NATURAL RESOURCES EVALUATION

Florida Department of Transportation

District 5

I-75 Improvements Project Development and Environment Study

from SR 200 to SR 326

Marion County, Florida

Financial Management Number: 452074-1-21-01

ETDM Number: 14542

February 2024

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 (MOU) dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.

I-75 FORWARD

S.R. 200 TO S.R. 326

Natural Resources Evaluation

Technical Memorandum

February 2024

FPID: 452074-1

FDOT

NATURAL RESOURCES EVALUATION TECHNICAL MEMORANDUM

Florida Department of Transportation

District Five

I-75 PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
from S.R. 200 to S.R. 326

Marion County, Florida
Financial Management Number: 452074-1

FEBRUARY 2024

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.

ACRYNOMS AND ABBREVIATIONS

AADT	annual average daily traffic
BGEPA	Bald and Golden Eagle Protection Act
BMPs	Best Management Practices
CFA	Core Foraging Area
CFP	Cost Feasible Plan
CFR	Code of Federal Register
CWA	Clean Water Act
DFIRM	Digital Flood Insurance Rate Map
EFH	Essential Fish Habitat
EPA	U. S. Environmental Protection Agency
ESA	Endangered Species Act
ERP	Environmental Resource Permit
FAC	Florida Administrative Code
FDEM	Florida Division of Emergency Management
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FEMA	Federal Emergency Management Agency
FGDL	Florida Geographic Data Library
FHWA	Federal Highway Administration
FLUCFCS	Florida Land Use, Cover and Forms Classification System
FNAI	Florida Natural Areas Inventory
FWC	Florida Fish and Wildlife Conservation Commission
GeoPlan	Geo-Facilities Planning and Information Center
GIS	Geographic Information Systems
I-75	Interstate 75
ILC	Intermodal Logistic Centers
IPaC	Information for Planning and Consultation
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRE	Natural Resources Evaluation
NWI	National Wetlands Inventory
PD&E	Project Development and Environment
ROW	Right-of-Way
SFH	Suitable foraging habitat
SIS	Strategic Intermodal System

S.R.	State Road
SWFWMD	Southwest Florida Water Management District
SJRWMD	St. Johns River Water Management District
TIP	Transportation Improvement Program
TPO	Transportation Planning Organization
UMAM	Uniform Mitigation Assessment Method
U.S.C.	United States Code
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USF	University of South Florida
USFWS	U.S. Fish and Wildlife Service
vpd	vehicles per day
WRAP	Wetland Rapid Assessment Procedure

EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT) is conducting a Project Development and Environment (PD&E) Study for proposed operational improvements to the Interstate 75 (I-75) corridor in the City of Ocala and Marion County, Florida. These interim improvements were identified as part of Phase 1 of the master planning effort for the I-75 corridor between Florida's Turnpike and County Road 234. The operational improvements being evaluated by this PD&E Study include construction of auxiliary lanes between interchanges for an eight-mile segment of I-75 between State Road (S.R.) 200 and S.R. 326. The PD&E study also involves the addition of stormwater management systems, including ponds.

The purpose of this Natural Resources Evaluation (NRE) is to document protected species and their habitat within the study areas, analyze potential impacts to those protected species and habitats from the proposed build alternative, provide effect determinations as a result of potential impacts, evaluate wetland and other surface water impacts from the proposed build alternative, identify mitigation needs and coordinate/consult with federal and state regulatory and resource agencies. The NRE is prepared in accordance with Part 2, Chapters 9 (Wetlands and Other Surface Waters), 16 (Protected Species and Habitat), 17 (Essential Fish Habitat) and 22 (Commitments) of the FDOT PD&E Manual and the current Natural Resources Evaluation Outline and Guidance (August 2022).

Protected Species

The proposed build alternative would implement avoidance and minimization measures to the greatest extent feasible. In **Section 4.0 – Protected Species and Habitat**, 32 listed species and two candidate species were identified as having the potential to occur within the study areas. Eleven of the listed species have a moderate or high potential of occurrence. With the exception of gopher tortoise burrows observed within the existing right-of-way (ROW) and two of the preferred pond sites, none of the species were observed within the study areas. Pursuant to Section 7 of the ESA, **Table ES-1** lists federal and state listed species that are anticipated to receive "May Affect, Not Likely to Adversely Affect," "Potential for adverse effect," and, "No adverse effect anticipated" effect determinations. **Sections 4.2 and 4.3** describe and summarize the federal listed species that are anticipated to receive the "No Effect" determination and state-listed species that are anticipated to receive the "No effect anticipated" determination. **Section 4.4** discusses other protected species that have the potential to occur within the vicinity of the project.

Table ES-1. Protected Species and the Effects Determinations

Scientific Name	Common Name	Effects Determination
Federally Listed Species		
Mycteria americana	Wood stork	May Affect, Not Likely to Adversely Affect
Drymarchon corais couperi	Eastern indigo snake	May Affect, Not Likely to Adversely Affect
State Listed Species		
Antigone canadensis pratensis	Florida sandhill crane	No Adverse Effect Anticipated
Athene cunicularia floridana	Florida Burrowing Owl	No Adverse Effect Anticipated
Egretta caerulea	Little blue heron	No Adverse Effect Anticipated
Egretta tricolor	Tricolored heron	No Adverse Effect Anticipated
Falco sparverius paulus	Southeastern American kestrel	No Adverse Effect Anticipated
Gopherus polyphemus	Gopher tortoise	No Adverse Effect Anticipated
Pituophis melanoleucus mugitus	Florida pine snake	No Adverse Effect Anticipated

Wetlands and Other Surface Water

The proposed build alternative is expected to result in an unavoidable wetland impact to one wetland within the existing ROW. The anticipated direct wetland impact for the proposed build alternative is 0.1 acre, consisting mostly of a low quality mowed and maintained herbaceous wetland. There are no anticipated surface water impacts.

Essential Fish Habitat

The National Marine Fisheries Service (NMFS) is the regulatory agency responsible for the nation's living marine resources and their habitats, including Essential Fish Habitat (EFH). Based on the location of the project and field review, the project will have no involvement with EFH.

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1.0 PROJECT OVERVIEW

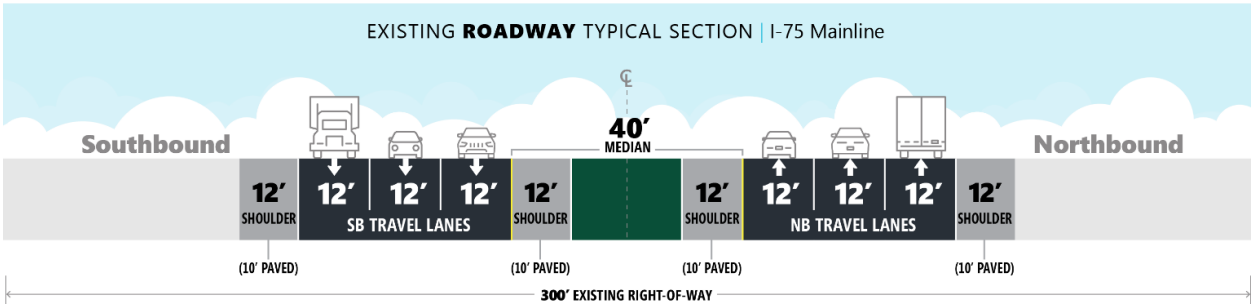
The Florida Department of Transportation (FDOT) is conducting a Project Development and Environment (PD&E) Study for proposed short-term operational improvements to the Interstate 75 (I-75) corridor in the City of Ocala and Marion County, Florida. These short-term improvements were identified as part of a master planning effort for the I-75 corridor between Florida's Turnpike and County Road 234. This Natural Resources Evaluation (NRE) is to document protected species and their habitat within the study areas, analyze potential impacts to those protected species and habitats from the proposed build alternative, provide effect determinations as a result of potential impacts, evaluate wetland and other surface water impacts from the proposed build alternative, identify mitigation needs and coordinate/consult with federal and state regulatory and resource agencies. The NRE is prepared in accordance with Part 2, Chapters 9 (Wetlands and Other Surface Waters), 16 (Protected Species and Habitat), 17 (Essential Fish Habitat) and 22 (Commitments) of the FDOT PD&E Manual and the current Natural Resources Evaluation Outline and Guidance (August 2022).

1.1 Project Description

The FDOT is conducting a PD&E Study for proposed operational improvements to the I-75 corridor in the City of Ocala and Marion County, Florida. These interim improvements were identified as part of Phase 1 of a master planning effort for the I-75 corridor between Florida's Turnpike and County Road 234. The operational improvements being evaluated by this PD&E Study include construction of auxiliary lanes between interchanges for an eight-mile segment of I-75 between S.R. 200 and S.R. 326, as shown on **Figure 1.1**. Within the study limits, I-75 is an urban principal arterial interstate that runs in a north and south direction with a posted speed of 70 miles per hour. I-75 is part of the Florida Intrastate Highway System, the Florida Strategic Intermodal System (SIS), and is designated by the Florida Department of Emergency Management as a critical link evacuation route. Within the study limits, I-75 is a six-lane limited access facility situated within approximately 300 feet of right-of-way (ROW), as shown on **Figure** 1.2. No transit facilities, frontage roads, or managed lanes are currently provided.

Figure 1.1 | I-75 PD&E Study Limits

Figure 1.2 | Existing I-75 Typical Section – S.R. 200 to S.R. 326



1.2 Purpose and Need

1.2.1 Project Purpose

The purpose of this project is to evaluate operational improvements between existing interchanges for I-75 between S.R. 200 and S.R. 326.

1.2.2 Project Need

The primary needs for this project are to enhance current transportation safety and modal interrelationships while providing additional capacity between existing interchanges.

1.2.2.1 Project Status

The project is within the jurisdiction of the Ocala-Marion Transportation Planning Organization (TPO) boundaries. The Ocala-Marion TPO 2045 Long Range Transportation Plan (LRTP) includes adding auxiliary lanes to I-75 from S.R. 200 to S.R. 326. The I-75 improvements are included in the FDOT 2023-2028 Work Program and 2024-2028 Ocala-Marion TPO Transportation Improvement Program (TIP). The I-75 improvements are funded for design and right-of-way in the Department's Five-Year Work Program as part of the Moving Florida Forward Initiative. This project begins at S.R. 200, which is the northern terminus for the I-75 PD&E from South of S.R. 44 to S.R. 200, ETDM #14541.

1.2.2.2 Safety

I-75 experiences crash rates (1.85) greater than the statewide average (1.0) for similar facilities. Crash data analyzed between 2018 and 2022 indicates there was a total of 1,228 vehicle crashes between S.R. 200 and S.R. 326. Of these, 297 resulted in at least one injury and 7 resulted in a fatality. The number of crashes increased every year from 161 crashes in 2018 to 272 crashes in 2022.

Based on the data, rear end collisions and sideswipes are cited as the primary types of crashes on I-75 mainline and the on/off-ramps. Contributing factors includes the closely spaced interchanges in the Ocala area that cause vehicles to "stack" in the right-hand lane with

insufficient weaving distance between interchanges, weaving associated with vehicles entering and existing the I-75 mainline, and congestion at off-ramps that cause vehicles to queue from off-ramps onto the mainline.

1.2.2.3 Modal Interrelationships

Truck traffic on I-75 is substantial and accounts for over 20 percent of all daily vehicle trips within the study limits based on the FDOT, Traffic Characteristics Inventory. The segment of I-75 between U.S. 27 and S.R. 326 experiences the highest volume of trucks with more than 30 percent of the total trips made by trucks. Multiple existing and planned Intermodal Logistic Centers (ILC) and freight activity centers in Ocala contribute to the growth in truck volumes. These facilities include the Ocala/Marion County Commerce Park (Ocala 489), Ocala 275 ILC, and the Ocala International Airport and Business Park.

The interaction between heavy freight vehicles and passenger vehicles between interchanges contributes to both operational congestion and safety concerns.

1.2.2.4 Capacity/Transportation Demand

Existing annual average daily traffic (AADT) on I-75 within the study limits ranges from 74,000 vehicles per day (vpd) to 97,500 vpd, with the highest volume of traffic occurring between S.R. 200 and S.R. 40. I-75 northbound and southbound operates at level of service (LOS) C or better during the average weekday AM and PM peak hours. The LOS target for I-75 is D. As early as 2030, the Opening Year, I-75 northbound from S.R. 200 to S.R. 40 and I-75 southbound from S.R. 326 to S.R. 40 will operate at Level of Service (LOS) F in the no-build condition. By 2040, the Design Year, AADT's within the study limits will range between 122,000 and 142,500, with the highest volumes of traffic continuing to occur between S.R. 200 and S.R. 40.

I-75 is a unique corridor that experiences substantial increases in traffic during holidays, peak tourism seasons, weekends, and special events and experiences frequent closures because of incidents leading to non-recurring congestion. I-75 is part of the emergency evacuation route network designated by the Florida Division of Emergency Management (FDEM).

1.3 PROJECT ALTERNATIVES

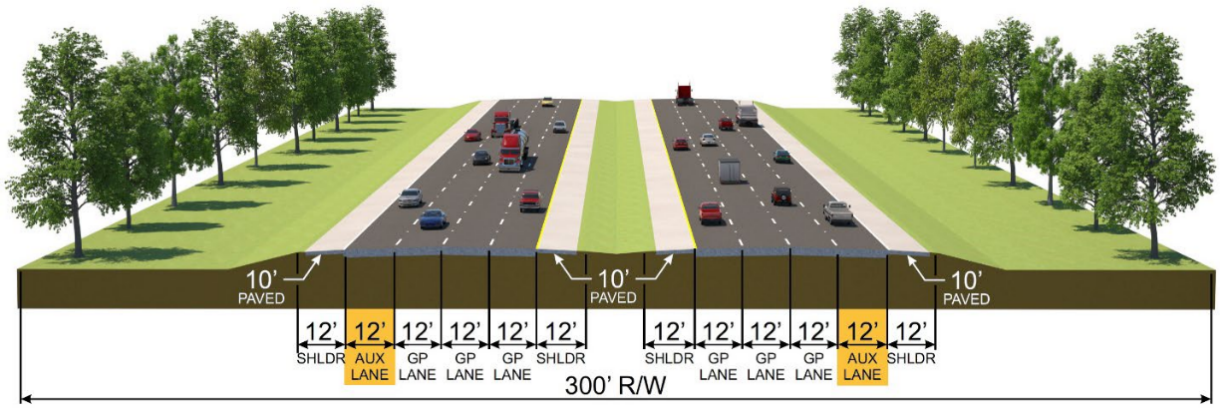
1.3.1 No-Build Alternative

The No-Build Alternative is defined as the scenario in which the proposed activity would not take place. The existing six-lane I-75 roadway, the existing interchange configurations, and the planned new interchange at NW 49th Street are considered the No-Build Alternative. The No-Build Alternative does not address the purpose and need for this project; however, it serves as the baseline against which the build alternative is evaluated.

1.3.2 Auxiliary Lanes Alternative

The Auxiliary Lanes Alternative is the sole build alterative evaluated in this PD&E study and is based on recommendations from previous master planning activities. The Auxiliary Lanes Alternative proposes to add one 12-foot auxiliary lane (additional lane between interchanges) to the outside of the general-purpose lanes in each direction, as shown on **Figure 1.3**. The auxiliary lanes would not impact the interchange bridges.

Figure 1.3 | Auxiliary Lanes Alternative Typical Section



2.0 STUDY AREA AND METHODOLOGY

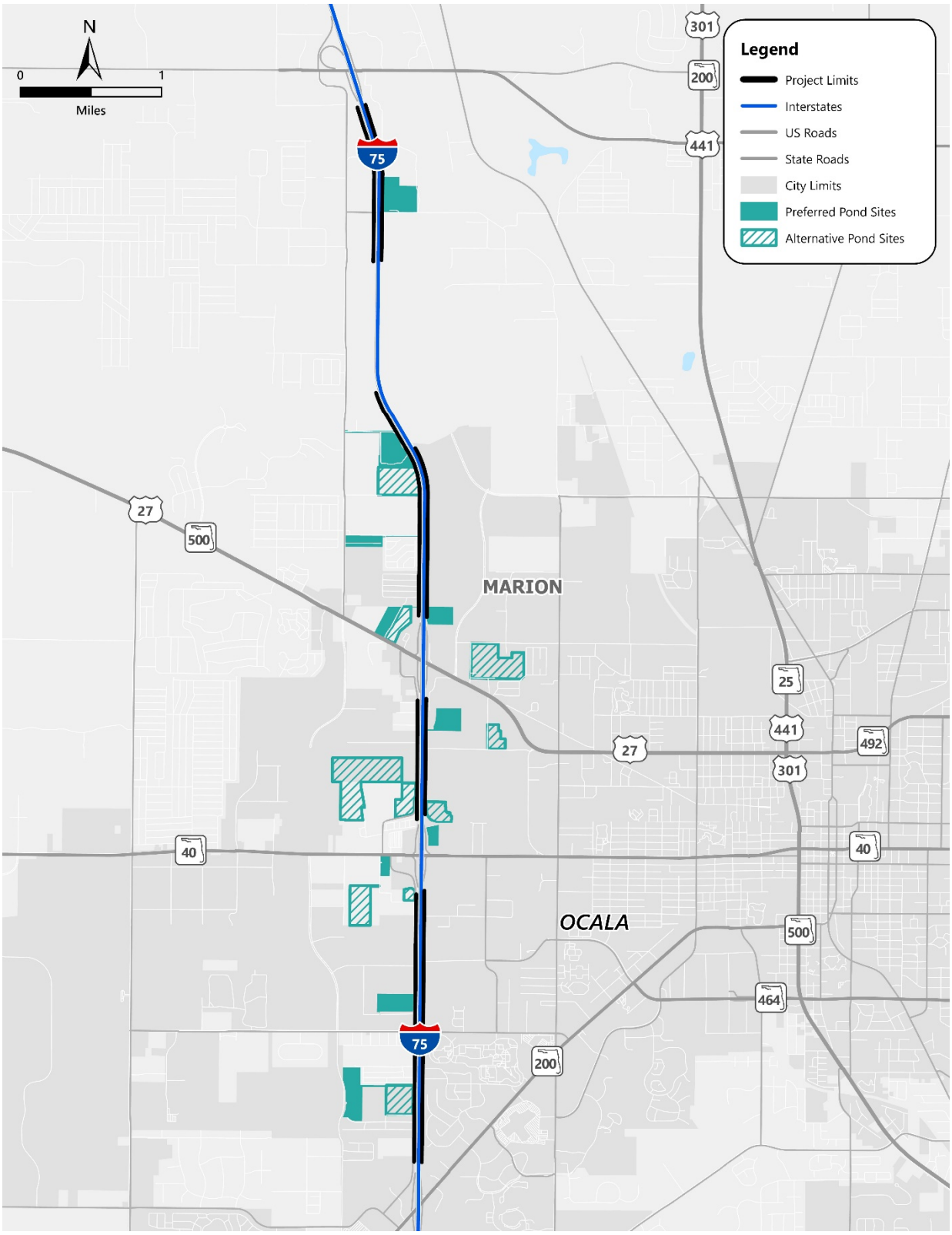
The study area for this evaluation includes the I-75 mainline from ROW to ROW (approximately 300 feet wide) along the eight-mile segment of I-75 between S.R. 200 and S.R. 326, not including the interchanges (Mainline Study Area). In addition, 20 alternative pond sites (Pond Sites Study Area) were evaluated. The analysis assessed land use, soils, wetlands, surface waters, floodplains, and the presence of protected species and their habitats, using a desktop analysis and field reconnaissance. Field reconnaissance events were conducted in May 2023 to assess conditions within the Mainline Study Area. Field reconnaissance was conducted in October through December 2023 to assess conditions within the Pond Sites Study Area.

The 20 alternative pond sites evaluated in this report are listed below and shown on **Figure 2.1**.

- B1-B & B2-A Combined*
- B1-D & B2-D Combined
- B3-D*
- B4-A
- B4-B1
- B4-B2*
- B5-A & B6-A &B7-B Combined
- B5-D
- B5-E*
- B6-D
- B6-C
- B7-A*
- B8-A & B9-A Combined
- B8-B*
- B8-C
- B9-C*
- B10-B*
- B11-B & B12-B Combined
- B11-C & B12-C & B13-A Combined*
- B14-A & B15-C Combined*

* *Preferred Pond sites.*

Figure 2.1 | Pond Sites Study Area



3.0 EXISTING CONDITIONS

Prior to and in preparation for site reconnaissance, the existing conditions within the study areas were identified through the review of various Geographic Information Systems (GIS) data sources made publicly available by federal, state and local agencies. The GIS data sources reviewed are listed below and information obtained from these sources are summarized in this section.

- Google Maps Aerial Data
- Southwest Florida Water Management District (SWFWMD) Land Cover Land Use mapping
- St. Johns River Water Management District (SJRWMD) Land Cover Land Use mapping
- FDOT Florida Land Use, Cover and Forms Classification System (FLUCFCS) Handbook
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping
- University of South Florida (USF) Geo-Facilities Planning and Information Center (GeoPlan) Florida Geographic Data Library (FGDL)
- Federal Emergency Management Agency (FEMA) Digital Flood Insurance Rate Map (DFIRM) Database
- United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey

In Marion County, the I-75 corridor represents the boundary of two water management districts. The portion of the study areas west of I-75 fall within the SWFWMD and the portion of the study areas east of I-75 fall within the SJRWMD. By agreement, all FDOT District 5 improvements to I-75 will be permitted by the SJRWMD even though some alternative pond sites may overlay the SWFMWD boundary.

3.1 Mainline Study Area

3.1.1 Land Use

The SWFWMD and SJRWMD Land Cover Land Use mapping was used to evaluate land uses and habitat within the Mainline Study Area. Their Land Cover Land Use mapping uses the FDOT FLUCFCS (1999) to classify land use. **Table 3.1** lists the land use classifications within the Mainline Study Area based on the SWFWMD and SJRWMD Land Cover Land Use mapping desktop assessment. The total acreage and percent of each classification within the Mainline Study Area is also provided. Refer to **Appendix A** for the SWFWMD and SJRWMD Land Cover Land Use mapping of the Mainline Study Area.

The total area of the Mainline Study Area is approximately 298.68 acres, which consists of 274.46 acres (91.9%) of paved roadway and mowed and maintained ROW (FLUCFCS Code 8100, Transportation). No wetlands are identified within the Mainline Study Area by SWFWMD and SJRWMD Land Cover Land Use mapping.

Table 3.1 | Land Use Land Cover of Mainline Study Area*

FLUCFCS Code	Description	Acreage in Study Area	Percent of Mainline Study Area
1100	Residential, Low Density (<2 units/acre)	0.01	0.003%
1200	Residential, Medium Density (2-5 units/acre)	0.81	0.3%
1300	Residential, High Density	0.27	0.1%
1400	Commercial and Services	1.95	0.7%
1500	Industrial	9.22	3.1%
1600	Extractive	2.19	0.7%
1700	Institutional	1.02	0.3%
1900	Open Land	5.36	1.8%
2100	Cropland and Pastureland	2.20	0.7%
4340**	Upland Hardwood/Coniferous Mixed	1.15	0.4%
6530	Intermittent Ponds	0.02	0.01%
7400	Disturbed	0.03	0.01%
8100	Transportation	274.46	91.9%
	Total Acres in **Mainline Study Area**	**298.68*** **	100%

* Based on SWFWMD and SJRWMD Land Cover Land Use mapping, dated 2020.

** Natural Upland Habitat

*** May differ slightly due to rounding.

3.1.2 National Wetlands Inventory

The USFWS NWI mapping was reviewed to assess for wetlands within the Mainline Study Area. **Table 3.2** summarizes the NWI mapping within the Mainline Study Area based on the desktop assessment. The total acreage of each classification within the Mainline Study Area is also provided. Refer to **Appendix B** for the NWI maps for the Mainline Study Area. In addition, the Mainline Study Area is partially located within areas identified as Flood Hazard Zones A and AE floodplains.

NWI mapping identifies 0.23 acres of wetlands within the Mainline Study Area all located near the I-75/SR 200 Interchange.

Table 3.2 | National Wetlands Inventory Mapping of Mainline Study Area*

NWI Code	Description	Acreage in Mainline Study Area
PUB	Palustrine, Freshwater Pond, Unconsolidated Bottom	0.05
RUB	Riverine, Unconsolidated Bottom	0.18
	Total Acres in **Mainline Study Area**	**0.23**

* Based on USFWS NWI mapping dated 2018.

3.1.3 Soils

Based on USDA NRCS soil data, **Table 3.3** lists the soil mapping units within the Mainline Study Area along with their gopher tortoise burrowing suitability, hydric soil rating, and acreage within the Mainline Study Area. The following soils were not rated as hydric but have a hydric soil component and may sometimes be associated with wetlands:

- Adamsville Sand, 0-5 Percent Slopes
- Blichton Sand, 2-5 Percent Slopes
- Kanapaha – Kanapaha, Wet, Fine Sand 0-5 Percent Slopes
- Micanopy Fine Sand, 2-5 Percent Slopes
- Pits

Highly suitable gopher tortoise burrowing soils made up 78.1% of the Mainline Study Area. Soil maps of the Mainline Study Area are provided in **Appendix C**.

Table 3.3 | NRCS Soil Summary of Mainline Study Area

Map Unit Symbol	Map Unit Name	Gopher Tortoise Burrowing Suitability	Hydric Rating	Acreage within Mainline Study Area	Percent of Mainline Study Area
1	Adamsville Sand, 0-5 Percent Slopes	Highly Suited	4	3.57	1.2%
3	Arrendondo Sand, 0-5 Percent Slopes	Highly Suited	0	126.14	42.2%
6	Blichton Sand, 2-5 Percent Slopes	Unsuitable	14	4.99	1.7%
7	Candler Sand, 0-5 Percent Slopes	Highly Suited	0	56.59	18.9%
9	Gainesville Loamy Sand, 0-5 Percent Slopes	Highly Suited	0	14.36	4.8%

11	Hague Sand, 2-5 Percent Slopes	Moderately Suited	0	36.58	12.2%
12	Hague Sand, 5-8 Percent Slopes	Moderately Suited	0	2.26	0.8%
14	Kanapaha – Kanapaha, Wet, Fine Sand 0-5 Percent Slopes	Less Suited	10	5.40	1.8%
15	Kendrick Loamy Sand, 0-5 Percent Slopes	Moderately Suited	0	8.60	2.9%
20	Micanopy Fine Sand, 2-5 Percent Slopes	Unsuitable	6	4.86	1.6%
23	Pedro-Arrendondo Complex, 0-5 Percent Slopes	Unsuitable	0	2.28	0.8%
24	Pits	Not Rated	25	0.34	0.1%
27	Sparr Fine Sand, 0-5 Percent Slopes	Highly Suited	0	27.04	9.1%
28	Tavares Sand, 0-5 Percent Slopes	Highly Suited	0	5.69	1.9%
Total Acres in Mainline Study Area				**298.68***	100%

* May differ slightly due to rounding.

3.2 Alternative Pond Sites

A desktop review was performed for the alternative pond sites to assess their existing conditions. SJRWMD and SWFWMD Land Cover Land Use mapping, USFWS NWI mapping, and NRCS Web Soil Survey mapping were reviewed for each alternative pond site and are shown on figures provided in **Appendices A**, **B**, and **C**, respectively. **Table 3.4** summarizes the findings identifying if the ponds occur in hydric soils, soils with a hydric component, soils suitable for gopher tortoise burrows, NWI mapped wetlands, or if they abut NWI mapped wetlands, and mapped floodplains. **Appendix D** provides detailed descriptions of the existing conditions of each alternative pond site based on the desktop review.

Table 3.4 | Alternative Pond Sites Existing Conditions

Alternative Pond Site	Hydric Soils	Soils with Hydric Component	Gopher Tortoise Burrowing Suitable Soils	Mapped NWI Wetland	Abuts Mapped NWI Wetland	Floodplains
B1-B & B2-A Combined*			✓		✓	✓
B1-D & B2-D Combined			✓			
B3-D*			✓			
B4-A			✓			✓
B4-B1			✓			✓
B4-B2*			✓			✓
B5-A & B6-A &B7-B Combined		✓	✓	✓	✓	✓
B5-D			✓		✓	
B5-E*			✓			✓
B6-D		✓	✓			✓
B6-C			✓			
B7-A*						✓
B8-A & B9-A Combined			✓			✓
B8-B*			✓			✓
B8-C			✓			✓
B9-C*			✓			✓
B10-B*			✓			
B11-B & B12-B Combined			✓	✓		
B11-C & B12-C & B13-A Combined*		✓	✓			
B14-A & B15-C Combined*		✓	✓			✓

* Preferred Pond sites.

3.3 Other Natural Resources and Features

The area surrounding the I-75 and US 27 Interchange occurs near the springshed of Silver Springs, which is designated as an Outstanding Florida Springs (see map in **Appendix H**).

4.0 PROTECTED SPECIES AND HABITAT EVALUATION

The project study areas were evaluated for potential occurrences of federal- and state-listed plant and animal species in accordance with Section 7 of the Endangered Species Act (ESA) of 1973, as amended, and Chapter 5B-40 and Chapter 68A-27, Florida Administrative Code (FAC).

Section 7(a) (2) of the ESA requires every federal agency to ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. In accordance with 16 United States Code (U.S.C.) 1536[(a)-(d)] of the ESA, as amended, federal agencies also impose specific requirements regarding endangered or threatened species of fish, wildlife, or plants (listed species) and habitat of such species that has been designated as critical habitat under Section 7(a) of the ESA. Such species are afforded protection under Code of Federal Register (CFR) Title 50 Part 402 and in other legislation listed below.

Other applicable federal laws include:

- 23 CFR, Part 771, Environmental Impact and Related Procedures
- 40 CFR, Part 1500 et seq., Council on Environmental Quality, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act
- 42 U.S.C. 4321 et seq., National Environmental Policy Act of 1969, as amended
- 16 U.S.C. 662, Section 2 of the Fish and Wildlife Coordination Act

4.1 Data Collection

The study areas were evaluated for potential impacts to federal and state protected species in accordance with Chapter 16 (Protected Species and Habitat) of the FDOT PD&E Manual. The objective of this assessment was to identify protected species that have the potential to occur within the study areas and to determine if any protected species or their designated critical habitat would be adversely affected by the proposed project.

Federal listed threatened and endangered species are protected under the ESA. Other species, such as the bald eagle, are not listed (or considered threatened or endangered) but are afforded protection under the Bald and Golden Eagle Protection Act (BGEPA) or Migratory Bird Treaty Act (MBTA). State-listed species are protected under Chapter 379, Florida Statutes and Chapters 68A-27 and 5B-40, FAC. Note that federal listed species are also considered state listed species.

The methodology used to complete the protected species and habitat evaluation included review of federal and state agency databases and GIS data sources, including:

- Google Maps Aerial Data
- Florida Natural Areas Inventory (FNAI) Biodiversity Matrix
- USFWS Information for Planning and Consultation (IPaC) Resource List
- USFWS Consultation Areas
- USFWS NWI mapping
- GeoPlan FGDL
- USDA NRCS Web Soil Survey
- USFWS Wood Stork Nesting Colonies / Core Foraging Areas
- Audubon Florida EagleWatch Public Nest Map
- USF Atlas of Florida Plants

A FNAI Standard Data Report was prepared for the Mainline Study Area and the Pond Sites Study Area. The FNAI Standard Data Reports are included in **Appendix E** and provide information on natural resources within the study areas, including the presence of species habitat and species occurrences. In addition, a USFWS IPaC resource list was generated for the Mainline Study Area and for the Pond Sites Study Area and are included in **Appendix F**. The USFWS IPaC resource list identifies species federally listed or proposed to be listed and migratory birds that may be present in a proposed action area along with any designated critical habitat within the area of proposed action. Reviews for the presence of protected species were then completed during field reconnaissance events in May 2023 for the Mainline Study Area and October through December 2023 for the Pond Sites Study Area.

4.2 Federal Listed Species and Designated Critical Habitat

Table 4.1 lists the federal listed species that were identified as having the potential to occur within the study areas. The table also provides their probability of occurrence within the study areas and their project effect determinations. Each species and their effect determinations are discussed in more detail in the following subsections.

The standard federal effect determinations, as defined in the Endangered Species Consultation Handbook (USFWS and NMFS,1998), consist of:

- No Effect
- May Affect, Not Likely to Adversely Affect
- May Affect, Likely to Adversely Affect

The probability of occurrence within the study areas consisted of:

- Low: no suitable habitat present within the study areas and the species was not observed during field reconnaissance.

- Moderate: suitable habitat present within the study areas; however the species was not observed during field reconnaissance.
- High: suitable habitat present within the study areas and/or the species was observed during field reconnaissance.

The study areas were also evaluated for Designated Critical Habitat as defined by 50 CFR § 17.94. No designated critical habitat is located within the project study areas.

Table 4.1 | Federal Listed Species Potentially Occurring within the Study Areas

Scientific Name	Common Name	Status	Probability of Occurrence in Study Areas	Effect Determination
Mammals				
Perimyotis subflavus	Tricolored bat	Candidate	Moderate	NA[5]
Birds				
Aphelocoma coerulescens	Florida scrub-jay[1]	Threatened	Low	No Effect
Dryobates borealis	Red-cockaded woodpecker[2]	Endangered	Low	No Effect
Laterallus jamaicensis jamaicensis	Eastern black rail[3]	Threatened	Low	No Effect
Mycteria americana	Wood stork[4]	Threatened	Moderate	May Affect, Not Likely to Adversely Affect
Reptiles				
Drymarchon corais couperi	Eastern indigo snake[3]	Threatened	Moderate	May Affect, Not Likely to Adversely Affect
Insects				
Danaus plexippus	Monarch butterfly[3]	Candidate	Moderate	NA[5]
Plants				
Dicerandra cornutissima	longspurred mint[1]	Endangered	Low	No Effect
Eriogonum longifolium var. gnaphalifolium	scrub buckwheat[1]	Threatened	Low	No Effect
Polygala lewtonii	Lewton's Polygala[3]	Endangered	Low	No Effect

Notes:

[1] This federally listed species was identified by the FNAI Standard Data Report.
[2] This species was identified in FNAI Standard Data Report for the Pond Sites Study Area only.
[3] This federally listed species was identified by the USFWS IPaC.
[4] Included since there are a few areas with suitable foraging habitat within the study areas.
[5] Effect determinations are not applicable to species proposed for listing or candidate species.

4.2.1 Tricolored bat

The tricolored bat is a candidate species for federal listing as endangered under the ESA. The tricolored bat is a small, insectivorous bat that inhabits caves, mines, and culverts. In the summer, tricolored bats can be found roosting in live or recently dead deciduous hardwood trees.

Neither the USFWS IPaC nor the FNAI Standard Data Report identified the tricolored bat as having the potential to occur within the study areas. However, if the tricolored bat is listed, the range is expected to include the state of Florida. Habitat for this species, specifically deciduous hardwood trees, was observed within the Pond Sites Study Area. Therefore, the tricolored bat has a moderate probability of occurrence within the Pond Sites Study Area.

4.2.2 Florida scrub-jay

The federal status for the Florida scrub-jay is threatened. Florida scrub-jays utilize oak scrub as well as scrubby flatwoods with sand pine. These habitats are fire dependent and are characterized by an open canopy of widely spaced trees and a low, shrubby understory dominated by scrub oak and saw palmetto, generally interspersed with patches of white sand. These habitats occur on well-drained to excessively well-drained soils.

The FNAI Standard Data Report identified the Florida scrub-jay as having the potential to occur within the study areas but did not report any documented occurrences. The study areas fall within the USFWS Consultation Area for the Florida scrub-jay. However, there was no suitable habitat present within the study areas and the Florida scrub-jay was not observed during field reconnaissance. Therefore, the Florida scrub-jay has a low probability of occurrence within the study areas, and it has been determined that the project will have **no effect** on the Florida scrub-jay.

4.2.3 Red-cockaded woodpecker

The red-cockaded woodpecker is listed as endangered by the USFWS due to habitat fragmentation and poor management of appropriate habitat. A large portion of the land occupied by red-cockaded woodpeckers is federally managed, however smaller populations reside on state-owned and private lands. Their distribution is dependent on remaining areas of old-growth pine forests. In north and central Florida, they prefer longleaf pine (*Pinus palustris*) flatwoods.

The FNAI Standard Data Report identified the red-cockaded woodpecker as having the potential to occur within the Pond Sites Study Area but did not report any documented occurrences. The study areas do not fall within the USFWS Consultation Area for the red-cockaded woodpecker. There was no suitable habitat present within the study areas. Therefore, the red-cockaded

woodpecker has a low probability of occurrence within the study areas, and it has been determined that the project will have **no effect** on the red-cockaded woodpecker.

4.2.4 Eastern black rail

The federal status for the Eastern black rail is threatened. It is a small, cryptic marsh bird that is no bigger than 15 centimeters in length. Males and females are generally pale to blackish gray with bright red eyes. They require dense overhead cover and prefer herbaceous, emergent wetland vegetation. Nests are well-hidden in dense clumps of vegetation and are typically constructed over moist soil or shallow water.

The USFWS IPaC identified the Eastern black rail as having the potential to occur within the study areas. The Eastern black rail was not observed during field reconnaissance. Considering the absence of suitable habitat within the study areas, the Eastern black rail has a low probability of occurrence within the study areas, and it has been determined that the project will have **no effect** on the Eastern black rail.

4.2.5 Wood stork

The federal status for the wood stork is threatened. The wood stork is a large wading bird with black flight feathers and a short black tail. It utilizes freshwater and estuarine habitats for nesting, foraging, and roosting. Primary nesting sites include cypress or mangrove swamps with foraging habitat consisting of marshes, ditches, and flooded pasture with water depths ranging from two to 15 inches. The primary prey consists of fish and crayfish.

The USFWS guidelines indicate that the Core Foraging Area (CFA) for the wood stork in central Florida is a 15-mile radius surrounding nesting areas. The CFA is defined as the distance storks may fly from the colony to capture prey for their young.

Suitable foraging habitat (SFH) for the wood stork is described as any area containing patches of relatively open (< 25% aquatic vegetation), calm water, and having a permanent or seasonal water depth between two and 15 inches. SFH supports and concentrates, or is capable of supporting and concentrating small fish, frogs, and other aquatic prey.

Based on USFWS data updated in 2023, there are no active wood stork nesting colonies occurring within a 15-mile radius of the study areas. The wood stork was not observed during field reconnaissance. However, their distribution overlays the study areas and site reconnaissance determined a few areas with suitable foraging habitat are present. As a result, the wood stork has a moderate probability of occurrence within the study areas. Use of the USFWS Wood Stork Effect Determination Key (2008) (**Appendix G**), leads to a determination (A>B>C) that the proposed project **may affect, but is not likely to adversely affect** the wood stork.

4.2.6 Eastern indigo snake

The federal status for the Eastern indigo snake is threatened. The indigo snake is a large, docile bluish black snake that can reach lengths of up to eight feet. It may be found in a range of wetland and upland habitats from marsh edges to pine flatwoods and coastal dunes. It utilizes gopher tortoise burrows and other holes and cavities for shelter.

The USFWS IPaC identified the Eastern indigo snake as having the potential to occur within the study areas. The FNAI Standard Data Report did not identify any occurrences of the Eastern indigo snake within the vicinity of the survey areas and the Eastern indigo snake was not observed during field reconnaissance. The I-75 corridor consists of maintained road ROW and usage by the Eastern indigo snake is unlikely, however the presence of gopher tortoise burrows and other holes and cavities for indigo snake refuge was confirmed along the Mainline Study Area and on many of the alternative pond sites. As a result, the Eastern indigo snake has a moderate probability of occurrence within the study areas. Considering the potential for the Eastern indigo snake to be present within the area, the FDOT will commit to implementation of the USFWS *Standard Protection Measures for the Eastern Indigo Snake* (2021) during construction. Use of the Eastern Indigo Snake Programmatic Effect Determination Key (**Appendix G**) leads to a determination (A>B>C>D>E) that the proposed project **may affect, but is not likely to adversely affect** the Eastern indigo snake.

4.2.7 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.

The USFWS IPaC identified the monarch butterfly as having the potential to occur within the study areas. Mowed ROW can contain milkweed and/or nectar producing plants that are considered potential habitat, however, naturally occurring milkweed has become rarer and no milkweed was directly observed during field reconnaissance. 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 ROW once construction is complete. Most alternative pond sites are densely forested and do not support monarch butterfly habitat. Other alternative pond sites include areas with managed fields and pastures that are routinely mowed or harvested for hay and do not routinely support suitable habitat. A few ruderal fields are present that may support suitable monarch butterfly

habitat that would be displaced by a pond design. While consultation with USFWS is not required for candidate species, agencies are encouraged to take the opportunity to conserve the species through cooperative conservation efforts. Ruderal areas can readily reestablish along new pond site margins and adjacent cleared areas that would replace the lost habitat. Therefore, the monarch butterfly has a moderate probability of occurrence within the study areas.[1]

4.2.8 Longspurred mint

The federal status for the longspurred mint is endangered. Longspurred mint is a low shrub with numerous stiff, erect, square stems arising from a woody base. Leaves are needle-like with a minty fragrance. The flowers are rose-purple with dark purple lines and dots with the throat whitish. Habitat for the longspurred mint consists of openings or disturbed areas in white sand scrub and sandhill on central Florida ridges with scrub oaks, sand pine, and lichens. The longspurred is also found on paths, firelines, and roadsides.

The FNAI Standard Data Report identified the longspurred mint as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the longspurred mint in Marion County. However, there is no suitable habitat within the study areas, and the longspurred mint was not observed during field reconnaissance. Therefore, the longspurred mint has a low probability of occurrence within the study areas, and it has been determined that the proposed project would have **no effect** on longspurred mint.

4.2.9 Scrub buckwheat

The federal status for the scrub buckwheat is threatened. The scrub buckwheat occurs with Lewton's polygala in high pine and scrub habitats though it occurs most commonly in intermediate turkey oak barrens.

The FNAI Standard Data Report identified scrub buckwheat as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the scrub buckwheat in Marion County. However, there is no suitable habitat remaining within the study areas, and the scrub buckwheat was not observed during field reconnaissance. Therefore, the scrub buckwheat has a low probability of occurrence within the study areas, and it has been determined that the proposed project would have **no effect** on scrub buckwheat.

[1] Effect determinations are not applicable to species proposed for listing or candidate species.

4.2.10 Lewton's Polygala

The federal status for Lewton's polygala is endangered. Lewton's polygala occurs with scrub buckwheat in high pine and scrub habitats though it occurs most commonly in intermediate turkey oak barrens.

The USFWS IPaC identified Lewton's polygala as having the potential to occur within the study areas. As per the Atlas of Florida Plants, there are documented occurrences of Lewton's polygala in Marion County. However, there is no remaining suitable habitat within the study areas, and Lewton's polygala was not observed during field reconnaissance. Therefore, Lewton's polygala has a low probability of occurrence within the study areas, and it has been determined that the proposed project would have **no effect** on Lewton's polygala.

4.3 State Listed Species

Table 4.2 lists the state-listed species that were identified as having the potential to occur within the study areas. The table also provides their probability of occurrence within the study areas and their project effect determinations. Each species and their effect determinations are discussed in more detail in the following subsections.

The effect determinations for state listed species consist of:

- No Effect Anticipated
- No Adverse Effect Anticipated
- Potential for Adverse Effect

The probability of occurrence within the study areas consisted of:

- Low: no suitable habitat present within the study areas and the species was not observed during field reconnaissance.
- Moderate: suitable habitat present within the study areas; however the species was not observed during field reconnaissance.
- High: suitable habitat present within the study areas and/or the species was observed during field reconnaissance.

Table 4.2 | State Listed Species Potentially Occurring within the Study Areas

Scientific Name	Common Name	Status	Probability of Occurrence in Study Areas	Effect Determination
Birds				
Antigone canadensis pratensis	Florida sandhill crane	Threatened	Moderate	No Adverse Effect Anticipated
Athene cunicularia floridana	Florida burrowing owl	Threatened	Moderate	No Adverse Effect Anticipated
Egretta caerulea	Little blue heron[3]	Threatened	Moderate	No Adverse Effect Anticipated
Egretta tricolor	Tricolored heron[3]	Threatened	Moderate	No Adverse Effect Anticipated
Falco sparverius paulus	Southeastern American kestrel[4]	Threatened	Moderate	No Adverse Effect Anticipated
Reptiles and Amphibians				
Gopherus polyphemus	Gopher tortoise	Threatened	High (Observed)	No Adverse Effect Anticipated
Lampropeltis extenuata	Short-tailed Snake	Threatened	Low	No Effect Anticipated
Notophthalmus perstriatus	Striped newt	Threatened	Low	No Effect Anticipated
Pituophis melanoleucus mugitus	Florida pine snake[4]	Threatened	Moderate	No Adverse Effect Anticipated
Plants				
Agrimonia incisa	Incised groove-bur	Threatened	Low	No Effect Anticipated
Arnoglossum diversifolium	Variable-leaved Indian-plantain[1]	Threatened	Low	No Effect Anticipated
Calopogon multiflorus	Many-flowered grass-pink	Threatened	Low	No Effect Anticipated
Centrosema arenicola	Sand butterfly pea	Endangered	Low	No Effect Anticipated
Forestiera godfreyi	Godfrey's swampprivet	Endangered	Low	No Effect Anticipated
Litsea aestivalis	Pondspice	Endangered	Low	No Effect Anticipated
Matelea floridana	Florida spiny-pod	Endangered	Low	No Effect Anticipated
Monotropsis reynoldsiae	pygmy pipes	Endangered	Low	No Effect Anticipated
Nemastylis floridana	Celestial lily[1]	Endangered	Low	No Effect Anticipated
Nolina atopocarpa	Florida beargrass[2]	Threatened	Low	No Effect Anticipated
Pteroglossaspis ecristata	Giant orchid	Threatened	Low	No Effect Anticipated
Pycnanthemum floridanum	Florida mountain-mint	Threatened	Low	No Effect Anticipated
Salix floridana	Florida willow	Endangered	Low	No Effect Anticipated

Scientific Name	Common Name	Status	Probability of Occurrence in Study Areas	Effect Determination
Sideroxylon alachuense	silver buckthorn	Endangered	Low	No Effect Anticipated
Spigelia loganioides	Pinkroot	Endangered	Low	No Effect Anticipated

Notes:

[1] This species was identified in FNAI Standard Data Report for the Pond Sites Study Area only.

[2] This species was identified in FNAI Standard Data Report for the Mainline Study Area only.

[3] Although not observed these species could forage in the wetland identified within the Mainline Study Area, described in **Section 5.0**.

[4] The study areas fall within the range identified by the FWC for this species. In addition, habitat for this species was observed within the Pond Sites Study Area.

4.3.1 Florida sandhill crane

The Florida sandhill crane is a state threatened species. Sandhill cranes are tall gray birds with a red crown. They use a variety of habitats, preferring wet prairies, marshy lake margins, pastures, and marshes. Sandhill cranes nest and forage in shallow, freshwater marshes. Their nests are usually built-up accumulations of aquatic macrophytes within wetland interiors where disturbance from predators is less likely. Sandhill cranes breed from December through August and nest between February and April.

The FNAI Standard Data Report identified the Florida sandhill crane as having the potential to occur within the study areas but did not report any documented occurrences. According to FWC, they are less common at the northernmost extent of their range in peninsular Florida. Since there are no marshes with suitable hydroperiod or vegetation within the study areas, there are no suitable nesting habitat within the study areas. Although sandhill cranes were not observed during field reconnaissance, as many as six alternative pond site contained open fields or pastures, which are suitable foraging habitats. The presence of these suitable foraging habitats, results in a moderate probability of occurrence for the Florida sandhill crane within the Pond Sites Study Area. If sandhill cranes nests are observed, FDOT will follow FWC guidance for avoidance measures. Therefore, there is **no adverse effect anticipated** on the Florida sandhill crane.

4.3.2 Florida Burrowing Owl

The Florida burrowing owl is a state threatened species. Burrowing owls are small, ground-dwelling owls that can reach a length of eight inches and a wingspan of 21 inches. Florida burrowing owls have a brown body and wings with white speckles, a white chin, long legs, and large yellow eyes. Their typical habitat includes open prairies, pastures, and agricultural fields. Burrowing owls are known to revitalize inactive burrows, including tortoise burrows, and often move between burrows during the non-nesting season.

The FNAI Standard Data Report identified the Florida burrowing owl as having the potential to occur within the study areas but did not report any documented occurrences. Although, no Florida burrowing owls were observed during site reconnaissance, as many as six alternative pond sites contained open fields or pastures. In addition, the presence of gopher tortoise burrows and other mammal burrows was confirmed along the Mainline Study Area and on many of the alternative pond sites. Therefore, the Florida burrowing owl has a moderate probability of occurrence within the study areas. Surveys for the Florida burrowing owl will be conducted prior to construction. If it is determined individuals or nest areas are found and could be impacted by the project, FDOT will coordinate with FWC to determine appropriate avoidance and minimization measures during construction. For these reasons, there is **no adverse effect anticipated** to the Florida burrowing owl.

4.3.3 Little Blue Heron and Tri-colored Heron

The little blue heron and tricolored heron are state threatened wading birds. These birds inhabit fresh and saltwater environments including swamps, marshes estuaries, ponds, lakes, and rivers. They nest in colonies (or rookeries), often with other wading bird species. They make nests out of sticks in trees and shrubs on islands or adjacent to water, in thickets near water, or among emergent vegetation.

The FNAI Standard Data Report did not identify these wading birds as having the potential to occur within the study areas. However, these species could forage in the small, isolated wetland identified along the northbound ROW within the Mainline Study Area, described in **Section 5.0**. Nesting by these species within the study areas is not expected. Neither the little blue heron nor the tricolored heron were observed during site reconnaissance. These species have a moderate probability of occurrence within the study areas. If nesting is detected, FDOT will follow FWC guidance for avoidance measures. With adherence to the FWC guidelines and wetland impacts minimized and mitigated, there is **no adverse effect anticipated** to these species.

4.3.4 Southeastern American Kestrel

The Southeastern American kestrel is a state threatened species. Females have brown wings while males have bluish-gray wings, however both have white bellies and black markings around their eyes. There are two kestrel subspecies in Florida. The American kestrel is migratory and is only present in Florida between September and April. The Southeastern American kestrel is non-migratory and can be observed all year round. Kestrels utilize open grassland, pasture, and agricultural land, as well as ephemeral wetlands. They prefer habitats with perches, a diverse prey population, and tree snags with cavities for nesting. Southeastern American kestrels breed from March through July.

Although the FNAI Standard Data Report did not identify the Southeastern American kestrel as having the potential to occur within the study areas, the study areas fall within the range identified by the FWC for this species. Habitat for this species was observed within several of the alternative pond sites; however, the Southeastern American kestrel was not observed during field reconnaissance. No potential nesting cavities were observed although they could be present. Therefore, the Southeastern American kestrel has a moderate probability of occurrence within the study areas. If Southeastern American kestrel breeding behavior and/or active nesting cavities are observed, FDOT will follow FWC guidance for avoidance measures to avoid a take. Therefore, there is **no adverse effect anticipated** on the Southeastern American kestrel.

4.3.5 Gopher tortoise

The gopher tortoise is a state threatened species. It is a moderately sized terrestrial tortoise that prefers open, sunny locations with sandy, well-drained soils and low-growing forage plants such as wiregrass, broadleaf grasses, gopher apple, and legumes. They are found in habitats such as longleaf pine sandhills, xeric oak hammocks, scrub, pine flatwoods, dry prairies, and coastal dunes. They are a burrowing species that spend up to 80% of their time in their burrows.

The FNAI Standard Data Report identified the gopher tortoise as having the potential to occur within the study areas but did not report any documented occurrences. A NRCS Gopher Tortoise Burrowing Soil Suitability Reports were run for the survey areas and are included in the soil survey reports in Appendices D and E.

Four gopher tortoise burrows were identified during field reconnaissance (see map in **Appendix H**) along the Mainline Study Area ROW fencing. Three other potentially occupied burrows were observed in a clearing within preferred pond site B8-B. One abandoned gopher tortoise burrow was observed within preferred pond site B4-B2 near a tree at a mid-point on the eastern property line. Therefore, the gopher tortoise has a high probability of occurrence within the study areas.

Surveys for gopher tortoise burrows, as well as commensal species, will be conducted prior to construction and permits to relocate tortoises and commensals, as appropriate, will be obtained from the FWC. For these reasons, there is **no adverse effect anticipated** on the gopher tortoise.

4.3.6 Short-tailed snake

The short-tailed snake is a state threatened species. It is a small, slender snake that is adapted to digging and living underground. It can reach a length of up to 20 inches (51 centimeters) and has a gray body with 50-80 brown spots that are separated by yellow to red sections. This species can be found burrowed in sandy soils, particularly longleaf pine and xeric oak sandhills but they may also use scrub and xeric hammock habitats.

The FNAI Standard Data Report identified the short-tailed snake as having the potential to occur within the study areas but did not report any documented occurrences. There is no suitable habitat within the study areas, and the short-tailed snake was not observed during field reconnaissance. Therefore, the short-tailed snake has a low probability of occurrence within the study areas, and it has been determined that the proposed project would have **no effect anticipated** on the short-tailed snake.

4.3.7 Striped Newt

The striped newt is a state threatened species as of 2022. It is a small salamander. In most life stages, they can be identified by the reddish-to-orange stripe on their bodies. Adults and older juveniles are olive to greenish brown. Striped newts use dry upland habitats, most frequently sandhill but can also inhabit scrub and can be found occasionally in pine flatwoods. They breed in isolated, mostly ephemeral wetlands (depression marshes) that lack predatory fishes as a result of periodic drying cycles. Occasional fire and relatively undisturbed soil and vegetative groundcover are important terrestrial habitat components.

The FNAI Standard Data Report identified the striped newt as having the potential to occur within the study areas but did not report any documented occurrences. There is no suitable habitat within the study areas and the striped newt was not observed during field reconnaissance. Therefore, the striped newt has a low probability of occurrence within the study areas, and it has been determined that the proposed project would have **no effect anticipated** on the striped newt.

4.3.8 Florida pine snake

The Florida pine snake is state threatened species. The pine snake is a large, heavy-bodied snake that can reach up to 7.5 feet. These snakes have a nose scale and cone-shaped head that enable the snake to dig. They spend most of their life underground and have been found within tortoise, armadillo, and pocket gopher burrows. The Florida pine snake uses a variety of habitats with a preference for dry, open-canopy pine flatwoods and scrubby oak lands with well-drained soils and a high density of burrows. Pine snakes are most active March through October.

Although the FNAI Standard Data Report did not identify the Florida pine snake as having the potential to occur within the study areas, the study areas fall within the range identified by the FWC for this species. In addition, suitable habitat for this species was observed within the Pond Sites Study Area. As a result, the Florida pine snake has a moderate probability of occurrence within the study areas. However, the Florida pine snake was not observed during field reconnaissance. Due to similarities in habitat utilization, the construction conditions required to protect the Eastern indigo snake would have the benefit of also protecting the Florida pine

snake. For these reasons, there is **no adverse effect anticipated** to occur to the Florida pine snake.

4.3.9 Incised groove-bur

The incised groove-bur is a state threatened perennial herb that grows from tuberous roots. Flowers occur alternating on stems. Habitat for this species consists of fire-maintained sandhill, upland pine, and upland mixed woodland. It is also found in open pine woods or mixed pine-oak woods, bluffs, small clearings and old roads, and the edges of upland hardwood forests and other mesic habitats.

The FNAI Standard Data Report identified the incised groove-bur as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the incised groove-bur in Marion County. However, there is no suitable habitat within the study areas, and the incised groove-bur was not observed during field reconnaissance. Therefore, the incised groove-bur has a low probability of occurrence within the study areas, and it has been determined that the proposed project would have **no effect anticipated** on the incised groove-bur.

4.3.10 Variable-leaved Indian-plantain

The variable-leaved Indian-plantain is a state threatened plant. It is a herbaceous perennial with slightly grooved and angled stems up to 6.5 feet tall with white to lavender flowers in a cluster at the top. It occurs in floodplain forests, banks of woodland streams, and seasonally wet wooded hammocks.

The FNAI Standard Data Report identified the variable-leaved Indian-plantain as having the potential to occur within the Pond Sites Study Area but did not report any documented occurrences. As per the Atlas of Florida Plants, there are no documented occurrences of the variable-leaved Indian-plantain in Marion County. There is no suitable habitat within the Pond Sites Study Area, and the variable-leaved Indian-plantain was not observed during field reconnaissance. Therefore, the variable-leaved Indian-plantain has a low probability of occurrence within the study areas, and it has been determined that there is **no effect anticipated** for the variable-leaved Indian-plantain.

4.3.11 Many-flowered grass-pink

The many-flowered grass-pink is a state threatened plant. It is an orchid with thin basal leaves and a leafless flower stalk. The flowers are pink with a crest of orange bristles. It occurs in fire-maintained flatwoods among saw palmetto or edges of hammocks.

The FNAI Standard Data Report identified many-flowered grass-pink as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of

Florida Plants, there are no documented occurrences of the many-flowered grass-pink in Marion County. The study areas do not include any natural pinelands with a regular fire regime, and the many-flowered grass-pink was not observed during field reconnaissance. Therefore, the many-flowered grass-pink has a low probability of occurrence within the study areas, and it has been determined that there is **no effect anticipated** on the many-flowered grass-pink.

4.3.12 Sand butterfly pea

The sand butterfly pea is a state endangered plant. Sand butterfly pea is a perennial vine with leaflets of three that has a distinct purple-blue flower with a large banner. It occurs in sandhills and scrubby flatwoods.

The FNAI Standard Data Report identified sand butterfly pea as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the sand butterfly pea in Marion County. However, there is no suitable habitat within the study areas, and the sand butterfly pea was not observed during field reconnaissance. Therefore, there the sand butterfly pea has a low probability of occurrence within the study areas, and it has been determined that is **no effect anticipated** on the sand butterfly pea.

4.3.13 Godfrey's swampprivet

The Godfrey’s swampprivet is a state endangered plant described as a deciduous shrub or small tree with a height ranging from eight to 16 feet. The plant contains flower clusters close to the stem and fruits that are waxy and dark blue. This species occurs in upland hardwood forests with limestone at or near the surface, often on slopes above lakes and rivers.

The FNAI Standard Data Report identified Godfrey's swampprivet as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the Godfrey’s swampprivet in Marion County. However, there is no suitable habitat within the study areas, and Godfrey's swampprivet was not observed during field reconnaissance. Therefore, the Godfrey’s swampprivet has a low probability of occurrence within the study areas, and it has been determined that the proposed project would have **no effect anticipated** on Godfrey's swampprivet.

4.3.14 Pondspice

Pondspice is a state endangered shrub or small tree. It contains twigs that are zigzag and tiny flowers with six yellow sepals and no petals, usually in clusters, and produces a fleshy, red and round fruit. It occurs on peaty soils in edges of baygalls, flatwoods ponds, depression marshes, and cypress domes, and may form thickets around edges of ponds.

The FNAI Standard Data Report identified pondspice as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of pondspice in Marion County. However, there is no suitable habitat within the study areas, and pondspice was not observed during field reconnaissance. Therefore, pondspice has a low probability of occurrence within the study areas, and it has been determined that the proposed project would have **no effect anticipated** on pondspice.

4.3.15 Florida spiny-pod

The Florida spiny-pod is a state endangered vine that is most easily distinguished by its bright green fruit capsule that exhibits fleshy spines. It occurs in sandhills, upland pine, and dry hammocks.

The FNAI Standard Data Report identified Florida spiny-pod as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the Florida spiny-pod in Marion County. However, there is no suitable habitat within the study areas, and Florida spiny-pod was not observed during field reconnaissance. Therefore, the Florida spiny-pod has a low probability of occurrence within the study areas, and it has been determined that the proposed project would have **no effect anticipated** on the Florida spiny-pod.

4.3.16 Pygmy pipes

The pygmy pipes is a state endangered perennial herb which lacks chlorophyll. The flowers are located at the top of each stem in white or lavender and are slightly fragrant with petals in a bell-shaped tube. The fruit is a small, dark pink berry. The species occurs in upland hardwood forests, hammocks, sand pine and oak scrub.

The FNAI Standard Data Report identified pygmy pipes as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the Florida pygmy pipes in Marion County. However, there is no suitable habitat within the study areas, and pygmy pipes was not observed during field reconnaissance. Therefore, the pygmy pipes has a low probability of occurrence within the study areas, and it has been determined that the proposed project would have **no effect anticipated** on pygmy pipes.

4.3.17 Celestial lily

Celestial lily is a state endangered plant. It is a perennial herb with grass-like basal leaves and a blue-purple flower with bright yellow stamens. Celestial lily occurs in fire-maintained wet flatwoods, prairies, and marshes.

The FNAI Standard Data Report identified celestial lily as having the potential to occur within the Pond Sites Study Area but did not report any documented occurrences. As per the Atlas of Florida Plants, there are no documented occurrences of the celestial lily in Marion County. There is no suitable habitat within the Pond Sites Study Area, and the celestial lily was not observed during field reconnaissance. Therefore, celestial lily has a low probability of occurrence within the study areas, and it has been determined that there is **no effect anticipated** on the celestial lily.

4.3.18 Florida beargrass

Florida beargrass is a state threatened plant that grows as a rosette with long, thin leaves and a bulb-like base. It occurs in grassy areas of mesic and wet flatwoods.

The FNAI Standard Data Report identified Florida beargrass as having the potential to occur within the Mainline Study Area but did not report any documented occurrences. As per the Atlas of Florida Plants, there are no documented occurrences of the Florida beargrass in Marion County. There is no suitable habitat within the Mainline Study Area, and the Florida beargrass was not observed during field reconnaissance. Therefore, the Florida beargrass has a low probability of occurrence within the study areas, and it has been determined that there is **no effect anticipated** on the Florida beargrass.

4.3.19 Giant orchid

The giant orchid is a state threatened plant. It is a herbaceous perennial most easily identified by its flower stalk that can grow to five feet, exhibiting yellowish maroon flowers. It occurs in sandhill, scrub, and pine flatwoods and rocklands.

The FNAI Standard Data Report identified the giant orchid as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the giant orchid in Marion County. However, there is no suitable habitat within the study areas, and the giant orchid was not observed during field reconnaissance. Therefore, the giant orchid has a low probability of occurrence within the study areas, and it has been determined that the proposed project would have **no effect anticipated** on the giant orchid.

4.3.20 Florida mountain-mint

The Florida mountain-mint is a state threatened plant. It is a herbaceous perennial that grows several feet tall with square stems. White flowers with pink-purple spots develop in tight clusters toward the top of the plant. It occurs in roadside ditches and sandhill communities.

The FNAI Standard Data Report identified the Florida mountain-mint as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of

Florida Plants, there are documented occurrences of the Florida mountain-mint in Marion County. However, there is no suitable habitat within the study areas, and the Florida mountain-mint was not observed during field reconnaissance. The Florida mountain-mint has a low probability of occurrence within the study areas. Therefore, it has been determined that the proposed project would have **no effect anticipated** on the Florida mountain-mint.

4.3.21 Florida willow

The Florida willow is a state endangered plant that grows as a shrub or small tree with flowers arranged as distinct catkins that are shorter than those of the common Carolina willow. Leaves are broadly lanceolate and are bright green above with a grayish-white underside. It occurs in wet, mucky soils in bottomland forests, hydric hammocks, and swamps.

The FNAI Standard Data Report identified the Florida willow as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the Florida willow in Marion County. However, there is no suitable habitat within the study areas, and the Florida willow was not observed during field reconnaissance. Therefore, the Florida willow has a low probability of occurrence within the study areas, and it has been determined that there is **no effect anticipated** on the Florida willow.

4.3.22 Silver buckthorn

The silver buckthorn is a state endangered tree that grows up to 30 feet tall. Flowers contain five to six white petals and are clustered on each spur-shot. Fruits are black and oblong. There are no documented occurrences within the study areas.

The FNAI Standard Data Report identified the silver buckthorn as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the silver buckthorn in Marion County. However, there is no suitable habitat within the study areas, and the silver buckthorn was not observed during field reconnaissance. Therefore, the silver buckthorn has a low probability of occurrence within the study areas, and it has been determined that the proposed project would have **no effect anticipated** on the silver buckthorn.

4.3.23 Pinkroot

The pinkroot is a state endangered perennial herb that grows up to eight inches tall with several sparingly branched stems from a slightly wooded base. Flowers are solitary or few in a terminal stem, white with lavender lines, and narrowly funnel-shaped with five erect or flaring lobes. The fruit is small with two rounded lobes. It is known from hydric hammocks, mesic woods and ditches.

The FNAI Standard Data Report identified the pinkroot as having the potential to occur within the study areas but did not report any documented occurrences. As per the Atlas of Florida Plants, there are documented occurrences of the pinkroot in Marion County. However, there is no suitable habitat within the study areas, and the pinkroot was not observed during field reconnaissance. Therefore, the pinkroot has a low probability of occurrence within the study areas, and it has been determined that the proposed project would have **no effect anticipated** on the pinkroot.

4.4 Other Protected Species

4.4.1 Bald Eagle

The USFWS de-listed the bald eagle in 2007 however, protection continues under BGEPA (16 U.S.C. 668-668d), as amended, and the MBTA. They are opportunistic feeders and take dead fish and other carrion and are known to steal prey from other birds. Construction activities are restricted within 330 feet of active nest trees and the USFWS Eagle Management Guidelines are required if construction occurs within 660 feet of an active eagle nest during the nesting season (October 1 through May 15). According to the FWC eagle nest locator as well as the Audubon Eagle Watch mapper, there are no current or historic bald eagle nests within a one-mile radius of the study areas and no nests were identified within the study areas. Therefore, the bald eagle has a low probability of presence within the study areas.

If a bald eagle nest is identified within 660 feet of the project, FDOT will initiate coordination with the USFWS in accordance with the BGEPA and MBTA and will adhere to the USFWS Bald Eagle Management Guidelines. Because this project will be consistent with the BGEPA and the MBTA, and since no bald eagle nests were identified near the project area, impacts to the bald eagle are not anticipated.

4.4.2 Florida black bear

The Florida black bear is a large mammal that inhabits large expanses of undeveloped land for foraging. The black bear has been delisted by FWC, but their populations are still managed under the FWC Florida Black Bear Management Plan (December 2019). The FWC identifies the Florida black bear range based on the following four categories, depending on how frequently bears occur in the area: frequent, common, occasional and rare. Based on the Florida Black Bear Management Plan, the study areas do not fall within a Florida Black Bear Range. However, a Florida Black Bear Range designated as having common occurrences of the Florida black bear is located west and northwest of the study areas. In addition, there are documented Florida black bear related calls within the study areas (see map in **Appendix H**). Therefore, Florida black bear regulations, as documented in the Florida Black Bear Management Plan, including the Bear Conservation Rule and the Bear Feeding Rule, will be followed during the construction phase of

the project. 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 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). Considering these measures, impacts to the Florida black bear are not anticipated.

5.0 Wetland and Other Surface Waters

Section 404 of the Clean Water Act (CWA) establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. The CWA requires a permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (e.g., certain farming and forestry activities). The SJRWMD also regulate activities in wetlands and other surface waters within the study areas under state wetland protection rules (Chapter 62-330, FAC, Environmental Resource Permitting).

The wetland evaluation conducted and documented within this report is consistent with the requirements of the following regulations:

- Section 404 of the CWA
- Federal Executive Order 11990, Protection of Wetlands
- U.S. Department of Transportation (USDOT) Order 5660.1A, Preservation of the Nation's Wetlands
- Federal Highway Administration (FHWA) Technical Advisory T6640.8A
- Chapter 62-330, FAC, Environmental Resource Permitting
- Chapter 62-331, FAC, State 404 Program
- Chapter 62-340, FAC, Delineation of the Landward Extent of Wetlands and Surface Waters; and
- PD&E Manual Part 2, Chapter 9, Wetlands and Other Surface Waters.

5.1 Data Collection

Jurisdictional limits of wetlands and other surface waters were estimated for the study areas pursuant to the State of Florida's *Delineation of the Landward Extent of Wetlands and Surface Waters* (Chapter 62-340, FAC), the USACE 1987 *Wetland Delineation Manual*, and the 2012 *USACE Atlantic and Gulf Coastal Plain Regional Supplement* (Version 2.0). Field reconnaissance was conducted in May 2023 and observed a single jurisdictional wetland. The estimated jurisdictional limits were recorded using a Trimble RNSS 1 GPS Receiver with sub-meter accuracy connected to a tablet within the Mainline Study Area. Field reconnaissance was conducted October through December 2023 using a Trimble Geo7x GPS unit with sub-meter accuracy to record estimated jurisdictional limits of wetlands and other surface waters within the Pond Sites Study Area.

Jurisdictional wetlands and other surface waters have been classified according to the USFWS *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., 1979) used by the USFWS NWI program.

5.2 Wetland and Other Surface Waters

5.2.1 Mainline Study Area

Only one wetland area was identified within the Mainline Study Area. There are no stormwater ponds or drainage ditches within the Mainline Study Area.

Wetland 1 – Vegetated Non-Forested Wetlands (6400)

This 0.37-acre isolated herbaceous wetland was located within the ROW on the east side of I-75, north of SR 40 (**Figure 5.1**). It was in a depressional area between the ROW fence line and roadway embankment and consisted primarily of grasses. e.g. torpedo grass (*Panicum repens*) with clusters of Carolina willow (*Salix caroliniana*) and some hardwood trees, including sweetgum trees (*Liquidamber styraciflua*). The wetland is expected to be considered a jurisdictional feature that would require permitting by FDEP if impact is required. However, the wetland is considered to be isolated from waters of the United States.

5.2.2 Pond Sites Study Area

There were no wetlands identified within the preferred pond sites. Existing dry retention ponds were observed in preferred pond site B11-C & B12-C & B13-A Combined and preferred pond site B1-B & B2-A Combined. However, since these are not considered jurisdictional surface waters.

5.3 Wetland and Other Surface Waters Impacts

5.3.1 Direct Wetland and Other Surface Water Impacts

The proposed project would result in an impact to one wetland (Wetland 1) occurring within the existing ROW, as shown on **Figure 5.1**. The proposed northbound auxiliary lane and required embankment slope would result in direct permanent impact to the wetland totaling approximately 0.1 acre.

Figure 5.1 | Wetland Impacts

There were no wetland or jurisdictional surface waters identified within the preferred pond sites. Therefore, there would be no direct or indirect impacts to any wetlands or surface waters within the Pond Sites Study Areas.

The Uniform Mitigation Assessment Method (UMAM) per Chapter 62-330.345, FAC, was used to assess the potential wetland impact area to provide a preliminary estimate of total wetland functional loss resulting from the project. UMAM uses a scoring of 1 to 10 to assess wetlands based on three functional categories: Location and Landscape Support, Water Environment, and Community Structure. The following provides the methodology and justification for the scoring for each category of the impacted wetland (Wetland 1):

- Location and Landscape Support – The wetland within the ROW scores low, considering its proximity to the six-lane roadway, ROW maintenance and fence line with collocated

unimproved road, and adjacent overgrown woods, communication tower, and industrial land uses.

- Water Environment – The wetland within the ROW scores low, considering the altered hydrology, including impoundment and impaired water quality from the untreated stormwater from the existing roadway.
- Community Structure – The wetland within the ROW scores low, considering the dominance of nuisance exotic herbaceous species, including torpedo grass (*Panicum repens)* and the vegetative community structure is routinely reduced by mowing and maintenance of the ROW.

UMAM functional loss equates to mitigation bank credits that can be purchased to satisfy wetland mitigation requirements. The UMAM functional loss that would result from the project for the direct herbaceous wetland impact totals 0.04.

Table 5.2 summarizes the direct wetland impacts within the Mainline Study Area and the corresponding UMAM functional loss and credit purchase required from a mitigation bank. Refer to **Appendix I** for the wetland impact UMAM scoresheet. It is estimated that an additional 0.2 acres would be impacted due to secondary impacts and require about 0.01 additional credits for mitigation.

Table 5.2 | Summary of Wetland and Other Surface Waters Direct Permanent Impacts

Wetland ID			Wetland 1
NWI Classification			PEM1
Direct Impact Acreage			0.1
UMAM Scores	Without Impact	Landscape Support	4
		Water Environment	4
		Community Structure	4
	With Impact	Landscape Support	0
		Water Environment	0
		Community Structure	0
Delta			0.4
Functional Loss			0.04

5.3.2 Mitigation

Mitigation required for wetland impacts which would result from the construction of this project would occur 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. Final mitigation requirements would be determined during permitting based on the project design, using the UMAM scoring, and based on negotiations with the regulatory agencies at the time of permitting. Some mitigation banks require the use of the Wetland Rapid Assessment Procedure (WRAP) to determine mitigation requirements. Older mitigation banks require converting UMAM to WRAP/RATIO to determine mitigation cost.

The project falls within the Ocklawaha River - Florida Ridge watershed. There is one mitigation bank (Mill Creek) that currently services the study areas. That mitigation bank and others that service portions of Marion County within SJRWMD and SWFWMD, and their current credit availability status, are listed below:

- Mitigation Bank within the Ocklawaha River - Florida Ridge watershed
    - Mill Creek – Phase I Mitigation Bank - This mitigation bank currently has 0.12 (Forested Freshwater) credits available until the next credit release in early-mid 2024.
- Mitigation Banks outside of the Ocklawaha River - Florida Ridge watershed
    - Barberville Mitigation Bank - This mitigation bank currently has 6.52 general wetlands credits available.
    - Blackwater Creek Mitigation Bank - This mitigation bank currently has 13.39 state herbaceous credits available.
    - Emeralda Island Mitigation Bank - This mitigation bank has all credits reserved until the next credit release in late 2024.
    - Ocklawaha Mitigation Bank – This mitigation bank has 5.16 Forested State within the Northern Ocklawaha Basin.

5.3.3 Indirect and Cumulative Impacts

Short-term and long-term impacts to water quality, and the effects on wetland resources caused by construction are anticipated to be low with the use of Best Management Practices (BMPs) during construction. The proposed addition of auxiliary lanes were determined to be necessary to enhance current transportation safety and modal interrelationships while providing additional capacity between existing interchanges. Every effort has been made during the preliminary design to minimize and restrict impacts to within the existing FDOT ROW where wetland and upland habitats provide minimal habitat values.

Impacts to wetlands are anticipated to be mitigated within the one mitigation bank within the basin and therefore cumulative impacts are not expected. However, if impacts to wetlands require mitigation outside the basin, assessment of cumulative impacts will be required to determine additional mitigation.

5.3.4 Avoidance and Minimization

Avoidance of wetlands and other surface waters has been prioritized to the greatest extent possible. Based on the preliminary design, it has been determined that there are no practical alternatives to the proposed construction in the small wetland area that will be impacted. Further impact minimization will occur during the design and permitting phase of the project. The use of BMPs including the use of silt screens, floating turbidity barriers, and other discharge prevention measures during construction will minimize impacts to adjacent wetlands and other surface waters within the vicinity of the project.

5.3.5 Wetland Finding

The proposed project will have no significant short-term or long-term adverse impacts to wetlands. The design alternative carefully considered minimizing impacts to wetlands by keeping most of the project within the existing ROW and preventing impacts to wetlands beyond the ROW when selecting preferred pond sites. There is no practicable alternative to construction in wetlands within the ROW. Measures have been taken to avoid wetland impacts to the extent possible. Impacts to wetlands will be mitigated for pursuant to Section 373.4137 through either the purchase of mitigation bank credits from an appropriate mitigation bank or other mitigation options such as the purchase of mitigation services through the water management districts or FDEP.

6.0 Essential Fish Habitat

The project was evaluated for potential impacts to Essential Fish Habitat (EFH) in accordance with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) of 1976, as amended in 1996. The MSA was enacted by the U.S. Congress to protect marine and anadromous fish stocks and their habitat. Congress defined EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 U.S.C. 1802 (10)).

The National Marine Fisheries Service (NMFS) is the regulatory agency responsible for the nation's living marine resources and their habitats, including EFH. Pursuant to section 305(b)(2) of the Magnuson-Stevens Act, federal agencies must consult with NMFS regarding any of its actions authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken that may adversely affect EFH. Measures recommended by the NMFS or any FMC to protect EFH are advisory, not proscriptive.

The National Oceanic and Atmospheric Administration (NOAA) Essential Fish Habitat Mapper and NMFS Southeast Region EFH Mapper were reviewed for the study areas and there is no EFH within the study areas.

7.0 Anticipated Permits

The proposed project would require permits from state regulatory agencies for impacts to wetlands, water quality protection, and gopher tortoises, if necessary. **Table 7.1** lists the anticipated permits associated with the construction of the proposed project.

In Marion County, the I-75 corridor represents the boundary of two water management districts. The portion of the study areas west of I-75 fall within the SWFWMD and the portion of the study areas east of I-75 fall within the SJRWMD. By agreement, all FDOT District 5 improvements to I-75 will be permitted by the SJRWMD even though some preferred pond sites may overlay the SWFMWD boundary.

Table 7.1 | Anticipated Permits for the Proposed Project

Permit Type	Agency
Individual Environmental Resource Permit (ERP)	SJRWMD
National Pollution Discharge Elimination System (NPDES)*	FDEP
Gopher Tortoise Relocation Permit (if required)	FWC

* This permit will be obtained by the selected construction contractor.

8.0 Conclusions

FDOT is conducting a PD&E Study for the proposed short-term operational improvements to I-75 between S.R. 200 and S.R. 326 to evaluate the potential of effects of adding auxiliary lanes between interchanges to the eight-mile segment and associated alternative pond sites for stormwater management. The proposed Build Alternative would address the purpose and need, be designed to current FDOT criteria, and implement avoidance and minimization measures to the greatest extent feasible to reduce impacts to wetlands and other surface waters.

Pursuant to Section 7 of the ESA, **Tables 8.1** and **8.2** list the federal and state listed species and the effects determination for the proposed build alternative. The proposed build alternative is expected to result in unavoidable impacts to one wetland within the existing ROW. The anticipated direct wetland impact for the proposed build alternative is 0.1 acre. There are no anticipated surface water impacts. There is no EFH involvement for this project.

Table 8.1 | Federal Listed Species Potentially Occurring within the Study Areas

Scientific Name	Common Name	Status	Probability of Occurrence in Study Areas	Effect Determination
Mammals				
Perimyotis subflavus	Tricolored bat	Candidate	Moderate	NA[5]
Birds				
Aphelocoma coerulescens	Florida scrub-jay[1]	Threatened	Low	No Effect
Dryobates borealis	Red-cockaded woodpecker[2]	Endangered	Low	No Effect
Laterallus jamaicensis jamaicensis	Eastern black rail[3]	Threatened	Low	No Effect
Mycteria americana	Wood stork[4]	Threatened	Moderate	May Affect, Not Likely to Adversely Affect
Reptiles				
Drymarchon corais couperi	Eastern indigo snake[3]	Threatened	Moderate	May Affect, Not Likely to Adversely Affect
Insects				
Danaus plexippus	Monarch butterfly[3]	Candidate	Moderate	NA[5]

Scientific Name	Common Name	Status	Probability of Occurrence in Study Areas	Effect Determination
Plants				
Dicerandra cornutissima	longspurred mint[1]	Endangered	Low	No Effect
Eriogonum longifolium var. gnaphalifolium	scrub buckwheat[1]	Threatened	Low	No Effect
Polygala lewtonii	Lewton's Polygala[3]	Endangered	Low	No Effect

Notes:

[1] This federally listed species was identified by the FNAI Standard Data Report.

[2] This species was identified in FNAI Standard Data Report for the Pond Sites Study Area only.

[3] This federally listed species was identified by the USFWS IPaC.

[4] Included since there are a few areas with suitable foraging habitat within the study areas.

[5] Effect determinations are not applicable to species proposed for listing or candidate species.

Table 8.2 | State Listed Species Potentially Occurring within the Study Areas

Scientific Name	Common Name	Status	Probability of Occurrence in Study Areas	Effect Determination
Birds				
Antigone canadensis pratensis	Florida sandhill crane	Threatened	Moderate	No Adverse Effect Anticipated
Athene cunicularia floridana	Florida burrowing owl	Threatened	Moderate	No Adverse Effect Anticipated
Egretta caerulea	Little blue heron[3]	Threatened	Moderate	No Adverse Effect Anticipated
Egretta tricolor	Tricolored heron[3]	Threatened	Moderate	No Adverse Effect Anticipated
Falco sparverius paulus	Southeastern American kestrel[4]	Threatened	Moderate	No Adverse Effect Anticipated
Reptiles and Amphibians				
Gopherus polyphemus	Gopher tortoise	Threatened	High (Observed)	No Adverse Effect Anticipated
Lampropeltis extenuata	Short-tailed Snake	Threatened	Low	No Effect Anticipated
Notophthalmus perstriatus	Striped newt	Threatened	Low	No Effect Anticipated
Pituophis melanoleucus mugitus	Florida pine snake[4]	Threatened	Moderate	No Adverse Effect Anticipated
Plants				

Scientific Name	Common Name	Status	Probability of Occurrence in Study Areas	Effect Determination
Agrimonia incisa	Incised groove-bur	Threatened	Low	No Effect Anticipated
Arnoglossum diversifolium	Variable-leaved Indian-plantain[1]	Threatened	Low	No Effect Anticipated
Calopogon multiflorus	Many-flowered grass-pink	Threatened	Low	No Effect Anticipated
Centrosema arenicola	Sand butterfly pea	Endangered	Low	No Effect Anticipated
Forestiera godfreyi	Godfrey's swampprivet	Endangered	Low	No Effect Anticipated
Litsea aestivalis	Pondspice	Endangered	Low	No Effect Anticipated
Matelea floridana	Florida spiny-pod	Endangered	Low	No Effect Anticipated
Monotropsis reynoldsiae	pygmy pipes	Endangered	Low	No Effect Anticipated
Nemastylis floridana	Celestial lily[1]	Endangered	Low	No Effect Anticipated
Nolina atopocarpa	Florida beargrass[2]	Threatened	Low	No Effect Anticipated
Pteroglossaspis ecristata	Giant orchid	Threatened	Low	No Effect Anticipated
Pycnanthemum floridanum	Florida mountain-mint	Threatened	Low	No Effect Anticipated
Salix floridana	Florida willow	Endangered	Low	No Effect Anticipated
Sideroxylon alachuense	silver buckthorn	Endangered	Low	No Effect Anticipated
Spigelia loganioides	Pinkroot	Endangered	Low	No Effect Anticipated

Notes:

[1] This species was identified in FNAI Standard Data Report for the Pond Sites Study Area only.

[2] This species was identified in FNAI Standard Data Report for the Mainline Study Area only.

[3] Although not observed these species could forage in the wetland identified within the Mainline Study Area, described in **Section 5.0**.

[4] The study areas fall within the range identified by the FWC for this species. In addition, habitat for this species was observed within the Pond Sites Study Area.

8.1.1 Implementation Measures

Measures required to be implemented per construction procedure, standard specifications, or other agency requirements issued in a later project phase are listed below to help address project effects and facilitate efficient review of this NRE.

- Water quality impacts from construction will be avoided and minimized through the use of BMPs, including construction phasing, sediment barriers, floating turbidity curtains, silt fences, and other techniques identified during design and permitting by the regulatory agencies and later during construction by the selected contractor.

- Surveys for the Florida burrowing owl will be conducted prior to construction. If it is determined individuals or nest areas are found and could be impacted by the project, FDOT will coordinate with FWC to determine appropriate avoidance and minimization measures during construction.
- If sandhill cranes, little blue heron and tricolored heron, nests are observed, FDOT will follow FWC guidance for avoidance measures.
- Surveys for the Southeastern American Kestrel will be conducted during the nesting season (May through August). If nest areas are found and could be impacted by the proposed project, FDOT will coordinate with FWC to determine appropriate avoidance and minimization measures during construction.
- Surveys for gopher tortoise burrows, as well as commensal species, will be conducted prior to construction and permits to relocate tortoises and commensals, as appropriate, will be obtained from the FWC.
- If a bald eagle nest is identified within 660 feet of the project prior to or during construction, FDOT will coordinate with the USFWS and the FWC in accordance with the BGEPA and MBTA, and will adhere to the USFWS Bald Eagle Management Guidelines.
- If federal- or state-listed plants are discovered within the construction area, FDOT will coordinate with the appropriate regulatory authority.

8.1.2 Commitments

The FDOT commits to implementing the following measures during the final design, permitting and construction phases of this project:

Commitments

- FDOT will adhere to the USFWS Standard Protection Measures for the Eastern Indigo Snake (2021) during construction.
- If the listing status of the tricolored bat is elevated by USFWS to Threatened or Endangered and the Preferred Alternative is located within the consultation area, during the design and permitting phase of the proposed project, FDOT commits to re-initiating consultation with the USFWS to determine the appropriate survey methodology and to address USFWS regulations regarding the protection of the tricolored bat.
- 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 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 at 888-404-FWCC (3922).

8.1.3 Agency Coordination

This NRE will be submitted to the USFWS, FDEP, SJRWMD, FDACS and FWC for review and to initiate coordination for the project. The resulting coordination would henceforth be documented in the Environmental Document.

9.0 References

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