

***Natural Resources Evaluation
Technical Memorandum***

**US 301 / State Road (SR) 35
From South of US 98 to SR 50
Design Change Phase Re-evaluation**



**Florida Department of Transportation
District 7**

Work Program Item Segment No. 447536-2/3

ETDM Project No. 14465

Pasco and Hernando Counties, Florida

June 2023

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.

Natural Resources Evaluation Technical Memorandum

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Pasco and Hernando Counties, Florida

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SECTION 1 INTRODUCTION

1.1 PROJECT DESCRIPTION

The Florida Department of Transportation (FDOT) District 7 is conducting a Design Change Re-evaluation to evaluate and document proposed changes to the previously approved Type 2 Categorical Exclusion along US Highway 301 (US 301) / State Road (SR) 35 from south of US 98 to SR 50, in Pasco and Hernando Counties. The project consists of widening US 301 from two to four lanes and is being evaluated for multimodal facilities (pedestrian, bicycle and transit accommodations), various intersection improvements, median modifications, and stormwater management facilities (SMF) and floodplain compensation (FPC) sites. The project is approximately 4.0 miles long. Within the project limits, US 301 is a two-lane, undivided rural facility and is functionally classified as an Urban Principal Arterial – Other for the segment of the project area south of SR 575/CR 575 and a Rural Principal Arterial – Other for the segment north of SR 575/CR 575.

A Project Development and Environment (PD&E) study was completed for the project to analyze the need for improvements. Following a Public Hearing held on June 24, 2021, the FDOT's Office of Environmental Management (OEM) approved the Type 2 Categorical Exclusion for this project on October 1, 2021. The re-evaluation analyzes design changes along the US 301 mainline and modified SMF and FPC sites.

The Final Concept Development Plans (CDP), dated March 2023, was compared to the Preferred Alternative Concept Plans, dated August 2021, from the approved Type 2 Categorical Exclusion. There are gravity walls and other retaining walls being eliminated along US 301 to reduce costs and maintenance for the project. This requires additional right of way (ROW) that varies 10'-30' on average along the mainline, and mostly at locations where ROW acquisition was being shown in the PD&E study approved on October 1, 2021. The US 301 at Trilby Road intersection was previously approved as a signalized intersection, but has been changed to a two-lane roundabout. Many of the SMF and FPC sites were altered from the original footprint provided in the approved Type 2 Categorical Exclusion. The changes for the SMF and FPC sites are provided below in **Table 1-1**.

Table 1-1 SMF and FPC Changes

SMF/FPC Site Name		Size (acres)		Comments
Approved Type 2 CE	CDP Mar'23	Approved Type 2 CE	CDP Mar '23	
N/A	SMF-1	--	1.17	New SMF located south of US 98 in the US 301 ROW
ELA 1 – SMF 1	SMF-2	2.49	2.46	Relocated to the south and resized
ELA 1 – FPC 1A	FPC-1	16.05	6.41	Reshaped in same area
ELA 1 – SMF 2	SMF-3	2.22	4.10	Reconfigured with new parcel along US 301 and size increased

ELA 1 – FPC 2	FPC-2	5.32 S & 11.20 N	7.68	Reconfigured, large site south of Globe Rd removed
ELA 1 – SMF 3	SMF-4	0.40	1.71	Relocated west of US 301 and size increased
ELA 2 – SMF 4	SMF-5	1.67	2.13	Reconfigured in same area and size increased
ELA 2 – FPC 3	FPC-3	10.94	3.49	Reconfigured to the north and size reduced
ELA 2 – SMF 5	SMF-6	4.25	5.30	Reconfigured and resized
ELA 2 – FPC 4	FPC-4	12.19	3.55	Reduced size in same location

The purpose of this report is to evaluate changes in impacts to protected species and their suitable habitat, in addition to wetlands and other surface waters based on the proposed design changes. Findings from the approved Type 2 Categorical Exclusion are included to compare the impacts proposed in the current design.

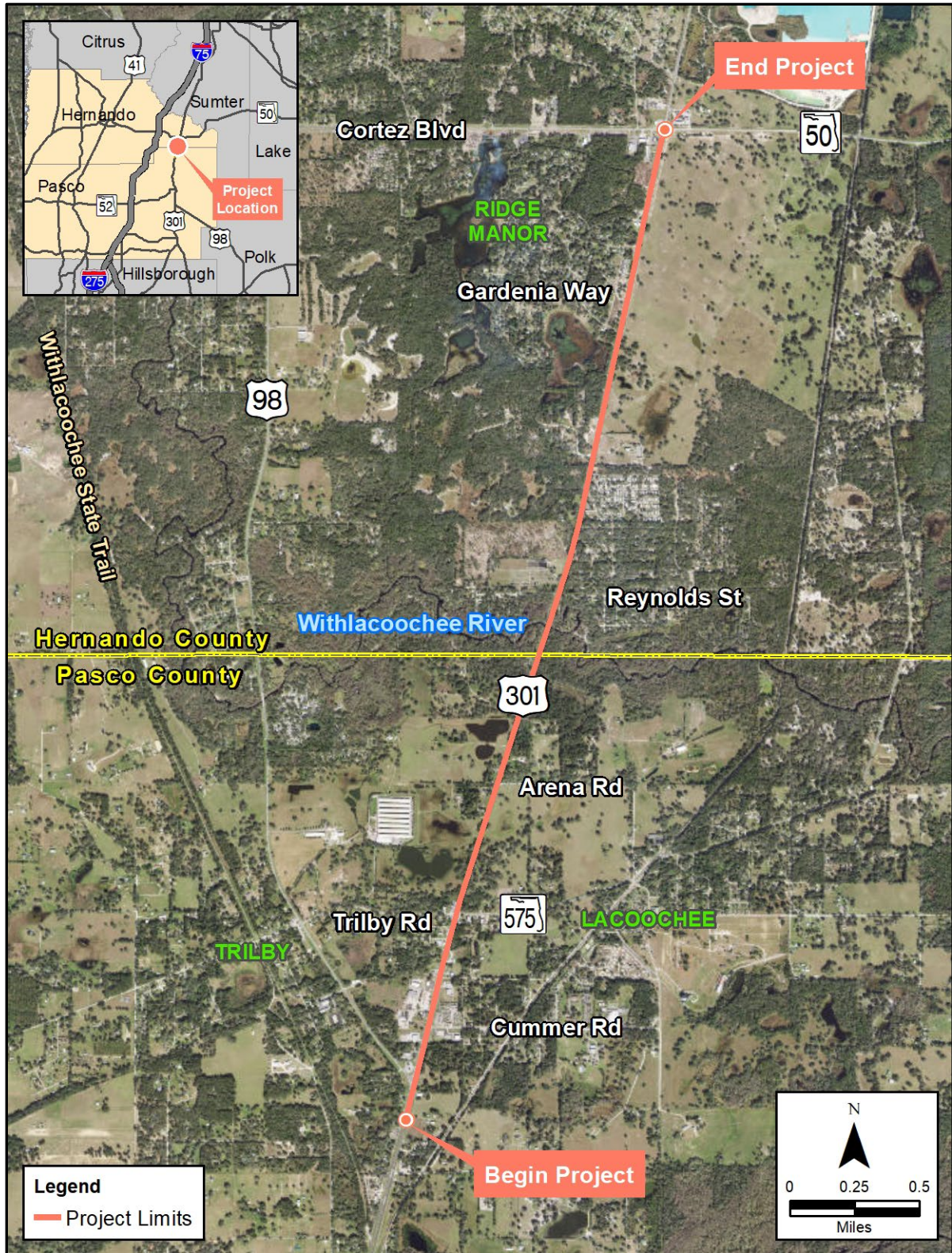


Figure 1-1 Project Location Map

SECTION 2 EXISTING ENVIRONMENTAL CONDITIONS

2.1 EXISTING LAND USE

The existing land use as well as the existing upland and wetland habitats within the project area have had no changes from the approved Type 2 Categorical Exclusion. Although minor modifications to the project area buffer have been made, they do not result in a substantial change to the overall land use analyzed within the project area buffer. The modifications to the pond sites and the proposed ROW are generally within the same land uses as previously evaluated. The land uses were identified by classified using the FDOT's *Florida Land Use, Cover and Forms Classification System* (FLUCCS) description as well as the FLUCCS code (number that represents the type of land use). The predominant land use types within the project study area buffer are cropland and pastureland (FLUCCS 210), residential (FLUCCS 110, FLUCCS 120, FLUCCS 130), hardwood – coniferous mix (FLUCCS 434), and commercial and services (FLUCCS 140).

2.2 SPECIAL DESIGNATIONS

The Withlacoochee River, including the adjacent wetlands, is designated as an Outstanding Florida Water (OFW). The Withlacoochee River is included on the Nationwide Rivers Inventory, maintained by the National Park Service, Department of the Interior. The inventory lists more than 3,200 free-flowing river segments in the U.S. that are believed to possess one or more “outstandingly remarkable” values. There is an existing 2-lane bridge that traverses the river. There are no design changes at the Withlacoochee River crossing and no additional impacts to the adjacent wetlands.

SECTION 3 PROTECTED SPECIES AND HABITAT

3.1 METHODOLOGY AND ASSESSMENT

The project area was assessed for the presence of suitable habitat for protected species in accordance with *50 CFR Part 402 of the ESA of 1973*, as amended, *Chapter 5B-40: Preservation of Native Flora of Florida, F.A.C.*, *Chapter 68A-27: Rules Relating to Endangered or Threatened Species, F.A.C.*, and the *FDOT PD&E Manual*.

A Natural Resources Evaluation (NRE) was completed in May 2021 (2021 NRE) for the approved Type 2 Categorical Exclusion. Informal consultation was conducted with the U.S. Fish and Wildlife Service (USFWS), who concurred with the findings of the original NRE on June 15, 2021. This technical memorandum evaluates changes to protected species and their habitats for the proposed design. Updated literature reviews, agency database searches, and preliminary field reviews of potential habitat areas were conducted to identify protected species occurring or potentially occurring within the study area. The same species identified in the 2021 NRE were evaluated as part of this re-evaluation with the addition of the monarch butterfly (*Danaus plexippus*) which has been identified by USFWS as a candidate species for federal listing in the Endangered Species Act (ESA). A discussion on the potential effects to the monarch butterfly is included in this technical memorandum. No changes in species listing statuses were made from the time of the 2021 NRE approval; however, in

their 2022 Notice of Findings, the USFWS found the eastern distinct population segment (DPS) of the gopher tortoise no longer meets criteria for listing in the Endangered Species Act and was withdrawn as a candidate for listing. The gopher tortoise is still protected by state regulations range-wide, and its federal candidate status was removed to reflect this.

3.2 FIELD REVIEW FINDINGS

Field reviews were conducted in April and October 2022, and on May 18, 2023, which consisted of a vehicular survey, roadside observations, and a detailed pedestrian survey through natural areas and altered habitats with the potential to support protected species. During the field reviews, several state-designated threatened Florida sandhill cranes were observed foraging within the project area. As a result of the field reviews conducted in April and October 2022, three additional state-designated threatened gopher tortoise burrows were documented within the proposed ROW along the east side of US 301, near Gardenia Way. In May 2023, seven additional gopher tortoise burrows and one adult tortoise were identified west of SMF-4, outside of the proposed ROW. Species observations and historical occurrences are depicted in **Attachment A**. The proposed areas of the ROW changes generally occur within and adjacent to the same habitat types identified in the 2021 NRE.

3.3 SPECIES EVALUATION

As mentioned above, the same species identified in the 2021 NRE were evaluated as part of this re-evaluation, with the addition of the monarch butterfly. No significant changes in impacts to suitable habitat for listed species were identified; therefore, impacts for the species are minimal to none. The effect determinations made for the re-evaluation, as well as those made in the approved Type 2 Categorical Exclusion, are shown below:

Table 3-1 Protected Faunal Species Effect Determinations

Species	Common Name	State Status (FWC)	Federal Status (USFWS)	Approved Type 2 CE	Re-Evaluation Effect Determination
REPTILES					
<i>Drymarchon corais couperi</i>	Eastern indigo snake	FT	T	MANLAA	MANLAA
<i>Gopherus polyphemus</i>	Gopher tortoise	ST	--	NAEA	NAEA
<i>Lampropeltis extenuata</i>	Short-tailed snake	ST	--	NAEA	NAEA
<i>Pituophis melanoleucus mugitus</i>	Florida pine snake	ST	--	NAEA	NAEA
BIRDS					
<i>Aphelocoma coerulescens</i>	Florida scrub jay	FT	T	No Effect	No Effect
<i>Athene cunicularia floridana</i>	Florida burrowing owl	ST	--	NAEA	NAEA
<i>Dryobates borealis</i>	Red-cockaded woodpecker	FE	E	No Effect	No Effect
<i>Egretta caerulea</i>	Little blue heron	ST	--	NAEA	NAEA
<i>Egretta tricolor</i>	Tricolored (Louisiana) heron	ST	--	NAEA	NAEA

Species	Common Name	State Status (FWC)	Federal Status (USFWS)	Approved Type 2 CE	Re-Evaluation Effect Determination
<i>Falco sparverius paulus</i>	Southeastern American kestrel	ST	--	NAEA	NAEA
<i>Grus canadensis pratensis</i>	Florida sandhill crane	ST	--	NAEA	NAEA
<i>Haliaeetus leucocephalus</i>	Bald eagle ¹	--	--	--	--
<i>Laterallus jamaicensis jamaicensis</i>	Eastern black rail	FT	T	MANLAA	MANLAA
<i>Mycteria americana</i>	Wood stork	FT	T	MANLAA	MANLAA
<i>Pandion haliaetus</i>	Osprey ²	--	--	--	--
<i>Platalea ajaja</i>	Roseate spoonbill	ST	--	No Effect Anticipated	No Effect Anticipated
MAMMALS					
<i>Ursus americanus floridanus</i>	Florida black bear ³	--	--	--	--
INSECTS					
<i>Danaus plexippus</i>	Monarch butterfly*	--	C	--	--

MANLAA=May Affect, Not Likely to Adversely Affect, NAEA=No Adverse Effect Anticipated

E= Endangered, FE= Federal Endangered

T=Threatened, FT=Federal Threatened, ST=State-designated Threatened

C=Candidate for listing under ESA

¹ Protected under the Bald and Golden Eagles Protection Act (16 U.S.C. 668-668c)

² Protected under the Migratory Bird Treaty Act (16 U.S.C. §§ 703-712)

³ Protected under the Florida Black Bear Conservation Rule (68A-4.009, F.A.C.)

*Effect determinations are not applicable to candidate species

Table 3-2 Protected Floral Species Effect Determinations

Species	Common Name	State Status (FDACS)	Federal Status (USFWS)	Approved Type 2 CE	Re-Evaluation Effect Determination
<i>Campanula robbinsiae</i>	Brooksville bellflower	FE	E	MANLAA	MANLAA
<i>Chamaesyce cumulicola</i>	Sand Dune Spurge	SE	--	NAEA	NAEA
<i>Coelorachis tuberculosa</i>	Piedmont jointgrass	ST	--	NAEA	NAEA
<i>Justicia cooley</i>	Cooley's water willow	FE	E	MANLAA	MANLAA
<i>Matelea floridana</i>	Florida Spiny-pod	SE	--	NAEA	NAEA
<i>Nolina brittoniana</i>	Britton's beargrass	FE	E	MANLAA	MANLAA
<i>Plantanthera ciliaris</i>	Orange fringed orchid	ST	--	NAEA	NAEA
<i>Pteroglossaspis ecristata</i>	Giant Orchid	ST	--	NAEA	NAEA

FDACS=Florida Department of Agriculture and Consumer Services (FDACS)

MANLAA=May Affect, Not Likely to Adversely Affect, NAEA=No Adverse Effect Anticipated

FE=Federal Endangered, E=Endangered, SE=State-designated Endangered, ST=State-designated Threatened

Overall, the design changes as part of this re-evaluation occur within the same habitat types as previously identified, and as shown in **Table 3-1** and **Table 3-2** above; therefore, no changes in effect determinations have been made from the approved Type 2 Categorical Exclusion. The proposed project changes are not anticipated to result in adverse effects to protected species or their habitat.

3.3.1 Monarch Butterfly

The monarch butterfly is a candidate species for federal listing under the ESA. It is large and conspicuous with bright orange wings surrounded by a black border and covered with black veins. The black wing border also has a double row of white spots on the upper side. The adults depend on nectar-rich flowers for foraging during breeding and migration. They only lay eggs on their obligate host plant, milkweed (primarily *Asclepias* spp.). As such, anywhere that milkweed is present is considered monarch butterfly habitat. Mowed right-of-way can contain milkweed and is considered potential habitat; however, naturally occurring milkweed has become more rare and no milkweed was observed during field reviews. Monarch butterflies are present year-round in Florida and, as such, construction cannot be timed to avoid impacts to potential habitat. However, naturally occurring nectar plants will be able to reestablish within the right-of-way once construction is complete.

SECTION 4 WETLANDS AND OTHER SURFACE WATERS

Wetlands and other surface waters were evaluated in accordance with Executive Order 11990, *Protection of Wetlands* (May 1977), and the FDOT *PD&E Manual*.

As mentioned above, an NRE was completed in May 2021 for the approved Type 2 Categorical Exclusion. This technical memorandum evaluates changes in wetland and surface water impacts for the proposed design changes with regard to impacts to resources identified in the 2021 NRE.

4.1 METHODOLOGY AND ASSESSMENT

A variety of resources including the National Wetlands Inventory (NWI) data and maps, United States Department of Agriculture (USDA) soil surveys, and United States Geological Survey (USGS) topographical maps were utilized to identify wetlands and other surface waters that occur within the project area.

Project scientists identified wetlands and other surface waters within the project study area during the field reviews conducted in April and October 2022, and on May 18, 2023. The field reviews consisted of a verification of the boundaries and quality of the previously identified wetlands and other surface waters within the project area. No changes to wetland or other surface water boundaries or qualities were recorded as part of this re-evaluation. An overview of the wetlands and other surface waters within the project vicinity is provided as **Attachment B**, and a detailed wetlands and other surface waters figure depicting the anticipated impacts is provided as **Attachment C**.

4.2 WETLAND EVALUATION AND IMPACTS

Table 4-1 provides the anticipated impacts to wetlands and other surface waters identified within the project area. No changes to resource identification numbers were made from the 2021 NRE. A total of 0.70 acres of wetland impacts and 2.36 acres of other surface water impacts were previously identified as part of the Preferred Build Alternative. The design modifications as part of this re-evaluation are anticipated to result in an overall decrease in impacts from the 2021 PD&E study. With the proposed changes, there are a total of 0.68 acres of wetland impacts and 1.31 acres of other surface water impacts.

Table 4-1 Wetland and Other Surface Water Impacts PD&E Comparison

Wetland/ Surface Water ID	NWI/USFWS	FLUCCS	Approved Type 2 CE Impact Acreage		Re-Evaluation Impact Acreage		Change in Impact Acreage*
			Roadway	SMF & FPC	Roadway	SMF & FPC	
WETLANDS							
WL1	PEM1C	641	-	-	-	-	-
WL4	PEM1F	641	-	-	-	-	-
WL5	PEM1Bd	641/653	-	-	-	-	-
WL7	PEM1	641	-	0.02	-	-	− 0.02
WL10	PFO1&2C	615	0.07	-	0.07	-	-

Wetland/ Surface Water ID	NWI/USFWS	FLUCCS	Approved Type 2 CE Impact Acreage		Re-Evaluation Impact Acreage		Change in Impact Acreage*
			Roadway	SMF & FPC	Roadway	SMF & FPC	
WL11	PFO1&2C	615	0.06	-	0.06	-	-
WL13	PFO1&2C	615	0.46	-	0.46	-	-
WL14	PFO1&2C	615	0.09	-	0.09	-	-
WL16	PEM1C	641	-	-	-	-	-
WL18	PEM1H	641	-	-	-	-	-
WL19	PEM1C	643/653	-	-	-	-	-
WL20	PFO1C/PEM1H	617/644	-	-	-	-	-
WL22	PEM1C	641	-	-	-	-	-
Total Wetland Impacts			0.68	0.02	0.68	--	- 0.02
			0.70		0.68		

OTHER SURFACE WATERS							
SW2	PUBHx	530	-	0.22	-	0.22	-
SW3	R4SB6/R4SB6	510	0.15	0.13	0.15	-	− 0.13
SW6	PAB3H	520	-	-	-	-	-
SW8	PAB3H	520	0.15	-	0.15	0.10	+ 0.10
SW9	R4SB6	510	0.08	-	0.08	-	-
SW12	R2UBH	510	0.31	-	0.31	-	-
SW15	PUBH	520	0.21	-	-	-	− 0.21
SW17	PUBH	520	<0.01	-	0.03	-	+ 0.03
SW21	R2UBFx	510	-	1.11	-	-	−1.11
SW22	PUBH	520	-	-	-	0.27	+ 0.27
Total Other Surface Water Impacts			0.90	1.46	0.72	0.59	− 1.05
			2.36		1.31		

NWI = National Wetlands Inventory

USFWS = United States Fish and Wildlife Service

FLUCCS = Florida Land Use Cover and Forms Classification

4.3 WETLAND FUNCTIONAL ANALYSIS

The UMAM was used to assess functions and values for the wetlands within the study area, in accordance with *Chapter 62-345, F.A.C.* The UMAM scores were developed for individual wetlands identified within the study area. The wetland quality ratings (delta values) are expressed numerically with numbers ranging between 0 and 1, with 1 representing an extremely high-quality wetland and 0 reflecting an extremely low-quality wetland, or an area that is no longer functioning as a wetland.

The functional loss of a wetland system is the estimated loss of function by the proposed project impacts and is calculated by multiplying the delta value by the impact acreage. Functional loss values are used to determine the amount of mitigation that would be required to offset the loss of wetland and other surface water function caused by the proposed project. The total functional loss value for the wetlands within the study area is 0.47, as compared to the functional loss value of 0.48 identified as part of the 2021 PD&E study. **Table 4-2** summarizes impact acreage and functional loss for the wetland habitat type.

Table 4-2 Functional Loss Analysis

FLUCCS	Wetland Description	Impact Acreage	Functional Loss Value
615	Freshwater Forested	0.68	0.47

4.4 AVOIDANCE AND MINIMIZATION

Proposed improvements to US 301 include widening the current two-lane rural facility to a four-lane divided facility. Additional ROW was required for the proposed improvements, including the Preferred SMF and FPC sites as part of the approved Type 2 Categorical Exclusion. The project will have impacts on wetlands and other surface waters; however, an overall decrease in impacts are anticipated with the proposed design changes and SMF/FPC modifications.

BMPs will be implemented during construction to avoid impacts to wetlands that are not to be directly impacted by the proposed roadway improvements. Both vegetative and structural BMPs are options that can be utilized during construction. A Stormwater Pollution Prevention Plan (SWPPP) and an erosion and sediment control plan will be implemented during construction. The erosion control devices will be designed per the FDOT *Standard Specifications for Road and Bridge Construction* and the *State of Florida Erosion and Sediment Control Designer and Reviewer Manual*. Opportunities to avoid and minimize impacts to wetlands will be further evaluated during the final design of the project.

4.5 WETLAND IMPACT MITIGATION

The approximately 0.68 acre of wetland impacts which will result from the construction of this project will be mitigated pursuant to *Section 373.4137, F.S.*, to satisfy all mitigation requirements of *Part IV of Chapter 373, F.S.*, and *33 U.S.C. § 1344*. The proposed project is located within the service area of five Southwest Florida Water Management District (SWFWMD) and US Army Corps of Engineers approved wetland mitigation banks – Boarshead Ranch, Crooked River, Green Swamp, Hilochee, and Withlacoochee Wetland. As of June 2023, all the above mitigation banks have federal and state freshwater forested credit availability except for the Withlacoochee Wetland Mitigation Bank. At a minimum, mitigation will be provided to offset the functional loss calculated. Mitigation will be coordinated by the FDOT as part of the Environmental Resource Permitting with the SWFWMD and State Section 404 permitting with the Florida Department of Environmental Protection.

4.6 COORDINATION WITH PERMITTING AGENCIES

No changes are expected to the necessary permits to be acquired prior to construction of the proposed project. Coordination and/or permitting is anticipated to be conducted with the following agencies as shown in **Table 4-3**.

Table 4-3 Permit Coordination

Coordinating Agency	Permit
Florida Department of Environmental Protection (FDEP)	State Section 404 Permit
	National Pollutant Discharge Elimination System (NPDES) Permit
Florida Fish and Wildlife Conservation Commission (FWC)	Gopher Tortoise Permitting
Southwest Florida Water Management District (SWFWMD)	Individual Environmental Resource Permit (ERP)

SECTION 5 CONCLUSIONS

There are minimal changes to the impacts on resources identified in the approved Type 2 Categorical Exclusion. The modifications to the design do not result in changes to effect determinations for protected species. The proposed project is anticipated to result in an overall decrease of impacts to wetlands and other surface waters, resulting in 0.68 acres of wetland impacts and 1.31 acres of other surface water impacts. Implementation measures and commitments are provided below.

5.1 IMPLEMENTATION MEASURES

- Surveys for gopher tortoise burrows will be conducted prior to construction in accordance with FWC guidelines. If impacts to gopher tortoise burrows are unavoidable, permitting will be conducted in accordance with the *FWC Gopher Tortoise Permitting Guidelines*.
- Due to the presence of suitable habitat for the Florida burrowing owl, southeastern American kestrel, and the Florida sandhill crane the project will be reviewed for the presence of state-listed avian species during the permitting phase in accordance with *Chapter 68A-27, F.A.C., Rules Relating to Endangered or Threatened Species*.
- Surveys to update locations of active bald eagle nest sites will be conducted prior to construction, and permits will be acquired if there are unavoidable impacts during construction. Coordination with USFWS and FWC will take place as necessary.
- Due to the presence of suitable habitat for federal or state listed plants, the project will be reviewed for their presence during the permitting phase in accordance with *Chapter 68A-27, F.A.C., Rules Relating to Endangered or Threatened Species*.
- Wetland impacts which will result from the construction of this project will be mitigated pursuant to *Section 373.4137, F.S.*, to satisfy all mitigation requirements of *Part IV of Chapter 373, F.S.*, and *33 U.S.C. § 1344*, and will be completed during Design Phase. Mitigation will include assessment for suitable foraging habitat for the wood stork.
- Best Management Practices will be incorporated during construction to minimize wetland impacts.

5.2 COMMITMENTS

- The FDOT will incorporate the most current USFWS guideline *Standard Protection Measures for the Eastern Indigo Snake* in areas that involve habitat for this species during construction. **Attachment D** provides an example of the currently approved construction guidelines.

SECTION 6 REFERENCES

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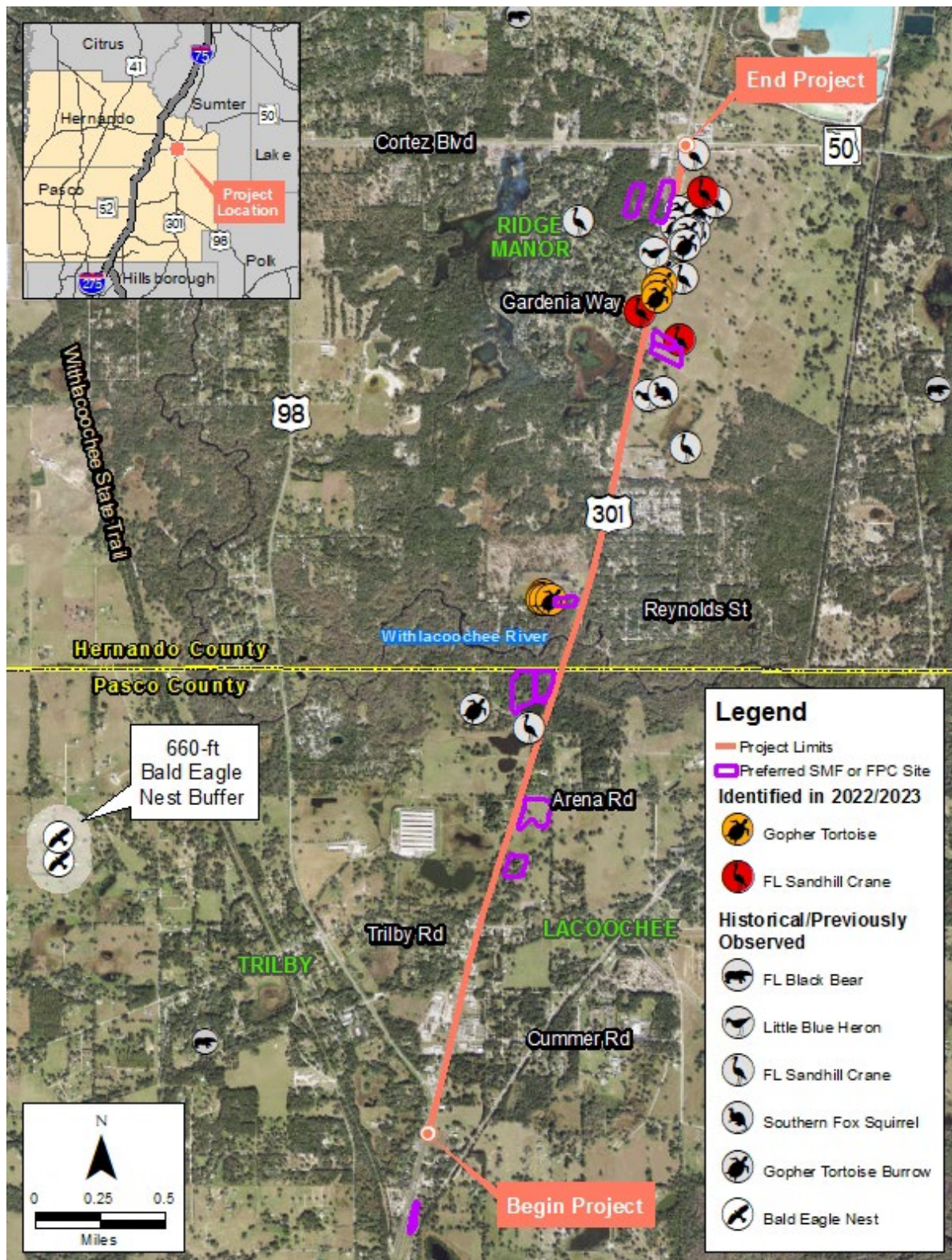
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Attachments

- Attachment A Observed and Historical Protected Species
- Attachment B Wetlands and Other Surface Waters Overview
- Attachment C Wetlands and Other Surface Waters Impact Map
- Attachment D Standard Protection Measures for the Eastern Indigo Snake

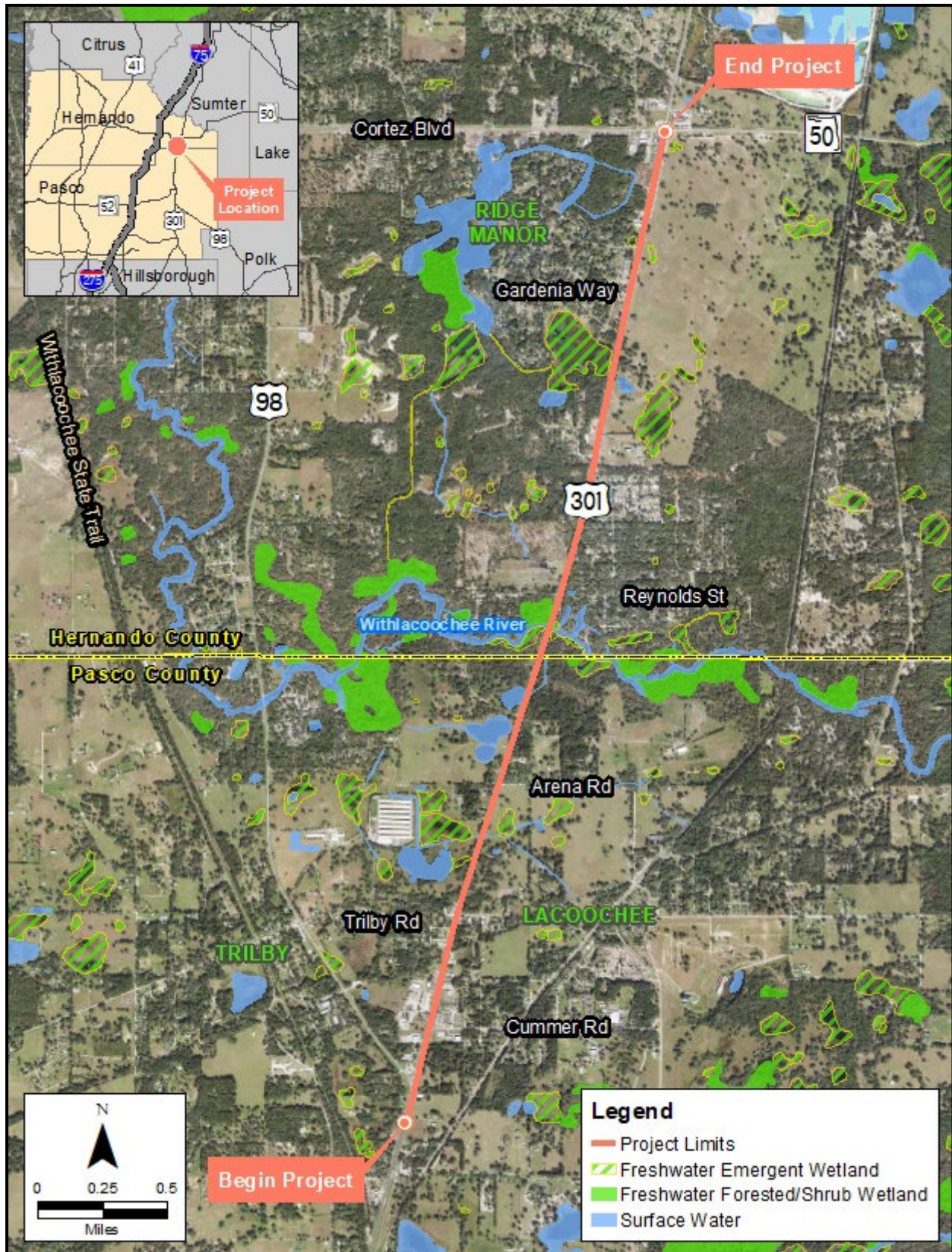
ATTACHMENT A

Observed and Historical Protected Species



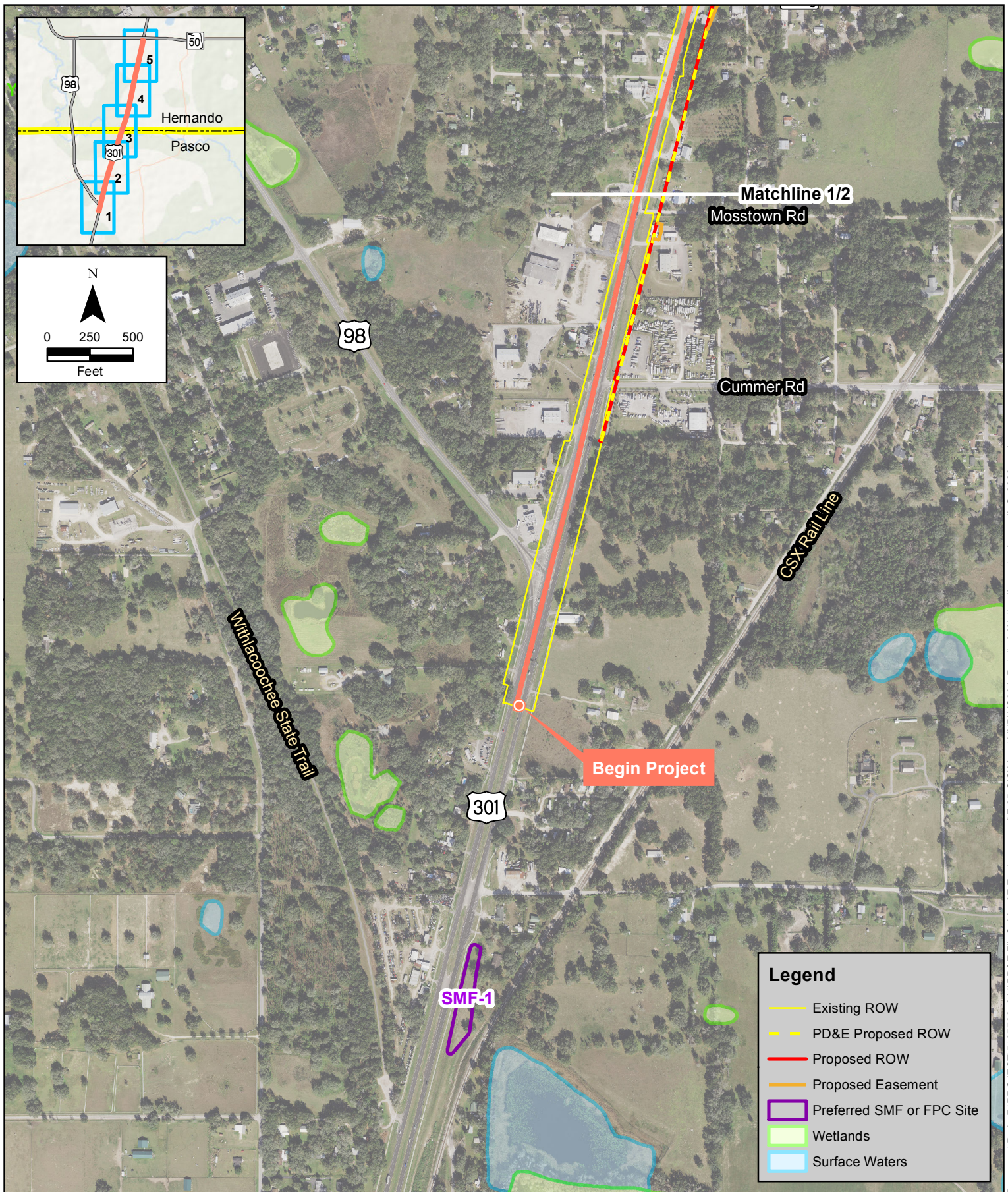
ATTACHMENT B

Wetlands and Other Surface Waters Overview



ATTACHMENT C

Wetlands and Other Surface Waters Impact Map



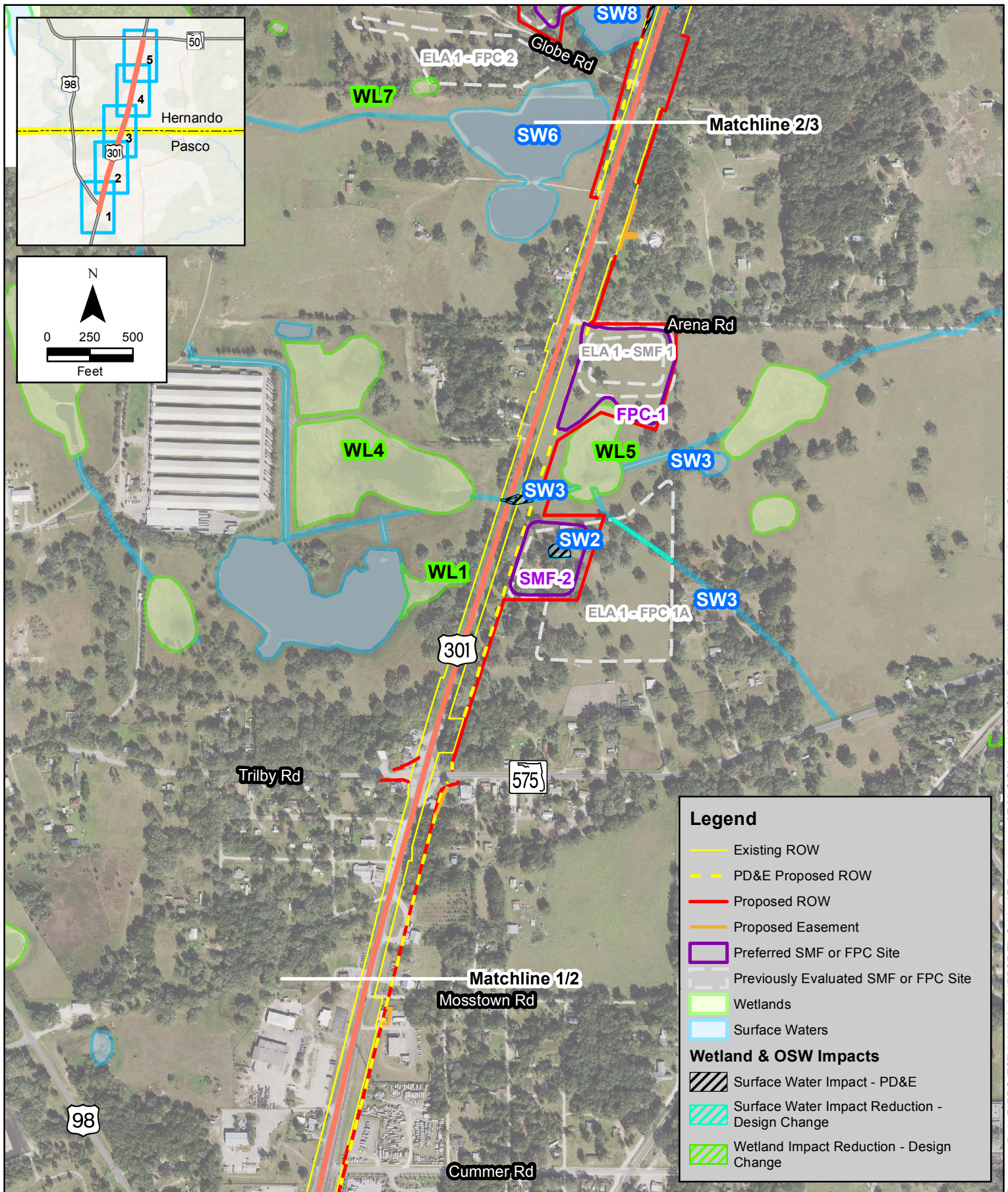
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**US 301 Design
Change Re-evaluation**
from South of US 98
to SR 50/Cortez Blvd
FPID No.: 447536-2/3
Pasco and Hernando Counties

Wetlands & Other Surface Waters Impact Map

Attachment C
Sheet 1 of 5



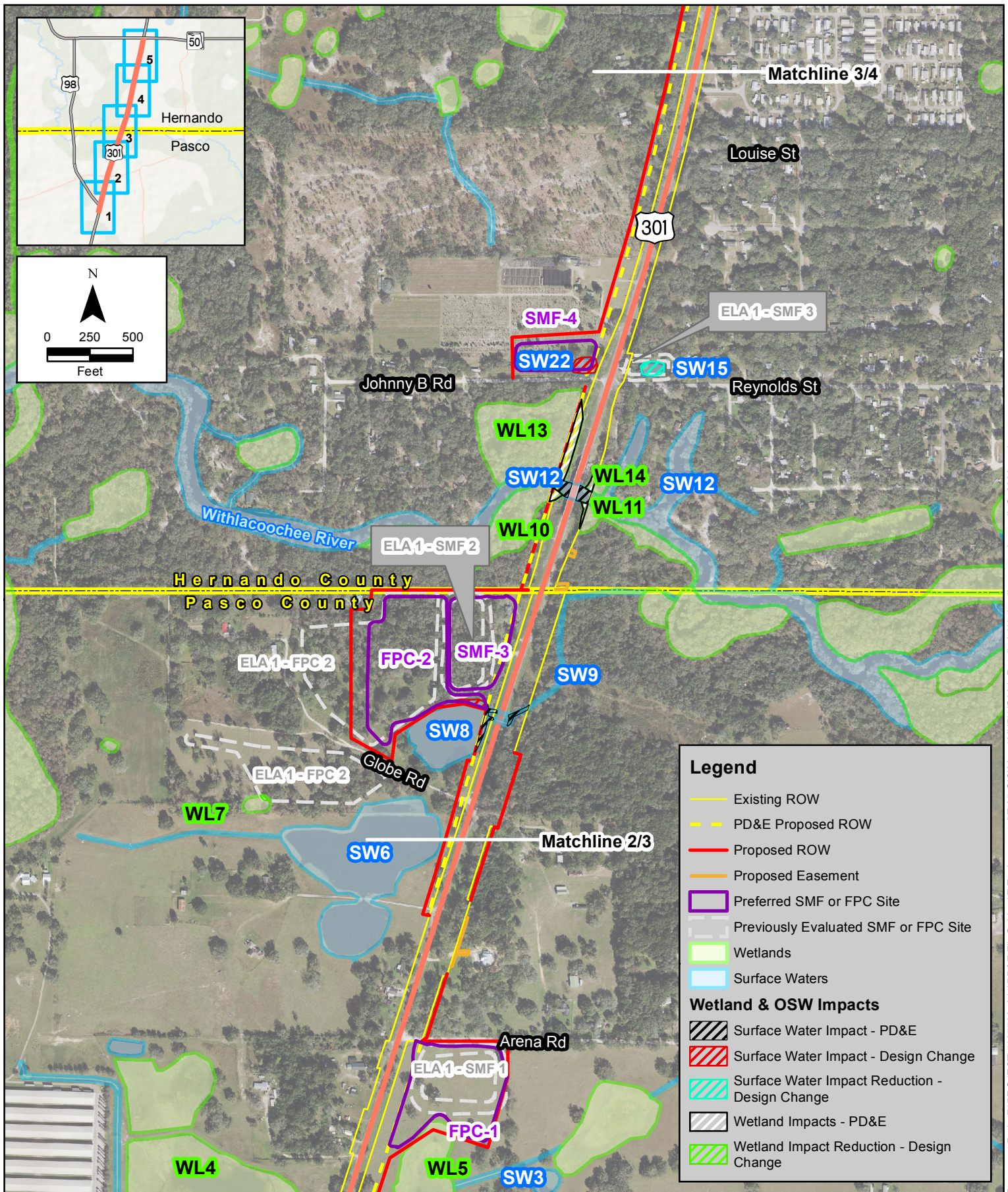
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Attachment C
Sheet 2 of 5



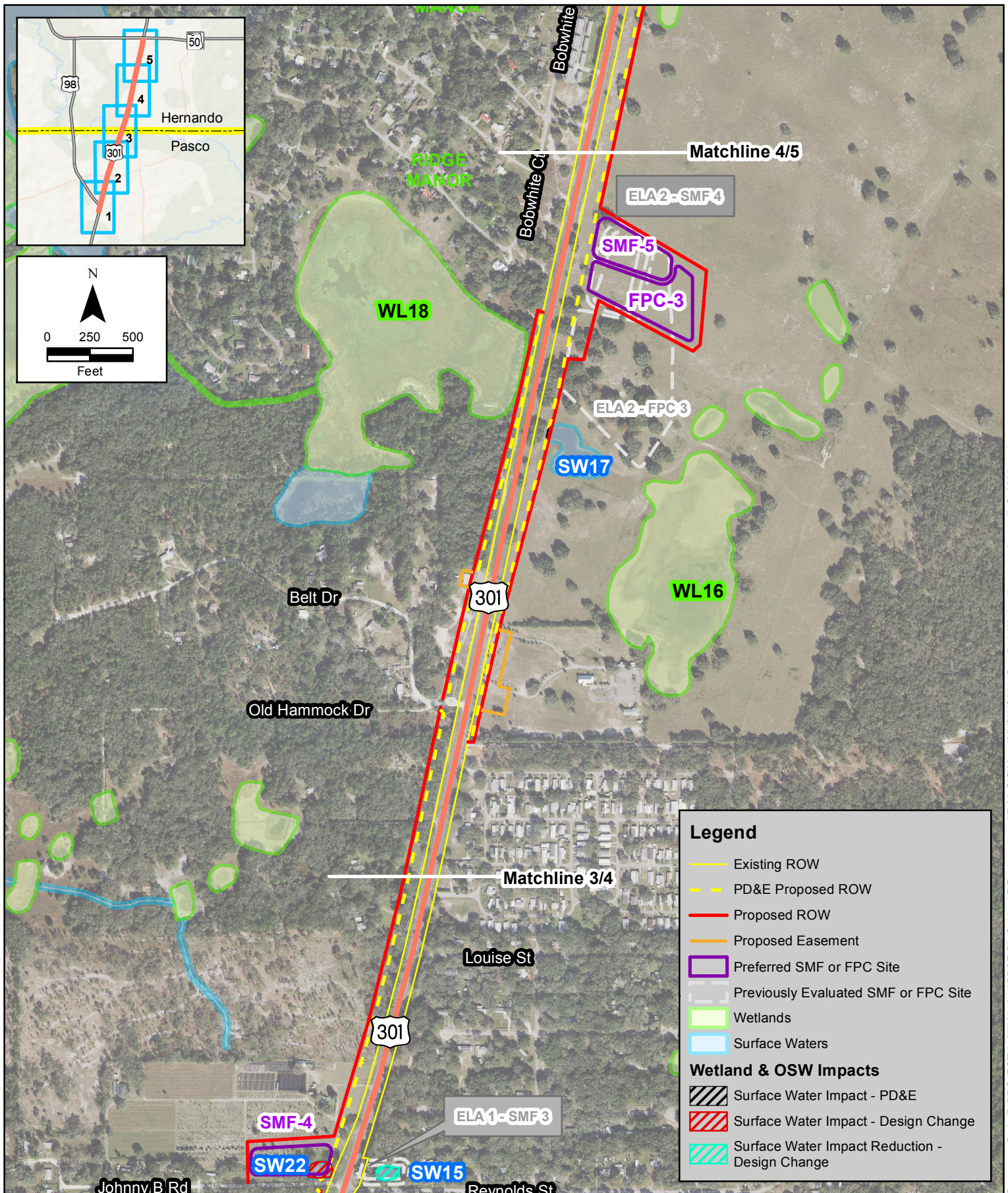
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Attachment C
Sheet 3 of 5



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Wetlands & Other Surface Waters Impact Map

Attachment C
Sheet 4 of 5

ATTACHMENT D

Standard Protection Measures for the Eastern Indigo Snake

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE U.S. Fish and Wildlife Service

March 23, 2021

The eastern indigo snake protection/education plan (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida and Georgia for use by applicants and their construction personnel. At least **30 days prior** to any clearing/land alteration activities, the applicant shall notify the appropriate USFWS Field Office via e-mail that the Plan will be implemented as described below (North Florida Field Office: jaxregs@fws.gov; South Florida Field Office: verobeach@fws.gov; Panama City Field Office: panamacity@fws.gov; Georgia Field Office: gaes_assistance@fws.gov). As long as the signatory of the e-mail certifies compliance with the below Plan (including use of the attached poster and brochure), no further written confirmation or approval from the USFWS is needed and the applicant may move forward with the project.

If the applicant 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. At least 30 days prior to any clearing/land alteration activities, the applicant 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.

The Plan materials should consist of: 1) a combination of posters and pamphlets (see **Poster Information** section below); and 2) verbal educational instructions to construction personnel by supervisory or management personnel before any clearing/land alteration activities are initiated (see **Pre-Construction Activities** and **During Construction Activities** sections below).

POSTER INFORMATION

Posters with the following information shall be placed at strategic locations on the construction site and along any proposed access roads (a final poster for Plan compliance, to be printed on 11 x 17in or larger paper and laminated, is attached):

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat.

These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

SIMILAR SNAKES: The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.

LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida and Georgia. Although they have a preference for uplands, they also utilize some wetlands and agricultural areas and often move seasonally between upland and lowland habitats, particularly in the northern portions of its range (North Florida and Georgia). Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Reliance on xeric sandhill habitats throughout the northern portion of the range in northern Florida and Georgia is due to the dependence on gopher tortoise burrows for shelter during winter. Breeding occurs during October through February. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTION UNDER FEDERAL AND STATE LAW: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. Taking of eastern indigo snakes is prohibited by the Endangered Species Act without a permit is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of \$25,000 for civil violations and up to \$50,000 and/or imprisonment for criminal offenses, if convicted.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

IF YOU SEE A LIVE EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and allow the live eastern indigo snake sufficient time to move away from the site without interference;
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes. ^
- Immediately notify supervisor or the applicants designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

IF YOU SEE A DEAD EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and immediately notify supervisor or the applicants designated agent, **and** the appropriate USFWS 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.

Telephone numbers of USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:

North Florida Field Office: (904) 731-3336

Panama City Field Office: (850) 769-0552

South Florida Field Office: (772) 562-3909

Georgia Field Office: (706) 613-9493

PRE-CONSTRUCTION ACTIVITIES

1. The applicant or designated agent will post educational posters in the construction office and throughout the construction site, including any access roads. The posters must be clearly visible to all construction staff. A sample poster is attached.
2. Prior to the onset of construction activities, the applicant/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 brochure 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 (a final brochure for Plan compliance, to be printed double-sided on 8.5 x 11in paper and then properly folded, is attached). Photos of eastern indigo snakes may be accessed on USFWS and/or FWC or GADNR websites.
3. Construction staff will be informed that in the event that an eastern indigo snake (live or dead) 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 Field Office. The contact information for the USFWS is provided on the referenced posters and brochures.

DURING CONSTRUCTION ACTIVITIES

1. During initial site clearing activities, an onsite observer may be utilized 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).

2. If an eastern indigo snake is discovered during gopher tortoise relocation activities (i.e. burrow excavation), the USFWS shall be contacted within one business day to obtain further guidance which may result in further project consultation.

3. Periodically during construction activities, the applicants designated agent should visit the project area 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.

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. The report can be sent electronically to the appropriate USFWS e-mail address listed on page one of this Plan.