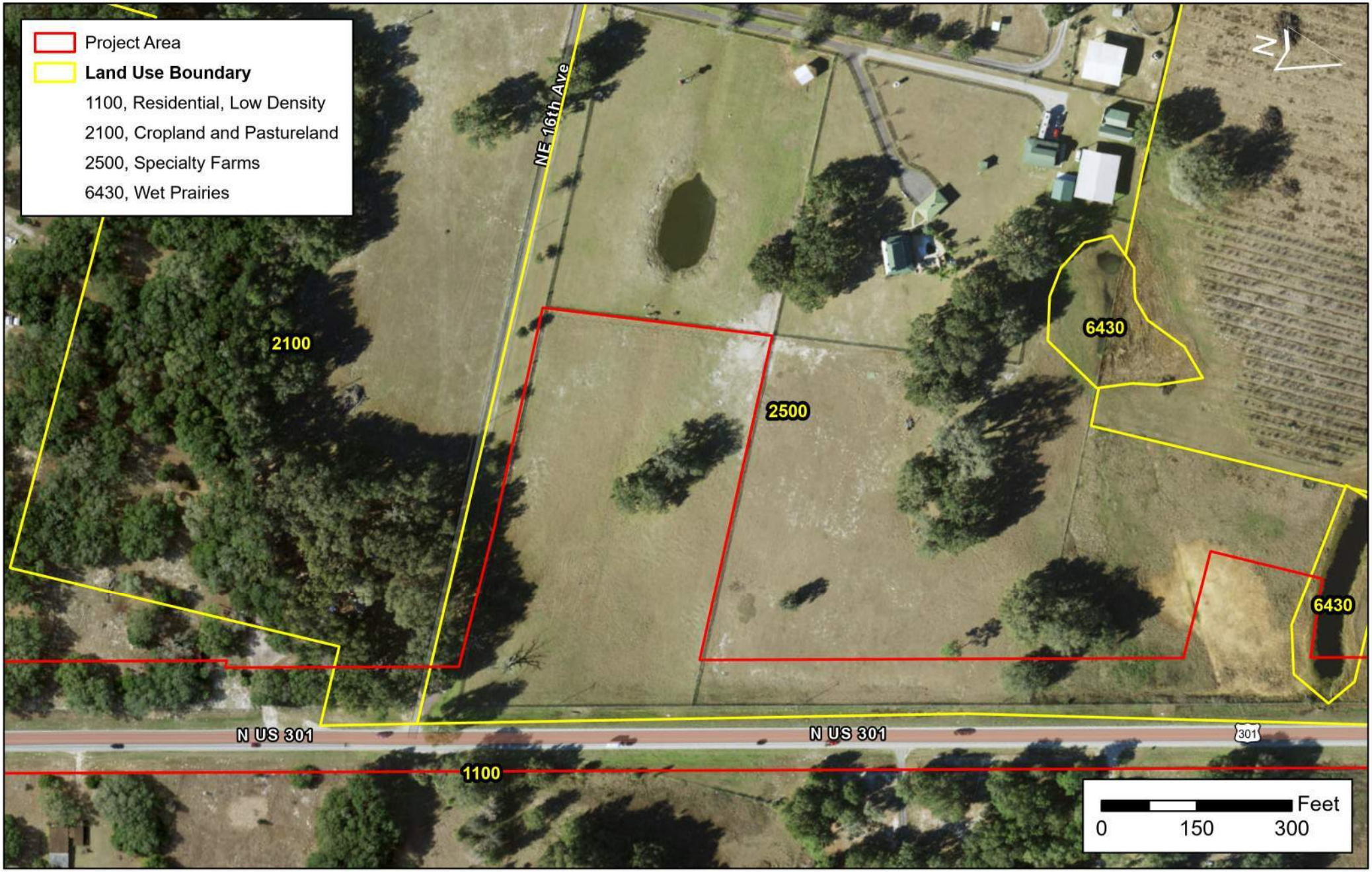
Sumter County, FL

SWFWMD Land Use Map

Figure 3-4

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Land Use: SWFWMD 2017



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State Road 35 from County Road 470 to State Road 44

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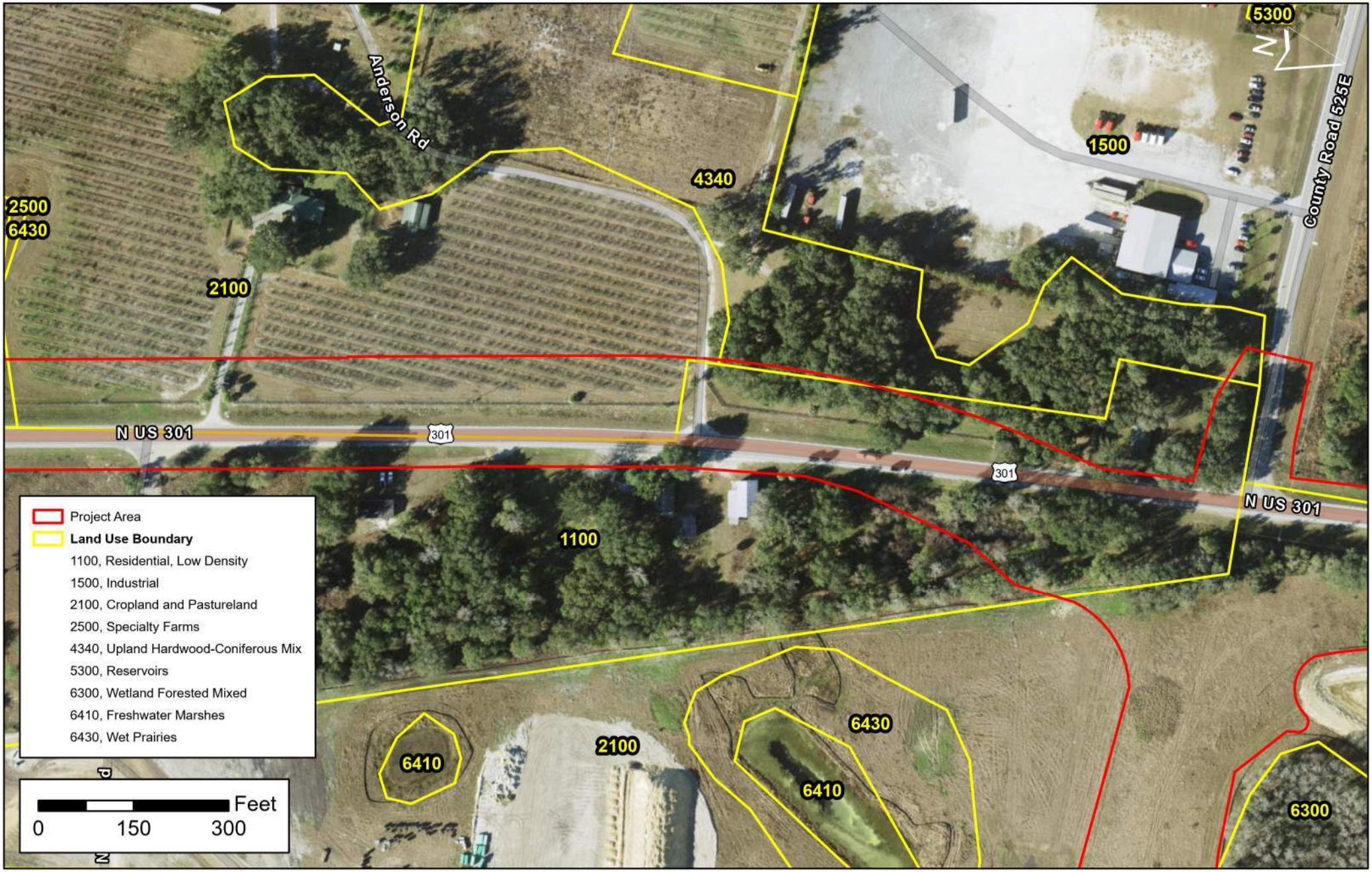
Sumter County, FL

SWFWMD Land Use Map

Figure 3-5

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Land Use: SWFWMD 2017



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State Road 35 from County Road 470 to State Road 44

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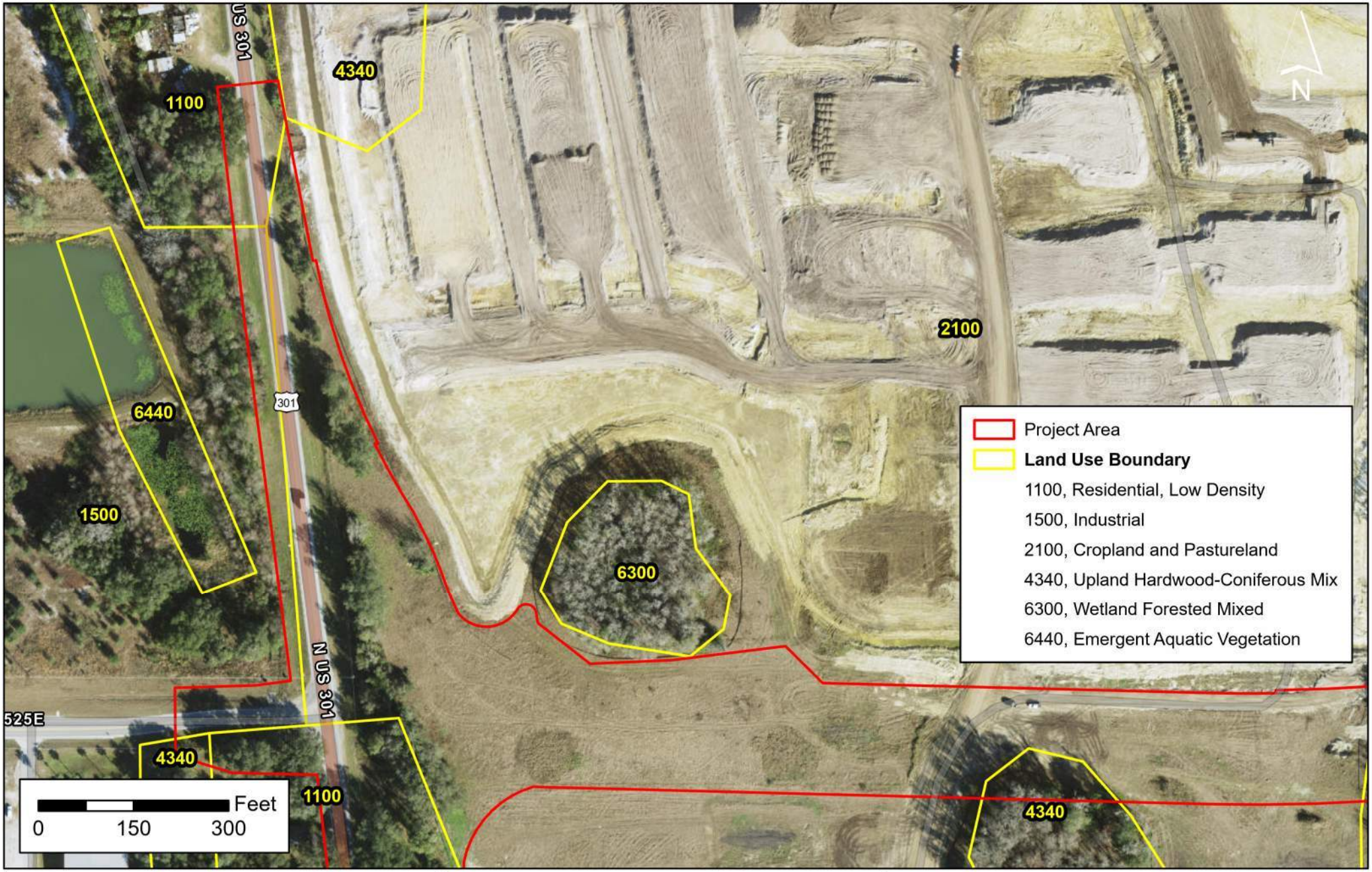
Sumter County, FL

SWFWMD Land Use Map

Figure 3-6

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Land Use: SWFWMD 2017



DRMP, Inc.
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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

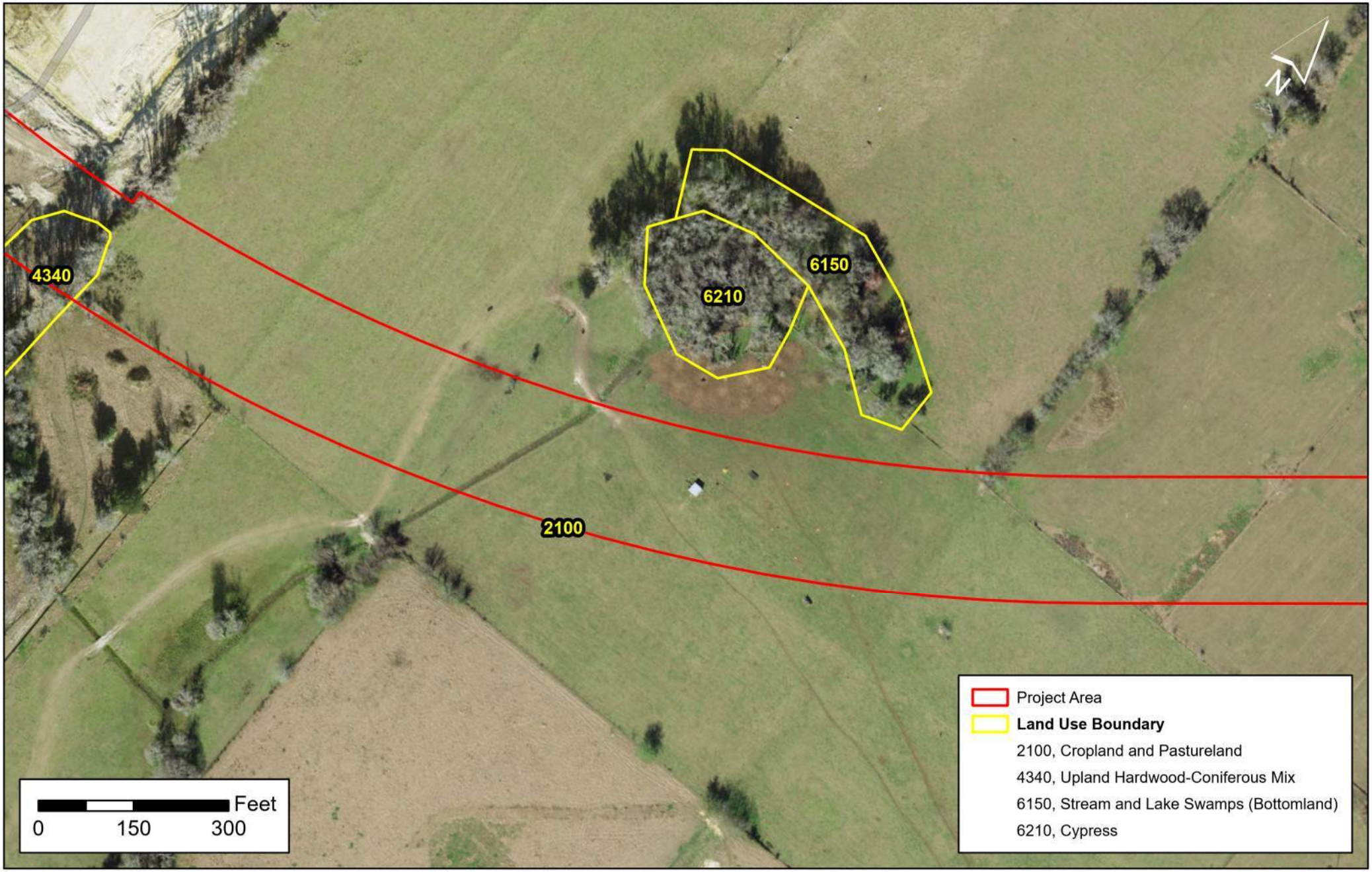
Sumter County, FL

SWFWMD Land Use Map

Figure 3-7

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Land Use: SWFWMD 2017



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State Road 35 from County Road 470 to State Road 44

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SWFWMD Land Use Map

Figure 3-8

DATE:	DRAWN BY:	PROJECT NUMBER:
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Imagery: ESRI 2024
Land Use: SWFWMD 2017

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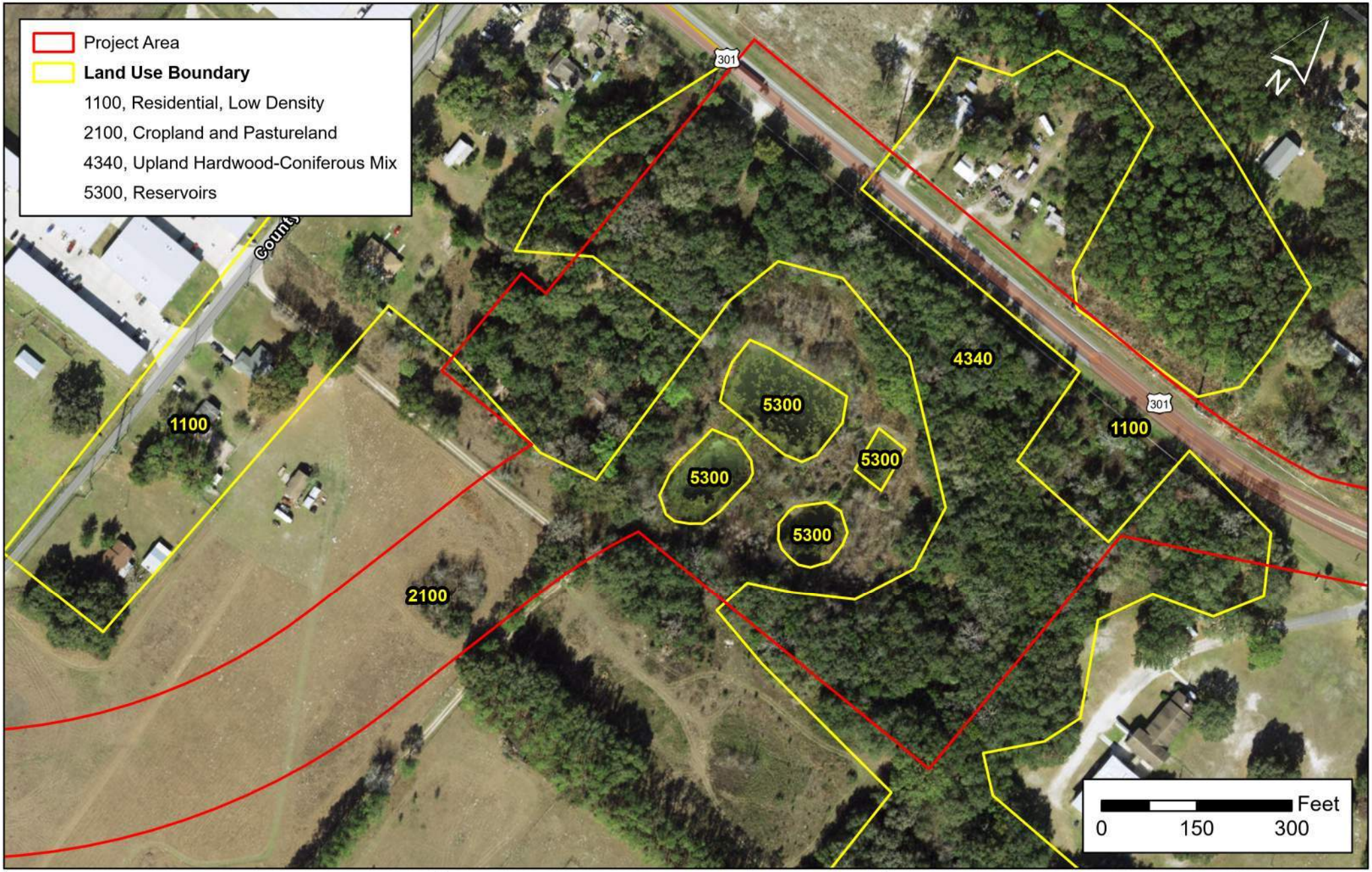
SWFWMD Land Use Map

Figure 3-9

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Land Use: SWFWMD 2017



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FPID: 430132-1 & 430132-2

Sumter County, FL

SWFWMD Land Use Map

Figure 3-10

DATE:	DRAWN BY:	PROJECT NUMBER:
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Land Use: SWFWMD 2017

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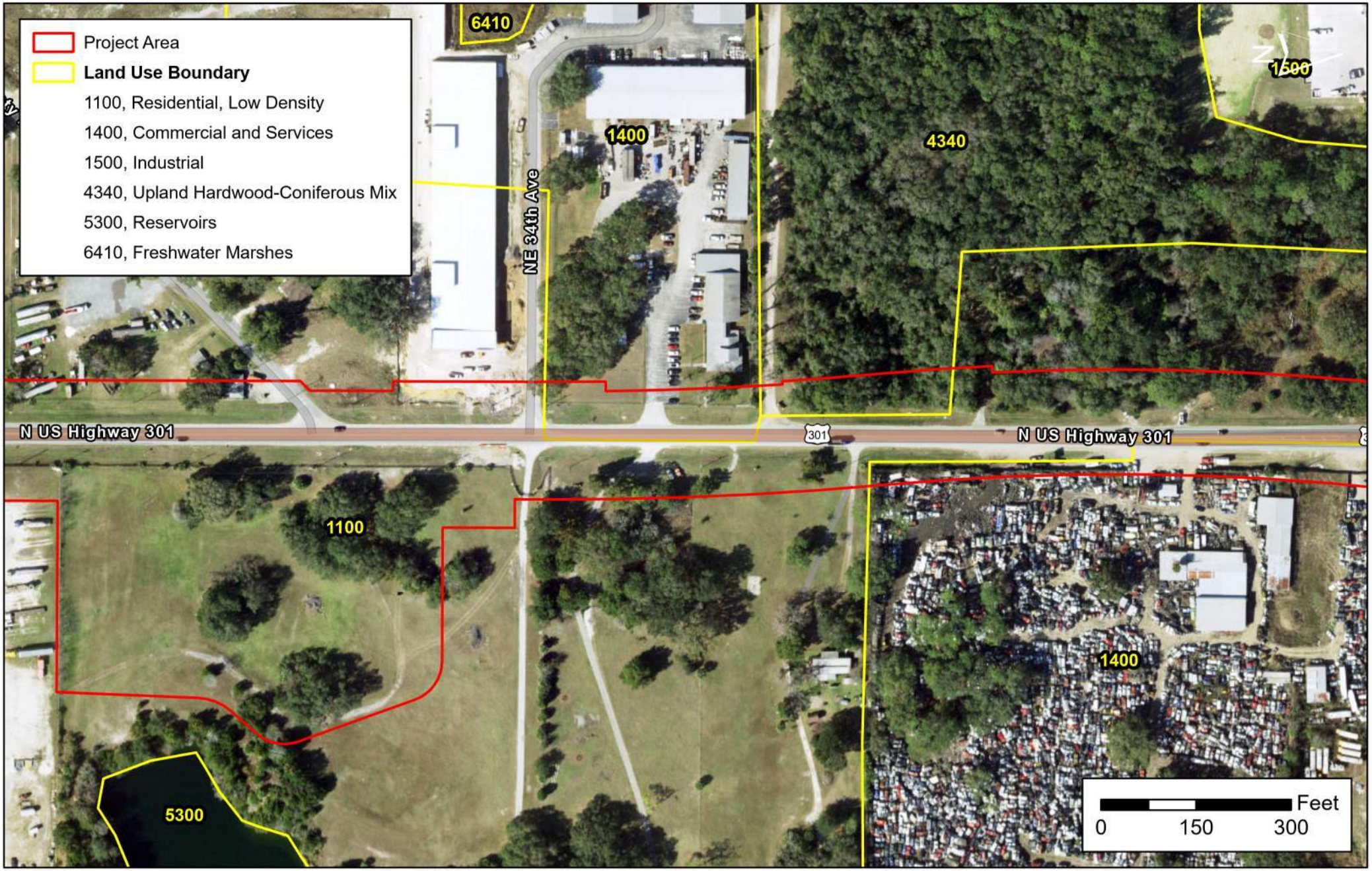
Sumter County, FL

SWFWMD Land Use Map

Figure 3-11

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Land Use: SWFWMD 2017



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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

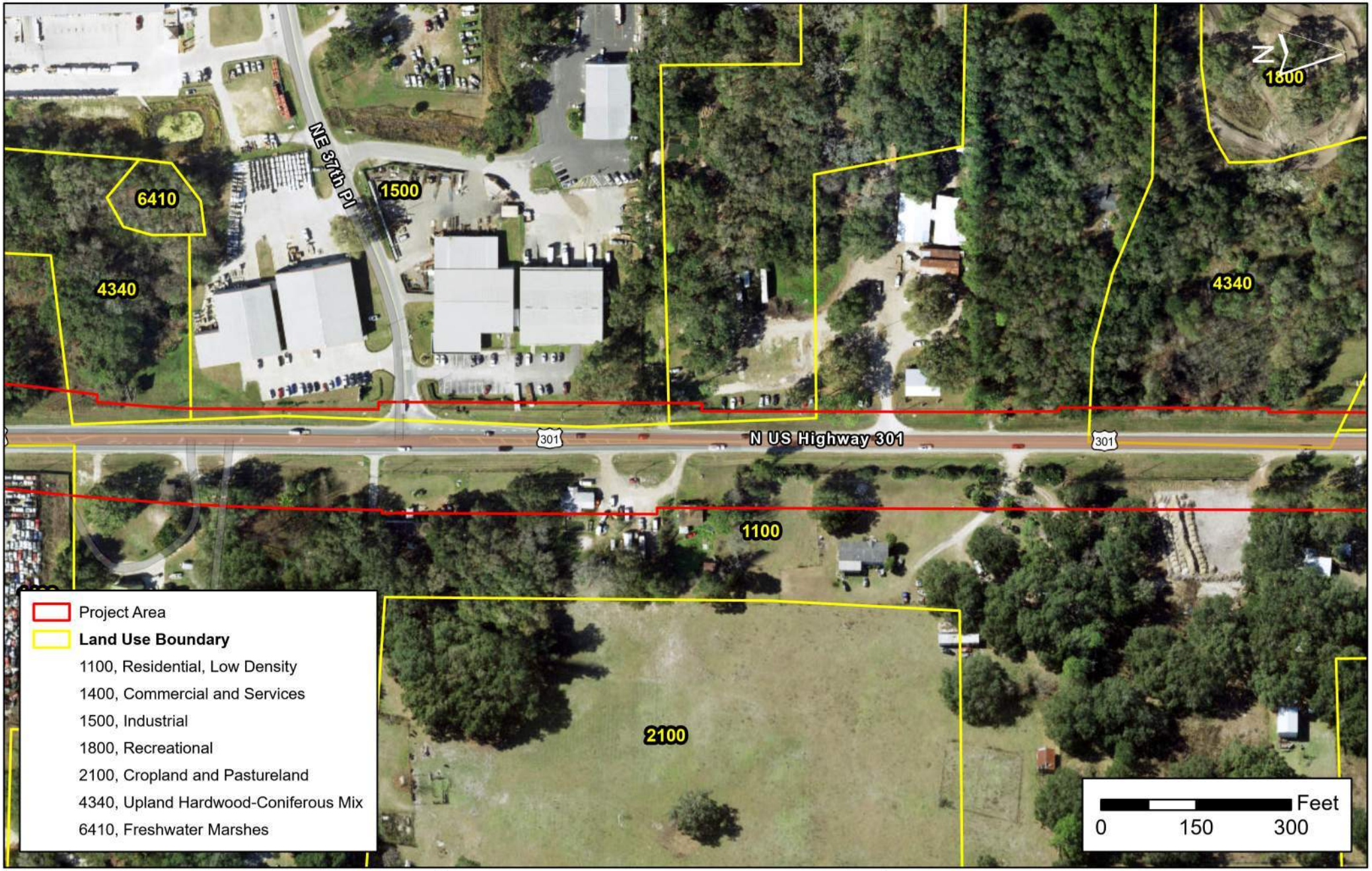
Sumter County, FL

SWFWMD Land Use Map

Figure 3-12

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Land Use: SWFWMD 2017



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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

Sumter County, FL

SWFWMD Land Use Map

Figure 3-13

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Land Use: SWFWMD 2017

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Sumter County, FL

SWFWMD Land Use Map

Figure 3-14

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Land Use: SWFWMD 2017

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State Road 35 from County Road 470 to State Road 44

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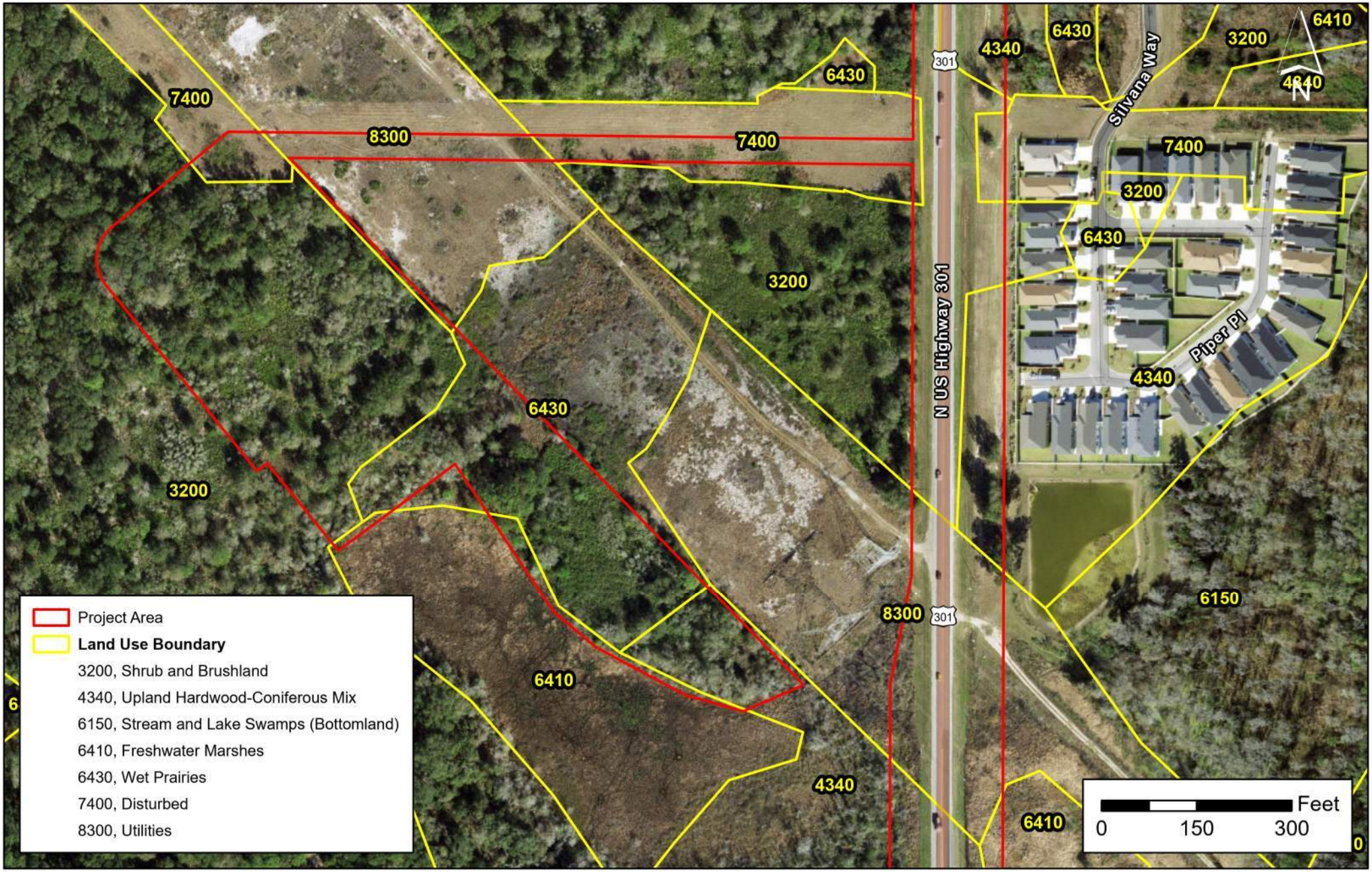
Sumter County, FL

SWFWMD Land Use Map

Figure 3-15

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Land Use: SWFWMD 2017



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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

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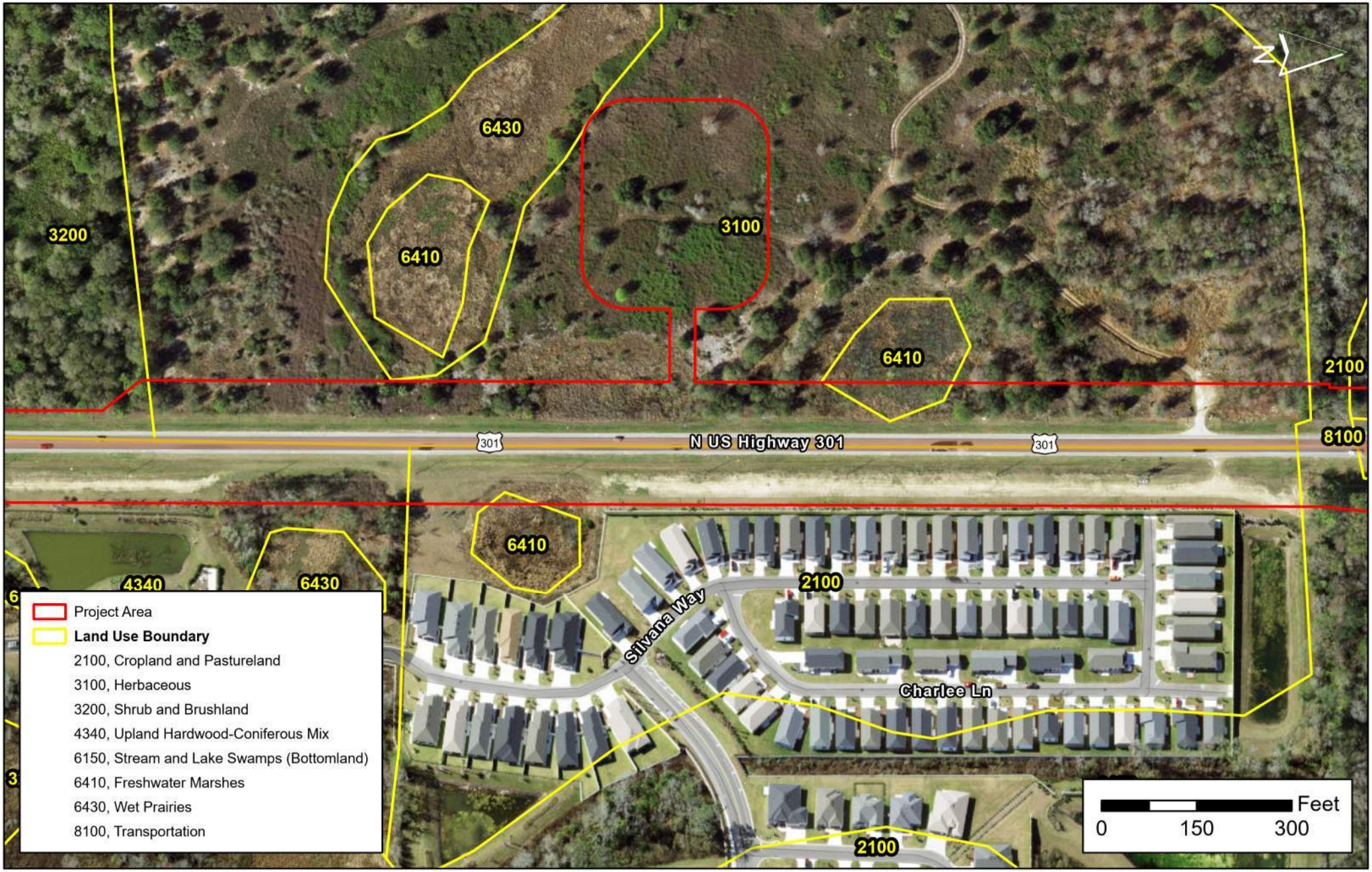
SWFWMD Land Use Map

Figure 3-16

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Land Use: SWFWMD 2017



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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

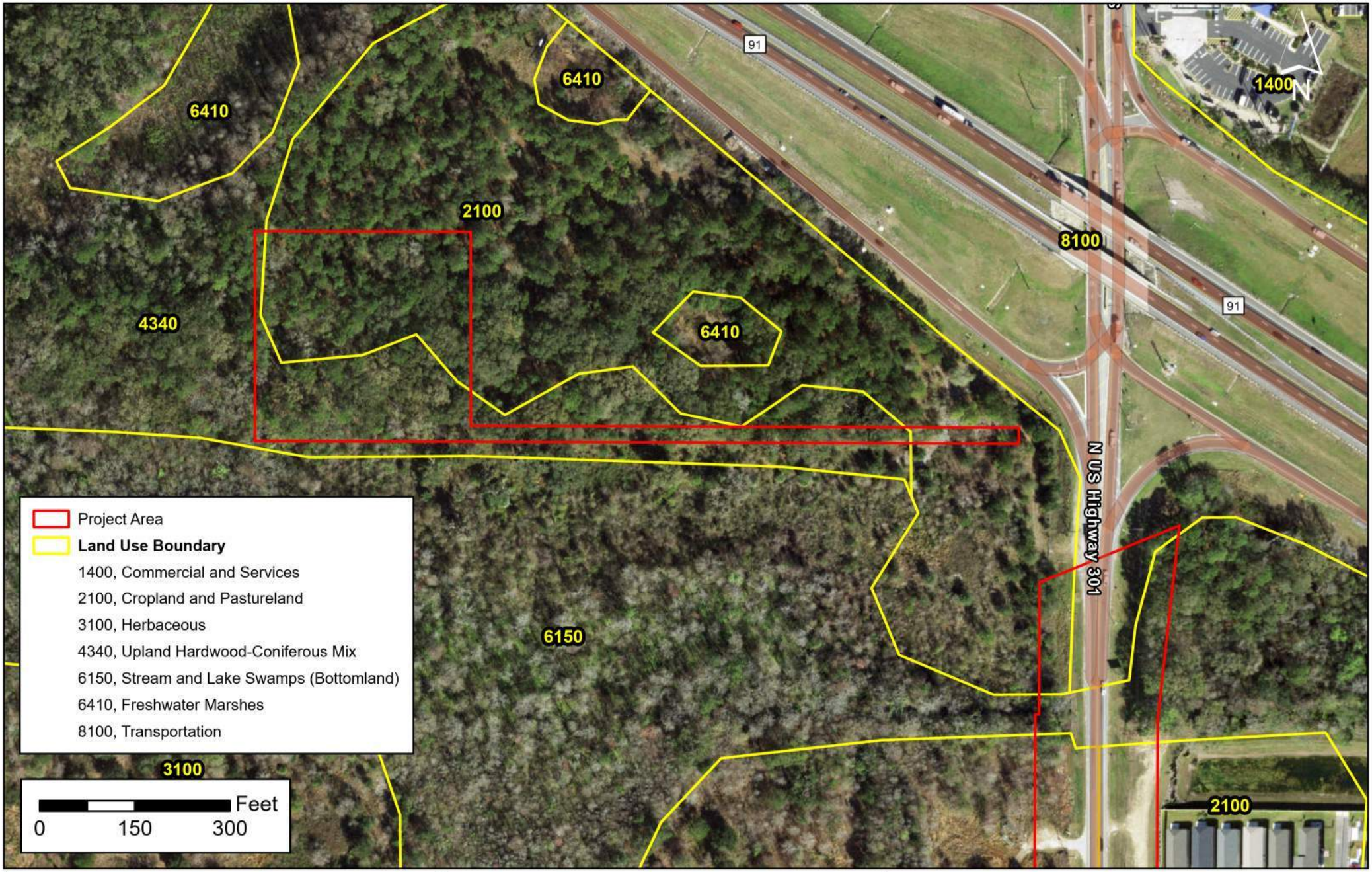
Sumter County, FL

SWFWMD Land Use Map

Figure 3-17

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Land Use: SWFWMD 2017



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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

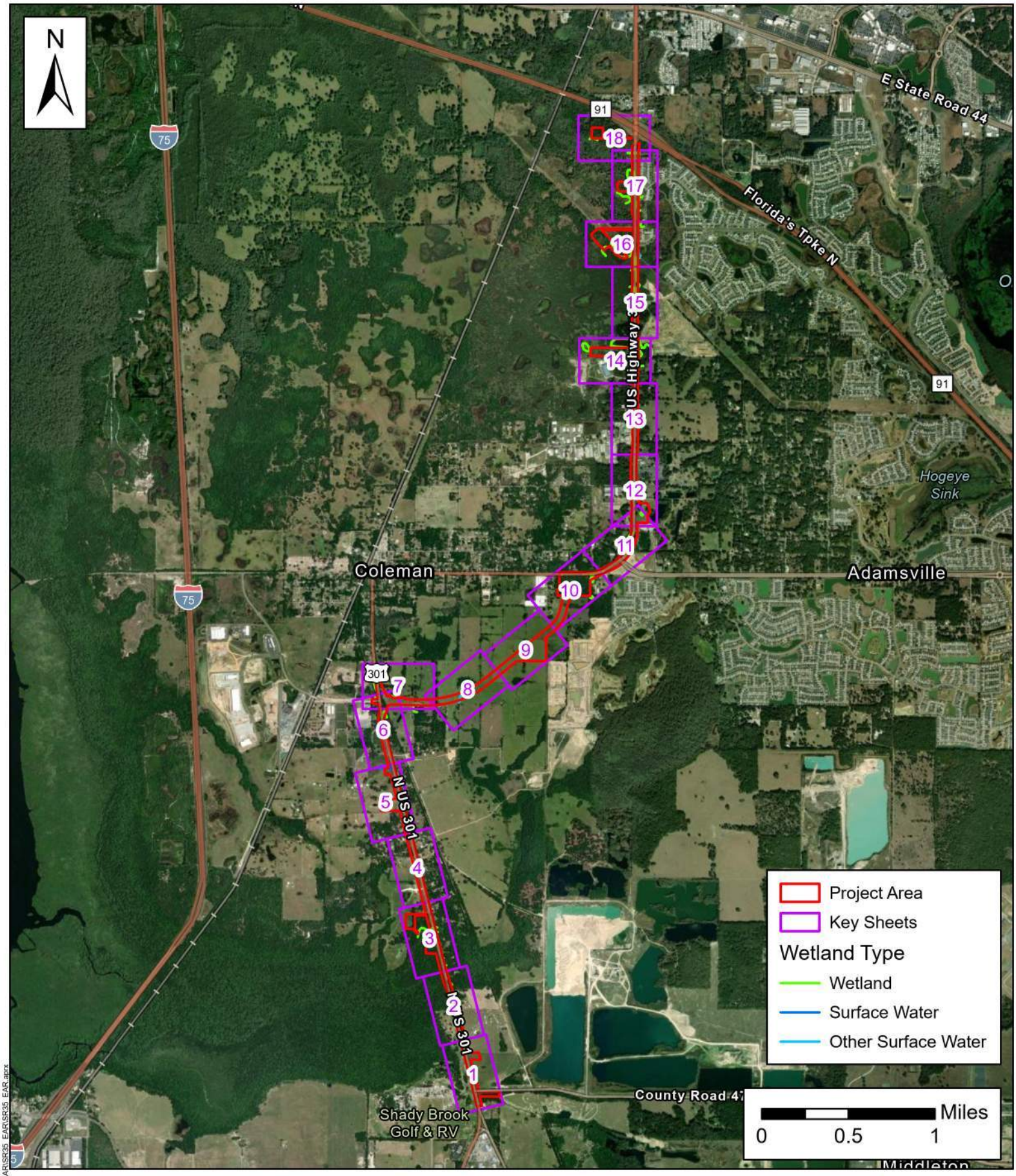
Sumter County, FL

SWFWMD Land Use Map

Figure 3-18

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Land Use: SWFWMD 2017



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FDOT DRMP, Inc. 941 Lake Baldwin Ln. Orlando, FL 32814 www.drmp.com Phone: 407-896-0594 Fax: 407-896-4836	**State Road 35 from County Road 470 to State Road 44** FPID: 430132-1 & 430132-2 Sumter County, FL	**Wetland & Surface Water Location Map**	**Figure** 4 Key Sheet
DATE: May 2024 / DRAWN BY: BH / PROJECT # 22-0107.000		DATA SOURCE: Imagery: ESRI 2024 Wetlands: DRMP 2023	

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State Road 35 from County Road 470 to State Road 44

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Sumter County, FL

Wetland & Surface Water Location Map

Figure 4-1

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

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Imagery: ESRI 2024
Wetlands: DRMP 2023

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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

Sumter County, FL

Wetland & Surface Water Location Map

Figure 4-2

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023

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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

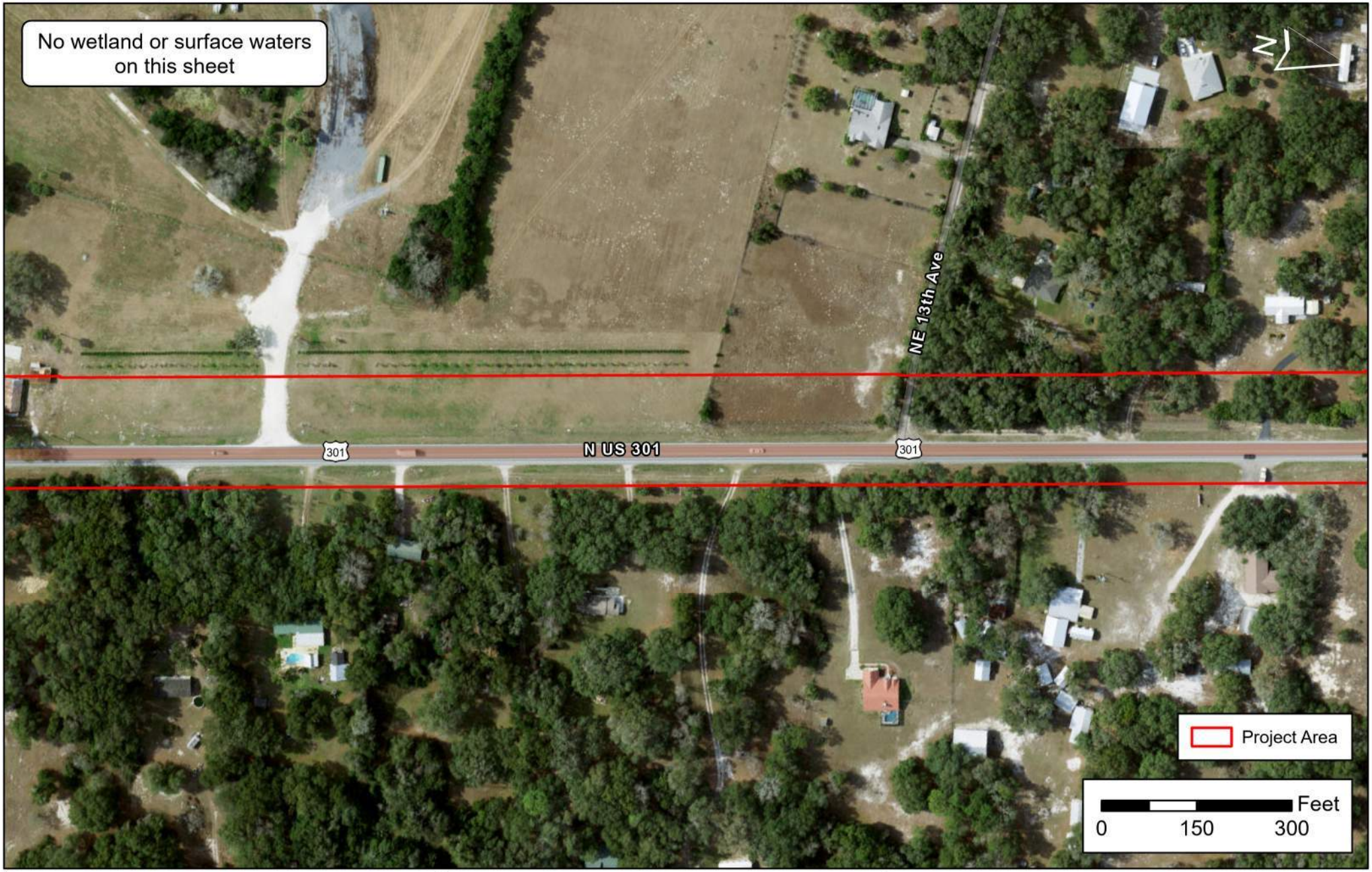
Sumter County, FL

Wetland & Surface Water Location Map

Figure 4-3

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023



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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

Sumter County, FL

Wetland & Surface Water Location Map

Figure 4-4

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023

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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

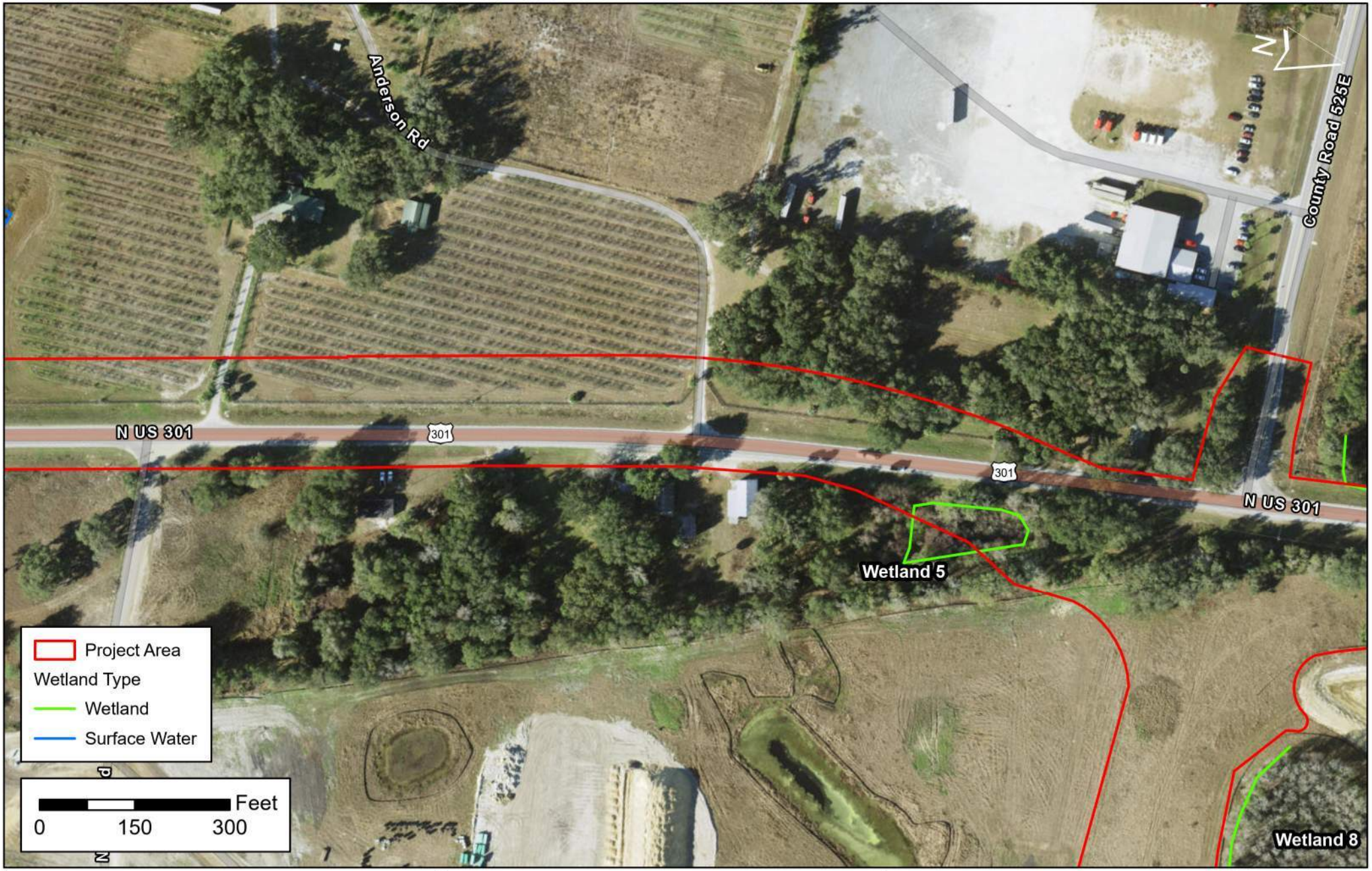
Sumter County, FL

Wetland & Surface Water Location Map

Figure 4-5

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023



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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

Sumter County, FL

Wetland & Surface Water Location Map

Figure 4-6

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023

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PROJECT NUMBER: 22-0107.000

State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

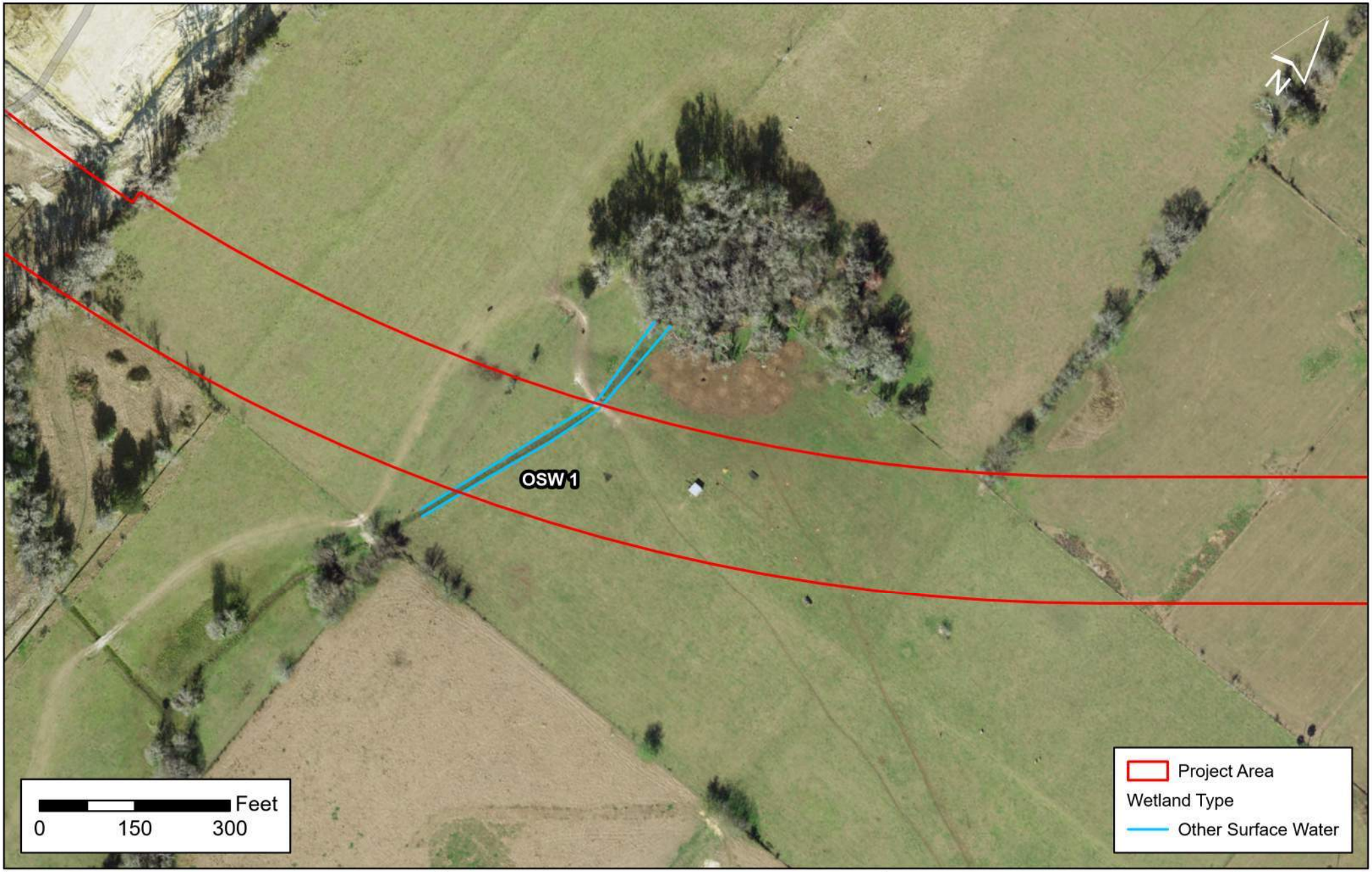
Sumter County, FL

Wetland & Surface Water Location Map

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023

Figure

4-7



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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

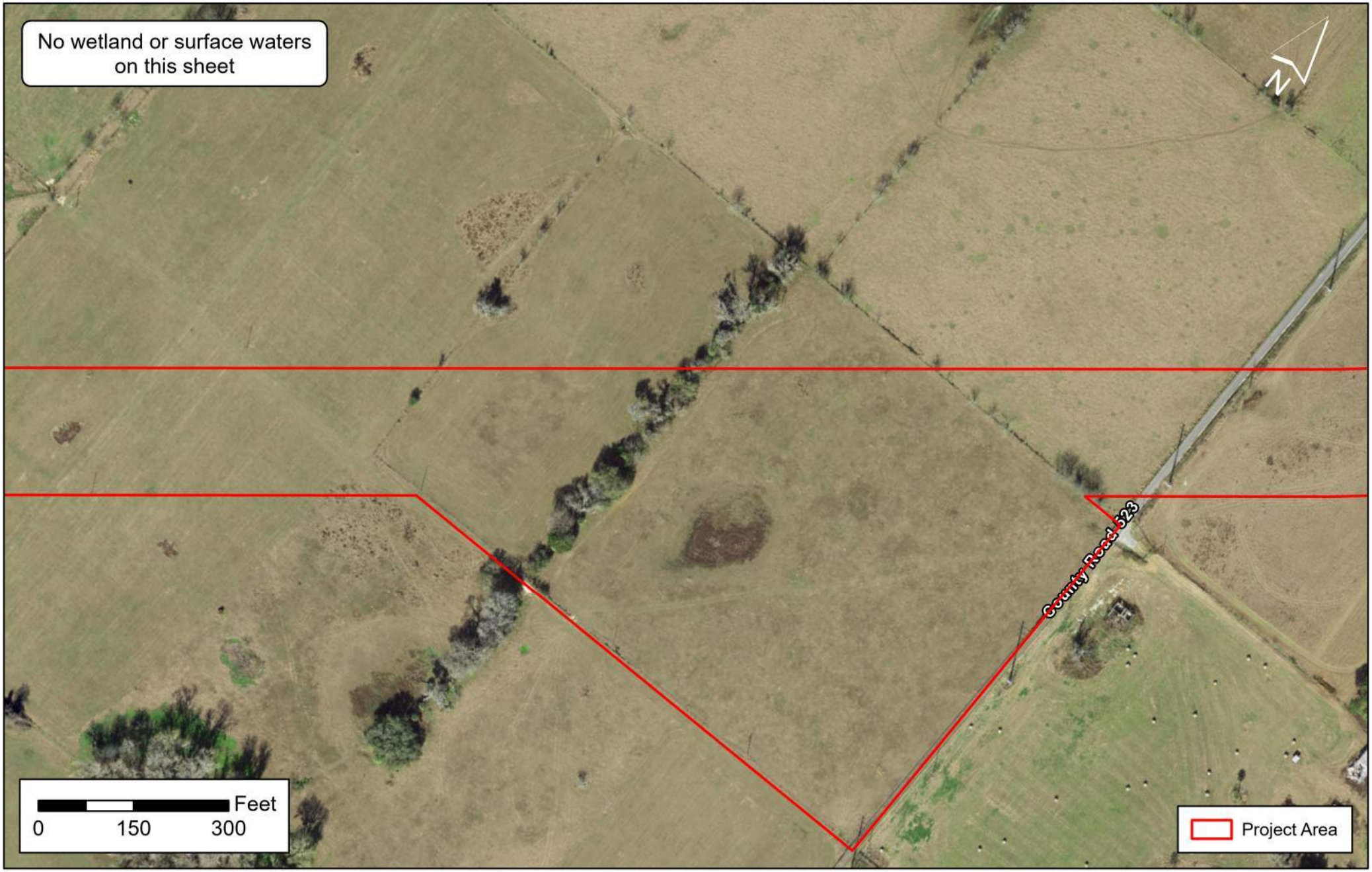
Sumter County, FL

Wetland & Surface Water Location Map

Figure 4-8

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023



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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

Sumter County, FL

Wetland & Surface Water Location Map

Figure 4-9

DATE:	DRAWN BY:	PROJECT NUMBER:
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Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023

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PROJECT NUMBER: 22-0107.000

State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

Sumter County, FL

Wetland & Surface Water Location Map

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023

Figure

4-10

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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

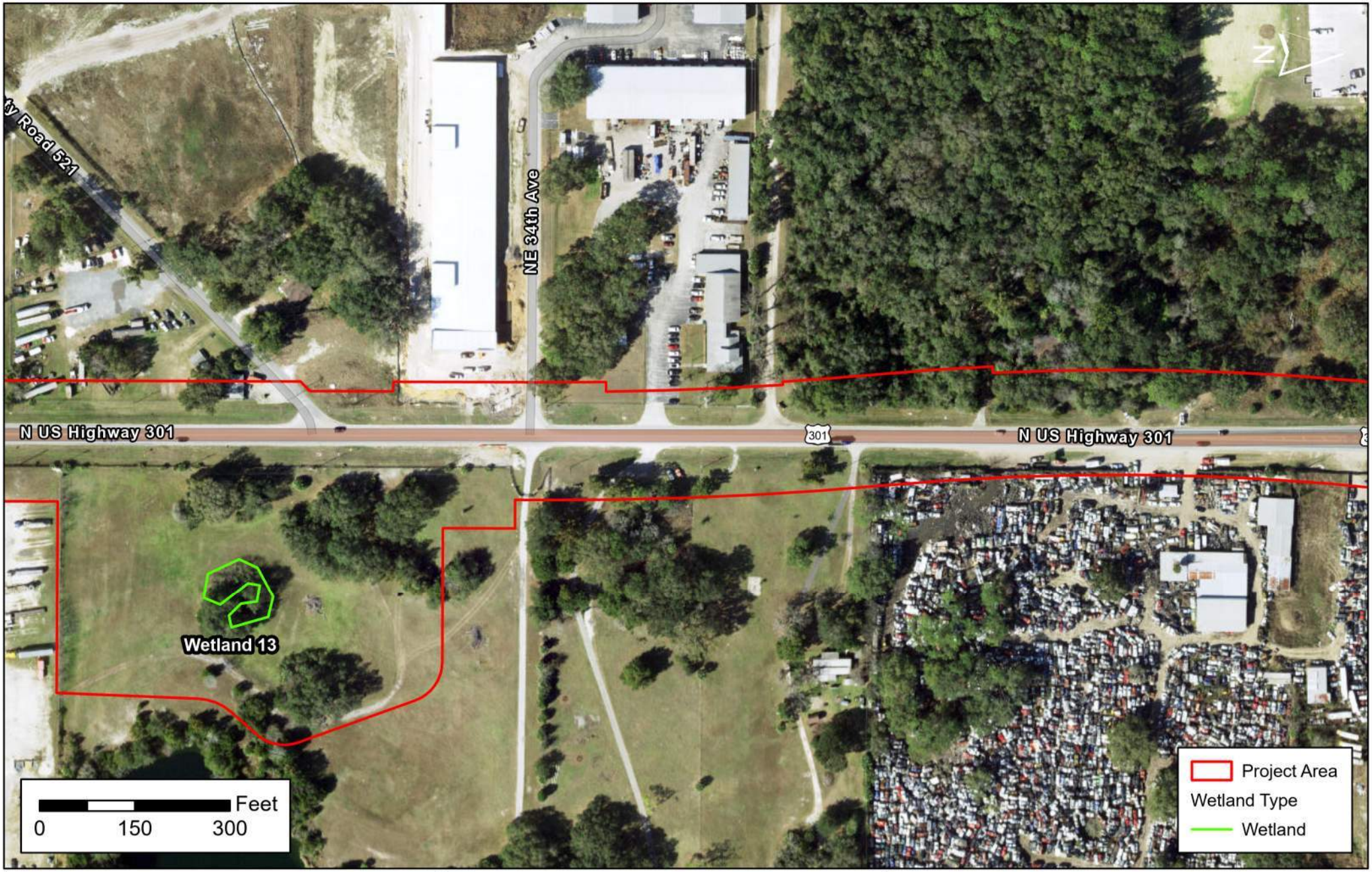
Sumter County, FL

Wetland & Surface Water Location Map

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023

Figure

4-11



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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

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Wetland & Surface Water Location Map

Figure 4-12

DATE:	DRAWN BY:	PROJECT NUMBER:
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Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023

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State Road 35 from County Road 470 to State Road 44

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Wetland & Surface Water Location Map

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023

Figure

4-13

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State Road 35 from County Road 470 to State Road 44

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Sumter County, FL

Wetland & Surface Water Location Map

Figure 4-14

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
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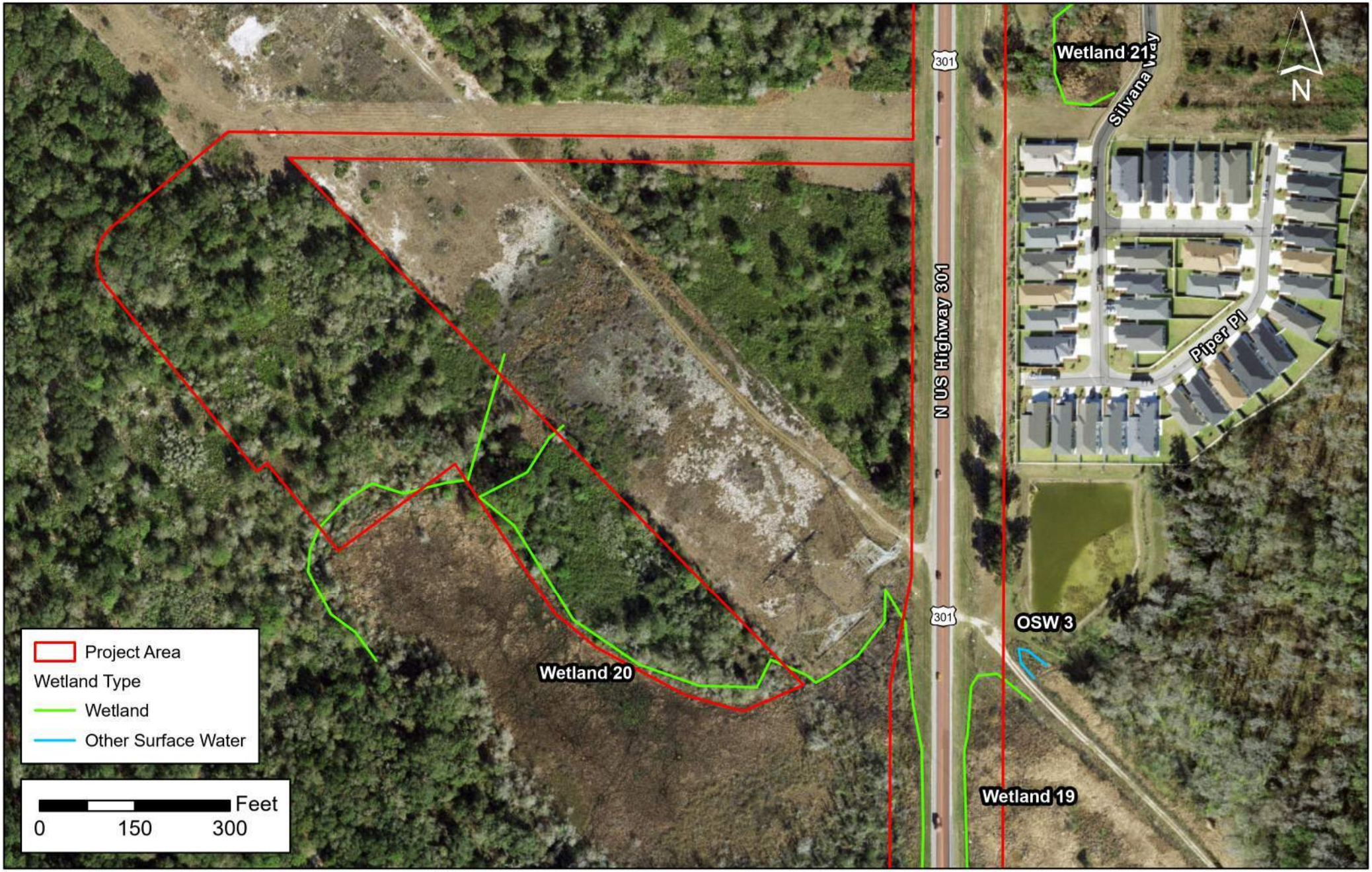
Wetland & Surface Water Location Map

Figure 4-15

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023



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FPID: 430132-1 & 430132-2

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Wetland & Surface Water Location Map

Figure 4-16

DATE:	DRAWN BY:	PROJECT NUMBER:
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Wetlands: DRMP 2023

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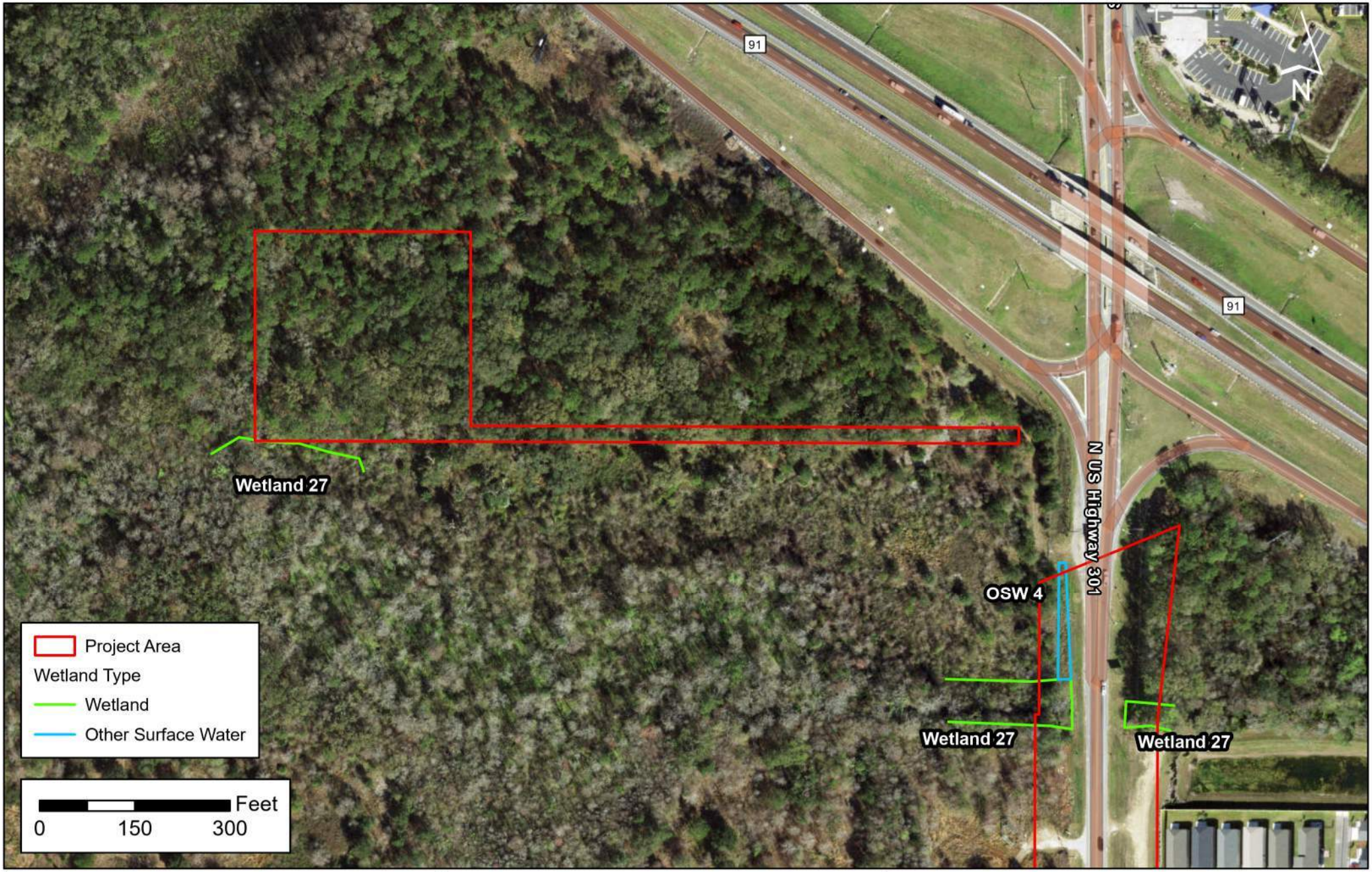
Sumter County, FL

Wetland & Surface Water Location Map

Figure 4-17

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023



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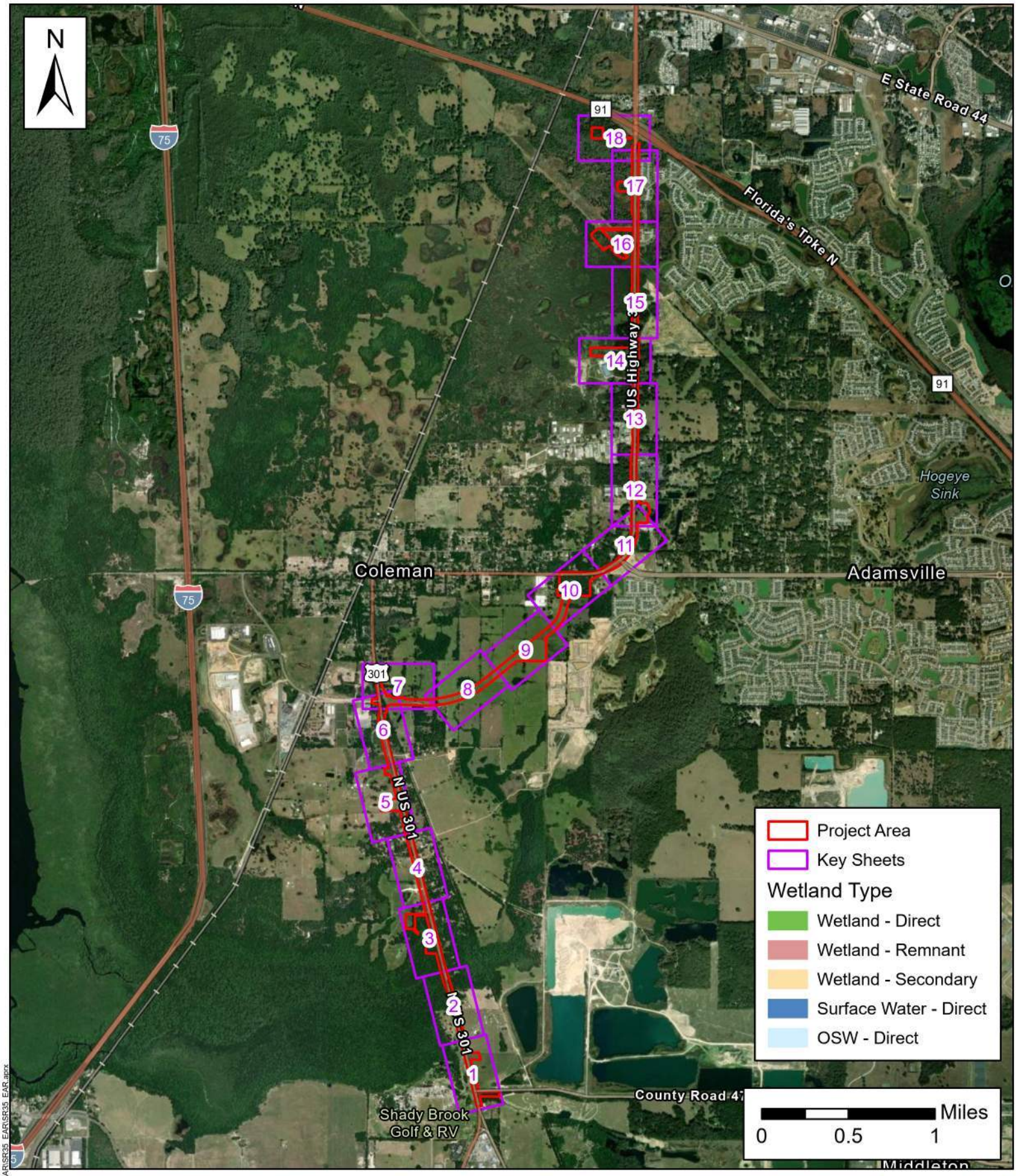
Wetland & Surface Water Location Map

Figure 4-18

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023



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State Road 35 from County Road 470 to State Road 44

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Sumter County, FL

Wetland & Surface Water Impact Map

DATA SOURCE:
Imagery: ESRI 2024
Wetlands: DRMP 2023

Figure 5
Key Sheet

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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

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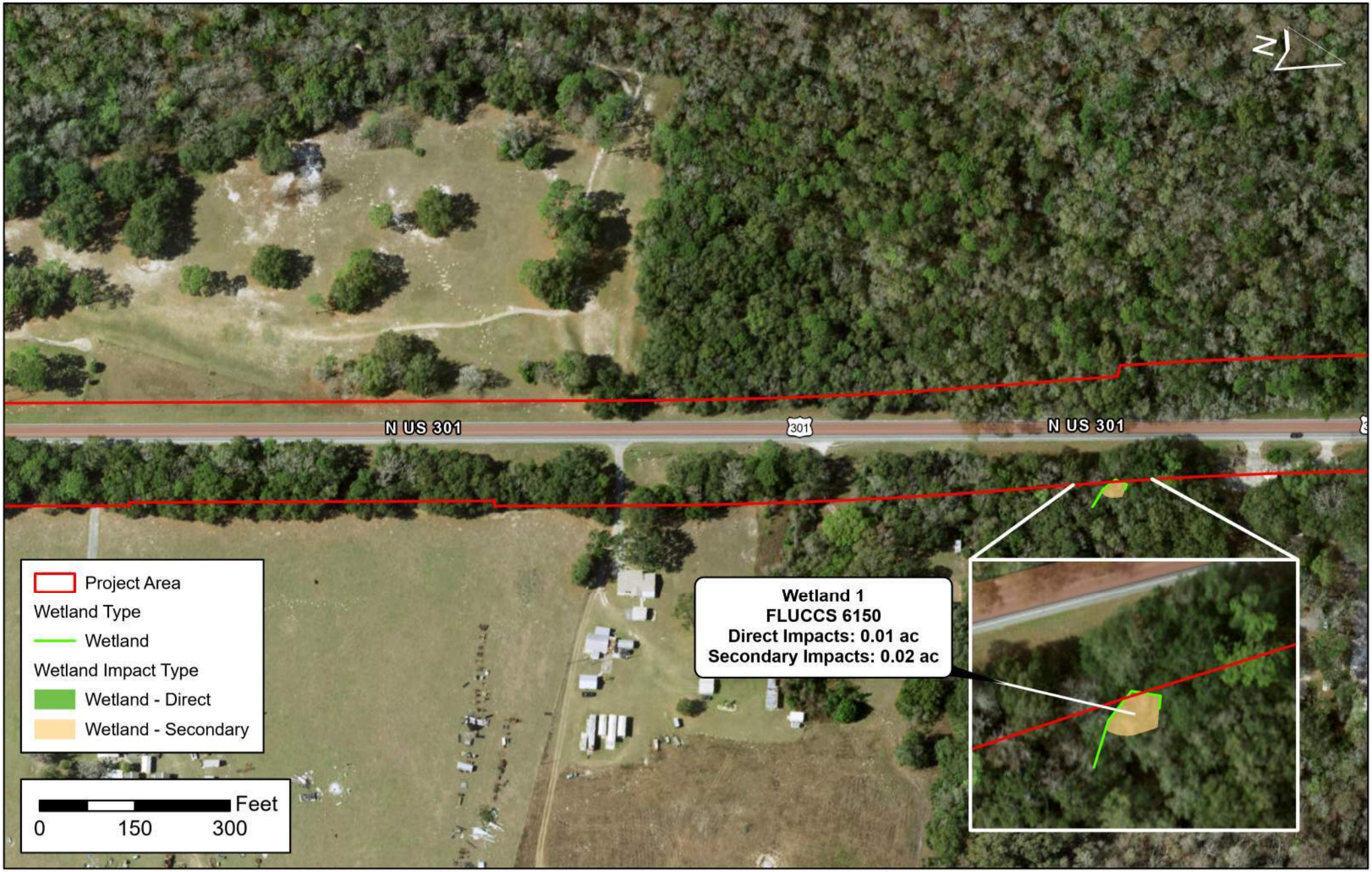
Wetland & Surface Water Impact Map

Figure 5-1

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023



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941 Lake Baldwin Lane
Orlando, FL 32814
Phone: 407-896-0594
Fax: 407-896-4836

DATE: May 2024

DRAWN BY: BH

PROJECT NUMBER: 22-0107.000

State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

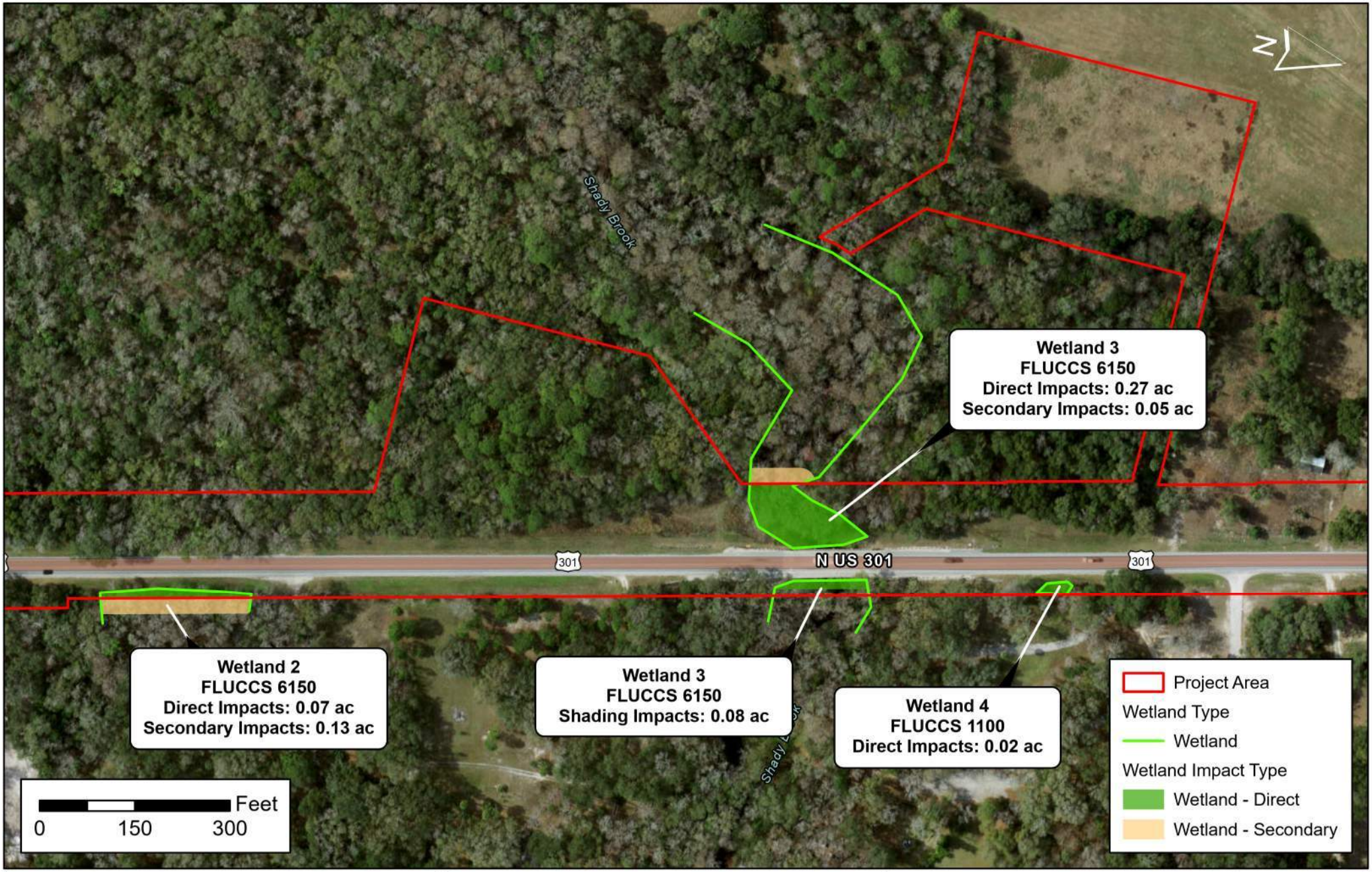
Sumter County, FL

Wetland & Surface Water Impact Map

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023

Figure

5-2



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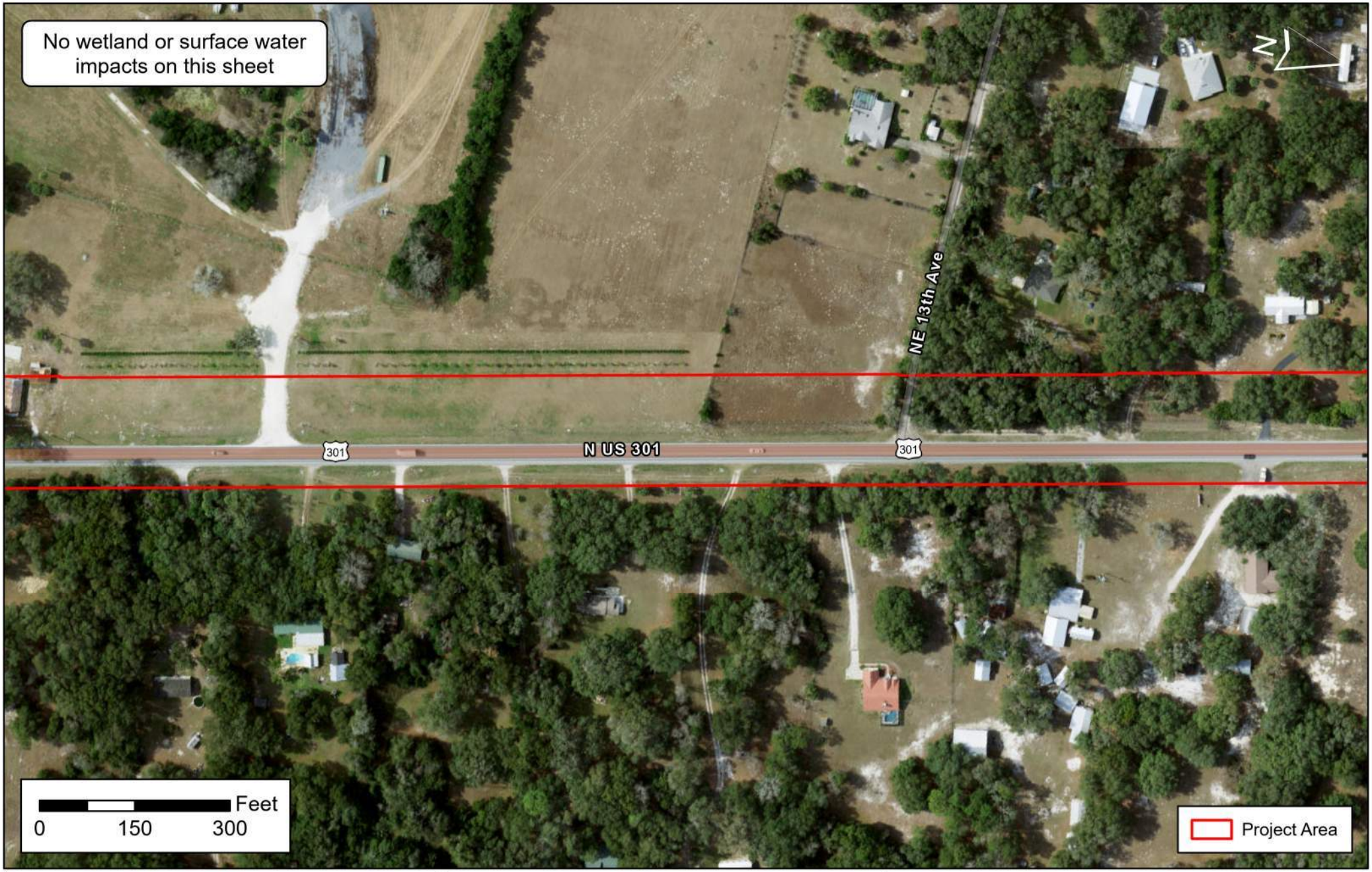
Sumter County, FL

Wetland & Surface Water Impact Map

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023

Figure

5-3



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Sumter County, FL

Wetland & Surface Water Impact Map

Figure 5-4

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023

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Sumter County, FL

Wetland & Surface Water Impact Map

Figure 5-5

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
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Wetlands: DRMP 2023

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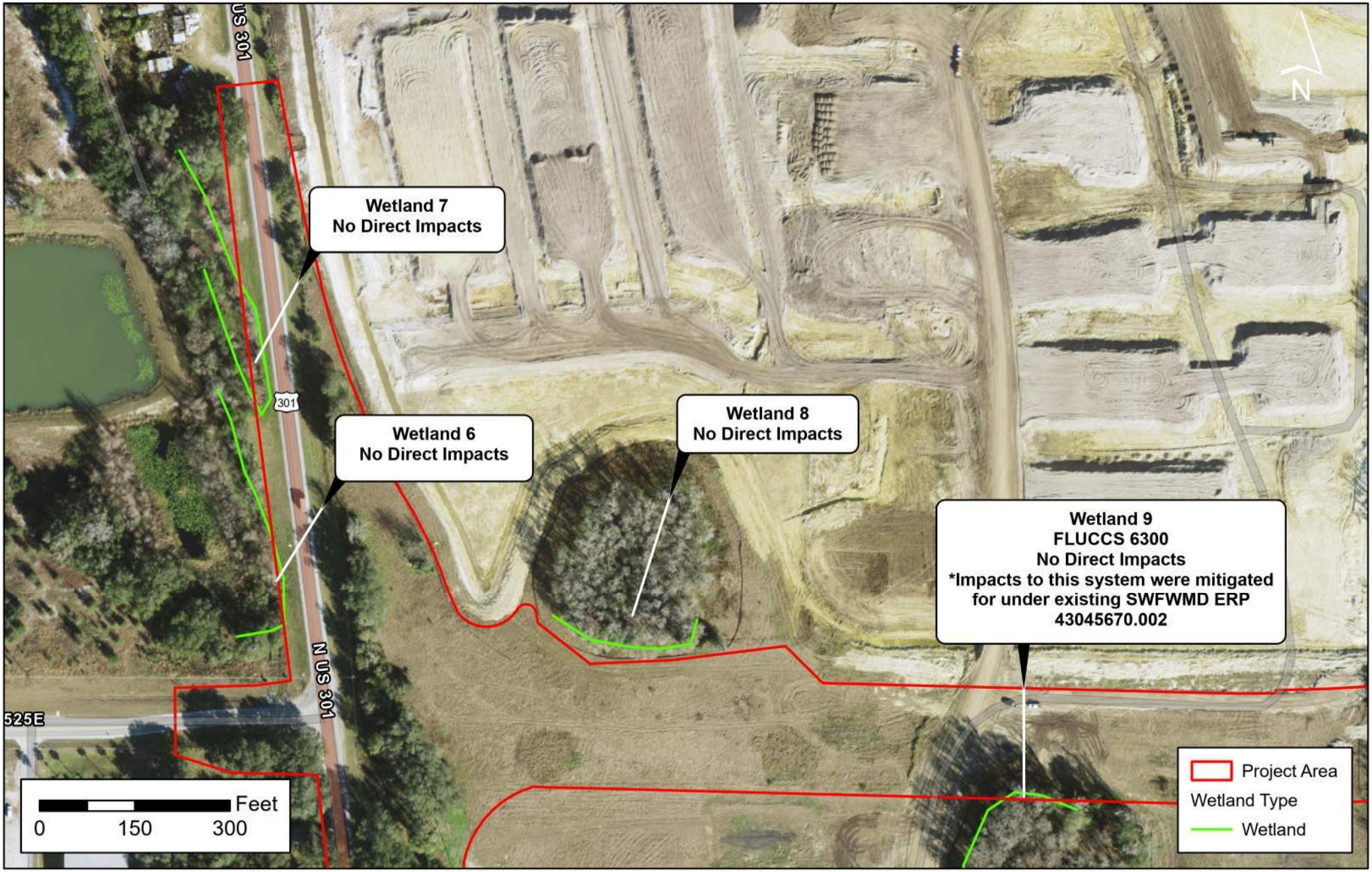
Sumter County, FL

Wetland & Surface Water Impact Map

Figure 5-6

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023



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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

Sumter County, FL

Wetland & Surface Water Impact Map

Figure 5-7

DATE:	DRAWN BY:	PROJECT NUMBER:
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Date Source:
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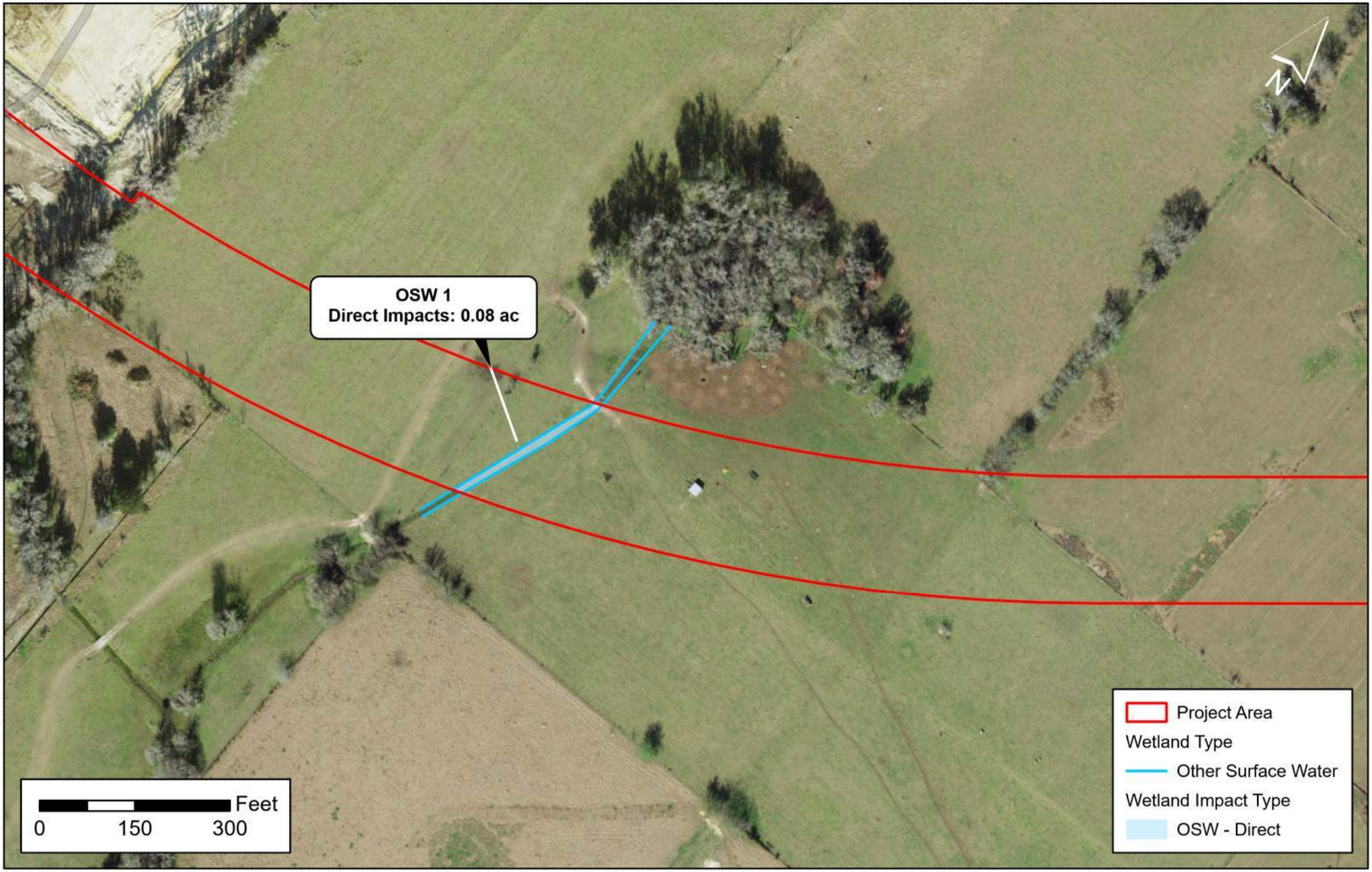
Wetlands: DRMP 2023



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DATE: May 2024

DRAWN BY: BH

PROJECT NUMBER: 22-0107.000

State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

Sumter County, FL

Wetland & Surface Water Impact Map

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023

Figure

5-8

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DATE: May 2024

DRAWN BY: BH

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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

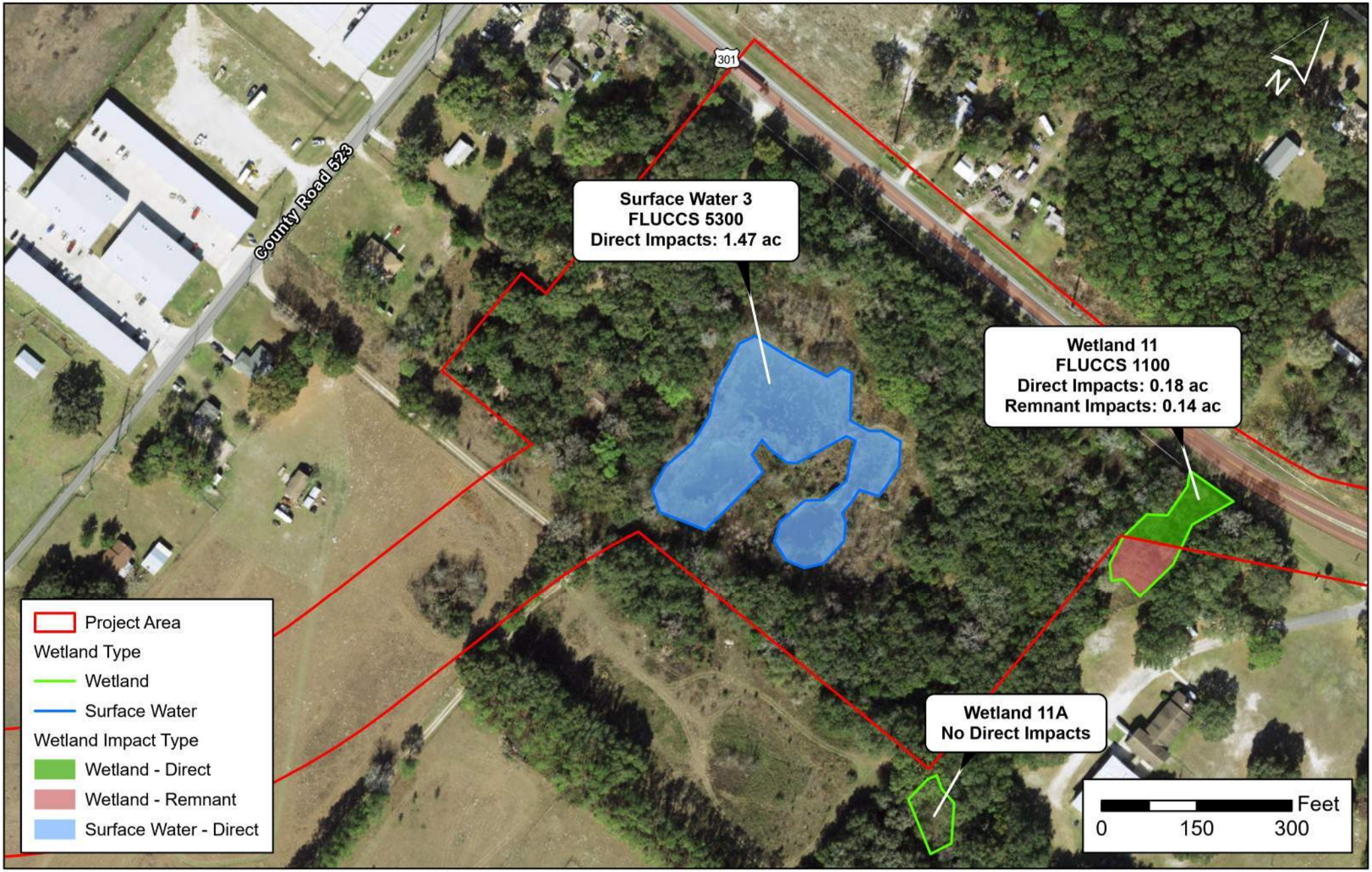
Sumter County, FL

Wetland & Surface Water Impact Map

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023

Figure

5-9



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State Road 35 from County Road 470 to State Road 44

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Sumter County, FL

Wetland & Surface Water Impact Map

Figure 5-10

DATE:	DRAWN BY:	PROJECT NUMBER:
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Date Source:
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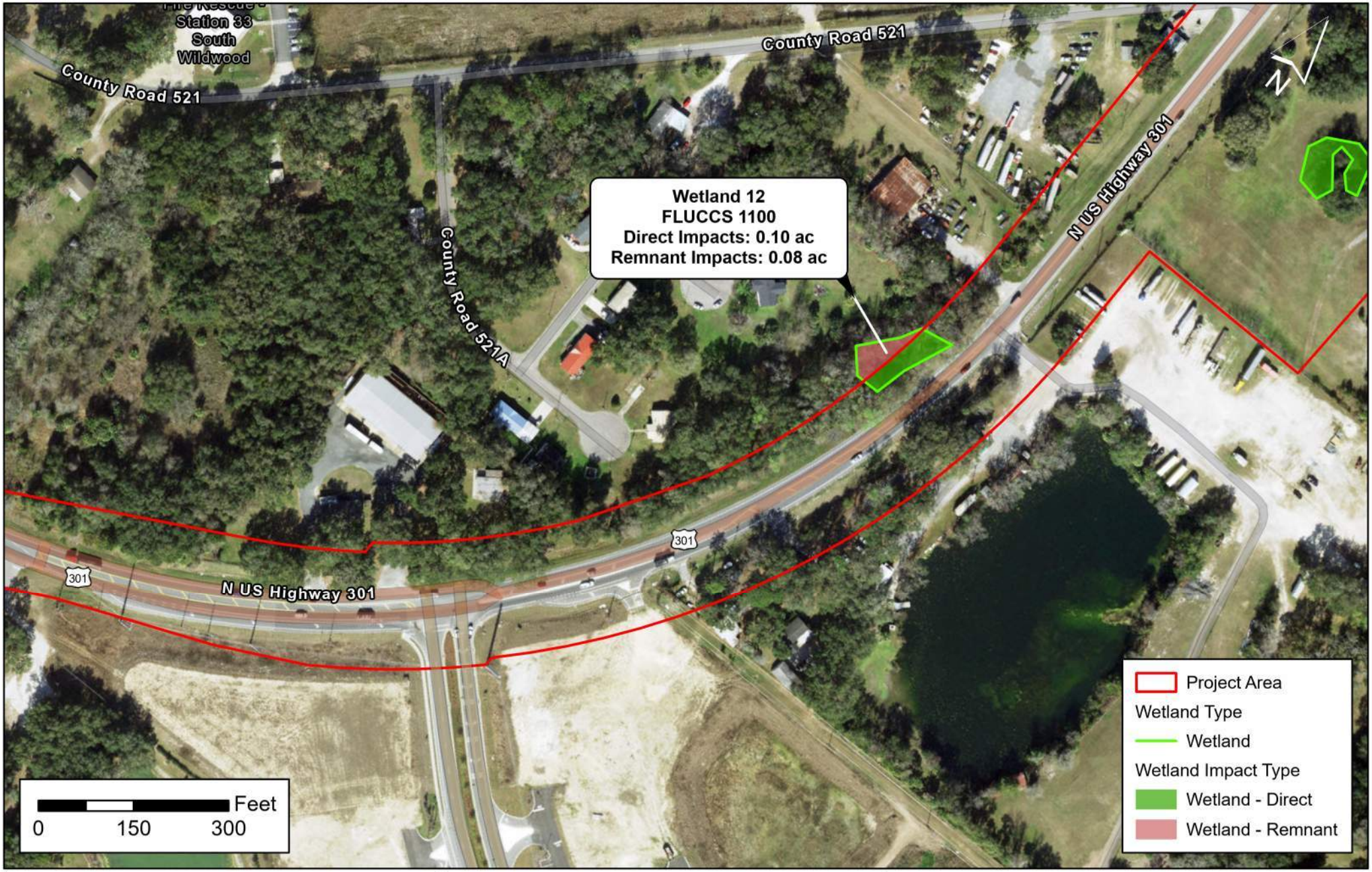
Wetlands: DRMP 2023



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State Road 35 from County Road 470 to State Road 44

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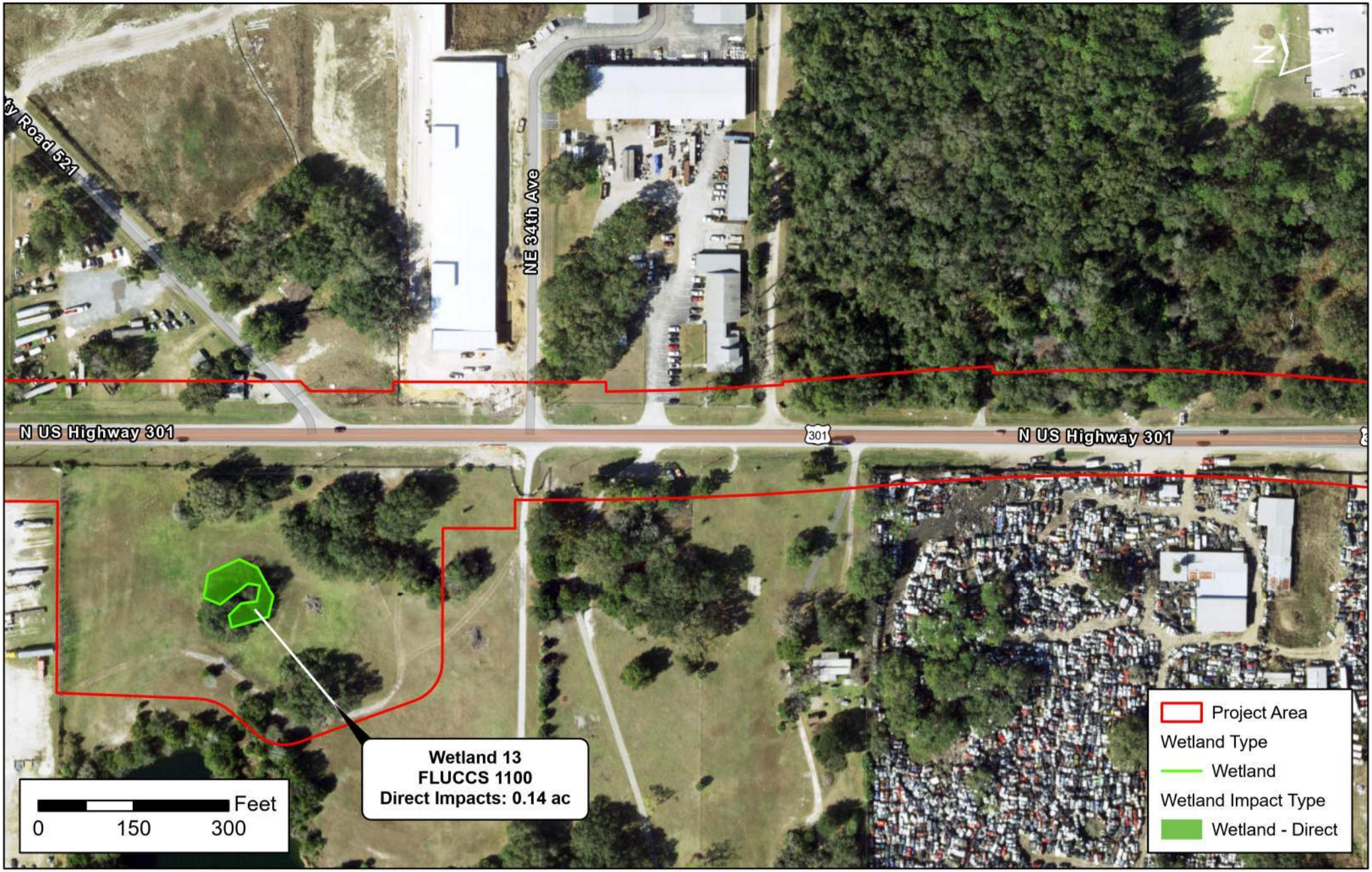
Sumter County, FL

Wetland & Surface Water Impact Map

Figure 5-11

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023



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State Road 35 from County Road 470 to State Road 44

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Sumter County, FL

Wetland & Surface Water Impact Map

Figure 5-12

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

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Wetlands: DRMP 2023

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State Road 35 from County Road 470 to State Road 44

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Sumter County, FL

Wetland & Surface Water Impact Map

Figure 5-13

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
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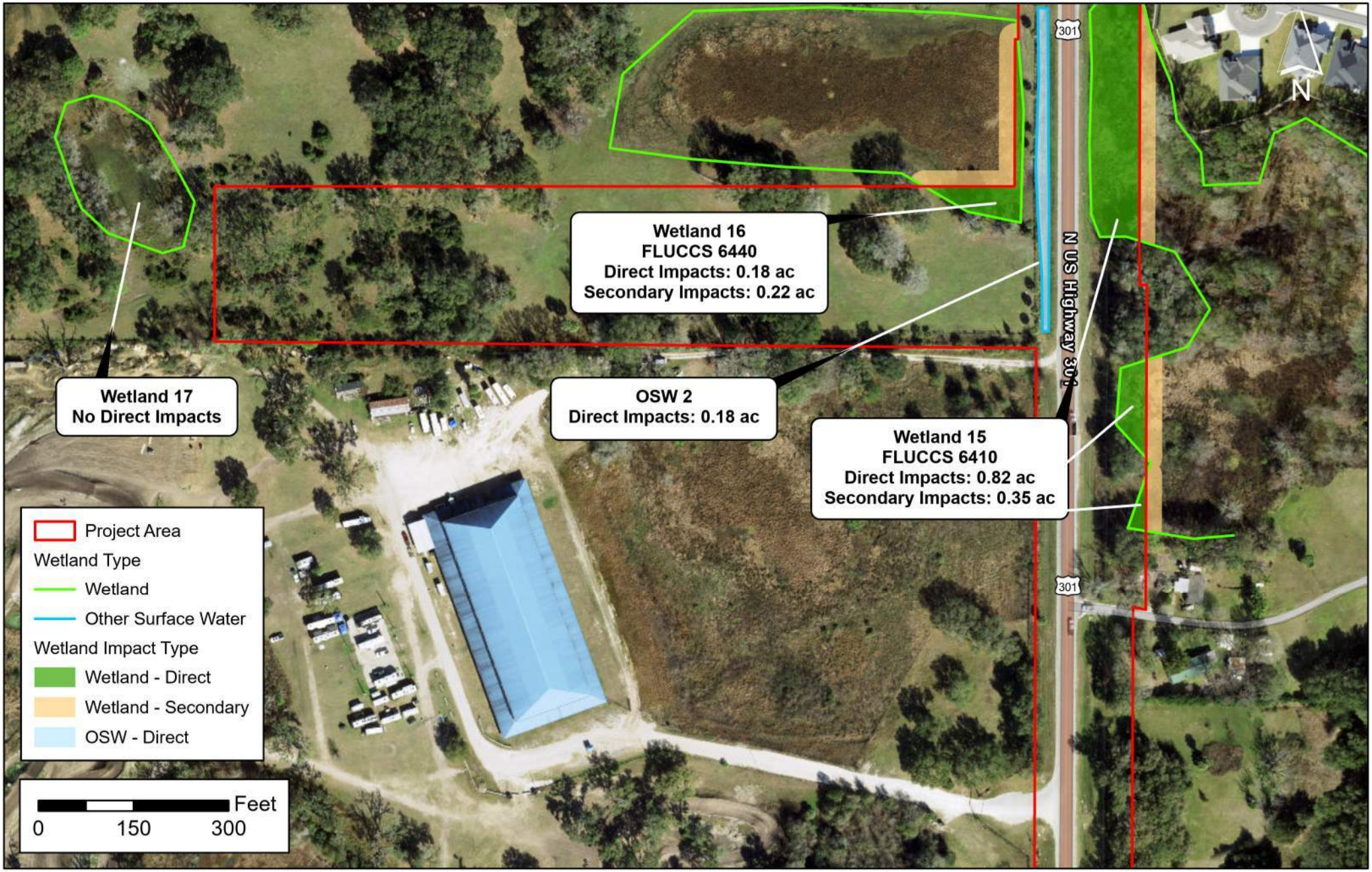
Wetlands: DRMP 2023



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State Road 35 from County Road 470 to State Road 44

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Sumter County, FL

Wetland & Surface Water Impact Map

Figure 5-14

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Wetlands: DRMP 2023

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State Road 35 from County Road 470 to State Road 44

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Sumter County, FL

Wetland & Surface Water Impact Map

Figure 5-15

DATE:	DRAWN BY:	PROJECT NUMBER:
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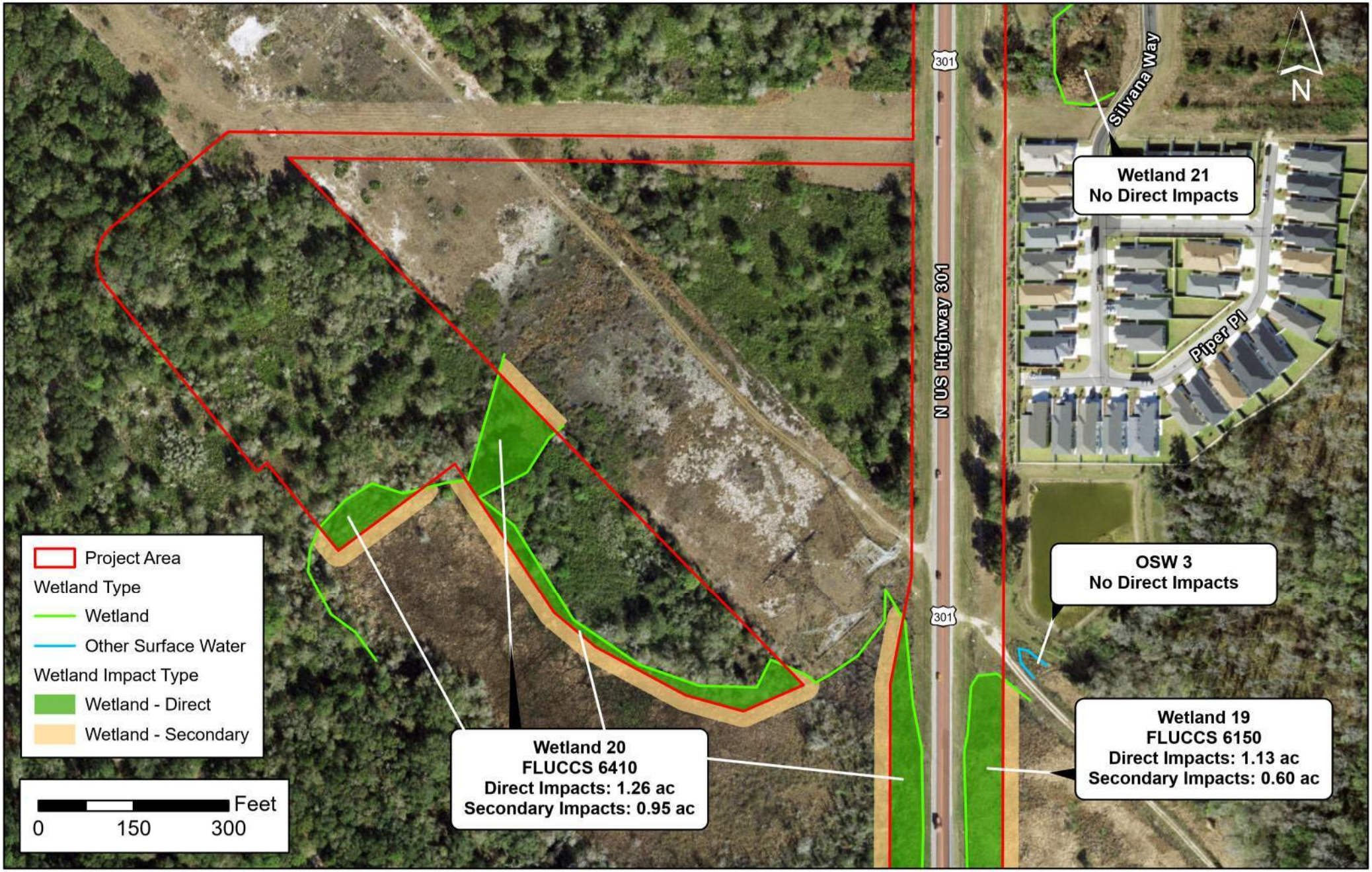
Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023



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State Road 35 from County Road 470 to State Road 44

FPID: 430132-1 & 430132-2

Sumter County, FL

Wetland & Surface Water Impact Map

Figure 5-16

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023

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Sumter County, FL

Wetland & Surface Water Impact Map

Figure 5-17

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
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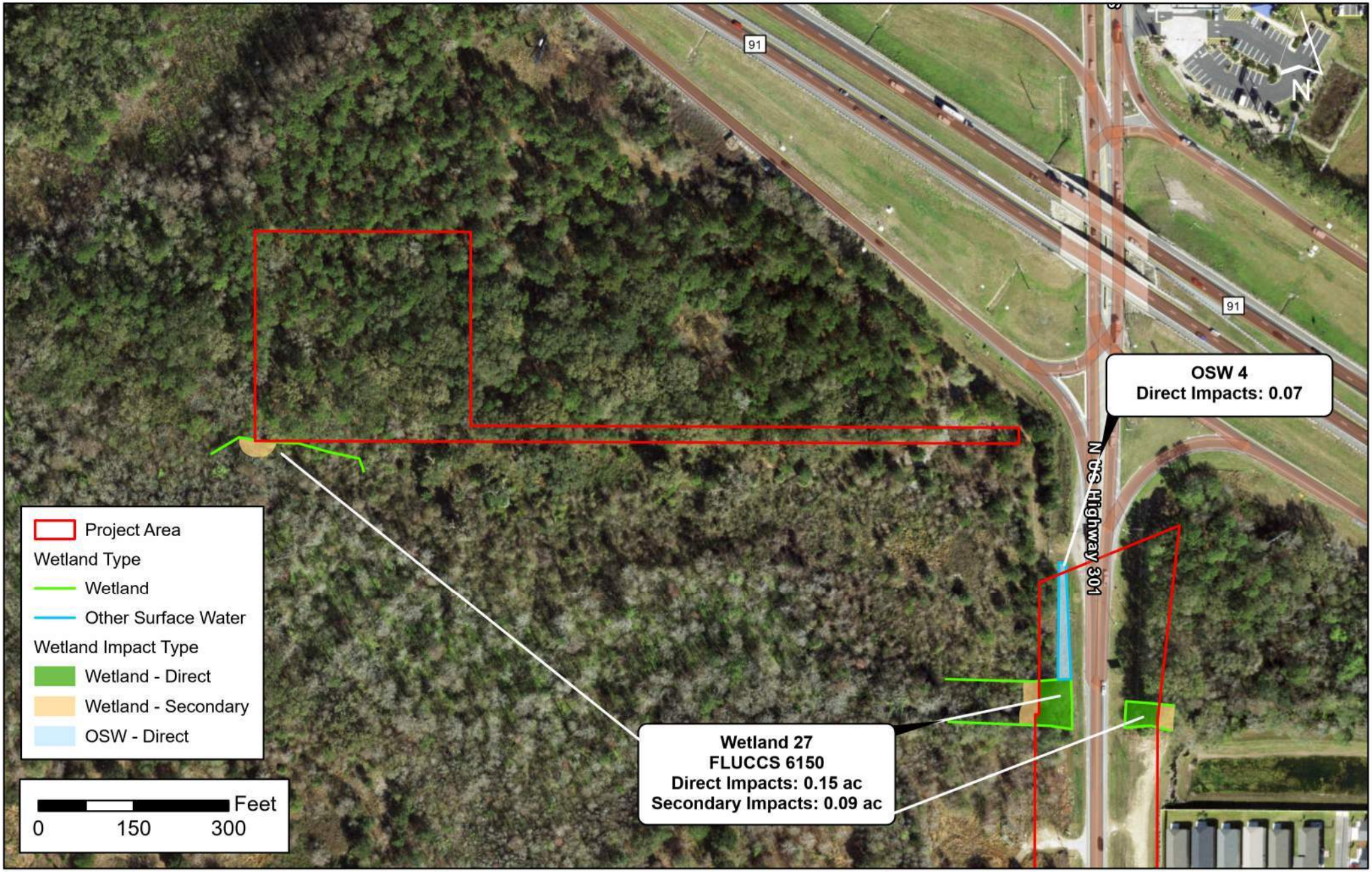

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State Road 35 from County Road 470 to State Road 44

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Sumter County, FL

Wetland & Surface Water Impact Map

Figure 5-18

DATE:	DRAWN BY:	PROJECT NUMBER:
May 2024	BH	22-0107.000

Date Source:
Imagery: ESRI 2024
Wetlands: DRMP 2023

Appendix B: Agency Coordination

SWFWMD Pre-Application Meeting Minutes

FWC Kestrel Survey Methodology Approval

FWC Listed Species 2024 Survey Results Memorandum

SWFWMD Pre-Application Meeting Minutes

THIS FORM IS INTENDED TO FACILITATE AND GUIDE THE DIALOGUE DURING A PRE-APPLICATION MEETING BY PROVIDING A PARTIAL "PROMPT LIST" OF DISCUSSION SUBJECTS. IT IS NOT A LIST OF REQUIREMENTS FOR SUBMITTAL BY THE APPLICANT.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
RESOURCE REGULATION DIVISION
PRE-APPLICATION MEETING NOTES

FILE NUMBER:

PA 410302

Date:	04/04/2023		
Time:	10:00		
Project Name:	SR 35 (US 301) From CR 470 to SR 44		
District Engineer:	Rob McDaniel		
District ES:	Al Gagne		
Attendees:	George McLatchey, Matty Lane, Tim Henderson, Donald Brown, Christian Gayle, Casey Lyon, Gene McClendon, Ferrell Hickson, Efren Rivera		
County:	Sumter	**Sec/Twp/Rge:**	multiple/19,20/22,23
Total Land Acreage:	8 miles	**Project Acreage:**	8 miles

Prior On-Site/Off-Site Permit Activity:

- Pre-application meeting PA 400921 held 2014. PA 404164 held 2017.

Project Overview:

- Widen (from 2-lane rural to 4-lane urban) about 7.8 miles of U.S. 301 (State Road (S.R.) 35) from County Road (C.R.) 470 to S.R. 44 in Sumter County

Environmental Discussion: (Wetlands On-Site, Wetlands on Adjacent Properties, Delineation, T&E species, Easements, Drawdown Issues, Setbacks, Justification, Elimination/Reduction, Permanent/Temporary Impacts, Secondary and Cumulative Impacts, Mitigation Options, SHWL, Upland Habitats, Site Visit, etc.)

- There are wetlands/surface waters located within the project area. Impacts are proposed.
- Provide the limits of jurisdictional wetlands and surface waters. Roadside ditches or other water conveyances, including permitted and constructed water conveyance features, can be claimed as surface waters per Chapter 62-340 F.A.C. if they do not meet the definition of a swale as stated under Rule 403.803 (14) F.S.
- Demonstrate elimination and reduction of wetland impacts. The elimination and reduction criteria can be found in subsection 10.2.1 of Applicant's Handbook Volume 1. Be advised that the use of subsection 10.2.1.2 (a) of the handbook may put the project in conflict with the state's 404 program. Coordination with the DEP, the during application review process, is recommended if the applicant wishes to use subsection 10.2.1.2 (a).
- Maintain minimum 15 foot, average 25 foot wetland conservation area setback or address secondary impacts.
- Provide appropriate mitigation using UMAM for impacts.
- The site is located in the Withlacoochee River ERP Basin. Mitigation Banks that serve this area include the Withlacoochee, Boarshead Ranch, Green Swamp and Crooked River/Hilochee mitigation banks. For an interactive map of permitted mitigation banks and their service areas, use this LINK. Be advised that use of a bank with a modified service area (i.e. a service area that is larger than the basin the bank is located in), may require the submittal of a cumulative impact analysis pursuant to subsection 10.2.8 of Applicant's Handbook volume 1.
- If the wetland mitigation is appropriate and the applicant is proposing to utilize mitigation bank credit as wetland mitigation, provide a letter of reservation of credits from the wetland mitigation bank. The wetland mitigation bank current credit ledgers can be found out the following link: https://www.swfwmd.state.fl.us/business/epermitting/environmental-resource-permit, Go to "ERP Mitigation Bank Wetland Credit Ledgers"
- Determine SHWL's at pond locations, wetlands, and OSWs.
- Determine normal pool elevations of wetlands.
- Determine 'pop-off' locations and elevations of wetlands.
- Please note, the Florida Department of Environmental Protection (FDEP) has assumed the Federal dredge and fill permitting program under section 404 of the Federal Clean Water Act within certain waters. State 404 Program streamlining intentions direct Agency staff to coordinate joint site visits for overall consistency between the two State programs. As such, District staff and the FDEP will need to conduct a joint site visit

for evaluation of the wetland/surface water systems proposed for impact. District staff will coordinate with FDEP staff on determining dates/times of joint Agency availability. Upon determination of joint availability, staff will provide the applicant's representative with site visit scheduling options. A site visit will not be scheduled until the appropriate signatures on the application and the fee is submitted.

Site Information Discussion: (SHW Levels, Floodplain, Tailwater Conditions, Adjacent Off-Site Contributing Sources, Receiving Waterbody, etc.)

- WBIDs need to be independently verified by the consultant -
- WBID 1356 – Shady Brook – to the south
- WBID 1351 – Lake Panasofkee Drain – to the west
- WBID 1344 – Little Jones Creek – to the north – does not attain standards for dissolved oxygen.
- Receiving areas may consist of multiple closed basins or volume sensitive basins.
- Document/justify SHWE's at pond locations, wetlands, and OSWs.
- Determine normal pool elevations of wetlands.
- Determine 'pop-off' locations and elevations of wetlands.
- Provide documentation to support tailwater conditions for quality and quantity design.
- Proposed control structures in wetlands should be consistent with existing 'pop-off' elevations of wetlands; demonstrate no adverse impacts to wetland hydroperiod for up to 2.33yr mean annual storm.
- Minimum flows and levels of receiving waters shall not be disrupted.
- Contamination issues need to be resolved with the FDEP. Check FDEP MapDirect layer for possible contamination points within/adjacent to the project area. FDEP MapDirect Link
  For known contamination within the site or within 100' beyond the proposed stormwater management system:
  - after the application is submitted, please contact FDEP staff listed below and provide them with the ERP Application ID # along with a mounding analysis (groundwater elevation versus distance) of the proposed stormwater management system that shows the proposed groundwater mound will not adversely impact the contaminated area. FDEP will review the plans submitted to the District and mounding analysis to determine any adverse impacts. Provide documentation from FDEP that the proposed construction will not result in adverse impacts. This is required prior to the ERP Application being deemed complete.
  FDEP Contacts:
  - For projects located within Marion, Lake and Sumter Counties: Lu Burson Lu.burson@floridadep.gov
- Check for District owned lands over and adjacent to project area.
- Stormwater retention and detention systems are classified as moderate sanitary hazards with respect to public and private drinking water wells. Stormwater treatment facilities shall not be constructed within 100 feet of an existing public water supply well and shall not be constructed within 75 feet of an existing private drinking water well. Subsection 4.2, A.H.V.II.
- Any wells on site should be identified and their future use/abandonment must be designated.
- There are high water data/flooding documentation onsite and nearby.
- If District data collection sites will be impacted by proposed construction contact data.maps@watermatters.org to coordinate relocation of District data collection site.
- For exploration of cooperative projects with the District contact the SWIM group. Viviana Bendixson, manager, Vivianna.Bendixson@swfwmd.state.fl.us.

Water Quantity Discussions: (Basin Description, Storm Event, Pre/Post Volume, Pre/Post Discharge, etc.)

- Demonstrate that post development peak discharges from proposed project area will not cause an adverse impact for a 25-year, 24-hour storm event.
- For projects or portions of projects that discharge to closed/volume sensitive basins, limit the post-development 100-year discharge volume to the pre-development 100-year, 24-hour volume.
- Demonstrate that site will not impede the conveyance of contributing off-site flows.
- Demonstrate that the project will not increase flood stages up- or down-stream of the project area(s).
- Delineate the area and quantify the volume of any fill placement within the floodplain.
- Little Jones Creek Watershed Model (2022) information may be available for download using the following link: https://watermatters.sharefile.com/d-s8c9019e00fd243908654e733a6b2016c
- Provide equivalent compensating storage for all 100-year, 24-hour riverine floodplain impacts if applicable. Providing cup-for-cup storage in dedicated areas of excavation is the preferred method of compensation. if no impacts to flood conveyance are proposed and storage impacts and compensation occur within the same basin. In this case, tabulations should be provided at 0.5-foot increments to demonstrate encroachment and compensation occur at the same levels. Otherwise, storage modeling will be required to demonstrate no

increase in flood stages will occur on off-site properties, using the mean annual, 10-year, 25-year, and 100-year storm events for the pre- and post-development conditions.

- Please be aware that if there is credible historical evidence of past flooding or the physical capacity of the downstream conveyance or receiving waters indicates that the conditions for issuance will not be met without consideration of storm events of different frequency or duration, applicants shall be required to provide additional analyses using storm events of different duration or frequency than the 25-year 24-hour storm event, or to adjust the volume, rate or timing of discharges. [Section 3.0 Applicant's Handbook Volume II]

Water Quality Discussions: (Type of Treatment, Technical Characteristics, Non-presumptive Alternatives, etc.)

- Provide water quality treatment for entire project area and all contributing off-site flows.
- For portions of the project discharging to an impaired water body, must provide a net environmental improvement.
- Applicant must demonstrate a net improvement for the parameters of concern by performing a pre/post pollutant loading analysis based on existing land use and the proposed land use.
- Shady Brook in the southern portion of the project is designated as an Outstanding Florida Water (OFW). Direct discharges will need to adhere to OFW requirements.
- Also, replace treatment function of existing ditches to be filled.
- <u>Presumptive Water Quality Treatment for Alterations to Existing Public Roadway Projects:</u>
  -Refer to Section 4.5 A.H.V.II for Alterations to Existing Public Roadway Projects.
  -Refer to Sections 4.8, 4.8.1 and 4.8.2 A.H.V.II for Compensating Stormwater Treatment, Overtreatment, and Offsite Compensation.
  -All co-mingled existing & new impervious that is proposed to be connected to a treatment pond will require treatment for an area equal to the co-mingled existing & new impervious (times ½" for dry treatment or 1" for wet treatment). This applies whether or not equivalent treatment concepts are used.
  -However, if equivalent treatment concepts are used it is possible to strategically locate the pond(s) so that the minimum treatment requirement may be for an area equivalent to the new impervious area only. That is, co-mingled existing & new impervious that is not connected to a treatment pond may bypass treatment (as per Section 4.5(2), A.H.V.II); if the 'total impervious area' that is connected to the treatment pond(s) is at least equivalent to the area of new impervious only. The 'total impervious area' that is connected to the pond(s) may be composed of co-mingled existing & new impervious.
  -Offsite impervious not required to be treated; but may be useful to be treated when using equivalent treatment concepts.
  -Existing treatment capacity displaced by any road project will require additional compensating volume. Refer to Subsection 4.5(c), A.H.V.II.
- Will acknowledge compensatory treatment to offset pollutant loads associated with portions of the project area that cannot be physically treated.
- Provide additional 50% treatment for any direct discharges to OFW. Refer to ERP Applicant's Handbook Vol. II Subsection 4.1(f).
- Please be advised that although use of isolated wetlands for ERP treatment purposes is permittable as per Section 4.1(a)(3), A.H.V.II, use of isolated wetlands for treatment purposes may not necessarily meet US Army Corps criteria.
- <u>Net improvement</u>
  -Refer to Rule 62-330.301(2), F.A.C.
  -The application must demonstrate a net improvement for nutrients. Applicant may demonstrate a net improvement for the parameters of concern by performing a pre/post pollutant loading analysis based on existing land use and the proposed land use. Refer to ERP Applicant's Handbook Vol. II Subsection 4.1(g).
  -Effluent filtration is known to be ineffective for treating nutrient related impairments, unless special nutrient adsorption media provided. However, please note special nutrient adsorption media has extremely low conductivity values compared to typical sand type effluent filtration filter media. Note: if treatment volume required for net improvement is less than the treatment volume required for 'presumptive' treatment, then use of effluent filtration is ok.
- The new water quality rule may be in effect Summer/Fall 2023. Application will need to be consistent with the rules applicable at the time of application.

Sovereign Lands Discussion: (Determining Location, Correct Form of Authorization, Content of Application, Assessment of Fees, Coordination with FDEP)

- The project may be located within state owned sovereign submerged lands (SSSL). Be advised that a title determination will be required from FDEP to verify the presence and/or location of SSSL. The crossing of Shady Brook will require a title determination to confirm if the waterbody will be claimed as SSSL
- If use of SSSL is proposed, authorization will be required. Refer to Chapter 18-21, F.A.C. and Chapter 18-20, F.A.C. for guidance on projects that impact SSSL and Aquatic Preserves.
- A public easement will be required if the project involves SSSL impacts.

Operation and Maintenance/Legal Information: (Ownership or Perpetual Control, O&M Entity, O&M Instructions, Homeowner Association Documents, Coastal Zone requirements, etc.)

- The permit must be issued to entity that owns or controls the property.
- Provide evidence of ownership or control by deed, easement, contract for purchase, etc. Evidence of ownership or control must include a legal description. A Property Appraiser summary of the legal description is NOT acceptable.
- Provide easements/authorizations where applicable.

Application Type and Fee Required:

- SWERP New Individual – Sections A, C, and E of the ERP Application. It is expected that multiple applications will be submitted covering individual segments of the improvement.
- Consult the fee schedule for different thresholds.

Other: (Future Pre-Application Meetings, Fast Track, Submittal Date, Construction Start Date, Required District Permits – WUP, WOD, Well Construction, etc.)

- An application for an individual permit to construct or alter a dam, impoundment, reservoir, or appurtenant work, requires that a notice of receipt of the application must be published in a newspaper within the affected area. Provide documentation that such noticing has been accomplished. Note that the published notices of receipt for an ERP can be in accordance with the language provided in Rule 40D-1.603(10), F.A.C.

- Provide a copy of the legal description (of all applicable parcels within the project area) in one of the following forms:
  a. Deed with complete Legal Description attachment.
  b. Plat.
  c. Boundary survey of the property(ies) with a sketch.

- The plans and drainage report submitted electronically must include the appropriate information required under Rules 61G15-23.005 and 61G15-23.004 (Digital), F.A.C. The following text is required by the Florida Board of Professional Engineers (FBPE) to meet this requirement when a digitally created seal is not used and must appear where the signature would normally appear:

  ELECTRONIC (Manifest): *[NAME] State of Florida, Professional Engineer, License No. [NUMBER] This item has been electronically signed and sealed by [NAME] on the date indicated here using a SHA authentication code. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies*

  DIGITAL: *[NAME] State of Florida, Professional Engineer, License No. [NUMBER]; This item has been digitally signed and sealed by [NAME] on the date indicated here; Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.*
- Provide soil erosion and sediment control measures for use during construction. Refer to ERP Applicant's Handbook Vol. 1 Part IV Erosion and Sediment Control.
- Demonstrate that excavation of any stormwater ponds does not breach an aquitard (see Subsection 2.1.1, A.H.V.II) such that it would allow for lesser quality water to pass, either way, between the two systems. In those geographical areas of the District where there is not an aquitard present, the depth of the pond(s) shall not be excavated to within two (2) feet of the underlying limestone which is part of a drinking water aquifer. [Refer to Subsection 5.4.1(b), A.H.V.II]
- On December 17, 2020, the Environmental Protection Agency (EPA) formally transferred permitting authority under CWA Section 404 from the U.S. Army Corps of Engineers (Corps) to the State of Florida for a broad range of water resources within the State. The primary State 404 Program rules are adopted by the Florida Department of Environmental Protection (FDEP) as Chapter 62-331 of the Florida Administrative Code (F.A.C.). While the State 404 Program is a separate permitting program from the Environmental Resource Permitting program (ERP) under Chapter 62-330, F.A.C., and agency action for State 404

Program verifications, notices, or permits shall be taken independently from ERP agency action, the FDEP and the Southwest Florida Water Management District (SWFWMD) will be participating in a Joint application Process. Upon submittal of an ERP application that proposes dredge/fill activities in wetlands or surface waters within state assumed waters, the SWFWMD will forward a copy of your application to the FDEP for activities under State 404 jurisdiction. The applicant may choose to have the State 404 Program and ERP agency actions issued concurrently to help ensure consistency and reduce the need for project modifications that may occur when the agency actions are issued at different times. Additional information on the FDEP's 404 delegation can be found at: https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/state-404-program

Additionally, for those projects located in areas where the Corps retains jurisdiction, the applicant is advised that the District will not send a copy of an application that does not qualify for a State Programmatic General Permit (SPGP) to the U.S. Army Corps of Engineers. If a project does not qualify for a SPGP, you will need to apply separately to the Corps using the appropriate federal application form for activities under federal jurisdiction. Please see the Corps' Jacksonville District Regulatory Division Sourcebook for more information about federal permitting. Please call your local Corps office if you have questions about federal permitting. Link: http://www.saj.usace.army.mil/Missions/Regulatory/Source-Book/

FWC Kestrel Survey Methodology Approval

From: Rachel Schmidt
Sent: Monday, March 25, 2024 9:02 AM
To: Brady Hart
Subject: FW: Re: (FPID: 430132-1 & -2) SR 35 Kestrel Survey Methodology

Rachel Schmidt, PWS
Environmental Department Manager
Transportation
Main: 813.265.9800 | Direct: 407.362.1331 | Cell: 813.748.7884
rschmidt@drmp.com

15310 Amberly Drive, Suite 310, Tampa, FL 33647

From: Booth, Kristee <Kristee.Booth@MyFWC.com>
Sent: Wednesday, February 8, 2023 1:30 PM
To: George McLatchey <gmclatchey@drmp.com>
Cc: Casey.Lyon@dot.state.fl.us; psebert@res.us; Rachel Schmidt <rschmidt@drmp.com>; Matty Lane <mlane@drmp.com>; Donald Brown <dbrown@drmp.com>; Laura.DiGruttolo@MyFWC.com
Subject: Re: (FPID: 430132-1 & -2) SR 35 Kestrel Survey Methodology

Thank you, George.

Kristee Booth
Biological Scientist
Office of Conservation Planning Services
Florida Fish and Wildlife Conservation Commission
Deland, Florida 33720

(850) 363-6298, cellphone

From: George McLatchey <gmclatchey@drmp.com>
Sent: Wednesday, February 8, 2023 1:14:52 PM
To: Booth, Kristee <Kristee.Booth@MyFWC.com>
Cc: Lyon, Casey <Casey.Lyon@dot.state.fl.us>; Paul Sebert <psebert@res.us>; Rachel Schmidt <rschmidt@drmp.com>; Matty Lane <mlane@drmp.com>; Donald Brown <dbrown@drmp.com>; DiGruttolo, Laura <Laura.DiGruttolo@MyFWC.com>
Subject: RE: (FPID: 430132-1 & -2) SR 35 Kestrel Survey Methodology

Kristee,

Thanks for the comments. Attached is the updated kestrel survey methodology that we will implement for the SR 35 project.

Please let me know if you have any questions.

Thanks again!

George McLatchey, PWS, CEP
Vice President/Environment Division Manager
Transportation
Main: 407.896.0594 | Direct: 407.362.1377 | Cell: 407.790.6395
gmclatchey@drmp.com

DRMP

941 Lake Baldwin Lane, Orlando, FL 32814

From: Booth, Kristee <Kristee.Booth@MyFWC.com>
Sent: Tuesday, February 07, 2023 3:10 PM
To: George McLatchey <gmclatchey@drmp.com>
Cc: Lyon, Casey <Casey.Lyon@dot.state.fl.us>; Paul Sebert <psebert@res.us>; Rachel Schmidt <rschmidt@drmp.com>; Matty Lane <mlane@drmp.com>; Donald Brown <dbrown@drmp.com>; DiGruttolo, Laura <Laura.DiGruttolo@MyFWC.com>
Subject: RE: (FPID: 430132-1 & -2) SR 35 Kestrel Survey Methodology

Hello, George. Thank you for the opportunity to review the kestrel survey methodology. FWC has the following recommendations:

- Kestrels that fly over without landing should be noted but not recorded as a point.
- Kestrels hunting via hovering should be recorded (GPS location).
- Based on the aerial provided, the tract just north of NE 41st Ln in Figure 2 Sheet 6 appears to be potentially suitable. If potentially suitable foraging habitat is available or cavities are present on that tract, we would recommend surveys there as well.

We look forward to coordinating with you further on this project. Have a great day!

Kristee Booth
Biological Scientist
Office of Conservation Planning Services
Florida Fish and Wildlife Conservation Commission
Deland, FL 32724

850-363-6298, cell phone

From: George McLatchey <gmclatchey@drmp.com>
Sent: Thursday, February 2, 2023 10:29 AM
To: Booth, Kristee <Kristee.Booth@MyFWC.com>
Cc: Lyon, Casey <Casey.Lyon@dot.state.fl.us>; Paul Sebert <psebert@res.us>; Rachel Schmidt <rschmidt@drmp.com>; Matty Lane <mlane@drmp.com>; Donald Brown <dbrown@drmp.com>
Subject: (FPID: 430132-1 & -2) SR 35 Kestrel Survey Methodology

Hello Kristee,

Good talking with you this morning. As mentioned, FDOT – District 5 is proposing roadway improvements of approximately 7.8 miles for SR 35 from CR 470 to SR 44 in Sumter County. The PD&E commitments for this project require a species-specific survey for the southeastern American kestrel within appropriate foraging habitat. Please see the attached proposed kestrel survey methodology for the project and let us know if you have any questions or concerns. We are requesting concurrence of this methodology before we begin our survey of the project corridor.

Thank you,

George McLatchey, PWS, CEP
Vice President/Environment Division Manager
Transportation
Main: 407.896.0594 | Direct: 407.362.1377 | Cell: 407.790.6395
gmclatchey@drmp.com

941 Lake Baldwin Lane, Orlando, FL 32814

SR 35 (US 301) from CR 470 to SR 44
FPID # 430132-1 and 430132-2

Southeastern American Kestrel (*Falco sparverius paulus*)

Survey Methodology

Prepared for:
Florida Department of Transportation – District 5
719 S. Woodland Blvd
Deland, FL 32720

Prepared by:
DRMP, Inc.
941 Lake Baldwin Lane
Orlando, FL 32814

February 2023

Southeastern American Kestrel (*Falco sparverius paulus*)
Survey Methodology

Introduction

The Florida Department of Transportation – District 5 (FDOT) is proposing roadway improvements of approximately 7.8 miles of U.S. 301 (State Road (S.R.) 35) from County Road (C.R.) 470 to S.R. 44 in Sumter County. The improvements follow the recommendations of the Project Development and Environment (PD&E) Study completed in 2019 which include widening SR 35, interchange improvements, as well as a new corridor realignment from near CR 525 East to CR 468 (project area). A Project Location Map is provided as Figure 1. The purpose of this project is to increase the capacity of SR 35, respond to future travel demand, improve safety and provide multi-modal facilities for pedestrian and bicyclists.

The Southeastern American kestrel (*Falco sparverius paulus*) is listed as threatened by the Florida Fish and Wildlife Conservation Commission (FWC). Southeastern American kestrels (kestrels) have been observed during previous field reviews of the project area and documented foraging throughout the project corridor. Therefore, as part of the PD&E wildlife commitments, a species-specific survey for the southeastern American kestrel shall be conducted during permitting to determine if the proposed project area currently provides foraging habitat or supports nesting kestrel pairs.

Based on the Southwest Florida Water Management District Land Use, Cover, and Forms Classification (FLUCCS) data (2017), a total of approximately 146 acres of potentially suitable kestrel habitat was identified within the project area (Table 1).

Table 1. Potentially suitable kestrel habitat within the project area by land use

FLUCCS Code	Description	Acres
1100	Residential Low Density	60.38
1800	Recreational	0.87
1820	Golf Courses	3.82
1900	Open Land	0.46
2100	Cropland and Pastureland	59.58
2500	Specialty Farms	3.22
3100	Herbaceous	2.73
3200	Shrub and Brushland	6.68
4340	Upland Hardwood – Coniferous Mix	5.48
7400	Disturbed	1.54
8300	Utilities	1.53
	Total	**146.29**

Proposed Survey Methodology

The FWC "Species Conservation Measures and Permitting Guidelines" (Effective December 2020) for the Southeastern American kestrel was utilized as guidance in developing the proposed survey methodology, summarized below.

A combination of vehicular and pedestrian transects will be utilized to survey the project area (Figure 2), covering all potentially suitable habitat. Potential suitable kestrel foraging habitat is defined as land cover with open, low herbaceous vegetation or low scrub oaks with patchy open sandy areas. In sandhill or pine-dominated communities, suitable habitat is considered a canopy cover less than 40%, with optimal habitat of less than 25%. Pedestrian transects will be conducted in areas with lower visibility and will be spaced to allow for complete survey coverage. Pedestrian transects will be walked at a steady pace. Vehicular transects will be conducted throughout the entire project area or open areas with high visibility. Proposed transect length and distance between transects vary based on vegetative conditions. For vehicular transects, a driving speed of 10–25 mph will be maintained, varying in response to terrain, road condition, and visibility.

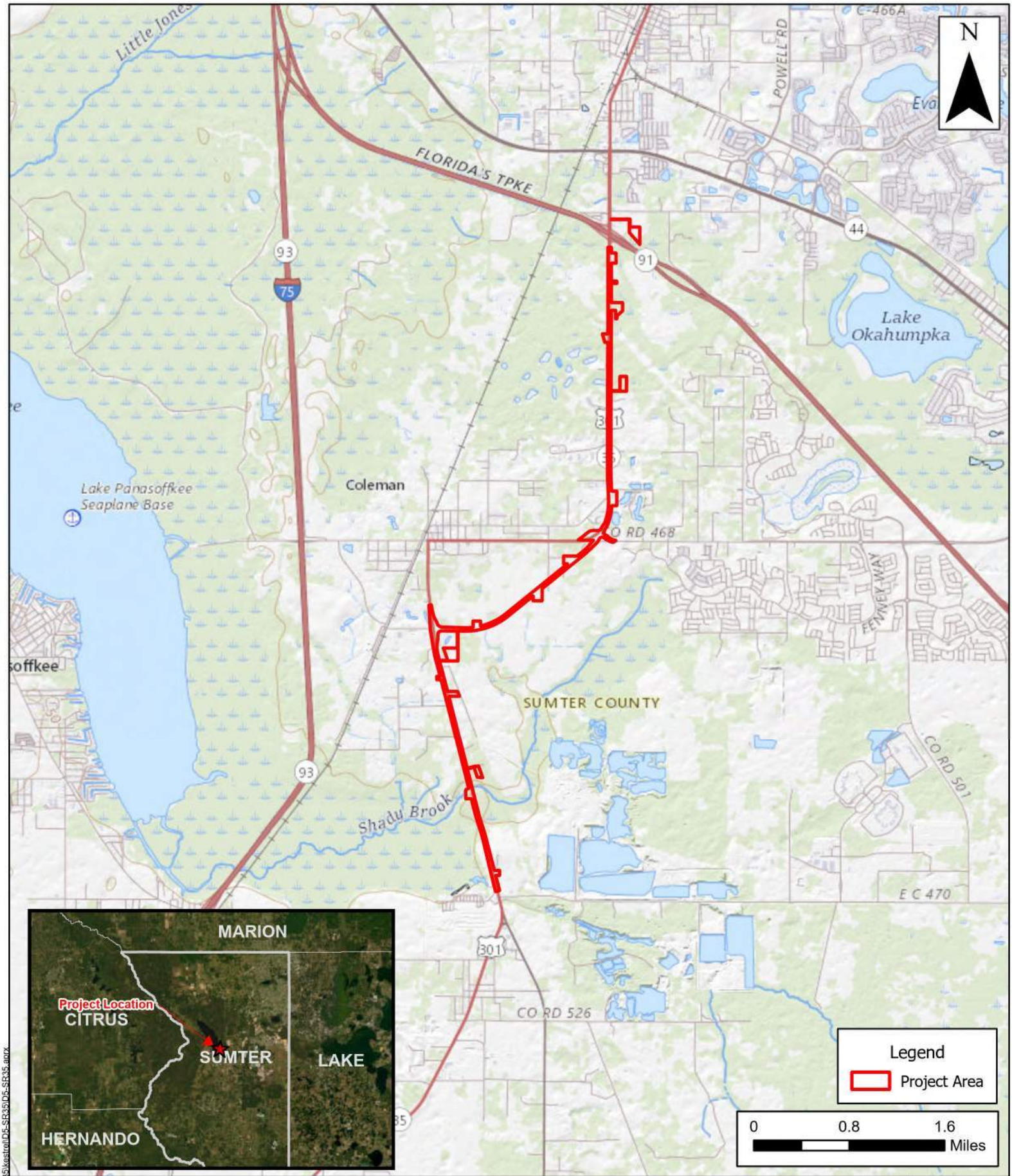
Transects will be surveyed once a week for three weeks for a total of three survey events spaced at least 4 to 7 days apart. Surveys will be conducted during the spring (April 2023) morning hours (3 to 4 hours after sunrise) on calm, clear days. Biologists will record any signs of kestrel activity, including kestrels perched, flying, hovering, or exhibiting courtship, breeding, or territorial defense behaviors. The existing habitat conditions will be noted for each kestrel sighting. Biologists will locate and investigate potential suitable cavities on foot. Suitable cavities are defined as hollow spaces within a tree or manmade structure that can support a kestrel during or outside of the nesting season. If an active or inactive nest cavity is found, measurements will include the tree species, stage of decay, and tree health. If the nest site is in a man-made structure, the type of structure, physical state of structure and location of the nest within or on the structure will be noted. All kestrel sightings, including individuals hunting via hovering, potential cavities, and confirmed nest sites will be recorded using a sub-meter accuracy Trimble handheld GPS unit. Kestrels that fly over without landing will be noted, but not recorded with the GPS. Flight paths, landing locations, behavior and vocalizations of observed kestrels will also be recorded.

Survey deliverables will include the following:

- Survey data sheets including field survey dates, start and end times, daily weather information, habitat descriptions, and kestrel observations and behavior (blank data sheet attached)
- Nest site data sheets including tree species, stage of decay, and nest tree health; for man-made structures: the type of structure, physical state of structure and location of the nest within or on the structure (blank data sheet attached)
- Project area photos
- Figures depicting the current project area, pedestrian and vehicular survey transects, kestrel observations during the survey or any other time including flight directions, potential nest site locations, and confirmed nest site locations with buffer distances as specified in the current FWC species guidelines

Appendix A

Figures



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Fax: 407-896-4836

DATE:	DRAWN BY:	PROJECT #
January 2023	R. Schmidt	21-0107.000

State Road 35 (US 301) from CR 470 to SR 44

FPID # 430132-1

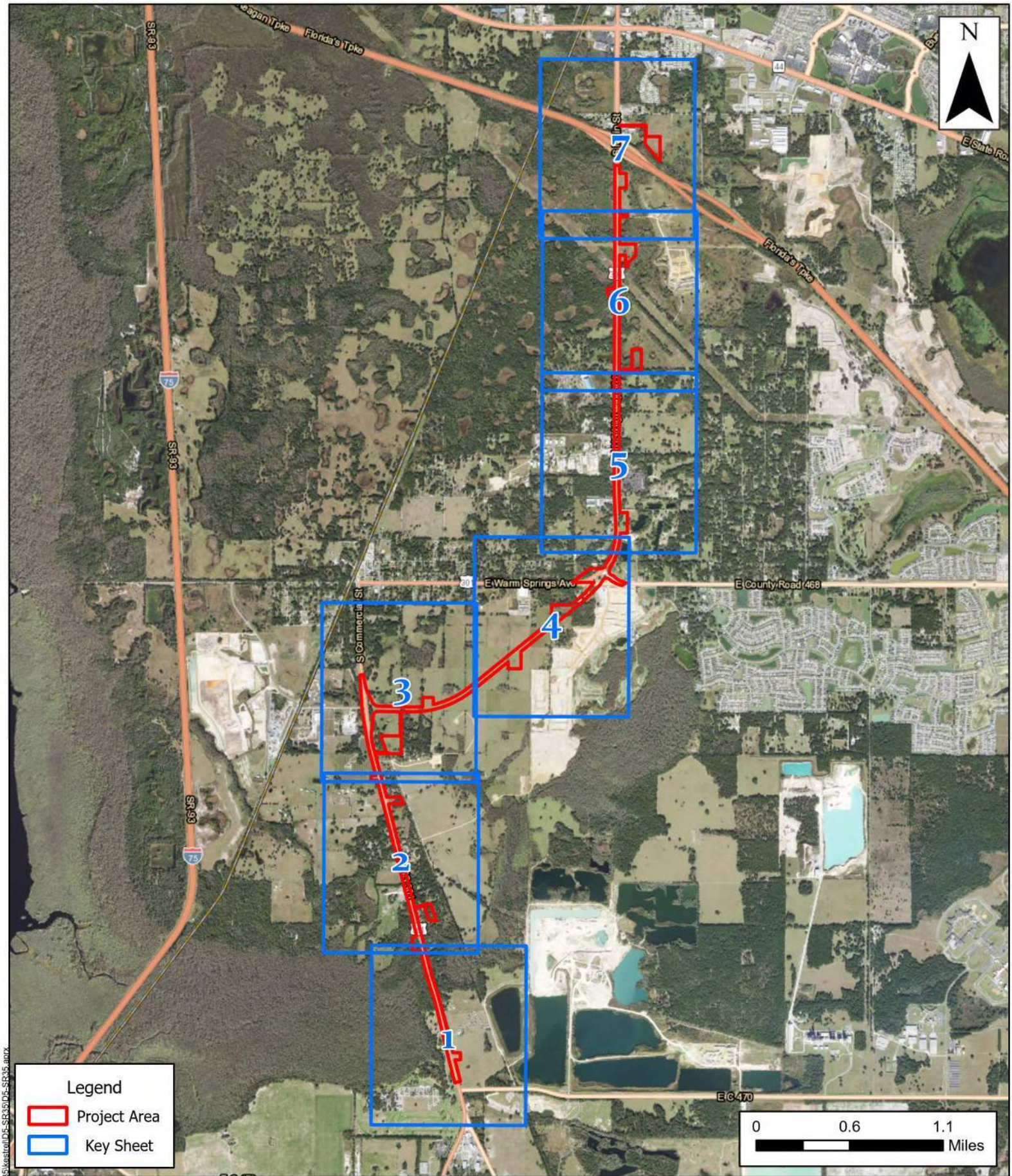
USGS Quad: 3917(Wildwood)

Sumter County, FL

Project Location Map

DATA SOURCE:
Imagery: ESRI 2022

Figure 1



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DATE: January 2023 | DRAWN BY: R. Schmidt | PROJECT # 21-0107.000

State Road 35 (US 301) from CR 470 to SR 44

FPID # 430132-1
USGS Quad: 3917(Wildwood)
Sumter County, FL

Kestrel Survey Map

DATA SOURCE:
Imagery: ESRI 2022
Suitable Habitat: SWFWMD 2017

Figure 2
Key Sheet

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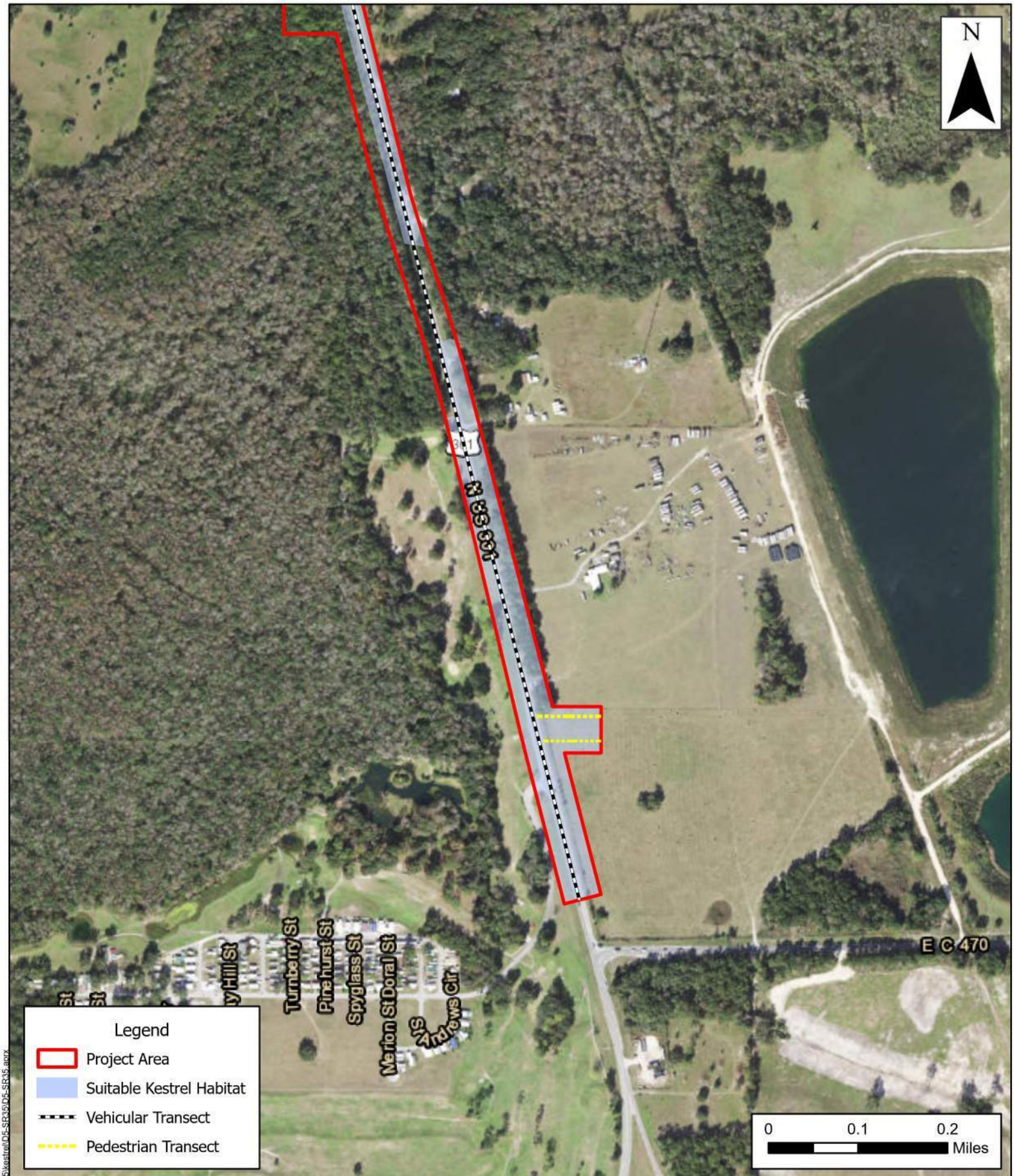

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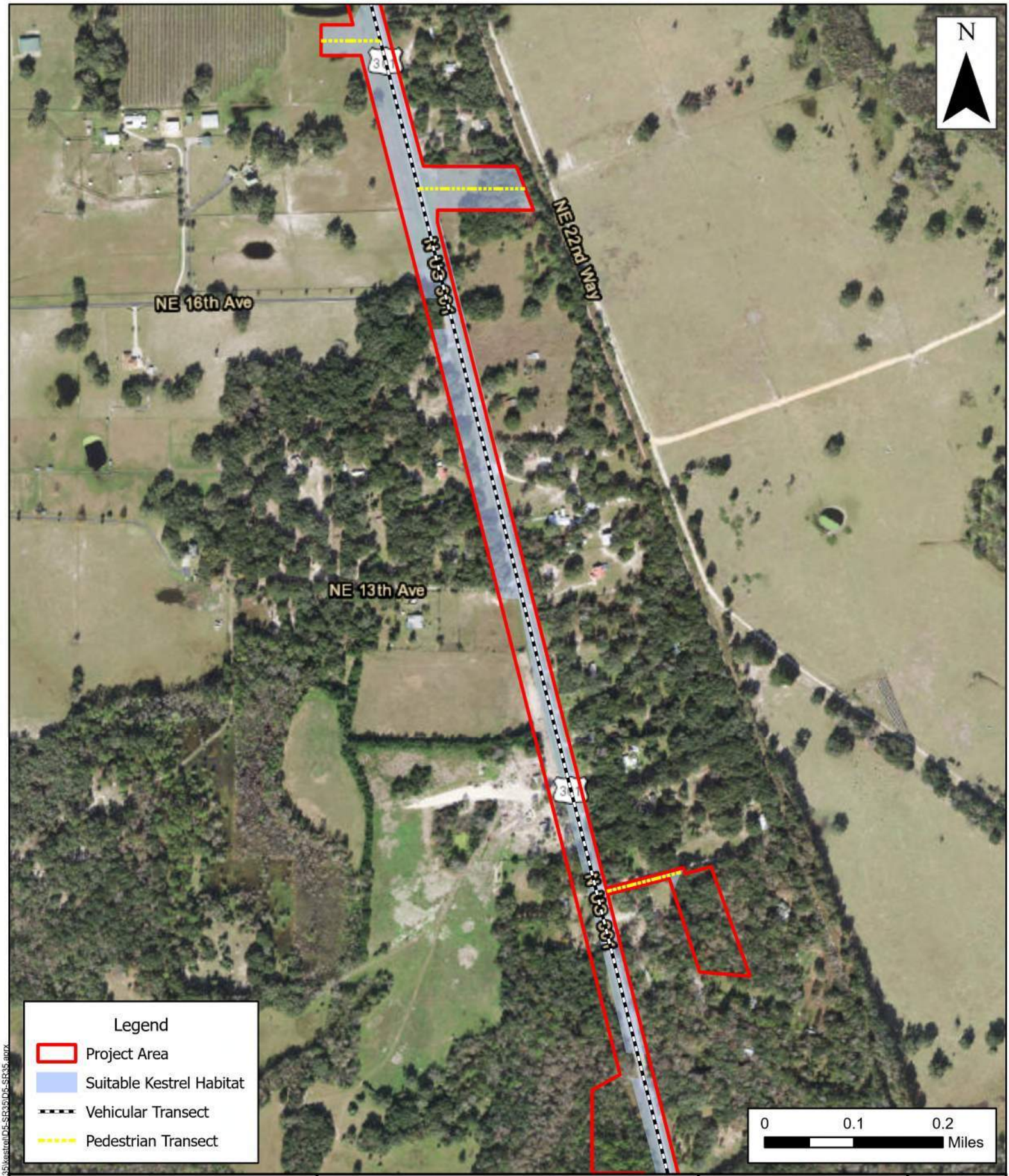
DATE:	DRAWN BY:	PROJECT #
January 2023	R. Schmidt	21-0107.000

State Road 35 (US 301)
from CR 470 to SR 44
FPID # 430132-1
USGS Quad: 3917(Wildwood)
Sumter County, FL

Kestrel Survey Map

DATA SOURCE:
Imagery: ESRI 2022
Suitable Habitat: SWFWMD 2017

Figure 2
Sheet 1



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DATE:	DRAWN BY:	PROJECT #
January 2023	R. Schmidt	21-0107.000

State Road 35 (US 301) from CR 470 to SR 44

FPID # 430132-1

USGS Quad: 3917(Wildwood)

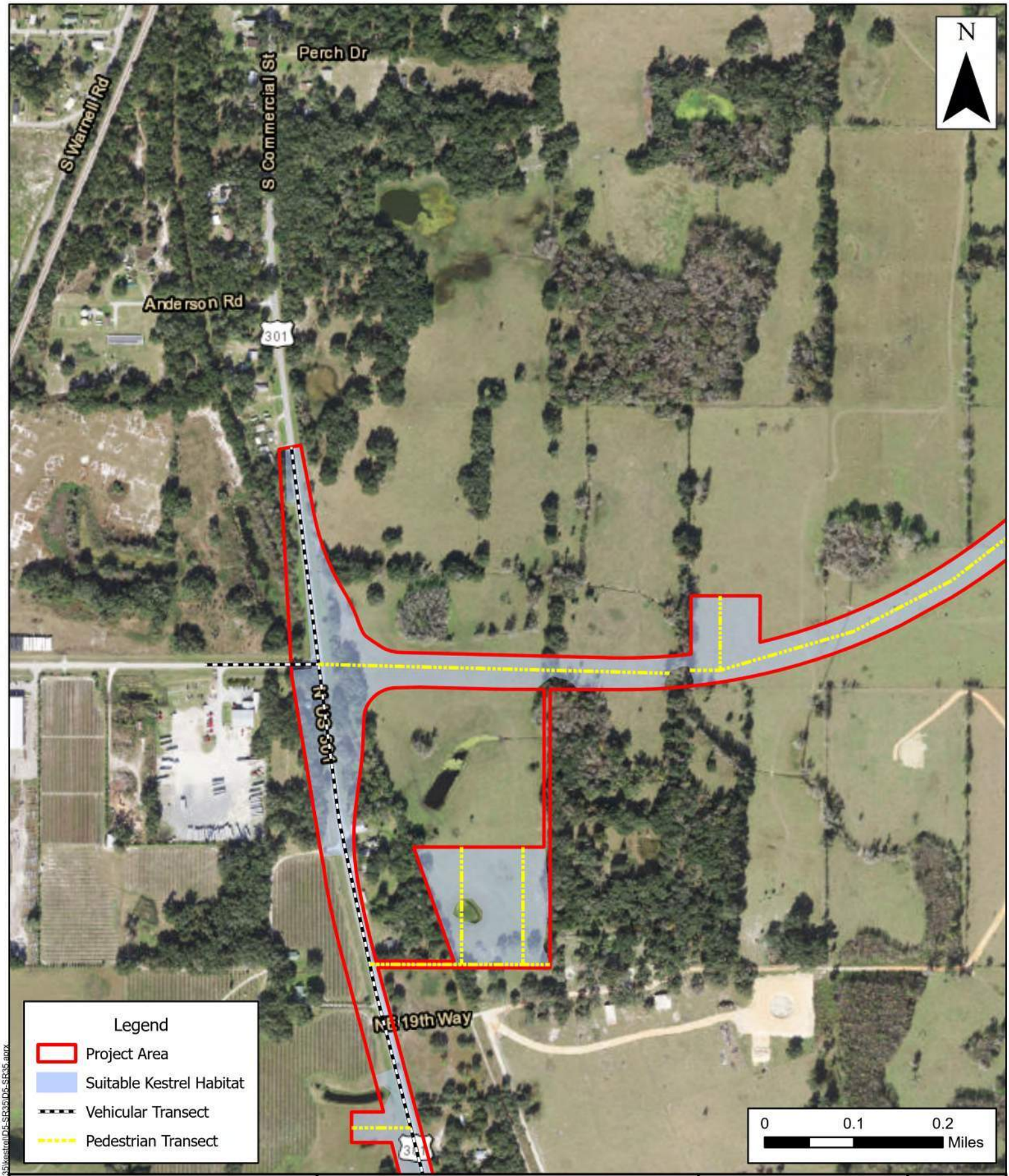
Sumter County, FL

Kestrel Survey Map

DATA SOURCE:
Imagery: ESRI 2022
Suitable Habitat: SWFWMD 2017

Figure 2

Sheet 2



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DATE:	DRAWN BY:	PROJECT #
January 2023	R. Schmidt	21-0107.000

State Road 35 (US 301) from CR 470 to SR 44

FPID # 430132-1

USGS Quad: 3917(Wildwood)

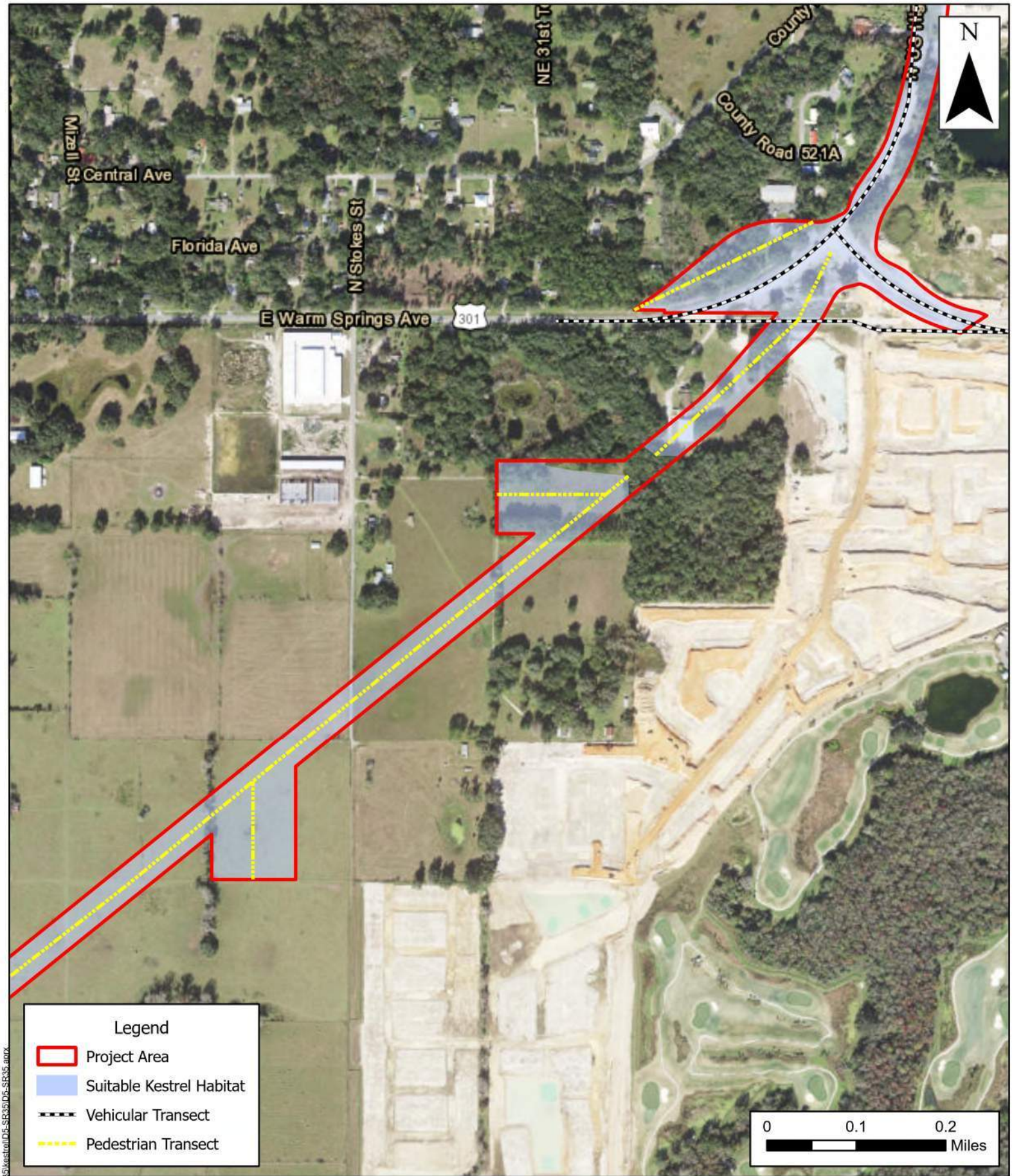
Sumter County, FL

Kestrel Survey Map

DATA SOURCE:
Imagery: ESRI 2022
Suitable Habitat: SWFWMD 2017

Figure 2

Sheet 3



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DATE:	DRAWN BY:	PROJECT #
January 2023	R. Schmidt	21-0107.000

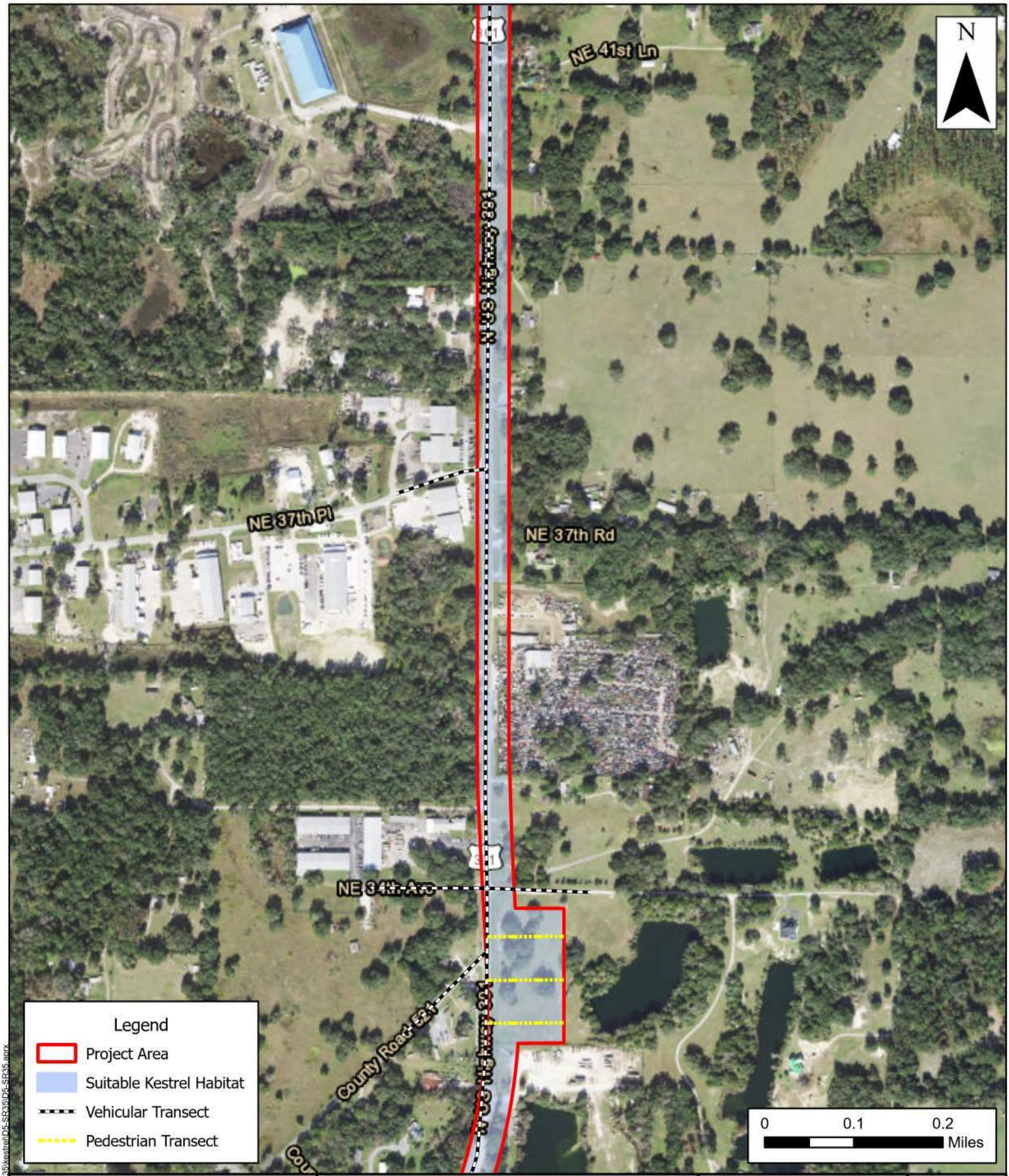
State Road 35 (US 301) from CR 470 to SR 44

FPID # 430132-1
USGS Quad: 3917(Wildwood)
Sumter County, FL

Kestrel Survey Map

DATA SOURCE:
Imagery: ESRI 2022
Suitable Habitat: SWFWMD 2017

Figure 2
Sheet 4



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DATE:	DRAWN BY:	PROJECT #
January 2023	R. Schmidt	21-0107.000

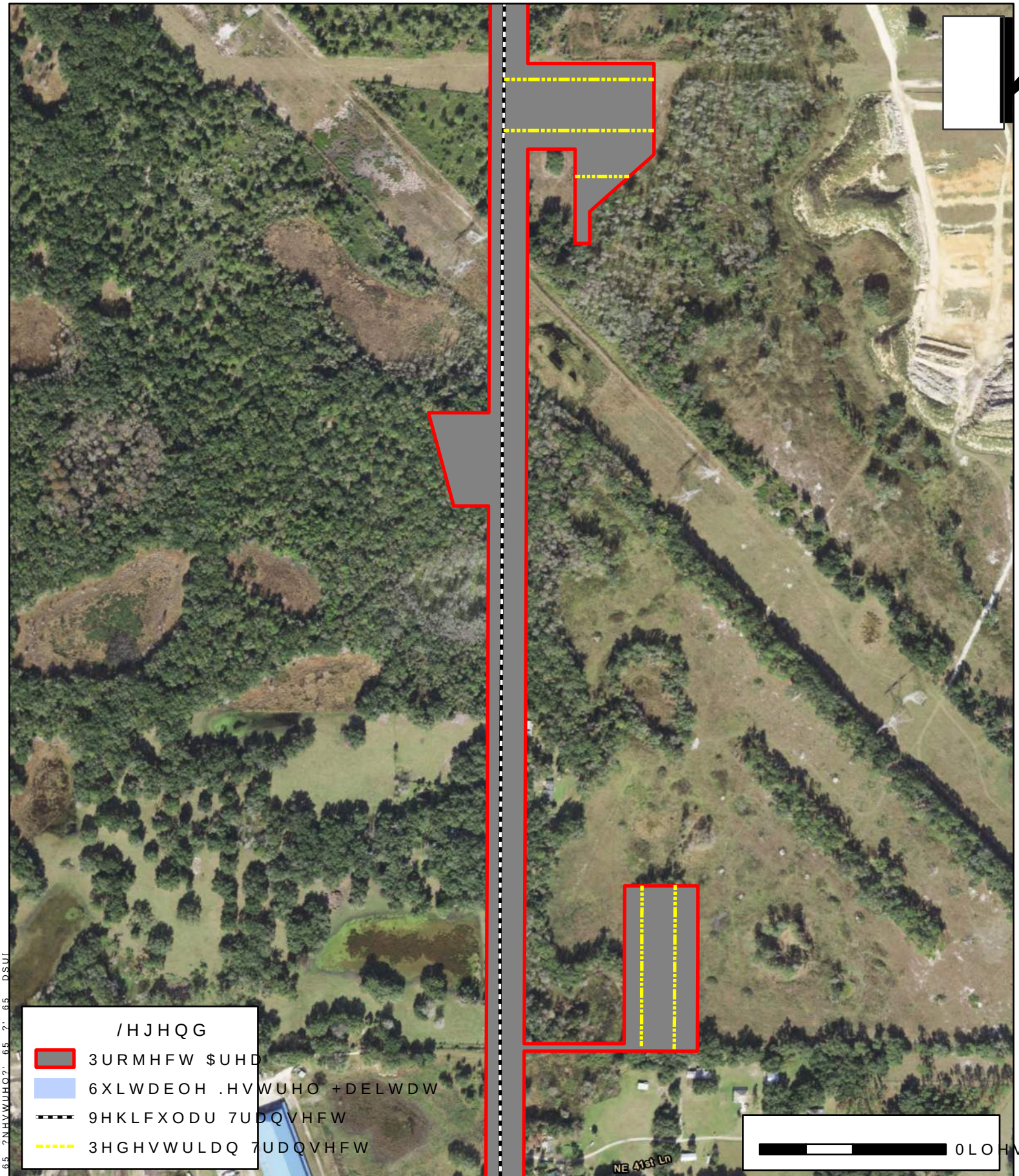
State Road 35 (US 301) from CR 470 to SR 44

FPID # 430132-1
USGS Quad: 3917(Wildwood)
Sumter County, FL

Kestrel Survey Map

DATA SOURCE:
Imagery: ESRI 2022
Suitable Habitat: SWFWMD 2017

Figure 2
Sheet 5



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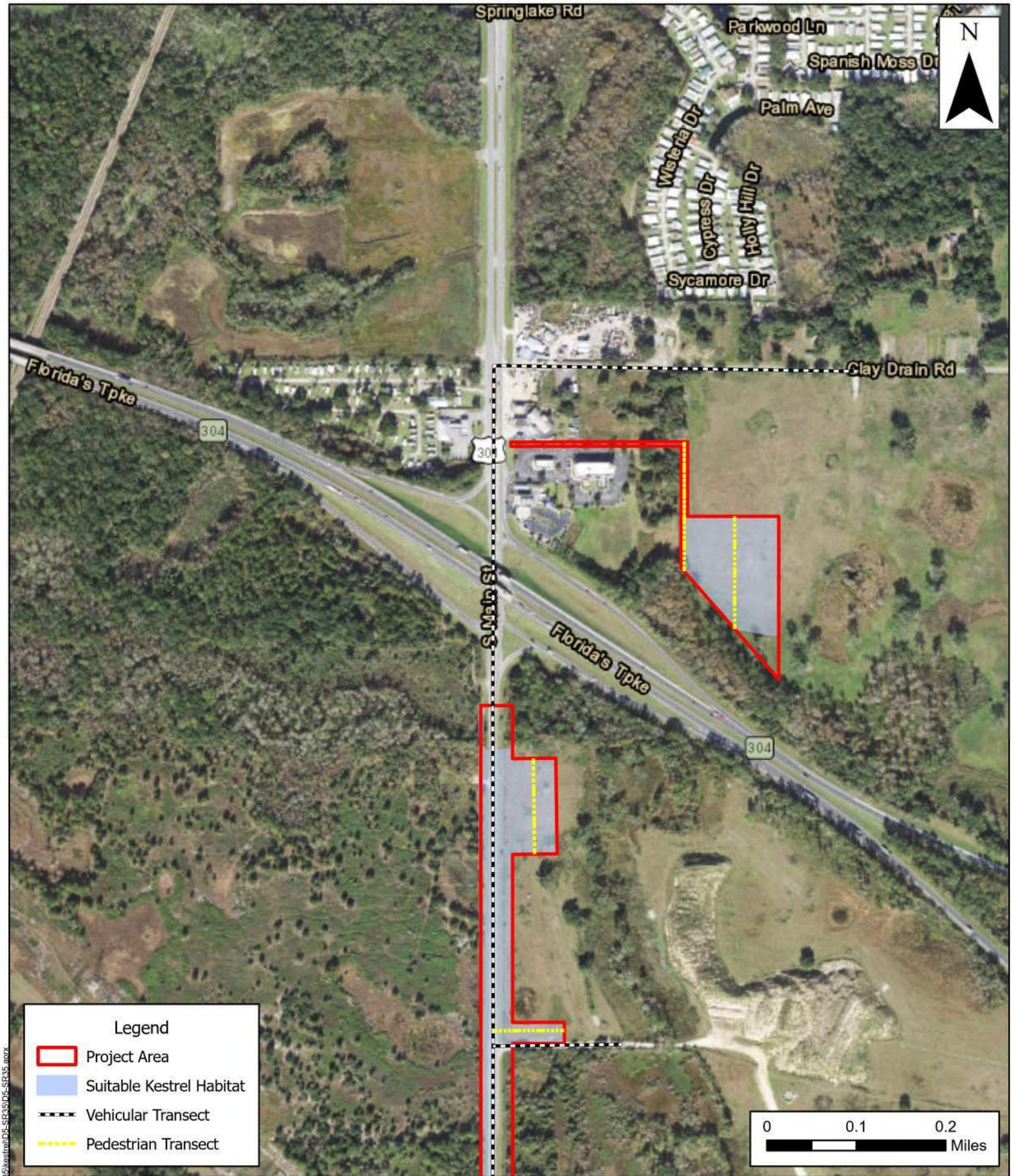

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DATE:	DRAWN BY:	PROJECT #
January 2023	R. Schmidt	21-0107.000

State Road 35 (US 301) from CR 470 to SR 44

FPID # 430132-1
USGS Quad: 3917(Wildwood)
Sumter County, FL

Kestrel Survey Map

DATA SOURCE:
Imagery: ESRI 2022
Suitable Habitat: SWFWMD 2017

Figure 2
Sheet 7

Appendix B

Blank Data Sheets

Southeastern American Kestrel Survey Data Sheet **SR 35 (US 301) from CR 470 to SR 44 FPID No. 430132-1**

Observer Name:_____
Survey Date:_____
Start Time: _____
End Time: _____
% Cloud Cover:_____
Temperature:_____
Wind Speed:_____

Male Kestrel (Blue-grey wings)

Female Kestrel (Brown Wings)

Kestrel Observations

1. Number of Kestrels:_____
   Habitat Description:_____
   Flight Direction:_____ Sex:_____
   Behavior:_____
   Perch Type:_____
   Transect Type (ped or vehicle)/Location:_____
   Notes:_____
   _____

2. Number of Kestrels:_____
   Habitat Description:_____
   Flight Direction:_____ Sex:_____
   Behavior:_____
   Perch Type:_____
   Transect Type (ped or vehicle)/Location:_____
   Notes:_____
   _____

3. Number of Kestrels:_____
   Habitat Description:_____
   Flight Direction:_____ Sex:_____
   Behavior:_____
   Perch Type:_____
   Transect Type (ped or vehicle)/Location:_____
   Notes:_____
   _____

4. Number of Kestrels:_____
   Habitat Description:_____
   Flight Direction:_____ Sex:_____
   Behavior:_____
   Perch Type:_____
   Transect Type (ped or vehicle)/Location:_____
   Notes:_____
   _____

SR 35 (US 301) from CR 470 to SR 44 **Kestrel Nest Site Data Sheet** **FPID # 430132-1**

Date	Observer	Tree ID	DBH (cm)	Height Class	Species	Status (Decay Class)	Cavity #	10 m radius	
								Avg. Canopy Cover (%)	Avg. Herb Cover (%)

Notes (kestrel specific, i.e., sightings, nearest cavity tree #, behavior, flight direction, etc):

Height Class	Description
1	0-5 m
2	6-10 m
3	11-20 m
4	21+ m

Tree Decay Class

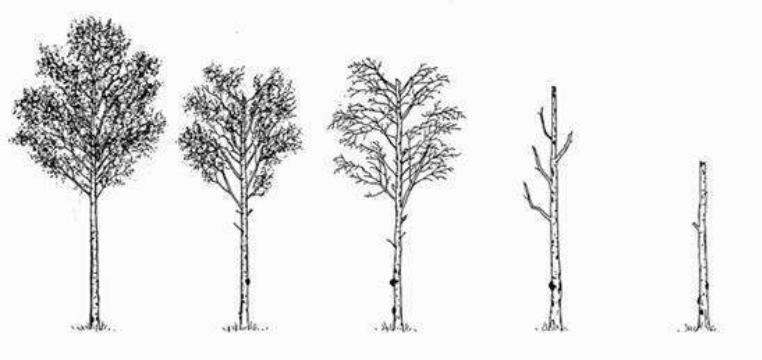

Figure 1. Deciduous Tree Decay

Figure 2. Evergreen Tree Decay

	Live	Dead			
Decay Class	**1**	**2**	**3**	**4**	**5**
Description	Live/healthy:	Live with defects:	Dead:	Dead:	Dead:

	no decay.	dead or broken top, dead limbs, fungal conks. Dying tree.	most limbs intact, some internal rot, top usually broken.	most limbs gone, top broken, extensive heartrot.	top 1/3 or more broken off, no branches, extensive heartrot.

FWC Listed Species 2024 Survey Results Memorandum

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Memorandum

DRMP Job #: 22-0107.000 Date: May 30, 2024

To: Jennifer Ferngren Cappelleti
Environmental Permits Supervisor
Florida Department of Transportation – District 5

From: Brady Hart
Environmental Scientist
DRMP, Inc.

Subject: **SR 35 (US 301) From CR 470 to SR 44 (FPID# 430132-1 & 430132-2)**

2024 Species-specific Survey Results for the Southeastern American Kestrel (*Falco sparverius paulus*) & the Florida Sandhill Crane (*Antigone canadensis pratensis*)

Project Introduction

The Florida Department of Transportation (FDOT), District Five proposes to widen SR 35 (US 301) from County Road (CR) 470 to State Road (SR) 44, approximately 7.30 miles (project area). The project is in Sections 13, 35, 36, Township 19S, Range 22E; Sections 18, 19, 30, 31, Township 19S, Range 23E; Sections 01, 12, 13, Township 20S, Range 22E in Sumter County, Florida (Figure 1).

In accordance with the commitments set forth in the Natural Resources Evaluation (NRE) during the Project Development and Environment (PD&E) study, a species-specific survey for the southeastern American kestrel was conducted to determine if the proposed project area provides foraging habitat or supports nesting kestrel pairs. In addition, any potential sandhill crane nesting habitat that will be impacted during the nesting season was surveyed for active nest sites.

Florida Fish and Wildlife Conservation Commission (FWC) survey and permitting guidelines were utilized as guidance in developing survey methods and analyzing survey results. The survey methodology for the southeastern American kestrel, including transect locations, was approved by FWC on April 12th, 2024.

Kestrel Survey Methodology

Surveys were conducted once each week from April 22nd to May 6th, 2024. Surveys were conducted on calm days with high visibility from 8:00 AM to 11:00 AM by qualified biologists. A combination of vehicular and pedestrian transects were utilized to survey the project area (Figure 2), covering all potentially suitable habitat. Proposed transect length and distance between transects varied based on vegetative conditions. For vehicular transects, a driving speed of 10–25 mph was maintained, varying in response to terrain, road condition, and visibility. Pedestrian transects were walked at a steady pace. Each vehicular and pedestrian transect was traversed over the three separate survey days.

Biologists recorded signs of kestrel activity and the habitat category (i.e., Type I, Type II or other) for each kestrel sighting. Type I habitat was defined as “upland plant communities with less than 10% canopy cover and with at least 60% herbaceous ground cover less than 25 cm in height.” Type II habitat was defined as “open woodland communities with greater than 10% but less than 25% canopy cover

and with at least 60% herbaceous ground cover less than 25 cm in height." Biologists investigated potential nest sites on foot. All kestrel flyover sightings were noted and all kestrel flyovers with landings were recorded using a sub-meter accuracy Trimble TDC650 GPS. Flight paths, landing locations, behavior and vocalizations of observed kestrels were also recorded.

Kestrel Survey Results

Kestrels were observed on two of the three survey events within the project limits in open canopy pasture habitat along CR 523 within the Duke Energy powerline easement. Additionally, two nest boxes were observed attached to separate power poles located along the powerline easement. Kestrels were observed utilizing one of the two nest boxes (KB-1). Detailed data from each survey are included in Table 1 below.

Table 1. Southeastern American Kestrel Survey Results (April 22, 2024 – May 6, 2024)

Date	Observer	Start Time	End Time	Number	Habitat Type	Behavior	Flight Direction	Sex (M/F)	Perch Type	Transect Type	Notes
4/22/24	BH/ML	8:20	10:56	1	1	flying perched	N	M	wire	vehicular	A male kestrel was observed perched on wire SE of the nest box. Observed utilizing active nest box 1
4/29/24	BH/ML	8:19	10:45	-	-	-	-	-	-	-	-
5/6/24	BH/ML	8:05	10:50	1	1	flying perched	S	F	wire	vehicular	A female kestrel was observed perched on wire near nest box. Observed utilizing active nest box 1

BH – Brady Hart, ML – Matty Lane

The 2024 kestrel observations were mapped, grouped, and averaged (habitat use centroid) into one territory (0.31-mi buffer off centroid) (Figure 3). Territory 1 had two solo sightings of a male and a female pair perched, foraging, and entering and exiting active nest box 1 (KB-1). Based on the proposed right-of-way, the project is anticipated to impact 20.40 acres of suitable foraging habitat. Within the territory, the suitable foraging habitat and anticipated habitat impacts were calculated and are shown in Table 2.

Table 2. Suitable Kestrel Foraging Habitat and Anticipated Habitat Impacts within Estimated Territories

Territory	Suitable Habitat (acres)	Habitat Impacts (acres)
1	121.34	20.40

Sandhill Crane Survey Methodology

Surveys were conducted once each week from April 22nd to May 6th, 2024. Surveys were conducted on calm days with high visibility from 8:00 AM to 11:00 AM by qualified biologists. Ground surveys were conducted within shallow freshwater marsh systems within and adjacent to the project area. Precautions were taken to avoid flushing any nesting sandhill cranes by slowly scanning the periphery of the marsh system from a high vantage point. All sandhill crane foraging and nest locations were noted and recorded using a sub-meter accuracy Trimble TDC650 GPS.

Sandhill Crane Survey Results

Sandhill cranes were observed on two of the three survey events within and adjacent to the project limits within shallow freshwater marsh systems (Figure 4). One sandhill crane nesting pair was seen foraging within Wetland 16 outside of the project limits. Wetland 16 is a freshwater marsh system dominated by pickerelweed (*Pontederia cordata*). An active nest could not be verified due to the density of the vegetation; however, the nesting pair was seen leaving the interior of the wetland system to forage within the adjacent pasture. Additionally, an active sandhill crane nest with a solitary bird was observed on the nest along US 301 approximately 368 feet north of the project limits. This freshwater marsh system is dominated by maidencane (*Panicum hemitomon*) and is bordered by US 301 and new residential construction. This system will not be impacted by the proposed project limits.

Conclusion

Based on the results of the 2024 species-specific survey, and consistent with past surveys, kestrels appear to be actively using Type I habitat along CR 523 within the powerline easement near the project area for nesting and foraging. One kestrel territory was identified; however, the kestrel territory does not contain greater than 124 acres of suitable foraging habitat. Therefore, no significant modification of suitable foraging habitat is expected. Two nest boxes were observed on power poles during the 2024 survey. One of the nest boxes was observed utilized during the April 22nd and May 6th survey date. Active kestrel nest box 1 (KB-1) is located approximately 129 ft from the proposed construction limits, within the 490 ft. FWC disturbance buffer. Any construction activity that causes disturbance within 490 ft (150 m) of an active nest cavity during the breeding season is expected to result in take via harassment by lowering productivity and significantly disrupting breeding. Therefore, in accordance with the FWC species conservation measures and permitting guidelines, the project will require an Incidental Take Permit (ITP) from FWC for harassment of an active nest cavity if a 490 ft buffer cannot be maintained during the breeding season. Mitigation options for this type of “take” include a financial contribution to the Fish and Wildlife Foundation of Florida’s Imperiled Species Permitting Conservation Fund in the amount of $1,500 per each kestrel pair harassed or the installation and maintenance of 1 kestrel nest box for each kestrel pair harassed. If construction can be avoided during breeding season (March 1 to July 31) within the 490 ft buffer of the active cavity nest, an Incidental Take Permit from FWC may not be required. Coordination with FWC and FDOT will continue during design to determine appropriate permitting and/or mitigation to offset the harassment of the active nest cavity. All active nest sites will be shown on project construction plans.

Based on the results of the 2024 species-specific survey, sandhill cranes appear to be actively using adjacent freshwater marsh systems for nesting and foraging. Due to nesting locations varying from year to year due to fluctuation in water levels in wetlands, a pre-construction survey within 30 days of commencement activities will be required to assure there is no take of active nests. Coordination with FWC and FDOT will continue during design to determine appropriate permitting efforts for the Florida sandhill crane.

References

Florida Fish and Wildlife Conservation Commission (FWC) 2020. Species Conservation Measures and Permitting Guidelines: Southeastern American Kestrel (*Falco sparverius paulus*) Tallahassee, FL. 26pp.

Florida Fish and Wildlife Conservation Commission (FWC) 2019. Species Conservation Measures and Permitting Guidelines: Florida Sandhill Crane (*Antigone canadensis pratensis*) Tallahassee, FL. 15pp.

Stys, B. 1993. Ecology and habitat protection needs of the southeastern American kestrel (*Falco sparverius paulus*) on large-scale development sites in Florida. Florida Game and Fresh Water Fish Comm., Nongame Wildlife Program Tech. Rep. No. 13. Tallahassee, FL. 35pp.

Stys, B. 1997. Ecology of the Florida Sandhill Crane. Florida Game and Fresh Water Fish Comm., Nongame Wildlife Program Tech. Rep. No. 15. Tallahassee, FL. 20pp.

End of Memorandum

Attachments: **Attachment A - Figures**
Figure 1 – Location Map
Figure 2 – Kestrel Survey Map
Figure 3 – Kestrel Habitat Impacts Map
Figure 4 – Sandhill Crane Nest Map

Attachment B – Agency Correspondence

Attachment C – Photos

Attachment A: Figures

Figure 1 – Project Location Map

Figure 2 – Kestrel Survey Map

Figure 3 – Kestrel Habitat Impacts Map

Figure 4 – Sandhill Crane Nesting Map

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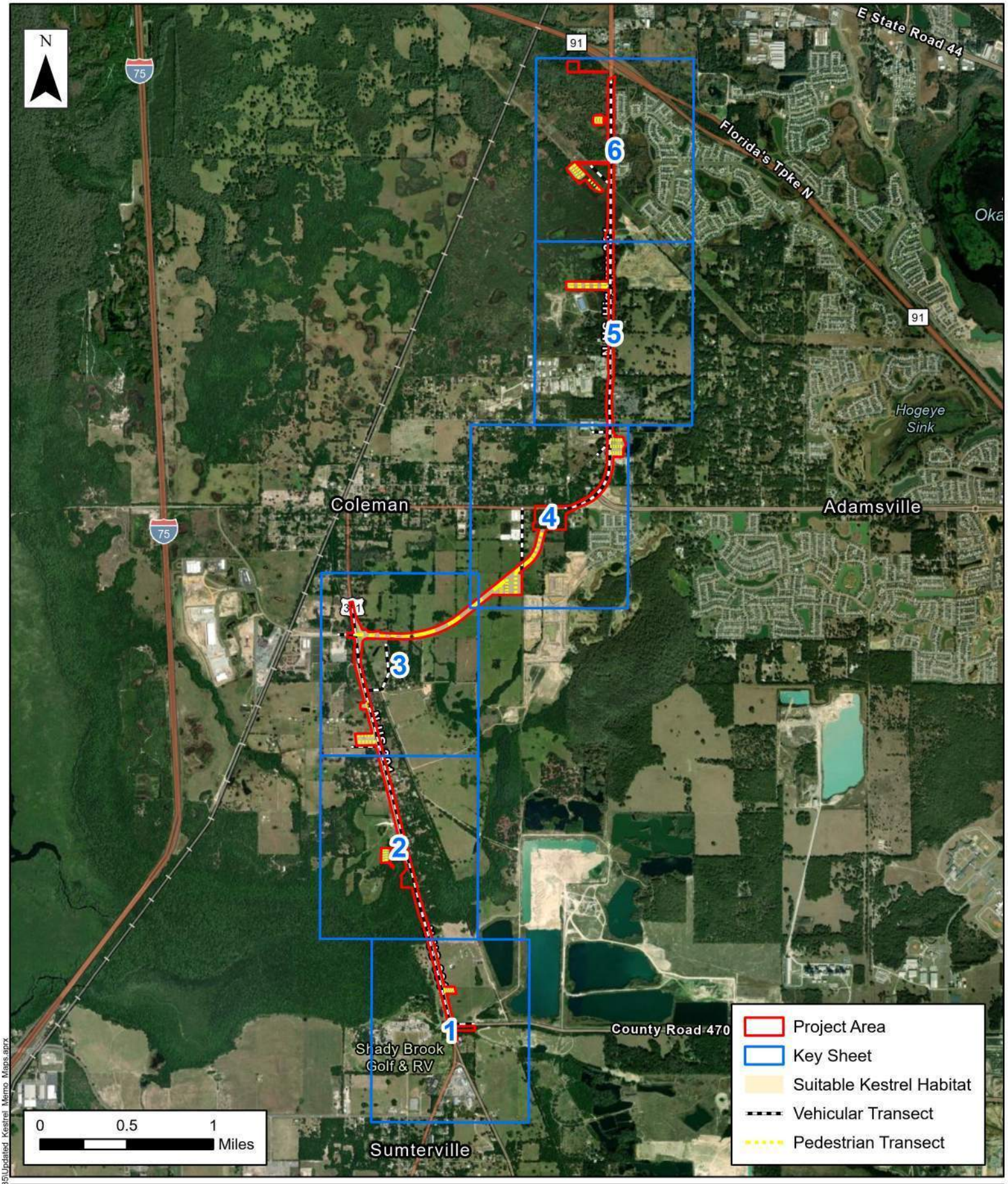
FDOT	DRMP, Inc. 941 Lake Baldwin Ln. Orlando, FL 32814 www.drmp.com Phone: 407-896-0594 Fax: 407-896-4836	**State Road 35 from County Road 470 to State Road 44** FPID: 430132-1 & 430132-2 Sumter County, FL	**Project Location Map** DATA SOURCE: Imagery: ESRI 2024	**Figure 1**
DATE: March 2024	DRAWN BY: BH	PROJECT # 22-0107.000		



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DRMP, Inc.
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Orlando, FL 32814
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Phone: 407-896-0594
Fax: 407-896-4836

DATE: May 2024 | DRAWN BY: BH | PROJECT # 22-0107.000

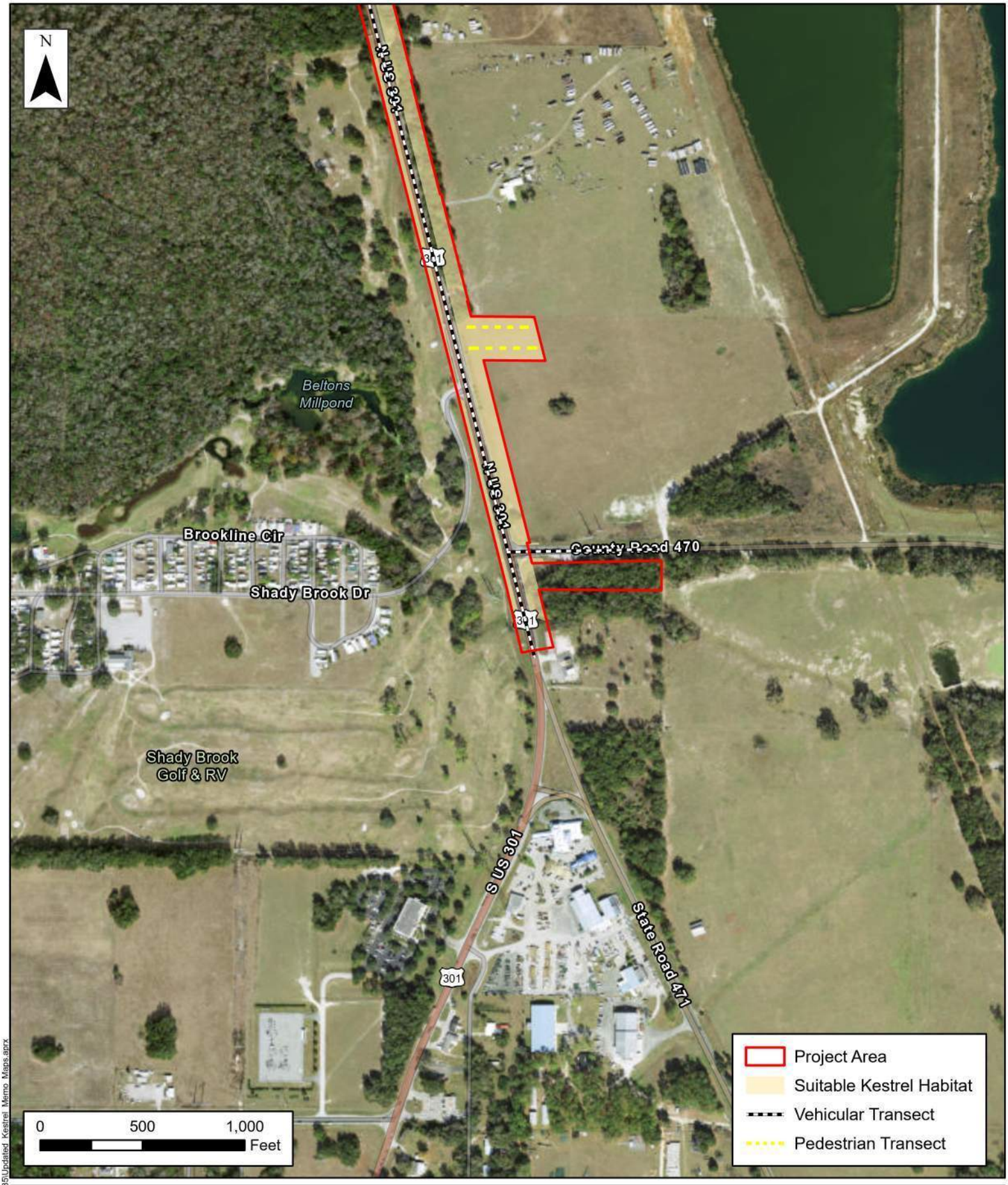
State Road 35 (US 301) from CR 470 to SR 44

FPID # 430132-1 & 430132-2
USGS Quad: 3917 (Wildwood)
Sumter County, FL

Kestrel Suitable Habitat Survey Map

DATA SOURCE:
Imagery: ESRI 2024
Suitable Habitat: CLC v3.7

Figure 2
Key Sheet



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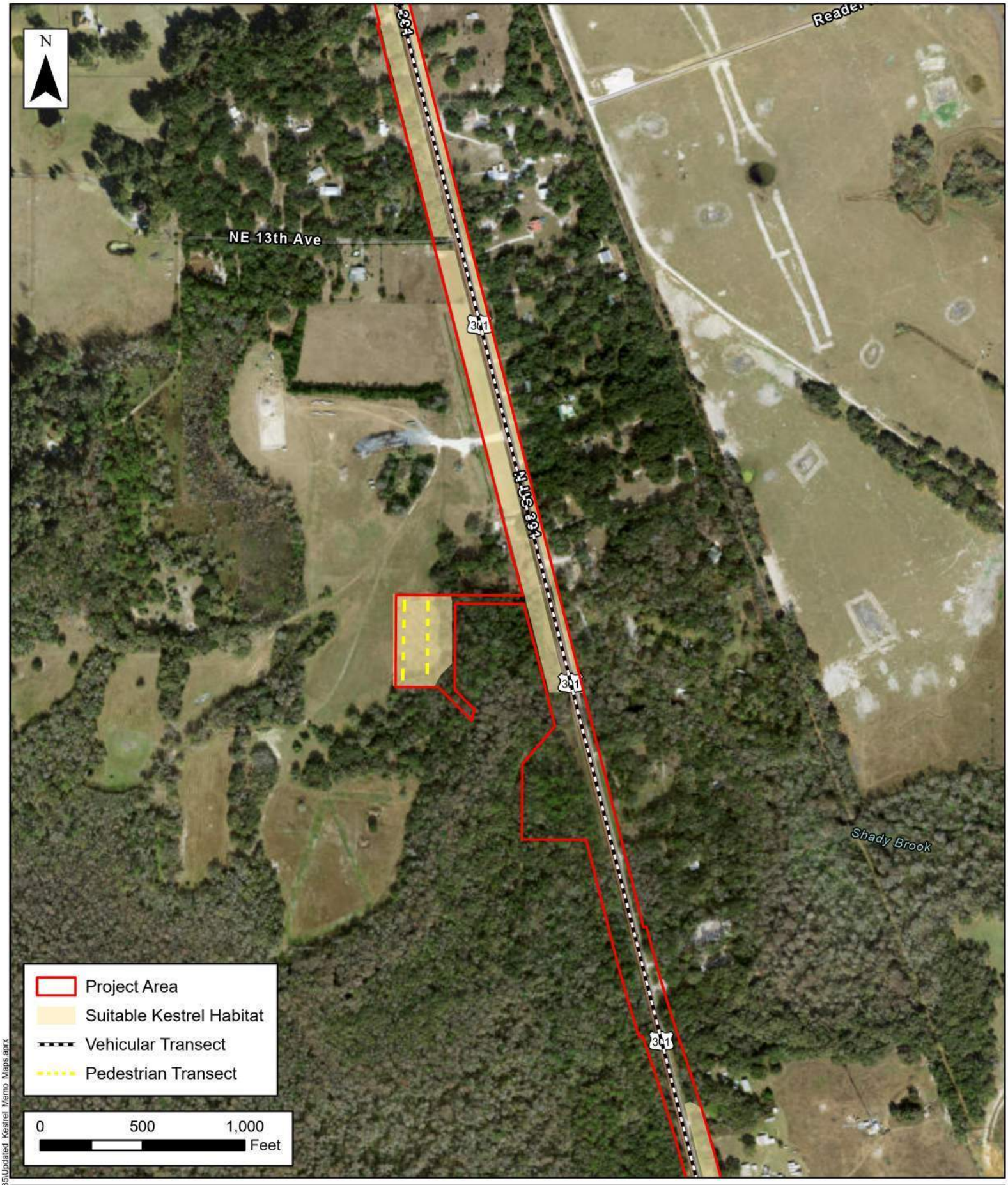
Sumter County, FL

Kestrel Suitable Habitat Survey Map

DATA SOURCE:
Imagery: ESRI 2024
Suitable Habitat: CLC v3.7

Figure 2
Sheet 1



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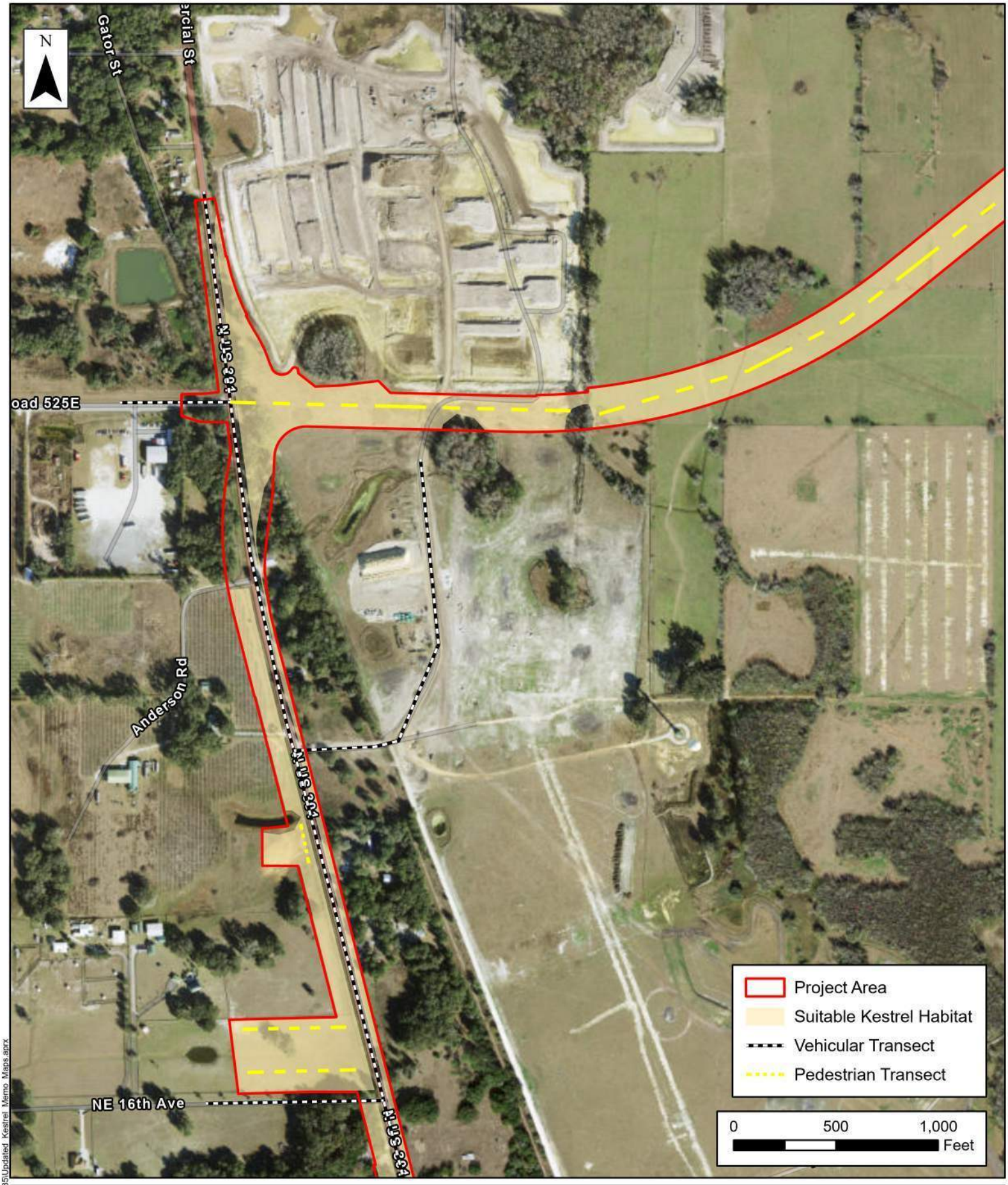
Kestrel Suitable Habitat Survey Map

DATA SOURCE:
Imagery: ESRI 2024
Suitable Habitat: CLC v3.7

Figure **2**
Sheet 2



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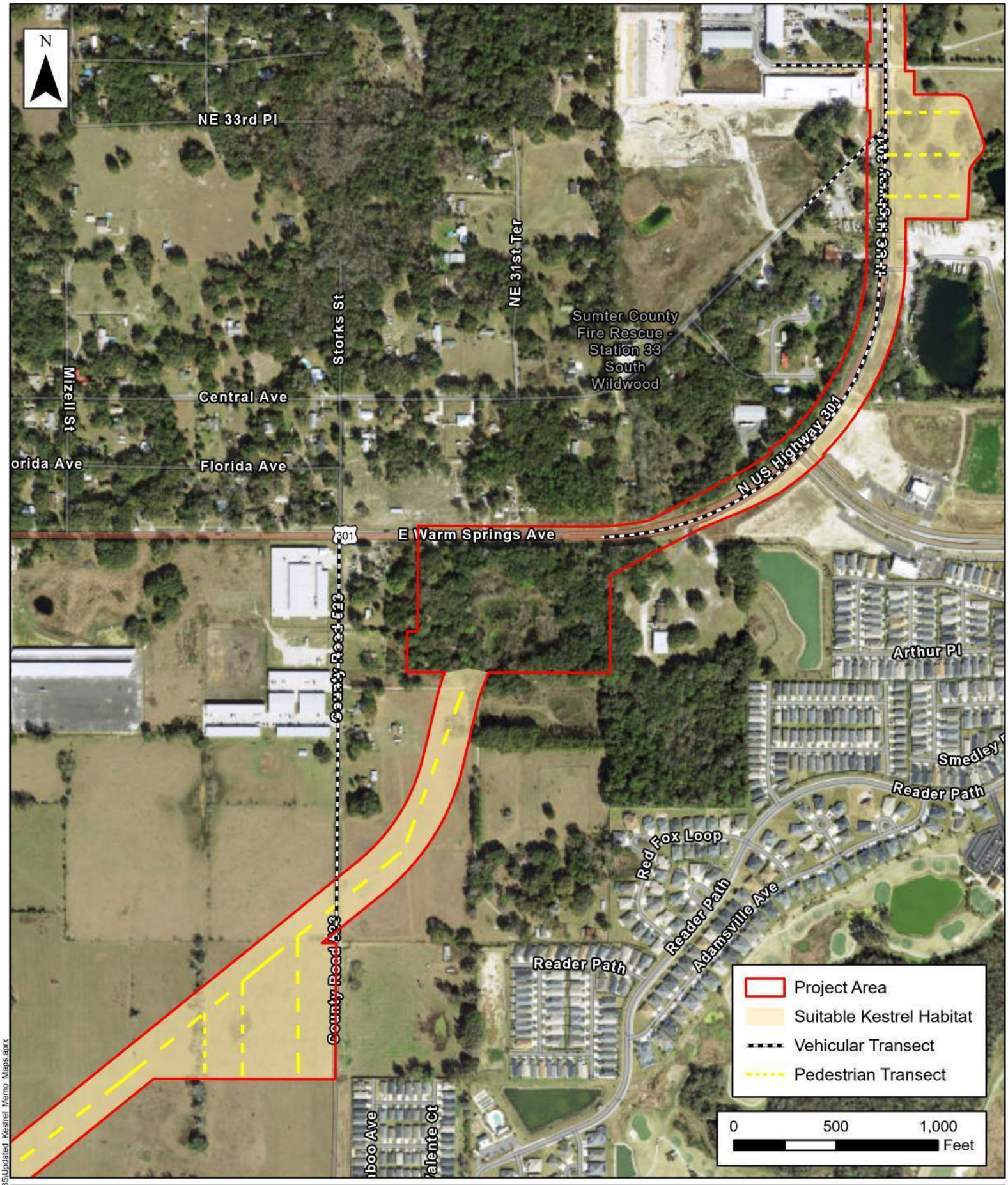
Kestrel Suitable Habitat Survey Map

DATA SOURCE:
Imagery: ESRI 2024
Suitable Habitat: CLC v3.7

Figure **2** Sheet 3



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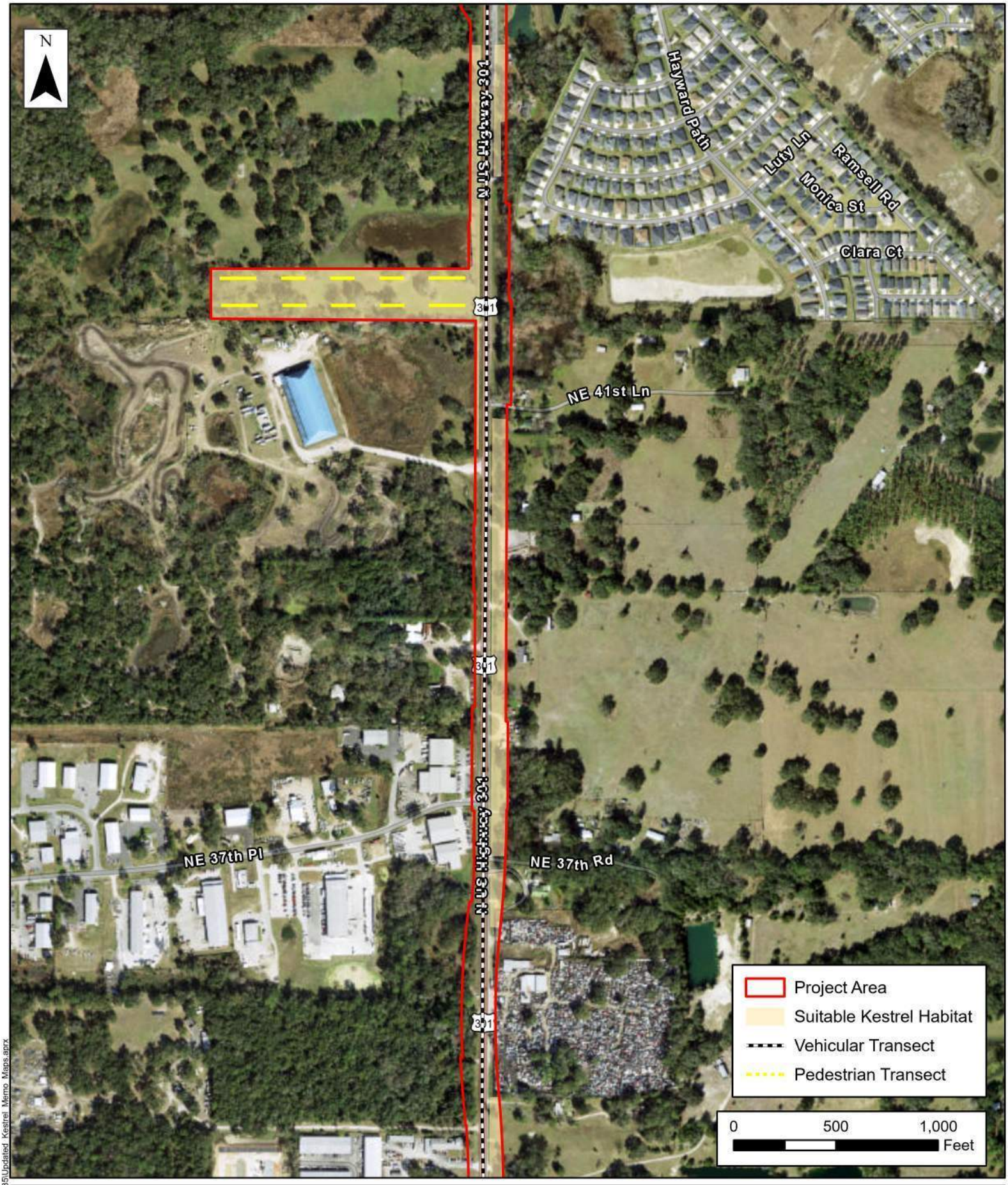
Kestrel Suitable Habitat Survey Map

DATA SOURCE:
Imagery: ESRI 2024
Suitable Habitat: CLC v3.7

Figure 2
Sheet 4



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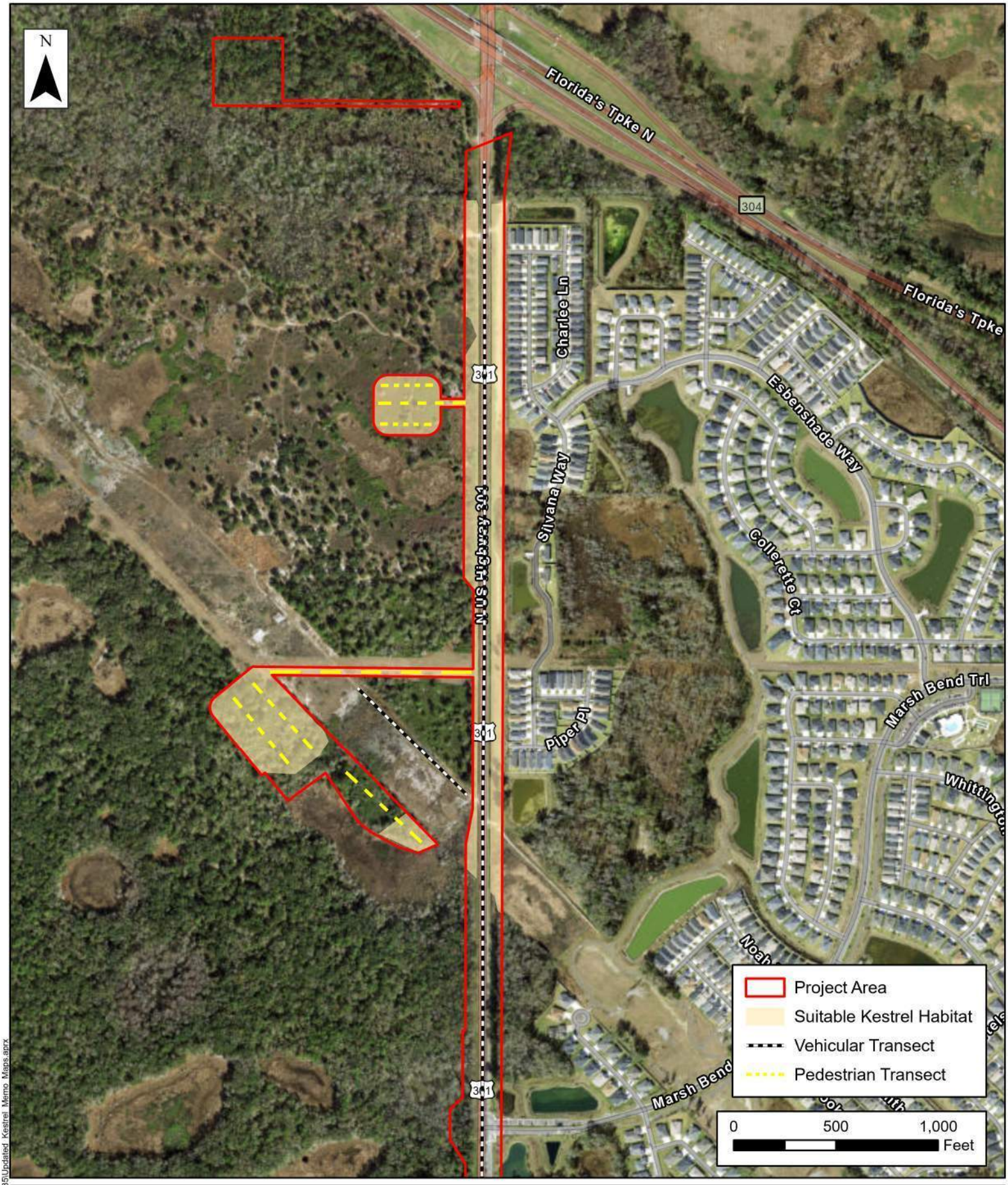
Sumter County, FL

Kestrel Suitable Habitat Survey Map

DATA SOURCE:
Imagery: ESRI 2024
Suitable Habitat: CLC v3.7

Figure **2**
Sheet 5



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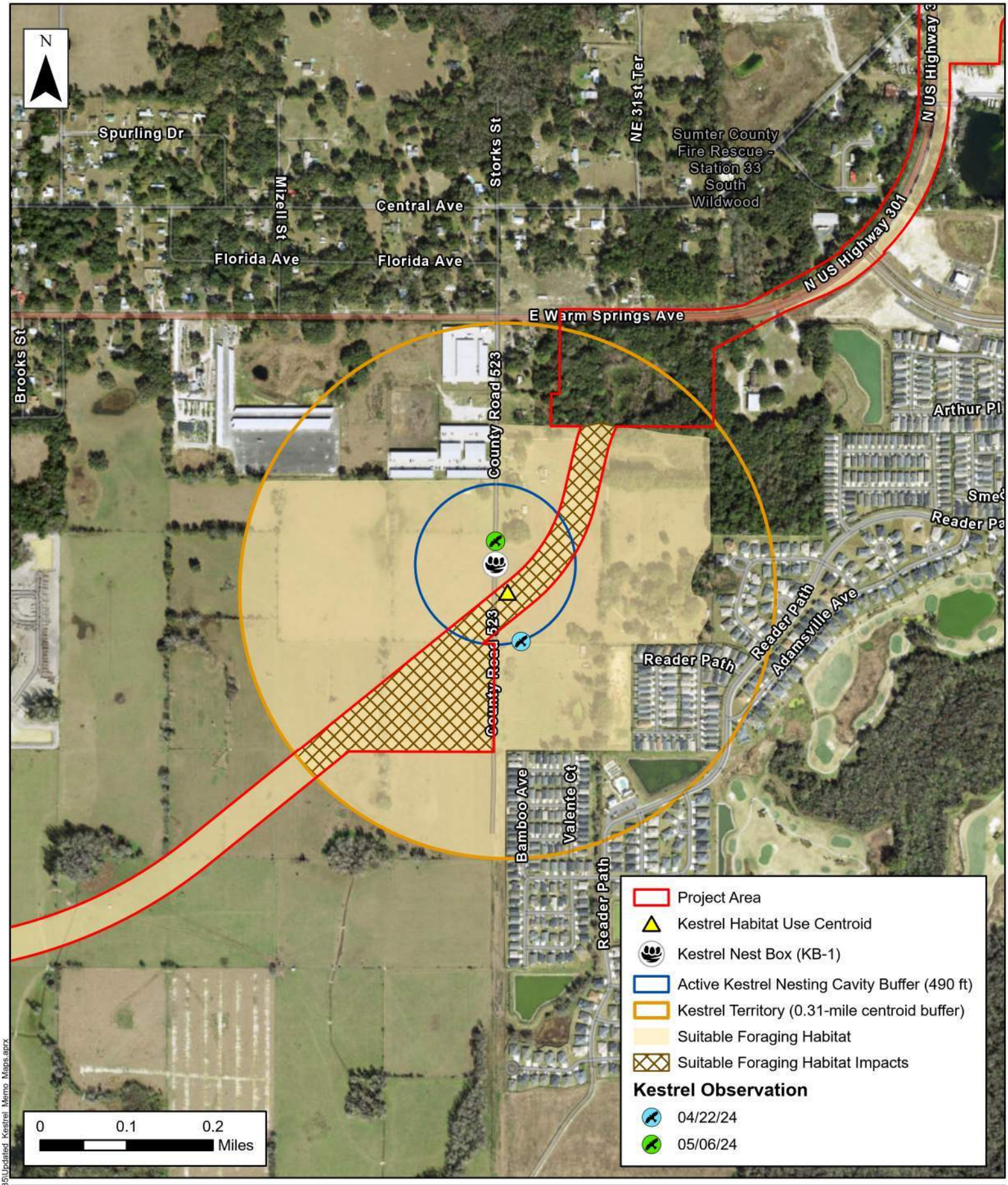
Sumter County, FL

Kestrel Suitable Habitat Survey Map

DATA SOURCE:
Imagery: ESRI 2024
Suitable Habitat: CLC v3.7

Figure **2**
Sheet 6



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Phone: 407-896-0594
Fax: 407-896-4836

DATE: May 2024
DRAWN BY: BH
PROJECT # 22-0107.000

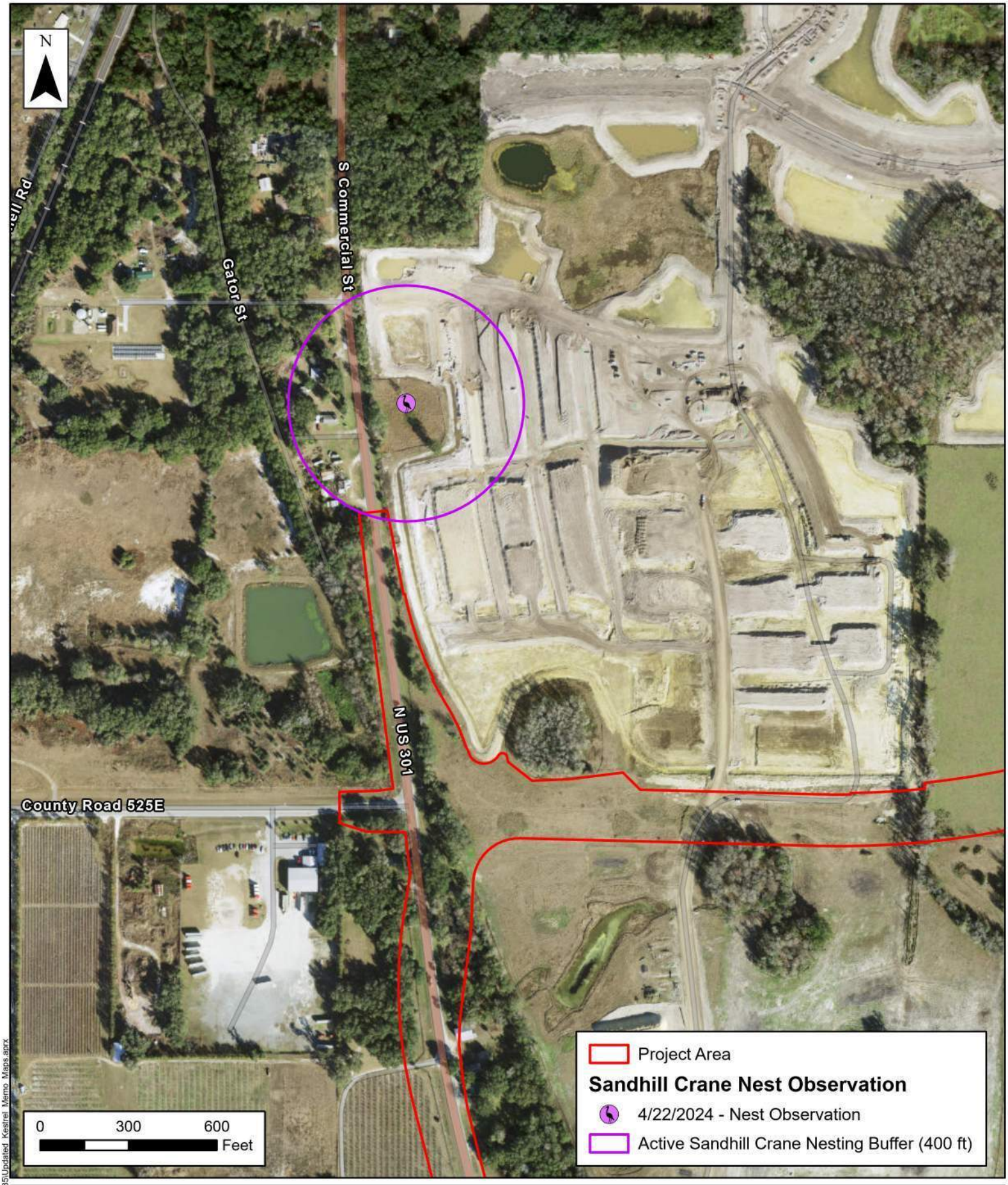
State Road 35 (US 301) from CR 470 to SR 44

FPID # 430132-1 & 430132-2
USGS Quad: 3917 (Wildwood)
Sumter County, FL

Kestrel Habitat Impacts Map

DATA SOURCE:
Imagery: ESRI 2024
Suitable Habitat: CLC v3.7

Figure 3



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State Road 35 (US 301) from CR 470 to SR 44

FPID # 430132-1 & 430132-2
USGS Quad: 3917 (Wildwood)
Sumter County, FL

Sandhill Crane Nest Map

DATA SOURCE:
Imagery: ESRI 2024
Suitable Habitat: CLC v3.7

Figure 4
Sheet 1

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State Road 35 (US 301) from CR 470 to SR 44

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USGS Quad: 3917 (Wildwood)
Sumter County, FL

Sandhill Crane Nest Map

DATA SOURCE:
Imagery: ESRI 2024
Suitable Habitat: CLC v3.7

Figure 4
Sheet 2

Appendix B: Agency Coordination

From: Booth, Kristee <Kristee.Booth@MyFWC.com>
Sent: Friday, April 12, 2024 3:31 PM
To: Brady Hart
Cc: George McLatchey; Ferngren, Jennifer; Donald Brown; Rachel Schmidt
Subject: RE: Re: (FPID: 430132-1 & -2) SR 35 Kestrel Survey Methodology

Good afternoon, Brady.
For clarification concerning the potential for sandhill cranes nesting in the wetlands mentioned in the previous email. FWC staff recommends surveys as a precaution (cranes are very active in nesting this time of year).
Thank you.

Kristee Booth
Wildlife Biologist
Office of Conservation Planning Services
Florida Fish and Wildlife Conservation Commission
Deland, Florida 33720

(850) 363-6298, cellphone

From: Booth, Kristee
Sent: Friday, April 12, 2024 3:21 PM
To: Brady Hart <bhart@drmp.com>
Cc: George McLatchey <gmclatchey@drmp.com>; Ferngren, Jennifer <Jennifer.Ferngren@dot.state.fl.us>; Donald Brown <dbrown@drmp.com>; Rachel Schmidt <rschmidt@drmp.com>
Subject: RE: Re: (FPID: 430132-1 & -2) SR 35 Kestrel Survey Methodology

Good afternoon, Brady.
FWC staff have reviewed the kestrel survey methodology for the SR 35 project with the new project right-of-way alterations and alignment shift. FWC staff can offer a couple comments on your project survey:

The survey methodology in general looks good. Please add a second transect in the western patch of Survey Sheet 6. This is due to how dense it appears based on the aerial; the linear corridor looks like it could potentially support a territory.

FWC staff have another comment, though unrelated to kestrels themselves. FWC staff wants to point out that the wetlands on Survey Sheets 5 and 6 appear to be suitable for sandhill crane nesting.

Thank you for the opportunity to assist you with this project review and the coordination on listed species.

Kristee Booth
Wildlife Biologist
Office of Conservation Planning Services
Florida Fish and Wildlife Conservation Commission
Deland, Florida 33720

(850) 363-6298, cellphone

From: Brady Hart <bhart@drmp.com>
Sent: Tuesday, April 9, 2024 11:37 AM
To: Booth, Kristee <Kristee.Booth@MyFWC.com>
Cc: George McLatchey <gmclatchey@drmp.com>; Ferngren, Jennifer <Jennifer.Ferngren@dot.state.fl.us>; Donald Brown <dbrown@drmp.com>; Rachel Schmidt <rschmidt@drmp.com>
Subject: RE: Re: (FPID: 430132-1 & -2) SR 35 Kestrel Survey Methodology

Kristee,

The project area for SR 35 has changed since our kestrel survey last year with alterations to the pond configurations/locations along with the re-alignment shift at Warm Springs Ave. We are planning to conduct an updated kestrel survey this survey season based on the updated project area. Please see the attached kestrel survey methodology that includes the updated suitable habitat and proposed transects for your review. This is an update to the previous survey methodology approved by FWC on 2/8/23 (see attached email correspondence). I've also attached a suitable habitat map that shows the differences between last year and this year to assist in your review. Please let me know if you have any comments or questions.

We are requesting concurrence of this methodology before we begin our survey of the updated project area.

Thanks

Brady Hart
Environmental Scientist
Transportation
Main: 407.896.0594 | Direct: 407.362.1338
bhart@drmp.com
DRMP
941 Lake Baldwin Lane, Orlando, FL 32814

From: Booth, Kristee <Kristee.Booth@MyFWC.com>
Sent: Wednesday, February 8, 2023 1:30 PM
To: George McLatchey <gmclatchey@drmp.com>
Cc: Casey.Lyon@dot.state.fl.us; psebert@res.us; Rachel Schmidt <rschmidt@drmp.com>; Matty Lane <mlane@drmp.com>; Donald Brown <dbrown@drmp.com>; Laura.DiGruttolo@MyFWC.com
Subject: Re: (FPID: 430132-1 & -2) SR 35 Kestrel Survey Methodology

Thank you, George.

Kristee Booth
Biological Scientist
Office of Conservation Planning Services
Florida Fish and Wildlife Conservation Commission
Deland, Florida 33720

(850) 363-6298, cellphone

From: George McLatchey <gmclatchey@drmp.com>
Sent: Wednesday, February 8, 2023 1:14:52 PM
To: Booth, Kristee <Kristee.Booth@MyFWC.com>
Cc: Lyon, Casey <Casey.Lyon@dot.state.fl.us>; Paul Sebert <psebert@res.us>; Rachel Schmidt <rschmidt@drmp.com>; Matty Lane <mlane@drmp.com>; Donald Brown <dbrown@drmp.com>; DiGruttolo, Laura <Laura.DiGruttolo@MyFWC.com>
Subject: RE: (FPID: 430132-1 & -2) SR 35 Kestrel Survey Methodology

[EXTERNAL SENDER] Use Caution opening links or attachments

Kristee,

Thanks for the comments. Attached is the updated kestrel survey methodology that we will implement for the SR 35 project.

Please let me know if you have any questions.

Thanks again!

George McLatchey, PWS, CEP
Vice President/Environment Division Manager
Transportation
Main: 407.896.0594 | Direct: 407.362.1377 | Cell: 407.790.6395
gmclatchey@drmp.com

DRMP

941 Lake Baldwin Lane, Orlando, FL 32814

From: Booth, Kristee <Kristee.Booth@MyFWC.com>
Sent: Tuesday, February 07, 2023 3:10 PM
To: George McLatchey <gmclatchey@drmp.com>
Cc: Lyon, Casey <Casey.Lyon@dot.state.fl.us>; Paul Sebert <psebert@res.us>; Rachel Schmidt <rschmidt@drmp.com>; Matty Lane <mlane@drmp.com>; Donald Brown <dbrown@drmp.com>; DiGruttolo, Laura <Laura.DiGruttolo@MyFWC.com>
Subject: RE: (FPID: 430132-1 & -2) SR 35 Kestrel Survey Methodology

Hello, George. Thank you for the opportunity to review the kestrel survey methodology. FWC has the following recommendations:

- Kestrels that fly over without landing should be noted but not recorded as a point.
- Kestrels hunting via hovering should be recorded (GPS location).
- Based on the aerial provided, the tract just north of NE 41st Ln in Figure 2 Sheet 6 appears to be potentially suitable. If potentially suitable foraging habitat is available or cavities are present on that tract, we would recommend surveys there as well.

We look forward to coordinating with you further on this project. Have a great day!

Kristee Booth
Biological Scientist
Office of Conservation Planning Services
Florida Fish and Wildlife Conservation Commission
Deland, FL 32724

850-363-6298, cell phone

From: George McLatchey <gmclatchey@drmp.com>
Sent: Thursday, February 2, 2023 10:29 AM
To: Booth, Kristee <Kristee.Booth@MyFWC.com>
Cc: Lyon, Casey <Casey.Lyon@dot.state.fl.us>; Paul Sebert <psebert@res.us>; Rachel Schmidt <rschmidt@drmp.com>; Matty Lane <mlane@drmp.com>; Donald Brown <dbrown@drmp.com>
Subject: (FPID: 430132-1 & -2) SR 35 Kestrel Survey Methodology

Hello Kristee,

Good talking with you this morning. As mentioned, FDOT – District 5 is proposing roadway improvements of approximately 7.8 miles for SR 35 from CR 470 to SR 44 in Sumter County. The PD&E commitments for this project require a species-specific survey for the southeastern American kestrel within appropriate foraging habitat. Please see the attached proposed kestrel survey methodology for the project and let us know if you have any questions or concerns. We are requesting concurrence of this methodology before we begin our survey of the project corridor.

Thank you,

George McLatchey, PWS, CEP
Vice President/Environment Division Manager
Transportation
Main: 407.896.0594 | Direct: 407.362.1377 | Cell: 407.790.6395
gmclatchey@drmp.com
DRMP
941 Lake Baldwin Lane, Orlando, FL 32814

Appendix C: Site Photos

Active Kestrel Nest Box (KB-1)

Typical Suitable Foraging Kestrel Habitat

Active Sandhill Crane Nest

Wetland 16 – nesting pair foraging

Appendix C: Wetland Assessment

UMAM Summary Table

UMAM Worksheets

UMAM Summary Table

Direct Wetland Impacts

		Location and Lanscape Support		Water Environment		Community Structure		Raw Score		Impact Delta	Acres	Functional Loss	Type
Assessment Area	**Impact Type**	**Current**	**W/ Impact**	**Current**	**W/ Impact**	**Current**	**W/ Impact**	**Current**	**W/ Impact**				
Wetland 1	Direct	7	0	7	0	7	0	0.70	0.00	0.70	0.01	0.01	F
Wetland 2	Direct	7	0	7	0	7	0	0.70	0.00	0.70	0.07	0.05	F
Wetland 3	Direct	8	0	8	0	8	0	0.80	0.00	0.80	0.27	0.22	F
Wetland 14	Direct	6	0	7	0	7	0	0.67	0.00	0.67	0.03	0.02	F
Wetland 15	Direct	7	0	7	0	7	0	0.70	0.00	0.70	0.82	0.57	H
Wetland 16	Direct	7	0	8	0	8	0	0.77	0.00	0.77	0.18	0.14	H
Wetland 18	Direct	7	0	8	0	8	0	0.77	0.00	0.77	0.95	0.73	F
Wetland 19	Direct	6	0	8	0	7	0	0.70	0.00	0.70	1.13	0.79	F
Wetland 20	Direct	7	0	7	0	7	0	0.70	0.00	0.70	1.26	0.88	H
Wetland 22	Direct	4	0	4	0	4	0	0.40	0.00	0.40	0.18	0.07	H
Wetland 23	Direct	4	0	4	0	4	0	0.40	0.00	0.40	0.08	0.03	H
Wetland 25	Direct	4	0	4	0	4	0	0.40	0.00	0.40	0.66	0.26	H
Wetland 26	Direct	4	0	4	0	4	0	0.40	0.00	0.40	0.41	0.16	H
Wetland 27	Direct	7	0	8	0	8	0	0.77	0.00	0.77	0.15	0.12	F
Surface Water 2	Direct	4	0	4	0	4	0	0.40	0.00	0.40	0.18	0.07	H
Surface Water 3	Direct	4	0	4	0	4	0	0.40	0.00	0.40	1.47	0.59	F
										TOTAL	**7.85**	**4.71**	

Secondary Wetland Impacts

		Location and Lanscape		Water Environment		Community Structure		Raw Score		Impact	Acres	Functional	Type
Assessment Area	**Impact Type**	**Current**	**W/ Impact**	**Current**	**W/ Impact**	**Current**	**W/ Impact**	**Current**	**W/ Impact**	**Delta**		**Loss**	
Wetland 1	Direct	7	6	7	7	7	6	0.70	0.63	0.07	0.02	0.00	F
Wetland 2	Secondary	7	6	7	7	7	6	0.70	0.63	0.07	0.13	0.01	F
Wetland 3	Secondary	8	7	8	8	8	7	0.80	0.73	0.07	0.05	0.01	F
Wetland 14	Secondary	6	5	7	7	7	6	0.67	0.60	0.07	0.10	0.01	F
Wetland 15	Secondary	7	6	7	7	7	6	0.70	0.63	0.07	0.35	0.02	H
Wetland 16	Secondary	7	6	8	8	8	7	0.77	0.70	0.07	0.22	0.02	H
Wetland 18	Secondary	7	6	8	8	8	7	0.77	0.70	0.07	0.32	0.02	F
Wetland 19	Secondary	6	5	8	8	7	6	0.70	0.63	0.07	0.60	0.04	F
Wetland 20	Secondary	7	6	7	7	7	6	0.70	0.63	0.07	0.95	0.07	H
Wetland 22	Secondary	4	3	4	4	4	3	0.40	0.33	0.07	0.16	0.01	H
Wetland 23	Secondary	4	3	4	4	4	3	0.40	0.33	0.07	0.09	0.01	H
Wetland 26	Secondary	4	3	4	4	4	3	0.40	0.33	0.07	0.17	0.01	H
Wetland 27	Secondary	7	6	8	8	8	7	0.77	0.70	0.07	0.09	0.01	F
										TOTAL	**3.25**	**0.24**	

	Acres	Total Functional Loss
Direct Impacts	7.85	4.71
Secondary Impacts	3.25	0.24
Total	**11.10**	**4.95**
Freshwater Herbaceous	5.71	**2.32**
Freshwater Forested	5.39	**2.62**

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 1**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6150	**Stream and Lake Swamps**	**Impact**	**0.01** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 1 is a mixed wetland hardwood forested wetland located adjacent to the existing R/W on the east side of US 301. Wetland 1 is bordered by low density residential neighborhood to the north and US 301 to the west. Wetland 1 is hydrologically connected to the larger Shady Brook wetland system.

Assessment area description

Canopy species observed within Wetland 1 include sweetgum, bald cypress, red maple, live oak, and water hickory. Subcanopy and groundcover species were sparse in the system, consisting of cabbage palm and saw palmetto. Soils in the wetland area are mapped as Map Unit 44 - Oldsmar Fine Sand, Bouldery Subsurface. Soils were saturated; however, standing water was absent at the time of the assessment. Buttressing at the base of cypress trees and water marks on canopy trees was observed in the system which indicates periodical inundation.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST), Eastern Indigo Snake (FT)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 1**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Direct Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	Current: **7**	With Impact: **0**
Adjacent habitat provides optimal support for many wildlife species; access for wildlife is partially limited due to roadway; downstream benefits are somewhat limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive significant benefits from AA quality; uplands provide moderate protection.		
.500(6)(b) Water Environment (n/a for uplands)	Current: **7**	With Impact: **0**
Water level is moderately appropriate for the community type; water level and hydrologic indicators were observed via water marks and buttressing at the base of canopy trees; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for a wetland hardwood system.		
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	Current: **7**	With Impact: **0**
Majority of desirable species observed; minimal invasive species present; near-normal new growth or regeneration of canopy trees observed; generally good plants' conditions; snags, dens, or cavities present that are typical in this community type.		

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.70	0.00

Impact Delta (ID)	
Current - w/Impact	0.70

Impact Acres =	0.01

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.01

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 1**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6150	**Stream and Lake Swamps**	**Impact**	**0.02** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 1 is a mixed wetland hardwood forested wetland located adjacent to the existing R/W on the east side of US 301. Wetland 1 is bordered by low density residential neighborhood to the north and US 301 to the west. Wetland 1 is hydrologically connected to the larger Shady Brook wetland system.

Assessment area description

Canopy species observed within Wetland 1 include sweetgum, bald cypress, red maple, live oak, and water hickory. Subcanopy and groundcover species were sparse in the system, consisting of cabbage palm and saw palmetto. Soils in the wetland area are mapped as Map Unit 44 - Oldsmar Fine Sand, Bouldery Subsurface. Soils were saturated; however, standing water was absent at the time of the assessment. Buttressing at the base of cypress trees and water marks on canopy trees was observed in the system which indicates periodical inundation.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST), Eastern Indigo Snake (FT)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 1**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Secondary Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	Current	With Impact	
.500(6)(a) Location and Landscape Support	7	5	Adjacent habitat provides optimal support for many wildlife species; access for wildlife is partially limited due to roadway; downstream benefits are somewhat limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive significant benefits from AA quality; uplands provide moderate protection.
.500(6)(b) Water Environment (n/a for uplands)	7	5	Water level is moderately appropriate for the community type; water level and hydrologic indicators were observed via water marks and buttressing at the base of canopy trees; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for a wetland hardwood system.
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	7	5	Majority of desirable species observed; minimal invasive species present; near-normal new growth or regeneration of canopy trees observed; generally good plants' conditions; snags, dens, or cavities present that are typical in this community type.

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	Current	With Impact
	0.70	0.50

Impact Delta (ID)	
Current - w/Impact	0.20

Impact Acres =	0.02

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.00

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 2**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6150	**Stream and Lake Swamps**	**Impact**	**0.07** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 2 is a mixed wetland hardwood forested wetland located adjacent to the existing R/W on the east side of US 301. Wetland 2 is bordered by low density residential neighborhood to the east and US 301 to the west.

Assessment area description

Canopy species observed within Wetland 2 include sweetgum, bald cypress, red maple, live oak, and water hickory. Subcanopy and groundcover species were sparse in the system, consisting of cabbage palm and saw palmetto. Soils in the wetland area are mapped as Map Unit 9 - Paisley Fine Sand, Bouldery Subsurface. Soils were saturated; however, standing water was absent at the time of the assessment. Buttressing at the base of cypress trees and water marks on canopy trees was observed in the system which indicates periodical inundation

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST), Eastern Indigo Snake (FT)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 2**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Direct Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	**Current**	**With Impact**	Adjacent habitat provides optimal support for many wildlife species; access for wildlife is partially limited due to roadway; downstream benefits are somewhat limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive significant benefits from AA quality; uplands provide moderate protection.
	7	**0**	
.500(6)(b) Water Environment (n/a for uplands)	**Current**	**With Impact**	Water level is moderately appropriate for the community type; water level and hydrologic indicators were observed via water marks and buttressing at the base of canopy trees; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for a wetland hardwood system.
	7	**0**	
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	**Current**	**With Impact**	Majority of desirable species observed; minimal invasive species present; near-normal new growth or regeneration of canopy trees observed; generally good plants' conditions; snags, dens, or cavities present that are typical in this community type.
	7	**0**	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.70	0.00

Impact Acres =	0.07

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.05

Impact Delta (ID)	
Current - w/Impact	0.70

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 2**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6150	**Stream and Lake Swamps**	**Impact**	**0.13** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 2 is a mixed wetland hardwood forested wetland located adjacent to the existing R/W on the east side of US 301. Wetland 2 is bordered by low density residential neighborhood to the east and US 301 to the west.

Assessment area description

Canopy species observed within Wetland 2 include sweetgum, bald cypress, red maple, live oak, and water hickory. Subcanopy and groundcover species were sparse in the system, consisting of cabbage palm and saw palmetto. Soils in the wetland area are mapped as Map Unit 9 - Paisley Fine Sand, Bouldery Subsurface. Soils were saturated; however, standing water was absent at the time of the assessment. Buttressing at the base of cypress trees and water marks on canopy trees was observed in the system which indicates periodical inundation

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST), Eastern Indigo Snake (FT)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 2**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Secondary Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	Current	With Impact	
.500(6)(a) Location and Landscape Support	7	6	Adjacent habitat provides optimal support for many wildlife species; access for wildlife is partially limited due to roadway; downstream benefits are somewhat limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive significant benefits from AA quality; uplands provide moderate protection.
.500(6)(b) Water Environment (n/a for uplands)	7	7	Water level is moderately appropriate for the community type; water level and hydrologic indicators were observed via water marks and buttressing at the base of canopy trees; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for a wetland hardwood system.
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	7	6	Majority of desirable species observed; minimal invasive species present; near-normal new growth or regeneration of canopy trees observed; generally good plants' conditions; snags, dens, or cavities present that are typical in this community type.

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	Current	With Impact
	0.70	0.63

Impact Acres =	0.13

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.01

Impact Delta (ID)	
Current - w/Impact	0.07

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 3**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6150	**Stream and Lake Swamps**	**Impact**	**0.27** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		**OFW**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 3 is a mixed wetland hardwood forested wetland located at the Shady Brook bridge over US 301. Wetland 3 consists of a large stream and lake swamp associated with Shady Brook.

Assessment area description

Canopy species observed include sweetgum, bald cypress, red maple, live oak, and water hickory. Subcanopy and groundcover species consisted of cabbage palm and saw palmetto. Soils in the wetland area are mapped as Map Unit 9 - Paisley Fine Sand, Bouldery Subsurface and Map Unit 49 – Terra Ceia Muck (0-1% slopes), Frequently Ponded. Standing water was present at the time of the assessment. The water marks observed on canopy trees were higher than the water level at the time of the assessment. Drift deposits of branches were observed adjacent to the stream.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST), Eastern Indigo Snake (FT)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 3**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Direct Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	Current: **8**	With Impact: **0**
Adjacent habitat provides optimal support for many wildlife species; access for wildlife is partially limited due to roadway; downstream benefits are somewhat limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive significant benefits from AA quality; uplands provide moderate protection.		
.500(6)(b) Water Environment (n/a for uplands)	Current: **8**	With Impact: **0**
Water level is moderately appropriate for the community type; water level and hydrologic indicators were observed via water marks and buttressing at the base of canopy trees; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for a wetland hardwood system.		
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	Current: **8**	With Impact: **0**
Majority of desirable species observed; minimal invasive species present; near-normal new growth or regeneration of canopy trees observed; generally good plants' conditions; snags, dens, or cavities present that are typical in this community type.		

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	Current	With Impact
	0.80	0.00

Impact Acres =	0.27

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.22

Impact Delta (ID)	
Current - w/Impact	0.80

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 3**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6150	**Stream and Lake Swamps**	**Impact**	**0.05** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		**OFW**

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 3 is a mixed wetland hardwood forested wetland located at the Shady Brook bridge over US 301. Wetland 3 consists of a large stream and lake swamp associated with Shady Brook.

Assessment area description

Canopy species observed include sweetgum, bald cypress, red maple, live oak, and water hickory. Subcanopy and groundcover species consisted of cabbage palm and saw palmetto. Soils in the wetland area are mapped as Map Unit 9 - Paisley Fine Sand, Bouldery Subsurface and Map Unit 49 – Terra Ceia Muck (0-1% slopes), Frequently Ponded. Standing water was present at the time of the assessment. The water marks observed on canopy trees were higher than the water level at the time of the assessment. Drift deposits of branches were observed adjacent to the stream.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST), Eastern Indigo Snake (FT)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 3**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Secondary Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	Current	With Impact	
.500(6)(a) Location and Landscape Support	8	7	Adjacent habitat provides optimal support for many wildlife species; access for wildlife is partially limited due to roadway; downstream benefits are somewhat limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive significant benefits from AA quality; uplands provide moderate protection.
.500(6)(b) Water Environment (n/a for uplands)	8	7	Water level is moderately appropriate for the community type; water level and hydrologic indicators were observed via water marks and buttressing at the base of canopy trees; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for a wetland hardwood system.
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	8	7	Majority of desirable species observed; minimal invasive species present; near-normal new growth or regeneration of canopy trees observed; generally good plants' conditions; snags, dens, or cavities present that are typical in this community type.

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	Current	With Impact
	0.80	0.70

Impact Acres =	0.05

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.01

Impact Delta (ID)	
Current - w/Impact	0.10

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 14**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6170	**Mixed Wetland Hardwoods**	**Impact**	**0.03** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 14 is an isolated depressional mixed wetland hardwoods system located on the west side of US 301, south of NE 41st Lane.

Assessment area description

Canopy species observed include bay laurel (Laurus nobilis), sweetgum, red maple, and laurel oak. Subcanopy and groundcover were largely absent in the system. Soils in the wetland area are mapped as Map Unit 26 – Wabasso Fine Sand, Bouldery Subsurface. Soils were saturated and exhibited a dark surface. Standing water was present at the time of the assessment and water marks were observed on canopy trees.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST), Eastern Indigo Snake (FT)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 14**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Direct Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	Current	With Impact	
.500(6)(a) Location and Landscape Support	**6**	**0**	Adjacent habitat provides moderate support for many wildlife species; access for wildlife is limited due to adjacent roadway; downstream benefits are limited by distance and barriers from the adjacent land use; downstream habitats (adjacent wetlands) derive minimal benefits from AA quality; uplands provide moderate protection.
.500(6)(b) Water Environment (n/a for uplands)	**7**	**0**	Water level is moderately appropriate for the community type; water level and hydrologic indicators were observed via water marks; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for the system.
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	**7**	**0**	Majority of desirable species observed; minimal invasive species present; near-normal new growth or regeneration of canopy trees observed; generally good plants' conditions; topographic features were slightly less than optimal

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	Current	With Impact
	0.67	0.00

Impact Delta (ID)	
Current - w/Impact	0.67

Impact Acres =	0.03

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.02

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 14**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6170	**Mixed Wetland Hardwoods**	**Impact**	**0.1** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 14 is an isolated depressional mixed wetland hardwoods system located on the west side of US 301, south of NE 41st Lane.

Assessment area description

Canopy species observed include bay laurel (Laurus nobilis), sweetgum, red maple, and laurel oak. Subcanopy and groundcover were largely absent in the system. Soils in the wetland area are mapped as Map Unit 26 – Wabasso Fine Sand, Bouldery Subsurface. Soils were saturated and exhibited a dark surface. Standing water was present at the time of the assessment and water marks were observed on canopy trees.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST), Eastern Indigo Snake (FT)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 14**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Secondary Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	Current	With Impact	
.500(6)(a) Location and Landscape Support	6	5	Adjacent habitat provides moderate support for many wildlife species; access for wildlife is limited due to adjacent roadway; downstream benefits are limited by distance and barriers from the adjacent land use; downstream habitats (adjacent wetlands) derive minimal benefits from AA quality; uplands provide moderate protection.
.500(6)(b) Water Environment (n/a for uplands)	7	7	Water level is moderately appropriate for the community type; water level and hydrologic indicators were observed via water marks; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for the system.
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	7	6	Majority of desirable species observed; minimal invasive species present; near-normal new growth or regeneration of canopy trees observed; generally good plants' conditions; topographic features were slightly less than optimal

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	Current	With Impact
	0.67	0.60

Impact Delta (ID)	
Current - w/Impact	0.07

Impact Acres =	0.1

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.01

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 15**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6410	**Freshwater Marshes**	**Impact**	**0.82** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 15 is a freshwater marsh wetland system located along US 301, north of NE 41ST Lane. Wetland 15 is bordered by high density residential neighborhood to the north, US 301 to the west, and low density residential to the south.

Assessment area description

Canopy species include laurel oak and red maple along the perimeter of the system. Subcanopy species observed include Carolina willow and wax myrtle. Herbaceous and groundcover vegetation include sawgrass, soft rush, arrowhead, broomsedge, saw palmetto, bushy bluestem, and various sedges. Soils in the wetland area are mapped as Map Unit 54 - Monteocha Fine Sand, Depressional. Soils were saturated and exhibited dark surface. Standing water was observed within the system.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 15**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Direct Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	Current	With Impact	
.500(6)(a) Location and Landscape Support	**7**	**0**	Adjacent habitat provides moderate support for many wildlife species; access for wildlife is limited due to roadway and residential retaining wall; downstream benefits are limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive moderate benefits from AA quality; uplands provide moderate protection.
.500(6)(b) Water Environment (n/a for uplands)	**7**	**0**	Water level is appropriate for the community type; standing water was present in the system; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for the system.
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	**7**	**0**	Majority of desirable species observed; moderate invasive species present; near-normal new growth or regeneration of canopy trees observed; generally good plants' conditions; topographic features were slightly less than optimal

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	Current	With Impact
	0.70	0.00

Impact Acres =	0.82

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.57

Impact Delta (ID)	
Current - w/Impact	0.70

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 15**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6410	**Freshwater Marshes**	**Impact**	**0.35** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 15 is a freshwater marsh wetland system located along US 301, north of NE 41ST Lane. Wetland 15 is bordered by high density residential neighborhood to the north, US 301 to the west, and low density residential to the south.

Assessment area description

Canopy species include laurel oak and red maple along the perimeter of the system. Subcanopy species observed include Carolina willow and wax myrtle. Herbaceous and groundcover vegetation include sawgrass, soft rush, arrowhead, broomsedge, saw palmetto, bushy bluestem, and various sedges. Soils in the wetland area are mapped as Map Unit 54 - Monteocha Fine Sand, Depressional. Soils were saturated and exhibited dark surface. Standing water was observed within the system.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 15**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Secondary Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	Current	With Impact	
.500(6)(a) Location and Landscape Support	7	6	Adjacent habitat provides moderate support for many wildlife species; access for wildlife is limited due to roadway and residential retaining wall; downstream benefits are limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive moderate benefits from AA quality; uplands provide moderate protection.
.500(6)(b) Water Environment (n/a for uplands)	7	7	Water level is appropriate for the community type; standing water was present in the system; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for the system.
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	7	6	Majority of desirable species observed; moderate invasive species present; near-normal new growth or regeneration of canopy trees observed; generally good plants' conditions; topographic features were slightly less than optimal

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	Current	With Impact
	0.70	0.63

Impact Delta (ID)	
Current - w/Impact	0.07

Impact Acres =	0.35

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.02

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 16**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6440	**Emergent Aquatic Vegetation**	**Impact**	**0.18** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 16 is a freshwater marsh wetland system located along US 301, north of NE 41ST Lane across from Wetland 15. Wetland 16 is bordered US 301 to the east and pastureland to the north and south.

Assessment area description

There is no canopy or subcanopy species present. Herbaceous and groundcover vegetation is dominated by pickerelweed. Soils in the wetland area are mapped as Map Unit 26 – Wabasso Fine Sand, Bouldery Subsurface. Soils were saturated, exhibited dark surface, and had a muck presence. Standing water was observed within the system.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Florida Sandhill Crane (ST), Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Florida Sandhill Crane nest observed in center of wetland during delineation

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 16**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Direct Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	**Current**	**With Impact**	Adjacent habitat provides optimal support for many wildlife species; access for wildlife is partially limited due to roadway; downstream benefits are somewhat limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive significant benefits from AA quality; uplands provide optimal protection.
	7	**0**	
.500(6)(b) Water Environment (n/a for uplands)	**Current**	**With Impact**	Water level is appropriate for the community type; standing water was present in the system; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization fully meets expectations of the system.
	8	**0**	
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	**Current**	**With Impact**	Majority of desirable species observed; no invasive species present; natural new growth or regeneration of species observed; generally good plants' conditions; topographic features were normal
	8	**0**	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.77	0.00

Impact Delta (ID)	
Current - w/Impact	0.77

Impact Acres =	0.18

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.14

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 16**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6440	**Emergent Aquatic Vegetation**	**Impact**	**0.22** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 16 is a freshwater marsh wetland system located along US 301, north of NE 41ST Lane across from Wetland 15. Wetland 16 is bordered US 301 to the east and pastureland to the north and south.

Assessment area description

There is no canopy or subcanopy species present. Herbaceous and groundcover vegetation is dominated by pickerelweed. Soils in the wetland area are mapped as Map Unit 26 – Wabasso Fine Sand, Bouldery Subsurface. Soils were saturated, exhibited dark surface, and had a muck presence. Standing water was observed within the system.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Florida Sandhill Crane (ST), Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Florida Sandhill Crane nest observed in center of wetland during delineation

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 16**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Secondary Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	Current: **7**	With Impact: **6**

Adjacent habitat provides optimal support for many wildlife species; access for wildlife is partially limited due to roadway; downstream benefits are somewhat limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive significant benefits from AA quality; uplands provide optimal protection.

.500(6)(b) Water Environment (n/a for uplands)	Current: **8**	With Impact: **8**

Water level is appropriate for the community type; standing water was present in the system; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization fully meets expectations of the system.

.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	Current: **8**	With Impact: **7**

Majority of desirable species observed; no invasive species present; natural new growth or regeneration of species observed; generally good plants' conditions; topographic features were normal

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.77	0.70

Impact Acres =	0.22

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.02

Impact Delta (ID)	
Current - w/Impact	0.07

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 18**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6150	**Stream and Lake Swamps**	**Impact**	**0.95** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 18 consists of a freshwater marsh system surrounded by mixed wetland hardwoods system. Wetland 18 is located along US 301 at the Marsh Bend Trail intersection. The surrounding land use is upland hardwood-coniferous mix.

Assessment area description

Canopy species observed include sweetgum, red maple, and laurel oak. The subcanopy is dominated by Peruvian primrose-willow, salt bush and Carolina willow. Herbaceous and groundcover include cattail, arrowhead, and maidencane. Soils in the wetland area are mapped as Map Unit 46 – Ft. Green Fine Sand, Bouldery Subsurface. Soils were saturated and exhibited a dark surface. Standing water was present at the time of the assessment and water marks were observed on canopy and subcanopy trees.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST), Eastern Indigo Snake (FT)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 18**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Direct Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	**Current**	**With Impact**	Adjacent habitat provides optimal support for many wildlife species; access for wildlife is partially limited due to roadway; downstream benefits are somewhat limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive significant benefits from AA quality; uplands provide significant protection.
	7	**0**	
.500(6)(b) Water Environment (n/a for uplands)	**Current**	**With Impact**	Water level is appropriate for the community type; water level and hydrologic indicators were observed via water marks on canopy trees; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for a wetland hardwood system.
	8	**0**	
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	**Current**	**With Impact**	Majority of desirable species observed; minimal invasive species present; near-normal new growth or regeneration of canopy trees observed; generally good plants' conditions; snags, dens, or cavities present that are typical in this community type.
	8	**0**	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.77	0.00

Impact Delta (ID)	
Current - w/Impact	0.77

Impact Acres =	0.95

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.73

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 18**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6150	**Stream and Lake Swamps**	**Impact**	**0.32** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 18 consists of a freshwater marsh system surrounded by mixed wetland hardwoods system. Wetland 18 is located along US 301 at the Marsh Bend Trail intersection. The surrounding land use is upland hardwood-coniferous mix.

Assessment area description

Canopy species observed include sweetgum, red maple, and laurel oak. The subcanopy is dominated by Peruvian primrose-willow, salt bush and Carolina willow. Herbaceous and groundcover include cattail, arrowhead, and maidencane. Soils in the wetland area are mapped as Map Unit 46 – Ft. Green Fine Sand, Bouldery Subsurface. Soils were saturated and exhibited a dark surface. Standing water was present at the time of the assessment and water marks were observed on canopy and subcanopy trees.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST), Eastern Indigo Snake (FT)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 18**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Secondary Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	Current	With Impact	
.500(6)(a) Location and Landscape Support	7	6	Adjacent habitat provides optimal support for many wildlife species; access for wildlife is partially limited due to roadway; downstream benefits are somewhat limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive significant benefits from AA quality; uplands provide significant protection.
.500(6)(b) Water Environment (n/a for uplands)	8	8	Water level is appropriate for the community type; water level and hydrologic indicators were observed via water marks on canopy trees; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for a wetland hardwood system.
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	8	7	Majority of desirable species observed; minimal invasive species present; near-normal new growth or regeneration of canopy trees observed; generally good plants' conditions; snags, dens, or cavities present that are typical in this community type.

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	Current	With Impact
	0.77	0.70

Impact Acres =	0.32

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.02

Impact Delta (ID)	
Current - w/Impact	0.07

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 19**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6150	**Stream and Lake Swamps**	**Impact**	**1.13** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 19 is a mixed wetland hardwood forested system located along the east side of US 301 extending from the powerline easement to Marsh Bend Trail intersection. Wetland 19 includes a disturbed scrub-shrub area within the powerline easement. Wetland 19 is bordered by high density residential neighborhood to the east and US 301 to the west.

Assessment area description

Canopy species observed within the forested system include sweetgum, slash pine, red maple, laurel oak, water hickory. Subcanopy species were sparse in the system, consisting of cabbage palm and saw palmetto. Herbaceous and groundcover species include arrowhead, lizard's tail, swamp dock, and water hyacinth. Soils in the wetland area are mapped as Map Unit 46 – Ft. Green Fine Sand, Bouldery Subsurface. Soils were saturated and exhibited a dark surface. Standing water was present and water marks and elevated lichen lines were observed on canopy trees.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST), Eastern Indigo Snake (FT)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 19**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Direct Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	Adjacent habitat provides optimal support for many wildlife species; access for wildlife is partially limited due to roadway; downstream benefits are somewhat limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive significant benefits from AA quality; uplands provide moderate protection.	
Current	**With Impact**	
6	**0**	
.500(6)(b) Water Environment (n/a for uplands)	Water level is appropriate for the community type; water level and hydrologic indicators were observed via water marks on canopy trees; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for a wetland hardwood system.	
Current	**With Impact**	
8	**0**	
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	Majority of desirable species observed; minimal invasive species present; near-normal new growth or regeneration of canopy trees observed; generally good plants' conditions; snags, dens, or cavities present that are typical in this community type.	
Current	**With Impact**	
7	**0**	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.70	0.00

Impact Acres =	1.13

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.79

Impact Delta (ID)	
Current - w/Impact	0.70

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 19**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6150	**Stream and Lake Swamps**	**Impact**	**0.6** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 19 is a mixed wetland hardwood forested system located along the east side of US 301 extending from the powerline easement to Marsh Bend Trail intersection. Wetland 19 includes a disturbed scrub-shrub area within the powerline easement. Wetland 19 is bordered by high density residential neighborhood to the east and US 301 to the west.

Assessment area description

Canopy species observed within the forested system include sweetgum, slash pine, red maple, laurel oak, water hickory. Subcanopy species were sparse in the system, consisting of cabbage palm and saw palmetto. Herbaceous and groundcover species include arrowhead, lizard's tail, swamp dock, and water hyacinth. Soils in the wetland area are mapped as Map Unit 46 – Ft. Green Fine Sand, Bouldery Subsurface. Soils were saturated and exhibited a dark surface. Standing water was present and water marks and elevated lichen lines were observed on canopy trees.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST), Eastern Indigo Snake (FT)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 19**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Secondary Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	Current	With Impact	
.500(6)(a) Location and Landscape Support	6	5	Adjacent habitat provides optimal support for many wildlife species; access for wildlife is partially limited due to roadway; downstream benefits are somewhat limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive significant benefits from AA quality; uplands provide moderate protection.
.500(6)(b) Water Environment (n/a for uplands)	8	8	Water level is appropriate for the community type; water level and hydrologic indicators were observed via water marks on canopy trees; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for a wetland hardwood system.
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	7	6	Majority of desirable species observed; minimal invasive species present; near-normal new growth or regeneration of canopy trees observed; generally good plants' conditions; snags, dens, or cavities present that are typical in this community type.

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	Current	With Impact
	0.70	0.63

Impact Acres =	0.6

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.04

Impact Delta (ID)	
Current - w/Impact	0.07

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 20**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6410	**Freshwater Marshes**	**Impact**	**1.26** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 20 is a freshwater marsh wetland system located along the west side of US 301 just south of the powerline easement. Wetland 20 is hydrologically connected to Wetland 19 via a culvert under US 301.

Assessment area description

Subcanopy species observed include Carolina willow and wax myrtle. Herbaceous and groundcover vegetation include sawgrass, soft rush, broomsedge, saw palmetto, and various sedges. Soils in the wetland area are mapped as Map Unit 47 – Okeelanta Muck, Frequently Flooded. Soils were saturated and had muck presence. Standing water was observed within the system.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 20**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Direct Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	Current	With Impact	
.500(6)(a) Location and Landscape Support	7	0	Adjacent habitat provides optimal support for many wildlife species; access for wildlife is limited due to roadway and powerline easement; downstream benefits are limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive moderate benefits from AA quality; uplands provide moderate protection.
.500(6)(b) Water Environment (n/a for uplands)	7	0	Water level is appropriate for the community type; standing water was present in the system; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for the system.
.500(6)(c) Community Structure x Vegetation Benthic Both	7	0	Majority of desirable species observed; moderate invasive species present; near-normal new growth or regeneration observed; generally good plants' conditions; topographic features were slightly less than optimal

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	Current	With Impact
	0.70	0.00

Impact Delta (ID)	
Current - w/Impact	0.70

Impact Acres =	1.26

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.88

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 20**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6410	**Freshwater Marshes**	**Impact**	**0.95** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 20 is a freshwater marsh wetland system located along the west side of US 301 just south of the powerline easement. Wetland 20 is hydrologically connected to Wetland 19 via a culvert under US 301.

Assessment area description

Subcanopy species observed include Carolina willow and wax myrtle. Herbaceous and groundcover vegetation include sawgrass, soft rush, broomsedge, saw palmetto, and various sedges. Soils in the wetland area are mapped as Map Unit 47 – Okeelanta Muck, Frequently Flooded. Soils were saturated and had muck presence. Standing water was observed within the system.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 20**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Secondary Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	Current	With Impact	
.500(6)(a) Location and Landscape Support	7	6	Adjacent habitat provides optimal support for many wildlife species; access for wildlife is limited due to roadway and powerline easement; downstream benefits are limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive moderate benefits from AA quality; uplands provide moderate protection.
.500(6)(b) Water Environment (n/a for uplands)	7	7	Water level is appropriate for the community type; standing water was present in the system; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for the system.
.500(6)(c) Community Structure x Vegetation ____ Benthic ____ Both	7	6	Majority of desirable species observed; moderate invasive species present; near-normal new growth or regeneration observed; generally good plants' conditions; topographic features were slightly less than optimal

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	Current	With Impact
	0.70	0.63

Impact Acres =	0.95

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.07

Impact Delta (ID)	
Current - w/Impact	0.07

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 22**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6430	**Wet Prairies**	**Impact**	**0.18** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 22 is an isolated freshwater marsh wetland system located north of the powerline easement along the east side of US 301 and Silvana Way. Wetland 22 has been altered due to the adjacent high density residential construction.

Assessment area description

Canopy and subcanopy species observed include red maple and wax myrtle. Herbaceous and groundcover vegetation include sawgrass, soft rush, and broomsedge. Soils in the wetland area are mapped as Map Unit 34 – Tarrytown Sandy Clay Loam, Bouldery Subsurface. Soils were saturated and exhibited dark surface. Standing water was observed within the system.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 22**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Direct Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	**Current**	**With Impact**	Adjacent habitat provides minimal support for many wildlife species; access for wildlife is substantially limited due to roadway residential construction; downstream benefits are limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive minimal benefits from AA quality; uplands provide minimal protection.
	4	**0**	
.500(6)(b) Water Environment (n/a for uplands)	**Current**	**With Impact**	Water level is slightly lower than appropriate for the community type; standing water was present in the system; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization was greatly reduced.
	4	**0**	
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	**Current**	**With Impact**	Majority of desirable species observed; invasive species present; minimal new growth or regeneration observed; generally good plants' conditions; topographic features were reduced
	4	**0**	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.40	0.00

Impact Acres =	0.18

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.07

Impact Delta (ID)	
Current - w/Impact	0.40

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 22**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6430	**Wet Prairies**	**Impact**	**0.16** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 22 is an isolated freshwater marsh wetland system located north of the powerline easement along the east side of US 301 and Silvana Way. Wetland 22 has been altered due to the adjacent high density residential construction.

Assessment area description

Canopy and subcanopy species observed include red maple and wax myrtle. Herbaceous and groundcover vegetation include sawgrass, soft rush, and broomsedge. Soils in the wetland area are mapped as Map Unit 34 – Tarrytown Sandy Clay Loam, Bouldery Subsurface. Soils were saturated and exhibited dark surface. Standing water was observed within the system.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 22**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Secondary Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	Current	With Impact	
.500(6)(a) Location and Landscape Support	4	3	Adjacent habitat provides minimal support for many wildlife species; access for wildlife is substantially limited due to roadway residential construction; downstream benefits are limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive minimal benefits from AA quality; uplands provide minimal protection.
.500(6)(b) Water Environment (n/a for uplands)	4	4	Water level is slightly lower than appropriate for the community type; standing water was present in the system; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization was greatly reduced.
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	4	3	Majority of desirable species observed; invasive species present; minimal new growth or regeneration observed; generally good plants' conditions; topographic features were reduced

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	Current	With Impact
	0.40	0.33

Impact Acres =	0.16

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.01

Impact Delta (ID)	
Current - w/Impact	0.07

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 23**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6410	**Freshwater Marshes**	**Impact**	**0.08** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 23 is an isolated freshwater marsh wetland system located north of the powerline easement along the east side of US 301. Wetland 23 has been altered due to the adjacent high density residential construction and includes a retaining wall along the east side of the system.

Assessment area description

Subcanopy species observed include Carolina willow. Herbaceous and groundcover vegetation include soft rush, cattail, and broomsedge. Soils in the wetland area are mapped as Map Unit 54 – Monteocha Fine Sand, Depressional. Soils were saturated and exhibited dark surface. Standing water was observed within the system.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 23**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Direct Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	**Current**	**With Impact**	Adjacent habitat provides minimal support for many wildlife species; access for wildlife is substantially limited due to roadway and retaining wall from the residential construction; downstream benefits are limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive minimal benefits from AA quality; uplands provide minimal protection.
	4	**0**	
.500(6)(b) Water Environment (n/a for uplands)	**Current**	**With Impact**	Water level is slightly lower than appropriate for the community type; standing water was present in the system; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization was greatly reduced.
	4	**0**	
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	**Current**	**With Impact**	Majority of desirable species observed; invasive species present; minimal new growth or regeneration observed; generally good plants' conditions; topographic features were reduced
	4	**0**	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.40	0.00

Impact Acres =	0.08

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.03

Impact Delta (ID)	
Current - w/Impact	0.40

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 23**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6410	**Freshwater Marshes**	**Impact**	**0.09** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 23 is an isolated freshwater marsh wetland system located north of the powerline easement along the east side of US 301. Wetland 23 has been altered due to the adjacent high density residential construction and includes a retaining wall along the east side of the system.

Assessment area description

Subcanopy species observed include Carolina willow. Herbaceous and groundcover vegetation include soft rush, cattail, and broomsedge. Soils in the wetland area are mapped as Map Unit 54 – Monteocha Fine Sand, Depressional. Soils were saturated and exhibited dark surface. Standing water was observed within the system.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 23**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Secondary Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	Current	With Impact	
.500(6)(a) Location and Landscape Support	4	3	Adjacent habitat provides minimal support for many wildlife species; access for wildlife is substantially limited due to roadway and retaining wall from the residential construction; downstream benefits are limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive minimal benefits from AA quality; uplands provide minimal protection.
.500(6)(b) Water Environment (n/a for uplands)	4	4	Water level is slightly lower than appropriate for the community type; standing water was present in the system; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization was greatly reduced.
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	4	3	Majority of desirable species observed; invasive species present; minimal new growth or regeneration observed; generally good plants' conditions; topographic features were reduced

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	Current	With Impact
	0.40	0.33

Impact Delta (ID)	
Current - w/Impact	0.07

Impact Acres =	0.09

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.01

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 25**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6410	**Freshwater Marshes**	**Impact**	**0.66** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 25 is a freshwater marsh wetland system located north of the powerline easement along the west side of US 301. Wetland 25 appears to be disturbed and mowed with regularity.

Assessment area description

Subcanopy species observed include Peruvian primrose willow and wax myrtle. Herbaceous and groundcover vegetation include soft rush, cattail, and broomsedge. Soils in the wetland area are mapped as Map Unit 21 – Eaugallie Fine Sand, Bouldery Subsurface. Soils were saturated and exhibited dark surface. Standing water was observed within the system.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 25**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Direct Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	**Current**	**With Impact**	Adjacent habitat provides minimal support for many wildlife species; access for wildlife is substantially limited due to roadway; downstream benefits are limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive minimal benefits from AA quality; uplands provide moderate protection.
	4	**0**	
.500(6)(b) Water Environment (n/a for uplands)	**Current**	**With Impact**	Water level is slightly lower than appropriate for the community type; standing water was present in the system; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization was greatly reduced.
	4	**0**	
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	**Current**	**With Impact**	Majority of desirable species observed; invasive species present; minimal new growth or regeneration; generally good plants' conditions; topographic features were reduced
	4	**0**	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.40	0.00

Impact Acres =	0.66

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.26

Impact Delta (ID)	
Current - w/Impact	0.40

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 26**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6410	**Freshwater Marshes**	**Impact**	**0.41** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 26 is a freshwater marsh wetland system located north of the powerline easement along the west side of US 301. Wetland 26 appears to be disturbed and mowed with regularity.

Assessment area description

Subcanopy species observed include Carolina willow and wax myrtle. Herbaceous and groundcover vegetation include maidencane, soft rush, and cattail. Soils in the wetland area are mapped as Map Unit 21 – Eaugallie Fine Sand, Bouldery Subsurface and Map Unit 54 – Monteocha Fine Sand, Depressional. Soils were saturated and exhibited dark surface. Standing water was observed within the system.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 26**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Direct Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	**Current**	**With Impact**	Adjacent habitat provides minimal support for many wildlife species; access for wildlife is substantially limited due to roadway; downstream benefits are limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive minimal benefits from AA quality; uplands provide moderate protection.
	4	**0**	
.500(6)(b) Water Environment (n/a for uplands)	**Current**	**With Impact**	Water level is slightly lower than appropriate for the community type; standing water was present in the system; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization was greatly reduced.
	4	**0**	
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	**Current**	**With Impact**	Majority of desirable species observed; invasive species present; minimal new growth or regeneration; generally good plants' conditions; topographic features were reduced
	4	**0**	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.40	0.00

Impact Acres =	0.41

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.16

Impact Delta (ID)	
Current - w/Impact	0.40

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 26**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6410	**Freshwater Marshes**	**Impact**	**0.17** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 26 is a freshwater marsh wetland system located north of the powerline easement along the west side of US 301. Wetland 26 appears to be disturbed and mowed with regularity.

Assessment area description

Subcanopy species observed include Carolina willow and wax myrtle. Herbaceous and groundcover vegetation include maidencane, soft rush, and cattail. Soils in the wetland area are mapped as Map Unit 21 – Eaugallie Fine Sand, Bouldery Subsurface and Map Unit 54 – Monteocha Fine Sand, Depressional. Soils were saturated and exhibited dark surface. Standing water was observed within the system.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 26**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Secondary Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	Current	With Impact	
.500(6)(a) Location and Landscape Support	4	3	Adjacent habitat provides minimal support for many wildlife species; access for wildlife is substantially limited due to roadway; downstream benefits are limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive minimal benefits from AA quality; uplands provide moderate protection.
.500(6)(b) Water Environment (n/a for uplands)	4	4	Water level is slightly lower than appropriate for the community type; standing water was present in the system; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization was greatly reduced.
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	4	3	Majority of desirable species observed; invasive species present; minimal new growth or regeneration; generally good plants' conditions; topographic features were reduced

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	Current	With Impact
	0.40	0.33

Impact Delta (ID)	
Current - w/Impact	0.07

Impact Acres =	0.17

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.01

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 27**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6150	**Stream and Lake Swamps**	**Impact**	**0.15** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 27 is a mixed wetland hardwood forested system located along US 301 just south of the Florida's Turnpike interchange. Wetland 27 extends from the railroad to the west and flows under US 301 via a box a culvert. Wetland 27 is bordered by herbaceous open land to the south and upland hardwood-coniferous mix to the north.

Assessment area description

Canopy species observed within the forested system include sweetgum, slash pine, bald cypress, red maple, and laurel oak. Subcanopy species were sparse in the system, consisting of cabbage palm and saw palmetto. Herbaceous and groundcover species include arrowhead, lizard's tail, Virginia chain fern. Soils in the wetland area are mapped as Map Unit 9 - Paisley Fine Sand, Bouldery Subsurface. Soils were saturated and exhibited a dark surface and muck presence. Standing water was present at the time of the assessment; water marks and elevated lichen lines were observed

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST), Eastern Indigo Snake (FT)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 27**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Direct Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	**Current**	**With Impact**	Adjacent habitat provides optimal support for many wildlife species; access for wildlife is partially limited due to roadway; downstream benefits are somewhat limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive significant benefits from AA quality; uplands provide significant protection.
	7	**0**	
.500(6)(b) Water Environment (n/a for uplands)	**Current**	**With Impact**	Water level is appropriate for the community type; water level and hydrologic indicators were observed via water marks on canopy trees; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for a wetland hardwood system.
	8	**0**	
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	**Current**	**With Impact**	Majority of desirable species observed; minimal invasive species present; near-normal new growth or regeneration of canopy trees observed; generally good plants' conditions; snags, dens, or cavities present that are typical in this community type.
	8	**0**	

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	
Current	**With Impact**
0.77	0.00

Impact Acres =	0.15

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.12

Impact Delta (ID)	
Current - w/Impact	0.77

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Wetland 27**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6150	**Stream and Lake Swamps**	**Impact**	**0.09** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Wetland 27 is a mixed wetland hardwood forested system located along US 301 just south of the Florida's Turnpike interchange. Wetland 27 extends from the railroad to the west and flows under US 301 via a box a culvert. Wetland 27 is bordered by herbaceous open land to the south and upland hardwood-coniferous mix to the north.

Assessment area description

Canopy species observed within the forested system include sweetgum, slash pine, bald cypress, red maple, and laurel oak. Subcanopy species were sparse in the system, consisting of cabbage palm and saw palmetto. Herbaceous and groundcover species include arrowhead, lizard's tail, Virginia chain fern. Soils in the wetland area are mapped as Map Unit 9 - Paisley Fine Sand, Bouldery Subsurface. Soils were saturated and exhibited a dark surface and muck presence. Standing water was present at the time of the assessment; water marks and elevated lichen lines were observed

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST), Eastern Indigo Snake (FT)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**Wetland 27**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Secondary Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	Current	With Impact	
.500(6)(a) Location and Landscape Support	7	6	Adjacent habitat provides optimal support for many wildlife species; access for wildlife is partially limited due to roadway; downstream benefits are somewhat limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive significant benefits from AA quality; uplands provide significant protection.
.500(6)(b) Water Environment (n/a for uplands)	8	8	Water level is appropriate for the community type; water level and hydrologic indicators were observed via water marks on canopy trees; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for a wetland hardwood system.
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	8	7	Majority of desirable species observed; minimal invasive species present; near-normal new growth or regeneration of canopy trees observed; generally good plants' conditions; snags, dens, or cavities present that are typical in this community type.

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	Current	With Impact
	0.77	0.70

Impact Acres =	0.09

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.01

Impact Delta (ID)	
Current - w/Impact	0.07

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Surface Water 2**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
5300	**Reservoirs**	**Impact**	**0.18** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Surface Waters 2 is an excavated water storage features utilized for the surrounding low density residential and pastureland land use. These small agricultural and recreational farm ponds exhibited standing water and submerged vegetation was observed during the site assessment.

Assessment area description

Canopy species observed along the banks include sweetgum, cabbage palm, red maple, and laurel oak. Subcanopy and groundcover species were sparse in the system. Standing water was present at the time of the assessment.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST), Eastern Indigo Snake (FT)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**SW 2**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Direct Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	Current	With Impact	
.500(6)(a) Location and Landscape Support	4	0	Adjacent habitat provides optimal support for many wildlife species; access for wildlife is limited due to roadway; downstream benefits are somewhat limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive significant benefits from AA quality; uplands provide moderate protection.
.500(6)(b) Water Environment (n/a for uplands)	4	0	Water level is moderately appropriate for the community type; water level depth was approximately 3 feet; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for a conveyance channel.
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	4	0	Majority of desirable species observed; minimal invasive species present; near-normal new growth or regeneration of canopy trees observed; generally good plants' conditions; snags, dens, or cavities present that are typical in this community type.

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	Current	With Impact
	0.40	0.00

Impact Delta (ID)	
Current - w/Impact	0.40

Impact Acres =	0.18

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.07

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
SR 35 (US 301) from CR 470 to SR 44		**Surface Water 3**

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
5300	**Reservoirs**	**Impact**	**1.47** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Withlacochee River		

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

Surface Waters 3 is an excavated water storage features utilized for the surrounding low density residential and pastureland land use. These small agricultural and recreational farm ponds exhibited standing water and submerged vegetation was observed during the site assessment.

Assessment area description

Canopy species observed along the banks include sweetgum, cabbage palm, red maple, and laurel oak. Subcanopy and groundcover species were sparse in the system. Standing water was present at the time of the assessment.

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
Lake Panasoffkee	**This is a common wetland for this region**

Functions	Mitigation for previous permit/other historic use
water conveyance, flood control, water quality, wildlife foraging habitat	**None**

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
Various wading birds, snakes, frogs, turtles, alligators, snails, invertebrates.	**Bald Eagle (Bald Eagle (68A-16.002, F.A.C), Little Blue Heron (ST), Reddish Egret (ST), Tricolored Heron (ST), Eastern Indigo Snake (FT)**

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Brady Hart	**02/14/23**

Form 62-345.900(1), F.A.C. [effective date]

UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT
Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name:	Application Number:	Assessment Area Name or Number:
SR 35 (US 301) from CR 470 to SR 44	**-**	**SW 3**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Direct Impact	**Brady Hart**	**02/14/23**

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

	Current	With Impact	
.500(6)(a) Location and Landscape Support	**4**	**0**	Adjacent habitat provides optimal support for many wildlife species; access for wildlife is limited due to roadway; downstream benefits are somewhat limited by distance and barriers from the adjacent roadway; downstream habitats (adjacent wetlands) derive significant benefits from AA quality; uplands provide moderate protection.
.500(6)(b) Water Environment (n/a for uplands)	**4**	**0**	Water level is moderately appropriate for the community type; water level depth was approximately 3 feet; soil moisture is appropriate for the community; vegetation was appropriate for the community type; wildlife utilization less than expected for a conveyance channel.
.500(6)(c) Community Structure x Vegetation _____ Benthic _____ Both	**4**	**0**	Majority of desirable species observed; minimal invasive species present; near-normal new growth or regeneration of canopy trees observed; generally good plants' conditions; snags, dens, or cavities present that are typical in this community type.

Raw Score = Sum of above scores/30 (if uplands, divide by 20)	Current	With Impact
	0.40	0.00

Impact Acres =	1.47

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	0.59

Impact Delta (ID)	
Current - w/Impact	0.40

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Appendix D: Species Determination Keys and Protection Measures

Programmatic Effect Determination Key for the Eastern Indigo Snake

Standard Protection Measures for the Eastern Indigo Snake

Wood Stork Effect Determination Key

Programmatic Effect Determination Key for the Eastern Indigo Snake

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960

August 1, 2017

Donnie Kinard
U.S. Army Corps of Engineers
Post Office Box 4970
Jacksonville, Florida 32232-0019

Subject: Consultation Key for the Eastern Indigo Snake – Revised

Dear Mr. Kinard:

This letter revises and replaces the January 25, 2010, and August 13, 2013, letters to the U.S. Army Corps of Engineers (Corps) regarding the use of the eastern indigo snake programmatic effect determination key (Key) for projects occurring within the South Florida Ecological Service's Office (SFESO) jurisdiction. This revision supersedes all prior versions of the Key in the SFESO area. The purpose of this revision is to clarify portions of the previous keys based on questions we have been asked, specifically related to habitat and refugia used by eastern indigo snakes (*Drymarchon corais couperi*), in the southern portion of their range and within the jurisdiction of the SFESO. This Key is provided pursuant to the Service's authorities under the Endangered Species Act of 1973, as amended (Act) (87 Stat. 884; 16 U.S.C.1531 *et seq.*). This Key revision has been assigned Service Consultation Code: 41420-2009-I-0467-R001.

The purpose of this Key is to assist the Corps (or other Federal action agency) in making appropriate effects determinations for the eastern indigo snake under section 7 of the Act, and streamline informal consultation with the SFESO for the eastern indigo snake when the proposed action can be walked through the Key. The Key is a tool available to the Corps (or other Federal action agency) for the purposes of expediting section 7 consultations. There is no requirement to use the Key. There will be cases when the use of the Key is not appropriate. These include, but are not limited to: where project specific information is outside of the scope of the Key or instances where there is new biological information about the species. In these cases, we recommend the Corps (or other Federal action agency) initiates traditional consultation pursuant to section 7 of the Act, and identify that consultation is being requested outside of the Key.

This Key uses project size and home ranges of eastern indigo snakes as the basis for making determinations of "may affect, but is not likely to adversely affect" (NLAA) and "may affect. and is likely to adversely affect" (may affect). Suitable habitat for the eastern indigo snake consists of a mosaic of habitats types, most of which occur throughout South Florida. Information on home ranges for individuals is not available in specific habitats in South Florida. Therefore, the SFESO uses the information from a 26-year study conducted by Layne and Steiner (1996) at Archbold Biological Station, Lake Placid, Florida, as the best available

information. Layne and Steiner (1996) determined the average home range size for a female eastern indigo snake was 46 acres and 184 acres for a male.

Projects that would remove/destroy less than 25 acres of eastern indigo snake habitat are expected to result in the loss of a portion of an eastern indigo snakes home range that would not impair the ability of the individual to feed, breed, and shelter. Therefore, the Service finds that take would not be reasonably certain to occur due to habitat loss. However, these projects have the potential to injure or kill an eastern indigo snake if the individual is crushed by equipment during site preparation or other project aspects. The Service's *Standard Protection Measures for the Eastern Indigo Snake* (Service 2013 or most current version) and the excavation of underground refugia (where a snake could be buried, trapped and/or injured), when implemented, are designed to avoid these forms of take. Consequently, projects less than 25 acres that include the Service's *Standard Protection Measures for the Eastern Indigo Snake* (Service 2013 or most current version) and a commitment to excavate underground refugia as part of the proposed action would be expected to avoid take and thus, may affect, but are not likely to adversely affect the species.

If a proposed project would impact less than 25 acres of vegetated eastern indigo snake habitat (not urban/ human-altered) completely surrounded by urban development, and an eastern indigo snake has been observed on site, the Key should not be used. The Service recommends formal consultation for this situation because of the expected increased value of the vegetated habitat within the individual's home range.

Projects that would remove 25 acres or more of eastern indigo snake habitat could remove more than half of a female eastern indigo snakes home range. This loss of habitat within a home range would be expected to significantly impair the ability of that individual to feed, breed, and shelter. Therefore, the Service finds take through habitat loss would be reasonably certain to occur and formal consultation is appropriate. Furthermore, these projects have the potential to injure or kill an eastern indigo snake if the individual is crushed by equipment during site preparation or other project aspects. The Service's *Standard Protection Measures* for the *Eastern Indigo Snake* (Service 2013 or most current version) and the excavation of underground refugia (where a snake could be buried, trapped and/or injured), when implemented, are designed to avoid these forms of take.

Eastern indigo snakes use a variety of habitat and are difficult to detect. Therefore, site specific information on the land use, observations of eastern indigo snakes within the vicinity, as well as other factors, as appropriate, will all be considered by the Service when making a final recommendation on the appropriate effects determination and whether it is appropriate to conclude consultation with the Corps (or other Federal action agency) formally or informally for projects that will impact 25 acres or more of habitat. Accordingly, when the use of the Key results in a determination of "may affect," the Corps (or other Federal action agency) is advised that consultation may be concluded informally or formally, depending on the project specific effects to eastern indigo snakes. Technical assistance from the Service can assist you in making a determination prior to submitting a request for consultation. In circumstances where the Corps (or other Federal action agency) desires to proceed with a consultation request prior to receiving

additional technical assistance from the Service, we recommend the agency documents the biological rationale for their determination and proceed with a request accordingly.

If the use of the Key results in a determination of "no effect," no further consultation is necessary with the SFESO. If the use of the Key results in a determination of "NLAA," the SFESO concurs with this determination based on the rationale provide above, and no further consultation is necessary for the effects of the proposed action on the eastern indigo snake. For "no effect" or "NLAA" determinations, the Service recommends that the Corps (or other Federal action agency) documents the pathway used to reach your no effect or NLAA determination in the project record and proceed with other species analysis as warranted.

Eastern Indigo Snake Programmatic Effect Determination Key
Revised July 2017
South Florida Ecological Service Office

Scope of the Key

This Key should be used only in the review of permit applications for effects determinations for the eastern indigo snake (*Drymarchon corais couperi*) within the South Florida Ecological Service's Office (SFESO) area (Broward, Charlotte, Collier, De Soto, Glades, Hardee, Hendry, Highlands, Lee, Indian River, Martin, Miami-Dade, Monroe, Okeechobee, Osceola, Palm Beach, Polk, Sarasota, and St. Lucie Counties). There is no designated critical habitat for the eastern indigo snake.

This Key is subject to revision as the Corps (or other Federal action agency) and Service deem necessary and in particular whenever there is new information on eastern indigo snake biology and effects of proposed projects.

The Key is a tool available to the Corps (or other Federal action agency) for the purposes of expediting section 7 consultations. There is no requirement to use the Key. There will be cases when the use of the Key is not appropriate. These include, but are not limited to: where project specific information is outside of the scope of the Key or instances where there is new biological information about the species. In these cases, we recommend the Corps (or other Federal action agency) initiates traditional consultation pursuant to section 7 of the Act, and identify that consultation is being requested outside of the Key.

Habitat

Habitat use varies seasonally between upland and wetland areas, especially in the more northern parts of the species' range. In southern parts of their range eastern indigo snakes are habitat generalists which use most available habitat types. Movements between habitat types in northern areas of their range may relate to the need for thermal refugia (protection from cold and/or heat).

In northern areas of their range eastern indigo snakes prefer an interspersion of tortoise-inhabited sandhills and wetlands (Landers and Speake 1980). In these northern regions eastern indigo

snakes most often use forested areas rich with gopher tortoise burrows, hollowed root channels, hollow logs, or the burrows of rodents, armadillos, or land crabs as thermal refugia during cooler seasons (Lawler 1977; Moler 1985a; Layne and Steiner 1996). The eastern indigo snake in the northern region is typically classified as a longleaf pine savanna specialist because here, in the northern four-fifths of its range, the eastern indigo snake is typically only found in vicinity of xeric longleaf pine–turkey oak sandhills inhabited by the gopher tortoise (Means 2006).

In the milder climates of central and southern Florida, comprising the remaining one fifth of its range, thermal refugia such as those provided by gopher tortoise burrows may not be as critical to survival of indigo snakes. Consequently, eastern indigo snakes in these regions use a more diverse assemblage of habitats such as pine flatwoods, scrubby flatwoods, floodplain edges, sand ridges, dry glades, tropical hammocks, edges of freshwater marshes, muckland fields, coastal dunes, and xeric sandhill communities; with highest population concentrations of eastern indigo snakes occurring in the sandhill and pineland regions of northern and central Florida (Service 1999). Eastern indigo snakes have also been found on agricultural lands with close proximity to wetlands (Zeigler 2006).

In south Florida, agricultural sites (*e.g.*, sugar cane fields and citrus groves) are occupied by eastern indigo snakes. The use of sugarcane fields by eastern indigo snakes was first documented by Layne and Steiner in 1996. In these areas there is typically an abundance of wetland and upland ecotones (due to the presence of many ditches and canals), which support a diverse prey base for foraging. In fact, some speculate agricultural areas may actually have a higher density of eastern indigo snakes than natural communities due to the increased availability of prey. Gopher tortoise burrows are absent at these locations but there is an abundance of both natural and artificial refugia. Enge and Endries (2009) reporting on the status of the eastern indigo snake included sugarcane fields and citrus groves in a Global Information Systems (GIS)-base map of potential eastern indigo snake habitat. Numerous sightings of eastern indigo snakes within sugarcane fields have been reported within south Florida (Florida Fish and Wildlife Conservation Commission Indigo Snake Database [Enge 2017]). A recent study associated with the Comprehensive Everglades Restoration Plan (CERP) (A-1 FEB Project formerly A-1 Reservoir; Service code: 41420-2006-F-0477) documented eastern indigo snakes within sugarcane fields. The snakes used artificial habitats such as piles of limerock, construction debris, and pump stations. Recent studies also associated with the CERP at the C-44 Project (Service code: 41420-2009-FA-0314), and C-43 Project (Service code: 41420-2007-F-0589) documented eastern indigo snakes within citrus groves. The snakes used artificial habitats such as boards, sheets of tin, construction debris, pipes, drain pipes in abandoned buildings and septic tanks.

In extreme south Florida (*i.e.*, the Everglades and Florida Keys), eastern indigo snakes also utilize tropical hardwood hammocks, pine rocklands, freshwater marshes, abandoned agricultural land, coastal prairie, mangrove swamps, and human-altered habitats. Though eastern indigo snakes have been found in all available habitats of south Florida it is thought they prefer hammocks and pine forests since most observations occur there and use of these areas is disproportionate compared to the relatively small total area of these habitats (Steiner *et al.* 1983).

Even though thermal stress may not be a limiting factor throughout the year in south Florida, eastern indigo snakes still seek and use underground refugia. On the sandy central ridge of central Florida, eastern indigo snakes use gopher tortoise burrows more (62 percent) than other underground refugia (Layne and Steiner 1996). Other underground refugia used include armadillo (*Dasypus novemcinctus*) burrows near citrus groves, cotton rat (*Sigmodon hispidus*) burrows, and land crab (*Cardisoma guanhumi*) burrows in coastal areas (Layne and Steiner 1996; Wilson and Porras 1983). Natural ground holes, hollows at the base of trees or shrubs, ground litter, trash piles, and crevices of rock-lined ditch walls are also used (Layne and Steiner 1996). These refugia are used most frequently where tortoise burrows are not available, principally in low-lying areas off the central and coastal ridges.

Minimization Measures

The Service developed protection measures for the eastern indigo snake "Standard Protection Measures for the Eastern Indigo Snake" (Service 2013) located at: https://www.fws.gov/verobeach/ReptilesPDFs/20130812_EIS%20Standard%20Protection%20Measures_final.pdf. These protections measures (or the most updated version) are considered a minimization measure for projects proposed within eastern indigo snake habitat.

Determinations

If the use of this Key results in a determination of "**no effect**," no further consultation is necessary with the SFESO.

If the use of this Key results in a determination of "**NLAA**," the SFESO concurs with this determination and no further consultation is necessary for the effects of the proposed action on the eastern indigo snake.

For no effect or NLAA determinations, the Corps (or other Federal action agency) should make a note in the project file indicating the pathway used to reach your no effect or NLAA determination.

If a proposed project would impact less than 25 acres of vegetated eastern indigo snake habitat (not urban/ human-altered) completely surrounded by urban development, and an eastern indigo snake has been observed on site, the subsequent Key should not be used. The Service recommends formal consultation for this situation because of the expected increased value of the vegetated habitat within the individual's home range.

If the use of this Key results in a determination of "**may affect**," consultation may be concluded informally or formally depending on project effects to eastern indigo snakes. Technical assistance from the Service can assist you in making a determination prior to submitting a request for consultation. In circumstances where the Corps desires to proceed with a consultation request prior to receiving additional technical assistance from the Service, we recommend the Corps document the biological rationale for their determination and proceed with a request accordingly.

A. Project is not located in open water or salt marsh.....go to B

Project is located solely in open water or salt marsh.....**no effect**

B. Permit will be conditioned for use of the Service's most current guidance for Standard Protection Measures For The Eastern Indigo Snake (currently 2013) during site preparation and project construction.....go to C

Permit will not be conditioned as above for the eastern indigo snake, or it is not known whether an applicant intends to use these measures and consultation with the Service is requested.....**may affect**

C. The project will impact less than 25 acres of eastern indigo snake habitat (*e.g.*, sandhill, scrub, pine flatwoods, pine rocklands, scrubby flatwoods, high pine, dry prairie, coastal prairie, mangrove swamps, tropical hardwood hammocks, hydric hammocks, edges of freshwater marshes, agricultural fields [including sugar cane fields and active, inactive, or abandoned citrus groves], and coastal dunes).....go to D

The project will impact 25 acres or more of eastern indigo snake habitat (*e.g.*, sandhill, scrub, pine flatwoods, pine rocklands, scrubby flatwoods, high pine, dry prairie, coastal prairie, mangrove swamps, tropical hardwood hammocks, hydric hammocks, edges of freshwater marshes, agricultural fields [including sugar cane fields and active, inactive, or abandoned citrus groves], and coastal dunes).....**may affect**

D. The project has no known holes, cavities, active or inactive gopher tortoise burrows, or other underground refugia where a snake could be buried, trapped and/or injured during project activities.....**NLAA**

The project has known holes, cavities, active or inactive gopher tortoise burrows, or other underground refugia where a snake could be buried, trapped and /or injured.....go to E

E. Any permit will be conditioned such that all gopher tortoise burrows, active or inactive, will be excavated prior to site manipulation in the vicinity of the burrow[1]. If an eastern indigo snake is encountered, the snake must be allowed to vacate the area prior to additional site manipulation in the vicinity. Any permit will also be conditioned such that holes, cavities, and snake refugia other than gopher tortoise burrows will be inspected each morning before planned site manipulation of a particular area, and, if occupied by an eastern indigo snake, no work will commence until the snake has vacated the vicinity of proposed work.....**NLAA**[2]

Permit will not be conditioned as outlined above.....**may affect**

End Key

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[1] If excavating potentially occupied burrows, active or inactive, individuals must first obtain state authorization via a Florida Fish and Wildlife Conservation Commission Authorized Gopher Tortoise Agent permit. The excavation method selected should also minimize the potential for injury of an indigo snake. Applicants should follow the excavation guidance provided within the most current Gopher Tortoise Permitting Guidelines found at http://myfwc.com/gophertortoise.

[2] Please note, if the proposed project will impact less than 25 acres of vegetated eastern indigo snake habitat (not urban/ human-altered) completely surrounded by urban development, and an eastern indigo snake has been observed on site, NLAA is not the appropriate conclusion. The Service recommends formal consultation for this situation because of the expected increased value of the vegetated habitat within the individual's home range

Working with the Fish and Wildlife Foundation of Florida, the Service has established a fund to support conservation and recovery for the eastern indigo snake. Any project that has the potential to affect the eastern indigo snake and/or its habitat is encouraged to make a voluntary contribution to this fund. If you would like additional information about how to make a contribution and how these monies are used to support eastern indigo snake recovery please contact Ashleigh Blackford, Connie Cassler, or José Rivera at 772-562-3559.

This revised Key is effective immediately upon receipt by the Corps. Should circumstances change or new information become available regarding the eastern indigo snake and/or implementation of the Key, the determinations herein may be reconsidered and this Key further revised or amended.

Thank you for your continued cooperation in the effort to conserve fish and wildlife resources. If you have any questions or comments regarding this Key, please contact the SFESO at 772-562-3909.

Sincerely,

Roxanna Hinzman
Field Supervisor
South Florida Ecological Services

Cc:
Corps, Jacksonville, Florida (Dale Beter, Muriel Blaisdell, Ingrid Gilbert, Angela Ryan, Irene Sadowski, Victoria White, Alisa Zarbo)
Service, Athens, Georgia (Michelle Elmore)
Service, Jacksonville, Florida (Annie Dziergowski)
Service, Panama City, Florida (Sean Blomquist)

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Standard Protection Measures for the Eastern Indigo Snake

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE

U.S. Fish and Wildlife Service

May 2024

The Standard Protection Measures for the Eastern Indigo Snake (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida and Georgia for use by project proponents and their construction personnel help minimize adverse impacts to eastern indigo snakes. However, implementation of this Plan does not replace any state of federal consultation or regulatory requirements. At least 30 days prior to any land disturbance activities, the project proponent shall notify the appropriate USFWS Field Office (see Field Office contact information) via e-mail that the Plan will be implemented as described below.

As long as the signatory of the e-mail certifies compliance with the below Plan (including use of the approved poster and pamphlet (USFWS Eastern Indigo Snake Conservation webpage), no further written confirmation or approval from the USFWS is needed regarding use of this Plan as a component of the project.

If the project proponent decides to use an eastern indigo snake protection/education plan other than the approved Plan below, written confirmation or approval from the USFWS that the plan is adequate must be obtained. The project proponent shall submit their unique plan for review and approval. The USFWS will respond via e-mail, typically within 30 days of receiving the plan, either concurring that the plan is adequate or requesting additional information. A concurrence e-mail from the appropriate USFWS Field Office will fulfill approval requirements.

STANDARD PROTECTION MEASURES

BEFORE AND DURING CONSTRUCTION ACTIVITIES:

- All Project personnel shall be notified about the potential presence and appearance of the federally protected eastern indigo snake (*Drymarchon couperi*).
- All personnel shall be advised that there are civil and criminal penalties for harassing, harming, pursuing, hunting, shooting, wounding, killing, capturing, or collecting the species, in knowing violation of the Endangered Species Act of 1973.
- The project proponent or designated agent will post educational posters in the construction office and throughout the construction site. The posters must be clearly visible to all construction staff and shall be posted in a conspicuous location in the

Project field office until such time that Project construction has been completed and time charges have stopped.

- Prior to the onset of construction activities, the project proponent or designated agent will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational pamphlet including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office. Photos of eastern indigo snakes may be accessed on USFWS, Florida Fish and Wildlife Conservation Commission and/or Georgia Department of Natural Resources websites.
- Each day, prior to the commencement of maintenance or construction activities, the Contractor shall perform a thorough inspection for the species of all worksite equipment.
- If an eastern indigo snake (alive, dead or skin shed) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification of the appropriate USFWS Office. The contact information for the USFWS is provided below and on the referenced posters and pamphlets.
- During initial site clearing activities, an onsite observer is recommended to determine whether habitat conditions suggest a reasonable probability of an eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities, and presence of gopher tortoises and burrows).
- Periodically during construction activities, the project area should be visited to observe the condition of the posters and Plan materials and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any eastern indigo snakes are seen.
- For erosion control use biodegradable, 100% natural fiber, net-free rolled erosion control blankets to avoid wildlife entanglement.

POST CONSTRUCTION ACTIVITIES:

Whether or not eastern indigo snakes are observed during construction activities, a monitoring report should be submitted to the appropriate USFWS Field Office within 60 days of project completion (See USFWS Field Office Contact Information).

USFWS FIELD OFFICE CONTACT INFORMATION

Georgia Field Office: Phone: (706) 613-9493, email: gaes_assistance@fws.gov
Florida Field Office: Phone: (352) 448-9151, email: fw4flesregs@fws.gov

POSTER & PAMPHLET INFORMATION

Posters with the following information shall be placed at strategic locations on the construction site and along any proposed access roads (final posters for Plan compliance are available on our website in English and Spanish and should be printed on 11 x 17in or larger paper and laminated (USFWS Eastern Indigo Snake Conservation webpage). Pamphlets are also available on our webpage and should be printed on 8.5 x 11in paper and folded, and available and distributed to staff working on the site.

POSTER CONTENT (ENGLISH):

ATTENTION

Federally-Threatened Eastern Indigo Snakes may be present on this site!

Killing, harming, or harassing eastern indigo snakes is strictly prohibited and punishable under State and Federal Law.

IF YOU SEE A LIVE EASTERN INDIGO SNAKE ON THE SITE:

• Stop land disturbing activities and allow the snake time to move away from the site without interference. Do NOT attempt to touch or handle the snake.

• Take photographs of the snake, if possible, for identification and documentation purposes.

• Immediately notify supervisor/agent, and a U.S. Fish and Wildlife Service (USFWS) Ecological Services Field Office, with the location information and condition of the snake.

• If the snake is located near clearing or construction activities that will cause harm to the snake, the activities must pause until a representative of the USFWS returns the call (within one day) with further guidance.

IF YOU SEE A DEAD EASTERN INDIGO SNAKE ON THE SITE:

• Stop land disturbing activities and immediately notify supervisor/applicant, and a USFWS Ecological Services Field Office, with the location information and condition of the snake.

• Take photographs of the snake, if possible, for identification and documentation purposes.

• Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, reaching up to 8 ft long. Named for the glossy, blue-black scales above and slate blue below, they often have orange to reddish color (cream color in some cases)

in the throat area. They are not typically aggressive.

SIMILAR SPECIES: The black racer resembles the eastern indigo snake. However, black racers have a white or cream chin, and thinner bodies.

LIFE HISTORY: Eastern indigo snakes live in a variety of terrestrial habitat types. Although they prefer uplands, they also use wetlands and agricultural areas. They will shelter inside gopher tortoise burrows, other animal burrows, stumps, roots, and debris piles. Females may lay from 4 to 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTED STATUS: The eastern indigo snake is protected by the USFWS, Florida Fish and Wildlife Conservation Commission, and Georgia Department of Natural Resources. Any attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage eastern indigo snakes is prohibited by the U.S. Endangered Species Act. Penalties include a maximum fine of $25,000 for civil violations and up to $50,000 and/or imprisonment for criminal offenses. Only authorized individuals with a permit (or an Incidental Take Statement associated with a USFWS Biological Opinion) may handle an eastern indigo snake.

Please contact your nearest USFWS Ecological Services Field Office if a live or dead eastern indigo snake is encountered:

Florida Office: (352) 448-9151

Georgia Office: (706) 613-9493

POSTER CONTENT (SPANISH):

ATENCIÓN

¡Especie amenazada, la culebra Índigo del Este, puede ocupar el área!

Matar, herir o hostigar culebras Índigo del Este es estrictamente prohibido bajo la Ley Federal.

SI VES UNA CULEBRA ÍNDIGO DEL ESTE O UNA CULEBRA NEGRA VIVA EN EL ÁREA:

• Pare excavación y permite el movimiento de la culebra fuera del área sin interferir. NO atentes tocar o recoger la culebra.

• Fotografié la culebra si es posible para identificación y documentación.

• Notifique supervisor/agente, y la Oficina de Campo de Servicios Ecológicos del Servicio Federal de Pesca y Vida Silvestre (USFWS) apropiada con información acerca del sitio y condición de la culebra.

• Si la culebra está cerca de un área de construcción que le pueda causar daño, las actividades deben parar hasta un representante del USFWS regrese la llamada (dentro de un día) con más orientación.

SI VES UNA CULEBRA ÍNDIGO DEL ESTE MUERTA EN EL ÁREA:

• Pare excavación. Notifique supervisor/aplicante, y la Oficina de Campo de Servicios Ecológicos apropiada con información acerca del sitio y condición de la culebra.

• Fotografié la culebra si es posible para identificación y documentación.

• Emerge completamente la culebra en agua y congele la especie hasta que personal apropiado de la agencia de vida silvestre la recoja.

DESCRIPCIÓN. La culebra Índigo del Este es una de las serpientes sin veneno más grande en Norte América, alcanzando hasta 8 pies de largo. Su nombre proviene del color azul-negro brilloso de sus escamas, pero pueden tener un color anaranjado-rojizo (color crema en algunos casos) en su mandíbula inferior. No tienden a ser agresivas.

SERPIENTES PARECIDAS. La corredora negra, que es de color negro sólido, es la única otra serpiente que se asemeja a la Índigo del Este. La corredora negra se diferencia por una mandíbula inferior color blanca o crema y un cuerpo más delgado.

HÁBITATS Y ECOLOGÍA. La culebra Índigo del Este vive en una variedad de hábitats, incluyendo tierras secas, humedales, y áreas de agricultura. Ellas buscan refugio en agujeros o huecos de tierra, en especial madrigueras de tortugas de tierra. Las hembras ponen 4 hasta 12 huevos blancos entre abril y junio, y la cría emergen entre julio y octubre.

PROTECCIÓN LEGAL. La culebra Índigo del Este es clasificada como especie amenazada por el USFWS, la Comisión de Conservación de Pesca y Vida Silvestre de Florida y el Departamento de Recursos Naturales de Georgia. Intento de matar, hostigar, herir, lastimar, perseguir, cazar, disparar, capturar, colectar o conducta parecida hacia las culebras Índigo del Este es prohibido por la Ley Federal de Especies en Peligro de Extinción. Penalidades incluyen un máximo de $25,000 por violaciones civiles y $50,000 y/o encarcelamiento por actos criminales. Solos individuales autorizados con un permiso o Determinación de toma incidental (Incidental Take Statement) asociado con una Opinión Biológico del USFWS pueden recoger una Índigo del Este.

Por favor de contactar tu Oficina de Campo de Servicios Ecológicos más cercana si encuentras una culebra Índigo del Este viva o muerta:

Oficina de Florida: (352) 448-9151

Oficina de Georgia: (706) 613-9493

Wood Stork Effect Determination Key

THE CORPS OF ENGINEERS, JACKSONVILLE DISTRICT, U. S. FISH AND WILDLIFE SERVICE, JACKSONVILLE ECOLOGICAL SERVICES FIELD OFFICE AND STATE OF FLORIDA EFFECT DETERMINATION KEY FOR THE WOOD STORK IN CENTRAL AND NORTH PENINSULAR FLORIDA
September 2008

Purpose and Background

The purpose of this document is to provide a tool to improve the timing and consistency of review of Federal and State permit applications and Federal civil works projects, for potential effects of these projects on the endangered wood stork (*Mycteria americana*) within the Jacksonville Ecological Services Field Office (JAFL) geographic area of responsibility (GAR see below). The key is designed primarily for Corps Project Managers in the Regulatory and Planning Divisions and the Florida Department of Environmental Protection or its authorized designee, or Water Management Districts. The tool consists of the following dichotomous key and reference material. The key is intended to be used to evaluate permit applications and Corps' civil works projects for impacts potentially affecting wood storks or their wetland habitats. At certain steps in the key, the user is referred to graphics depicting known wood stork nesting colonies and their core foraging areas (CFA), footnotes, and other support documents. The graphics and supporting documents may be downloaded from the Corps' web page at http://www.saj.usace.army.mil/permit or at the JAFL web site at http://www.fws.gov/northflorida/WoodStorks. We intend to utilize the most recent information for both the graphics and supporting information; so should this information be updated, we will modify it accordingly. **Note: This information is provided as an aid to project review and analysis, and is not intended to substitute for a comprehensive biological assessment of potential project impacts. Such assessments are site-specific and usually generated by the project applicant or, in the case of civil works projects, by the Corps or project co-sponsor.**

Explanatory footnotes provided in the key must be closely followed whenever encountered.

Scope of the key

This key should only be used in the review of permit applications for effects determinations on wood storks within the JAFL GAR, and not for other listed species. Counties within the JAFL GAR include Alachua, Baker, Bradford, Brevard, Citrus, Clay, Columbia, Dixie, Duval, Flagler, Gilchrist, Hamilton, Hernando, Hillsborough, Lafayette, Lake, Levy, Madison, Manatee, Marion, Nassau, Orange, Pasco, Pinellas, Putnam, St. Johns, Seminole, Sumter, Suwannee, Taylor, Union, and Volusia.

The final effect determination will be based on project location and description, the potential effects to wood storks, and any measures (for example project components, special permit conditions) that avoid or minimize direct, indirect, and/or cumulative

impacts to wood storks and/or suitable wood stork foraging habitat. Projects that key to a "no effect" determination do not require additional consultation or coordination with the JAFL. Projects that key to "NLAA" also do not need further consultation; however, the JAFL staff will assist the Corps if requested, to answer questions regarding the appropriateness of mitigation options. Projects that key to a "may affect" determination equate to "likely to adversely affect" situations, and those projects should not be processed under the SPGP or any other programmatic general permit. For all "may affect" determinations, Corps Project Managers should request the JAFL to initiate formal consultation on the Wood stork.

Summary of General Wood Stork Nesting and Foraging Habitat Information

The wood stork is primarily associated with freshwater and estuarine habitats that are used for nesting, roosting, and foraging. Wood storks typically nest colonially in medium to tall trees that occur in stands located either in swamps or on islands surrounded by relatively broad expanses of open water (Ogden 1991; Rodgers et al. 1996). Successful breeding sites are those that have limited human disturbance and low exposure to land based predators. Nesting sites protected from land-based predators are characterized as those surrounded by large expanses of open water or where the nest trees are inundated at the onset of nesting and remain inundated throughout most of the breeding cycle. These colonies have water depths between 0.9 and 1.5 meters (3 and 5 feet) during the breeding season.

In addition to limited human disturbance and land-based predation, successful nesting depends on the availability of suitable foraging habitat. Such habitat generally results from a combination of average or above-average rainfall during the summer rainy season, and an absence of unusually rainy or cold weather during the winter-spring breeding season (Kahl 1964; Rodgers et al. 1987). This pattern produces widespread and prolonged flooding of summer marshes that tends to maximize production of freshwater fishes, followed by steady drying that concentrate fish during the season when storks nest (Kahl 1964). Successful nesting colonies are those that have a large number of foraging sites. To maintain a wide range of foraging opportunities, a variety of wetland habitats exhibiting short and long hydroperiods should be present. In terms of wood stork foraging, the Service (1999) describes a short hydroperiod as one where a wetland fluctuates between wet and dry in 1 to 5-month cycles, and a long hydroperiod where the wet period is greater than five consecutive months. Wood storks during the wet season generally feed in the shallow water of short-hydroperiod wetlands and in coastal habitats during low tide. During the dry season, foraging shifts to longer hydroperiod interior wetlands as they progressively dry down (though usually retaining some surface water throughout the dry season).

Because of their specialized feeding behavior, wood storks forage most effectively in shallow-water areas with highly concentrated prey. Typical foraging sites for the wood stork include freshwater marshes, depressions in cypress heads, swamp sloughs, managed impoundments, stock ponds, shallow-seasonally flooded roadside or agricultural ditches, and narrow tidal creeks or shallow tidal pools. Good foraging conditions are characterized by water that is relatively calm, open, and having water depths between 5 and 15 inches (5 and 38 cm). Preferred foraging habitat includes wetlands exhibiting a mosaic of submerged and/or emergent aquatic vegetation, and shallow, open-water areas subject to hydrologic

regimes ranging from dry to wet. The vegetative component provides nursery habitat for small fish, frogs, and other aquatic prey, and the shallow, open-water areas provide sites for concentration of the prey during daily or seasonal low water periods.

WOOD STORK KEY

Although designed primarily for use by Corps Project Managers in the Regulatory and Planning Divisions, and State Regulatory agencies or their designees, project permit applicants and co-sponsors of civil works projects may find this key and its supporting documents useful in identifying potential project impacts to wood storks, and planning how best to avoid, minimize, or compensate for any identified adverse effects.

A. Project within 2,500 feet of an active colony site[1]……*May affect*

Project more than 2,500 feet from a colony site……go to B

B. Project does not affect suitable foraging habitat[2] (SFH)…….*no effect*

Project impacts SFH[2]……go to C

C. Project impacts to SFH are less than or equal to 0.5 acre[3]…….....*NLAA*[4]

Project impacts to SFH are greater than or equal to 0.5 acre..……...go to D

D. Project impacts to SFH not within a Core Foraging Area[5] (see attached map) of a colony site, and no wood storks have been documented foraging on site…….....NLAA[4]

Project impacts to SFH are within the CFA of a colony site, or wood storks have been documented foraging on a project site outside the CFA ……..….go to E

E. Project provides SFH compensation within the Service Area of a Service-approved wetland mitigation bank or wood stork conservation bank preferably within the CFA, or consists of SFH compensation within the CFA consisting of enhancement, restoration or creation in a project phased approach that provides an amount of habitat and foraging function equivalent to that of impacted SFH (see *Wood Stork Foraging Habitat Assessment Procedure*[6] for guidance), is not contrary to the Service's *Habitat Management Guidelines For The Wood Stork In The Southeast Region* and in accordance with the CWA section 404(b)(1) guidelines……*NLAA*[4]

Project does not satisfy these elements.……....……...*May affect*

[1] An active nesting site is defined as a site currently supporting breeding pairs of wood storks, or has supported breeding wood storks at least once during the preceding 10-year period.

[2] Suitable foraging habitat (SFH) is described as any area containing patches of relatively open (< 25% aquatic vegetation), calm water, and having a permanent or seasonal water depth between 2 and 15 inches (5 to 38 cm). SFH supports and concentrates, or is capable of supporting and concentrating small fish, frogs, and other aquatic prey. Examples of SFH include, but are not limited to, freshwater marshes and stock ponds, shallow, seasonally flooded roadside or agricultural ditches, narrow tidal creeks or shallow tidal pools, managed impoundments, and depressions in cypress heads and swamp sloughs. See above *Summary of General Wood Stork Nesting and Foraging Habitat Information*.

[3] On an individual basis, projects that impact less than 0.5 acre of SFH generally will not have a measurable effect on wood storks, although we request the Corps to require mitigation for these losses when appropriate. Wood Storks are a wide ranging species, and individually, habitat change from impacts to less than 0.5 acre of SFH is not likely to adversely affect wood storks. However, collectively they may have an effect and therefore regular monitoring and reporting of these effects are important.

[4] Upon Corps receipt of a general concurrence issued by the JAFL through the Programmatic Concurrence on this key, "NLAA" determinations for projects made pursuant to this key require no further consultation with the JAFL.

[5] The U.S. Fish and Wildlife Service (Service) has identified core foraging area (CFA) around all known wood stork nesting colonies that is important for reproductive success. In Central Florida, CFAs include suitable foraging habitat (SFH) within a 15-mile radius of the nest colony; CFAs in North Florida include SFH within a 13-mile radius of a colony. The referenced map provides locations of known colonies and their CFAs throughout Florida documented as active within the last 10 years. The Service believes loss of suitable foraging wetlands within these CFAs may reduce foraging opportunities for the wood stork.

[6]This draft document, *Wood Stork Foraging Habitat Assessment Procedure*, by Passarella and Associates, Incorporated, may serve as further guidance in ascertaining wetland foraging value to wood storks and compensating for impacts to wood stork foraging habitat.

Monitoring and Reporting Effects

For the Service to monitor cumulative effects, it is important for the Corps to monitor the number of permits and provide information to the Service regarding the number of permits issued that were determined "may affect, not likely to adversely affect." It is requested that information on date, Corps identification number, project acreage, project wetland acreage, and latitude and longitude in decimal degrees be sent to the Service quarterly.

Literature Cited

Kahl, M.P., Jr. 1964. Food ecology of the wood stork (*Mycteria americana*) in Florida. Ecological Monographs 34:97-117.

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