NATURAL RESOURCES EVALUATION

Florida Department of Transportation

District 1

Bradenton-Palmetto Connector

Limits of Project: US 41/SR 55

from US 301/SR 683 at 9th Street East to North of 25th Street East

Manatee, Florida

Financial Management Number: 444843-1-22-01

ETDM Number: 14507

Date: June 2026

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.

EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT), District One (D1) is conducting a Project Development and Environment (PD&E) study, known as the Bradenton-Palmetto Connector (BPC), to evaluate capacity and mobility improvements to United States (US) 41/State Road (SR) 55/1st Street (St)/Tamiami Trail (Trl) and US 301/SR 683 including roadway widening, bridge reconstruction, new stormwater management facilities (SMF), new floodplain compensation (FPC) sites, and bicycle and pedestrian accommodations. This PD&E study begins at US 301/SR 683 at 9th St East in the City of Bradenton, Florida and continues north to US 41 north of 25th St East in the City of Palmetto, Florida. The project also crosses the Manatee River. The study limits extend approximately 4.5 miles, all within Manatee County.

In 2025, FDOT D1 completed a PD&E study for the Hernando DeSoto Bridge (structure #130053) Replacement from westbound SR 64 to Haben Boulevard (Blvd) in Manatee County, Florida (FPID 442630-1-22-01, ETDM 14510). That study evaluated replacing the existing four lane DeSoto Bridge with a new four lane bridge that included wider shoulders, upgraded pedestrian facilities and other safety features. The DeSoto Bridge Replacement PD&E study limits fall within the BPC PD&E study limits; however, it did not include adding lanes for capacity improvements. This BPC PD&E study does include adding additional lanes both on the roadway and the DeSoto Bridge to accommodate capacity needed within the project study area.

The Natural Resource Evaluation (NRE) identifies wetlands, surface waters, protected species, and their habitats, including Essential Fish Habitat (EFH) within the study area, which encompasses the Preferred Alternative, including the Preferred Stormwater Management Facilities (SMFs), and a 250-foot buffer. In addition, the NRE evaluates the Preferred Alternative's involvement with these environmental resources.

The listed species evaluation was conducted in accordance with Section 7 of the Endangered Species Act (ESA) of 1973, as amended, and Chapters 5B-40 and 68A-27 of the Florida Administrative Code (F.A.C). The study area was also evaluated for Critical Habitat (CH) and it was determined that the study area falls within U.S. Fish and Wildlife Service (USFWS)-designated CH for the West Indian manatee (*Trichechus manatus latirostris*) and National Marine Fisheries Services (NMFS) proposed CH for the green sea turtle (*Chelonia mydas*).

Based on literature and field reviews, fifty-two (52) protected plant and wildlife species are known to potentially occur in Manatee County. Effect determinations were made after evaluating the habitat requirements for each species, the types of habitats present within the study area, and habitats that would be impacted by the Preferred Alternative. Effect determinations for federally listed species are presented in **Table ES-1**. Effect determinations for state-listed species are presented in **Table ES-2**.

Five (5) wetland, surface water (SW), other surface water (OSW), and submerged aquatic vegetation (SAV) community types were identified within the study area during field surveys: streams and waterways (FLUCFCS 5100/USFWS: PEM1Cx [Palustrine, Emergent, Persistent, Seasonally Flooded, Excavated]), reservoirs (FLUCFCS 5300/USFWS: PUBHx [Palustrine, Unconsolidated Bottom, Permanently Flooded, Excavated]), bays and estuaries (FLUCFCS: 5400/USFWS: E1UB2 [Estuarine, Subtidal, Unconsolidated

Bottom, Sand]), mangrove swamps (FLUCFCS: 6120/USFWS: E2FO3N [Estuarine, Intertidal, Forested, Broad-Leaved Evergreen, Regularly Flooded]), and seagrass, sparse to medium (FLUCFCS: 9111/USFWS: E1AB3L [Estuarine, Intertidal, Aquatic Bed, Rooted Vascular, Subtidal]).

Table ES-1 Effect Determination for Federally Listed Species and Proposed Species for Listing

Scientific Name	Common Name	USFWS Designation	Effect Determination
PLANTS			
Chionanthus pygmaeus	Pygmy fringe tree	E	No Effect
Cladonia perforata	Perforate reindeer lichen	E	No Effect
INSECTS			
FISH			
Acipenser oxyrhynchus desotoi	Gulf sturgeon	T	MANLAA
Pristis pectinata	Smalltooth sawfish	E	MANLAA
REPTILES			
Caretta caretta	Loggerhead sea turtle	T	MANLAA
Chelonia mydas	Green sea turtle	T	MANLAA
Crocodylus acutus	American crocodile	T	MANLAA
Drymarchon couperi	Eastern indigo snake	T	MANLAA
Lepidochelys kempii	Kemp's Ridley sea turtle	E	MANLAA
BIRDS			
Aphelocoma coerulescens	Florida scrub-jay	T	No Effect
Calidris canutus rufa	Rufa red knot	T	MANLAA
Caracara plancus audubonii	Crested caracara (Audubon's)	T	No Effect
Charadrius melodus	Piping plover	T	MANLAA
Laterallus jamaicensis ssp. *jamaicensis*	Eastern black rail	T	No Effect
Rostrhamus sociabilis plumbeus	Everglade snail kite	E	No Effect
MAMMALS			
Puma concolor coryi	Florida panther	E	No Effect
Perimyotis subflavus	Tricolored bat	PFE	MANLAA
Trichechus manatus latirostris	West Indian manatee	T	MANLAA

Key:

E = Endangered
MANLAA = May affect, not likely to adversely affect
PFE = Proposed Federally Endangered
T = Threatened
USFWS = U.S. Fish and Wildlife Service

Table ES-2 Effect Determination for State Listed Species

Scientific Name	Common Name	FWC / FDACS Designation	Effect Determination
PLANTS			
Acrostichum aureum	Golden leather fern	T	No Effect Anticipated
Celtis iguanaea	Iguana hackberry	E	No Effect Anticipated
Ctenitis sloanei	Florida tree fern	E	No Effect Anticipated
Eragrostis pectinacean var. *tracyi*	Sanibel lovegrass	E	No Effect Anticipated
Glandulari tampensis	Tampa vervain	E	No Effect Anticipated
Gossypium hirsutum	Wild cotton	T	No Adverse Effect Anticipated
Habenaria distans	Distans habenaria	E	No Effect Anticipated
Harrisia gracilis	West Coast prickly-apple	E	No Effect Anticipated
Lechea divaricata	Pine pinweed	E	No Effect Anticipated
Listera australis	Southern twayblade	T	No Effect Anticipated
Lythrum flagellare	Lowland loosestrife	E	No Adverse Effect Anticipated
Matelea floridana	Florida spiny-pod	E	No Effect Anticipated
Maytenus phyllanthoides	Florida mayten	T	No Effect Anticipated
Polypodium ptilodon	Swamp plume polypody	E	No Effect Anticipated
Rhynchospora megaplumosa	Large-plumed beaksedge	E	No Effect Anticipated
Rudbeckia nitida	St. John's black-eyed Susan	E	No Adverse Effect Anticipated
Triphora amazonica	Wide-leaved triphora	E	No Effect Anticipated
REPTILES			
Gopherus polyphemus	Gopher tortoise	T	No Adverse Effect Anticipated
Pituophis melanoleucus mugitus	Florida pine snake	T	No Adverse Effect Anticipated
BIRDS			
Antigone canadensis pratensis	Florida sandhill crane	T	No Adverse Effect Anticipated
Athene cunicularia floridana	Florida burrowing owl	T	No Adverse Effect Anticipated
Charadrius nivosus	Snowy plover	T	No Adverse Effect Anticipated
Egretta caerulea	Little blue heron	T	No Adverse Effect Anticipated
Egretta rufescens	Reddish egret	T	No Adverse Effect Anticipated

Scientific Name	Common Name	FWC / FDACS Designation	Effect Determination
Egretta tricolor	Tricolored heron	T	No Adverse Effect Anticipated
Falco sparverius paulus	Southeastern American kestrel	T	No Adverse Effect Anticipated
Haematopus palliatus	American oystercatcher	T	No Adverse Effect Anticipated
Mycteria americana	Wood stork	T[1]	No Adverse Effect Anticipated
Platalea ajaja	Roseate spoonbill	T	No Adverse Effect Anticipated
Rynchops niger	Black skimmer	T	No Adverse Effect Anticipated
Sternula antillarum	Least tern	T	No Adverse Effect Anticipated

Key:

FWC = Florida Fish and Wildlife Conservation Commission
FDACS = Florida Department of Agriculture and Consumer Services
E = Endangered
T = Threatened

[1]The USFWS has removed the Southeast U.S. distinct population segment of the wood stork from the Federal List of Endangered and Threatened Wildlife, effective March 12, 2026. The wood stork is now a state-listed threatened species, occurring on Florida's Endangered and Threatened Species List with state protections through the FWC, which regulates and manages these species (68A-27, F.A.C.).

Fourteen (14) wetland, SW, and OSW features are proposed to be impacted by the Preferred Alternative (WL-2, SW 1, OSW 1-11). The total wetland impact is 1.833 acres [1.156 acres of direct (fill) impact and 0.677 acres of secondary impact (25-foot buffer from direct impact)] of mangrove swamp for the Preferred Alternative, which equates to a total functional loss of 0.89 estuarine forested units. The total surface water impact is less than 0.10 acres, from pile driving for the DeSoto Bridge replacement, which equates to a total functional loss of less than 0.01 units of estuarine freshwater credits. Shade impacts are not considered since this area of surface waters consists of a non-vegetated bottom. The functional loss for surface waters is considered de minimis and will not require mitigation. However, the de minimis determination will be confirmed during the permitting process. A total of 1.10 acres of OSWs is anticipated to be impacted from the construction of the Preferred Alternative. These features are roadside ditches created as part of the roadway system for the conveyance of stormwater. They will be replaced as part of the new roadway system, and therefore, no mitigation is required. No impacts to SAV are anticipated.

Functional loss for project impacts was calculated using the Uniform Mitigation Assessment Methodology (UMAM). A summary of impacts requiring mitigation is provided in **Table ES-3**.

Wetland impacts which will result from the construction of this project will be mitigated pursuant to Section 373.4137, Florida Statutes (FS), to satisfy all mitigation requirements of Part IV of Chapter 373, FS and 33 U.S. Code (USC) 1344. The use of a mitigation bank to offset adverse impacts resulting from a project is the preferred mitigation option.

The project is located within the Manatee River watershed and falls within the service area of the Nature Coast Mitigation Bank, Braden River Mitigation Bank, Tampa Bay Mitigation Bank, Manatee Mitigation Bank, Mangrove Point Mitigation Bank, North Shore Park Seagrass Mitigation Bank, and Nature Coast (Parcel C) Mitigation Bank. For the Nature Coast Mitigation Bank, Braden River Mitigation Bank, Tampa Bay Mitigation Bank, and Nature Coast (Parcel C) Mitigation Bank, the project falls within the state [Southwest Florida Water Management District (SWFWMD)] permitted service area of these mitigation banks. The project is within the state (SWFWMD) and federal [U.S. Army Corps of Engineers (USACE)] permitted service areas of the Manatee Mitigation Bank, Mangrove Point Mitigation Bank, and North Shore Park Seagrass Mitigation Bank. Of those banks mentioned above, the project impacts occur within both the state and federally permitted service areas, Mangrove Point Mitigation Bank is the only bank with estuarine forested credits available. Therefore, the Mangrove Point Mitigation Bank is the most suitable option for mitigation at this time, since both state and federal credits are needed to satisfy the mitigation requirements of the project.

Table ES-3 Summary of Impacts Associated with the Preferred Alternative

FLUCFCS / ID	USFWS Classification	Preferred Alternative			
		Impact Type	Impact Acreage	UMAM Score	Functional Loss
WETLANDS					
6120 / WL 2	E2FO3N	Direct (Fill)	1.156	0.73	0.84
		Secondary	0.677	0.07	0.05
		Total	**1.833**	**—**	**0.89**
SURFACE WATERS					
5400 / SW 1	E1UB2	Direct (Fill)	<0.10	—	<0.01
OTHER SURFACE WATERS					
5100 / OSW 1-11	PEM1Cx	Direct (Fill)	1.10	—	—

In accordance with the Magnuson-Stevens Fishery Conservation and Management Act of 1996 (50 CFR Section 600.920), as amended through January 12, 2007 and as administered by the National Oceanic and Atmospheric Administration's (NOAA) NMFS, federal agencies must consult with NMFS regarding any of their actions authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken that may adversely affect EFH. As stated in the PD&E Manual, NMFS has designated FDOT to conduct EFH consultations in Florida pursuant to 50 CFR § 600.920(c) in a July 19, 2000, letter to Federal Highway Administration (FHWA) and FDOT.

EFH occurs within the Manatee River for several species. Impacts to wetlands (FLUCFCS 6120) within EFH, caused by the proposed project, were assessed and determined to be **minimal**, as best management practices, avoidance and minimization measures, and mitigation strategies will be implemented to prevent adverse effects.

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SECTION 1 INTRODUCTION

1.1 PD&E STUDY PURPOSE

The objective of this Project Development & Environment (PD&E) study is to assist the Florida Department of Transportation (FDOT) Office of Environmental Management (OEM) in reaching a decision on the type, location, and conceptual design of the proposed improvements for the widening of US 41 and US 301. This study documents the need for improvements as well as the procedures utilized to develop and evaluate various improvements, including elements such as proposed typical sections, preliminary horizontal alignments, and intersection enhancements.

The PD&E study satisfies all applicable requirements, including the National Environmental Policy Act (NEPA), to qualify for federal-aid funding of subsequent development phases (design, right-of-way acquisition, and construction).

1.2 PROJECT PURPOSE AND NEED

The purpose of the project is to provide additional capacity and accommodate transportation demand across the Manatee River, specifically between the cities of Bradenton and Palmetto and the numerous communities in western Manatee County, as part of the regional transportation system. Another project goal is to enhance safety. The need for the project is based on the following criteria: capacity, transportation demand, and safety.

1.3 PROJECT DESCRIPTION

The FDOT District One (D1) is conducting a PD&E study, known as the Bradenton-Palmetto Connector (BPC), to evaluate capacity and mobility improvements to United States (US) 41/State Road (SR) 55/1st Street (St)/Tamiami Trail (Trl) and US 301/SR 683 including roadway widening, bridge reconstruction new stormwater management facilities (SMF), new floodplain compensation (FPC) sites, and bicycle and pedestrian accommodations. The study limits begin at US 301/SR 683 from 9th St East, north of the City of Bradenton, Florida, and continues along US 41 to north of 25th St East, north of the City of Palmetto, Florida. The project also crosses the Manatee River. The study limits extend approximately 4.5 miles, all within Manatee County. The project location and study limits are shown in **Figure 1-1**.

In 2025, FDOT D1 completed a PD&E study for the Hernando DeSoto Bridge (structure #130053) Replacement from westbound SR 64 to Haben Boulevard (Blvd) in Manatee County, Florida (FPID 442630-1-22-01, ETDM 14510). That study evaluated replacing the existing four lane DeSoto Bridge with a new four lane bridge that included wider shoulders, upgraded pedestrian facilities and other safety features. The DeSoto Bridge Replacement PD&E study limits fall within the BPC PD&E study limits; however, it did not include adding lanes for capacity improvements. This BPC PD&E study does include adding additional lanes both on the roadway and the DeSoto Bridge to accommodate capacity needed within the project study area.

Figure 1-1 Project Location Map

1.4 EXISTING FACILITY AND PROPOSED IMPROVEMENTS

1.4.1 Existing Facility

The study begins on US 301 starting form from 9th St East where the alignment traverses west then turns north as it crosses over the northbound leg S Tamiami Trl. US 301 then combines with US 41 north of the CSX Railroad at-grade crossing (RR#624712-B). US 301 is a 4-lane divided roadway where the median alternates between grassed vegetation and a concrete barrier. The facility contains open drainage and paved shoulders. There are no bicycle lanes or sidewalks. A representation of the lane arrangement is shown in **Figure 1-2**.

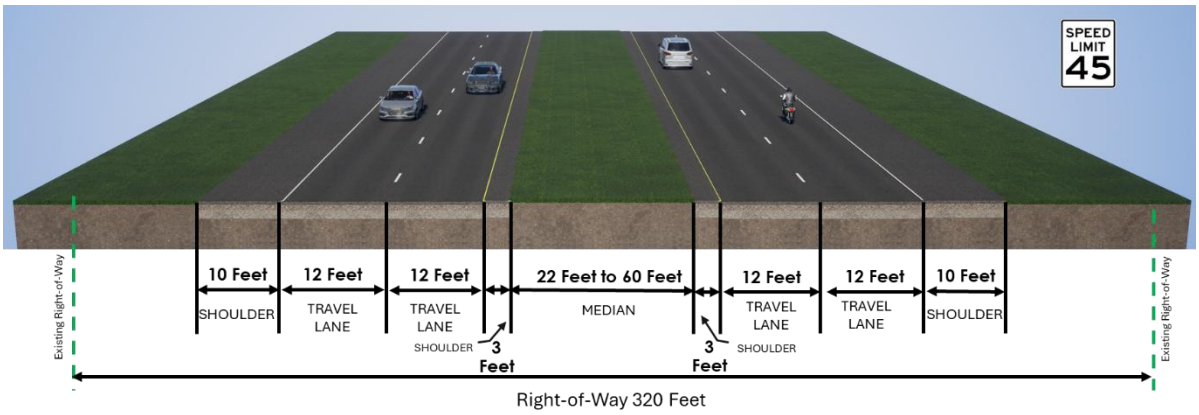

Figure 1-2 Existing Roadway Typical Section: US 301

North of the US 301 junction with US 41, from the CSX Railroad at-grade crossing (RR#624712-B) to north of westbound SR 64, the US 41/US 301 roadway varies between a maximum of four northbound lanes to a minimum of two northbound lanes and a maximum of three southbound lanes to a minimum of two southbound lanes. The median varies between a grassed median, concrete separator, and concrete barrier. Stormwater runoff is conveyed through a closed drainage system and there are sidewalks along both sides of the roadway until north of westbound SR 64 where there is no sidewalk on the east side and sporadic sidewalk on the west side. There are no bicycle lanes within these limits. Exclusive right- and left-turn lanes are used at select intersections, including all signalized intersections at 13th Avenue (Ave), 9th Ave, eastbound SR 64/6th Ave, and westbound SR 64. Although the roadway's right-of-way width varies, it is generally 125 feet wide. The posted speed limit is 45 miles per hour (mph). A representation of the lane arrangements is shown in **Figure 1-3**.

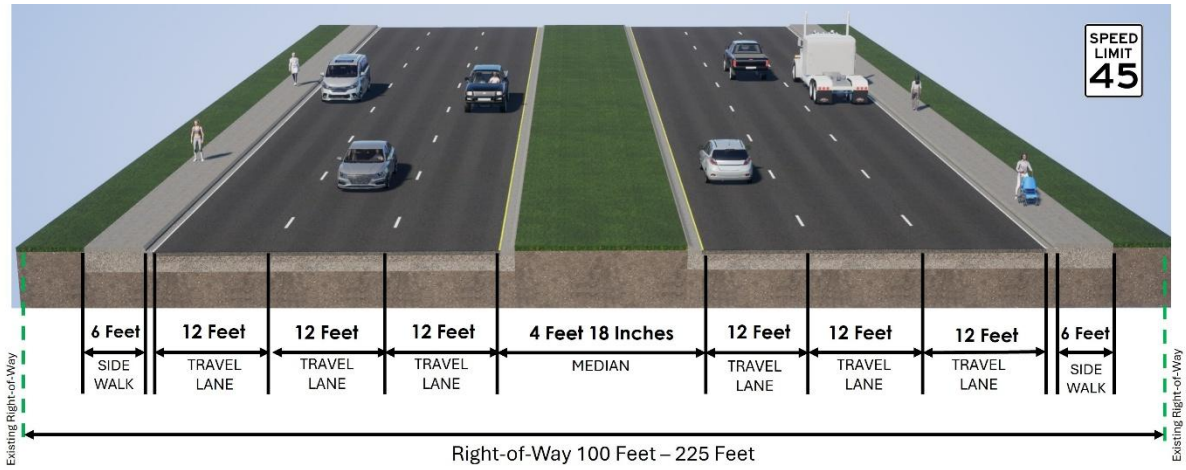

Figure 1-3 Existing Roadway Typical Section: South of DeSoto Bridge

North of westbound SR 64, US 41 continues as a four-lane divided roadway and crosses the Manatee River via the DeSoto Bridge. The bridge has substandard elements with design deficiencies, including narrow shoulders, discontinuous pedestrian facilities, and substandard bridge rails.

The existing typical section for the DeSoto Bridge is a divided four-lane highway comprised of two 12-foot travel lanes, a two-foot outside shoulder in each direction, and a four-foot raised median and barrier wall**,** as shown in **Figure 1-4**. The total bridge width is approximately 62 feet. The posted speed limit is 50 mph.

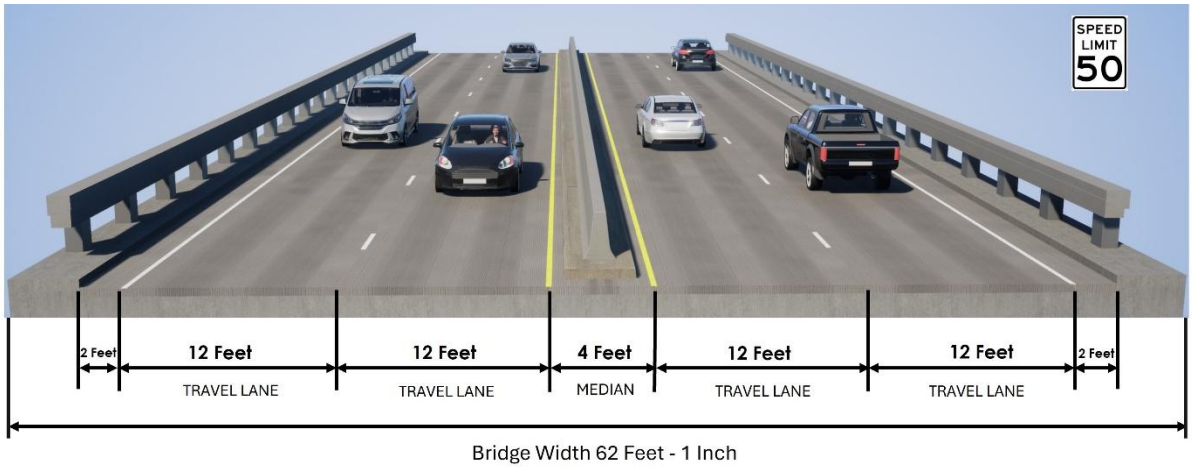

Figure 1-4 Existing Structure Typical Section: DeSoto Bridge

North of the DeSoto Bridge to north of 25th St E the typical roadway section consists of two 12-foot travel lanes in each direction. The median varies between a grass median and concrete traffic separator. The roadway transitions from paved shoulders and open drainage to curb and gutter and closed drainage north of the US 301/10th St E interchange. There are no sidewalks from north of the DeSoto bridge to 17th St E, there are continuous sidewalks from 17th St E to 25th St E, and there are no sidewalks north of 25th St E to the end of the project limits. There are no bicycle lanes. The roadway's right-of-way width varies, but

it is generally 120 feet. The posted speed limit is 50 mph. A representation of the lane arrangements is shown in **Figure 1-5**.

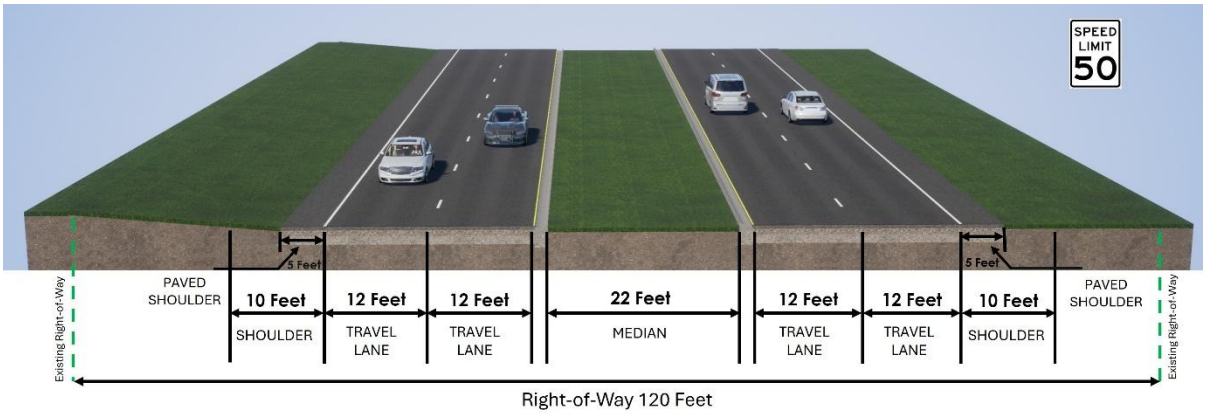

Figure 1-5 Existing Roadway Typical Section: North of DeSoto Bridge

1.4.2 Proposed Improvements

The proposed improvements associated with the Preferred Alternative include widening the roadway from four to six general purpose lanes and adding two elevated proposed express lanes supported by median piers. Additional improvements include drainage upgrades and enhanced bicycle and pedestrian facilities, including sidewalks south of the DeSoto Bridge and shared use paths north of the DeSoto Bridge. In addition to the Preferred Alternative, due to funding constraints and the potential need for the elevated lanes of the Preferred Alternative to be tolled, an Interim Improvement is proposed between westbound SR 64 and US 301. This Interim Improvement would widen the roadway from four to six lanes and remove and replace the DeSoto Bridge with six travel lanes and a shared use path on both sides. The Interim Improvements are 1.7 miles of the total project length and do not include the elevated proposed express lanes.

Analysis of the Preferred Alternative does not assume any of the Interim Improvements are constructed. Instead, the study compares the Preferred Alternative to the existing/No-Build condition. This PD&E study evaluates the No-Build alternative and the Preferred Alternative. However, this study also includes information on the Interim Improvements to clearly quantify impacts of both Preferred Alternative and Interim Improvements. The Preferred Improvement and Interim Improvement limits are shown in **Figure 1-6**.

Figure 1-6 Preferred Alternative and Interim Improvements

1.4.2.1 Preferred Alternative

Corridor improvements begin at US 301 and 9th St East which travels west to intersect US 41 and continues north, crossing the Manatee River and ending north of 25th St E. The improvements are divided into three typical sections: south of the DeSoto Bridge, the DeSoto Bridge, and north of the DeSoto Bridge, to demonstrate the roadway and bridge configurations along the Preferred Alternative.

South of the DeSoto Bridge: The proposed typical section consists of six 11-foot lanes divided by a median that widens to 22 feet to accommodate the elevated structure. The at-grade roadway includes six-foot sidewalks on both sides and no bicycle lanes. The proposed right-of-way is approximately 120 feet wide. The proposed design speed is 45 mph. Two 15-foot proposed express lanes are provided in the US 301 median via an elevated structure that begins just west of 9th St East. The elevated structure follows US 301 through a northern curve near US 41/SR 45/S Tamiami Trail, where US 301 joins US 41. This typical section is shown in **Figure 1-7**.

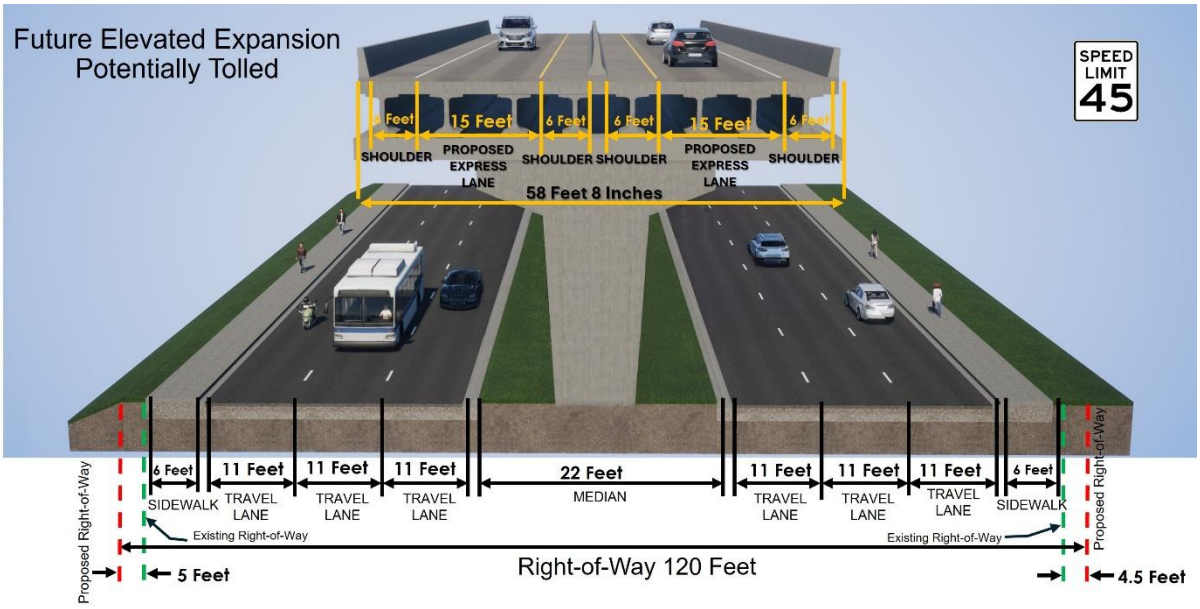

Figure 1-7 Preferred Roadway Typical Section: South of DeSoto Bridge

DeSoto Bridge: The proposed express lanes transition from an elevated structure to match the elevation of the travel lanes on DeSoto Bridge. The transition occurs just north of westbound SR 64. The new DeSoto Bridge consists of eight travel lanes (six travel lanes and two proposed express lanes), plus a barrier separated 12-foot shared use path on both sides. The bridge is approximately 164 feet wide. The proposed design speed is 45 mph. In addition, the proposed express lanes are buffer separated from the travel lanes via flexible tubular markers as shown in **Figure 1-8**.

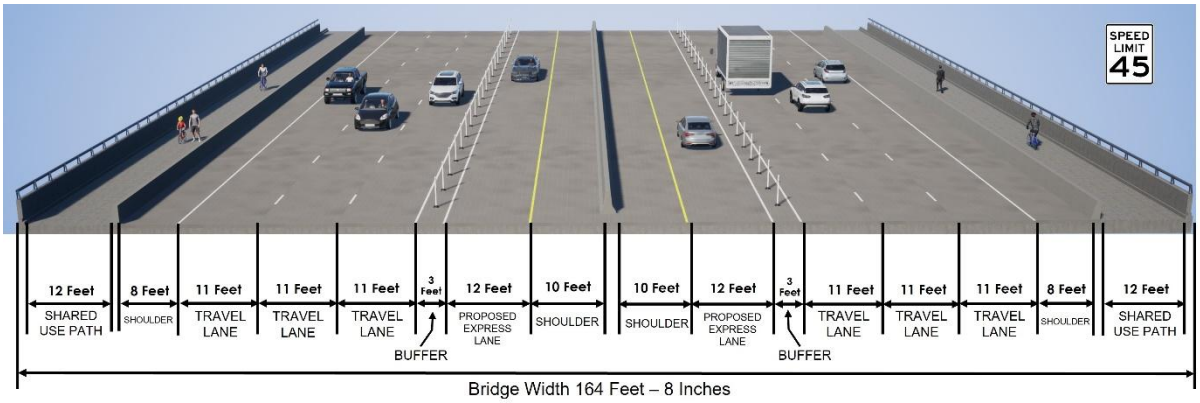

Figure 1-8 Preferred Roadway Typical Section: DeSoto Bridge

North of the DeSoto Bridge: This typical section is comprised of six 11-foot lanes divided by a median that widens to 32.5 feet to accommodate the elevated structure. The at-grade roadway includes a 12-foot shared use path on both sides of US 41. The proposed right-of-way is approximately 176 feet, and the proposed design speed is 45 mph. The proposed express lanes transition back to an elevated structure in the roadway median, north of the bridge over the CSX Railroad Short Line, spanning the intersections from 17th St East to 25th St East. A conceptual view of the proposed express lanes elevated over the travel lanes is shown in **Figure 1-9**.

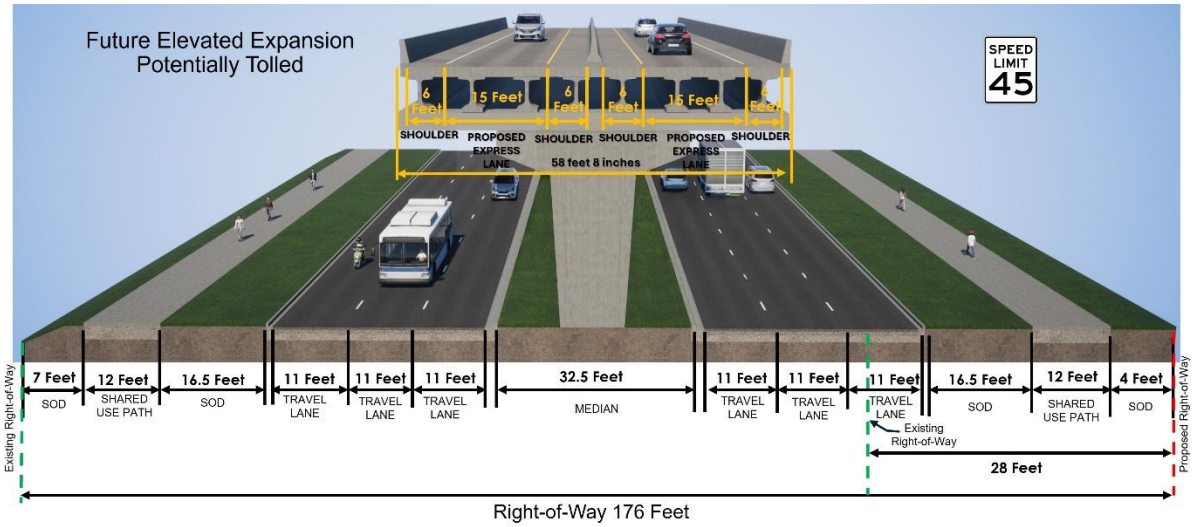

Figure 1-9 Preferred Roadway Typical Section: North of Desoto Bridge

1.4.2.2 Interim Improvements:

The limits of the Interim Improvements are from westbound SR 64 to US 301 as shown in **Figure 1-10.** The improvements are divided into three typical sections: south of the DeSoto Bridge, the DeSoto Bridge, and north of the DeSoto Bridge, to demonstrate the roadway and bridge configurations. The Interim Improvements are consistent with the full limits of the previously approved DeSoto Bridge Replacement PD&E Study (FPID 442630-1-22-01, ETDM 14510). The difference between the prior study and the Interim Improvements is the prior DeSoto Bridge Replacement PD&E studied only replacing the DeSoto Bridge with a new four-lane structure but did not evaluate capacity improvements. Whereas the Interim Improvement would widen the roadway from four to six lanes and remove and replace the DeSoto Bridge with six travel lanes and a shared use path on both sides.

Figure 1-10 Interim Improvements Project Limits

South of the DeSoto Bridge: The typical section consists of six 11-foot travel lanes, divided by a median that varies from eight to 18 feet, and provides six-foot sidewalks on both sides of US 41 with no bike lanes. The proposed right-of-way is approximately 136 feet, which is wide enough to accommodate the elevated structure for future proposed express lanes when the Preferred Alternative is constructed. The proposed design speed is 45 mph. The conceptual lane arrangements for the Interim Improvement north of the DeSoto Bridge are shown in **Figure 1-11.**

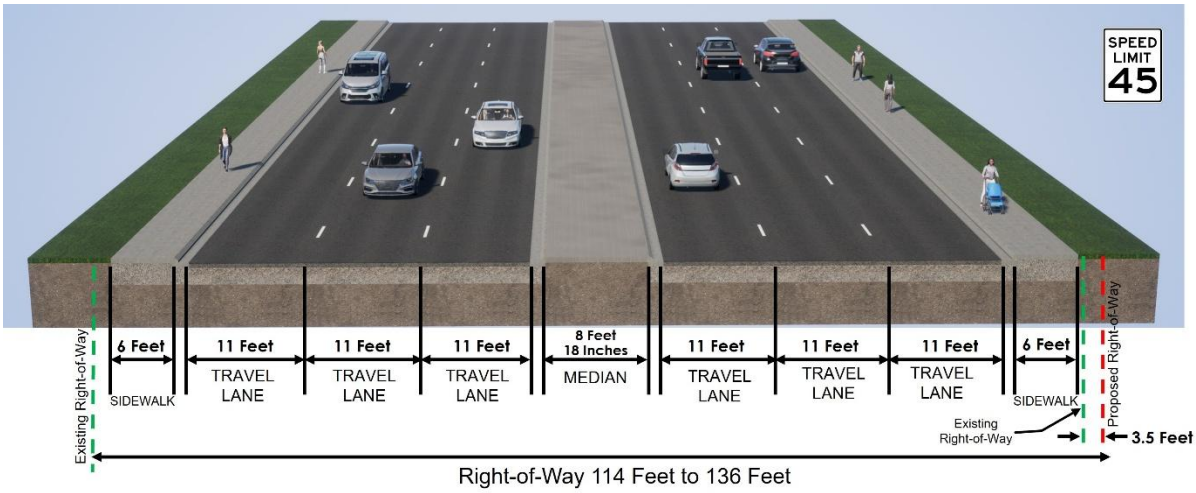

Figure 1-11 Interim Improvements South of DeSoto Bridge

DeSoto Bridge: The Interim Improvement includes the replacement of the DeSoto Bridge in which six 11-foot travel lanes divided by a concrete barrier median, with eight-foot inside shoulders in each direction are proposed. The typical section also includes a 12-foot shared use path and outside shoulders on both sides of the bridge. The bridge will be designed to accommodate future widening of the structure so proposed express lanes could be added when the Preferred Alternative is constructed. The proposed right-of-way is approximately 128 feet, and the proposed design speed is 45 mph. The lane arrangements on the DeSoto Bridge with the Interim Improvements are shown in **Figure 1-12.**

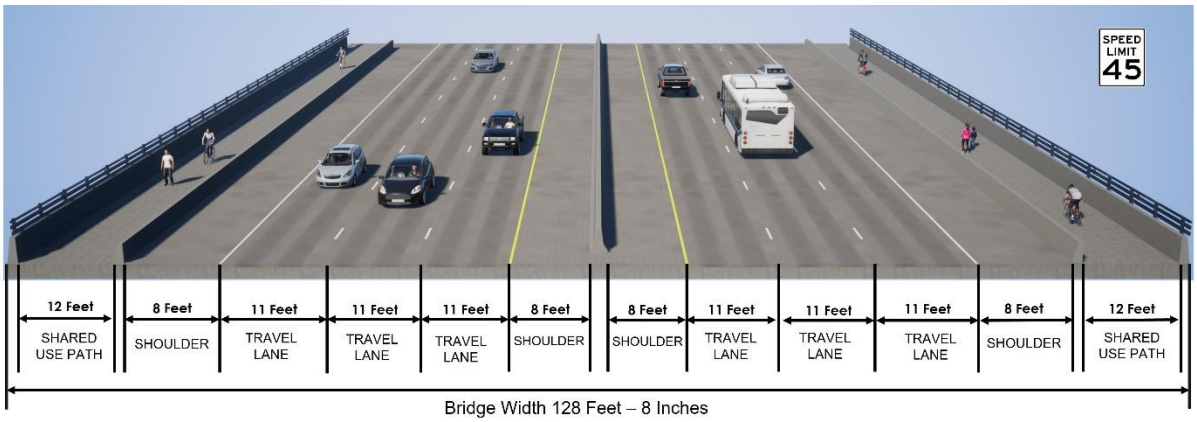

Figure 1-12 Interim Improvements DeSoto Bridge

North of the DeSoto Bridge: The typical section consists of six 11-foot travel lanes divided by a 32.5-foot median, which is wide enough to accommodate the elevated structure for future proposed express lanes when the Preferred Alternative is constructed. A 12-foot shared use path is provided on both sides of the roadway. The proposed right-of-way is approximately 176 feet, and the proposed design speed is 45 mph. The conceptual lane arrangements for the Interim Improvements north of the DeSoto Bridge are shown in **Figure 1-13.**

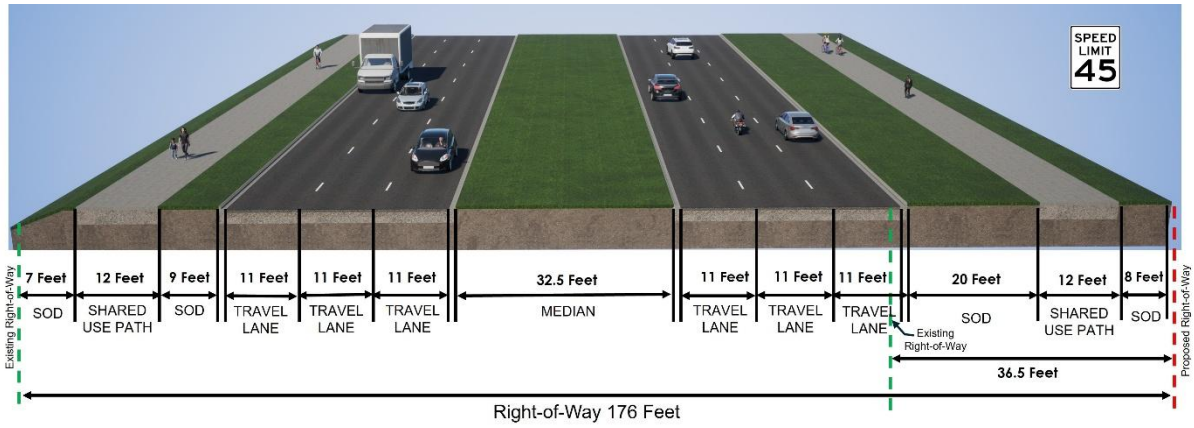

Figure 1-13 Interim Improvements North of DeSoto Bridge

1.5 NATURAL RESOURCES EVALUATION

This Natural Resources Evaluation (NRE) was prepared to document the natural resources analysis performed to support decisions related to the evaluation of project alternatives and to summarize potential impacts to wetlands, federal and state protected species, Critical Habitat (CH), and Essential Fish Habitat (EFH). Mitigation measures considered to avoid, minimize, and mitigate potential impacts are also discussed.

1.6 EXISTING ENVIRONMENTAL CONDITIONS

1.6.1 Methodology

In order to determine the approximate locations and boundaries of existing upland and wetland communities within the study area available site-specific data was collected and reviewed. The study area includes all of the limits of the Bradenton-Palmetto Connector corridor from US 41 from 9th St S to north of 25th St E (Preferred Alternative), plus an approximate 250-foot buffer. The following information was collected and analyzed:

- U.S. Department of Agricultural (USDA), Natural Resources Conservation Service (NRCS), Web Soil Survey (http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx);
- U.S. Geological Survey (USGS) The National Map Viewer (https://apps.nationalmap.gov/viewer/);
- NRCS Soil Survey of Manatee County (1983);
- U.S. Fish and Wildlife Service (USFWS), National Wetlands Inventory (NWI) Wetlands Mapper (https://www.fws.gov/wetlands/data/mapper.html);

- Southwest Florida Water Management District (SWFWMD) Land Use and Cover, published by the Florida Department of Environmental Protection (FDEP), 2023;
- FDOT, Florida Land Use, Cover and Forms Classification System (FLUCFCS), 3rd edition, 1999;
- USFWS, Classification of Wetlands and Deepwater Habitats of the United States, (Cowardin, et. al. 1979);
- Florida Natural Areas Inventory's (FNAI). 2010. Guide to the Natural Communities of Florida: 2010 edition. Florida Natural Areas Inventory, Tallahassee, Florida; and
- 2024 aerial photographs of the study area.

Using the above-referenced information, the approximate boundaries of upland and wetland communities within the study area were mapped on color aerial photographs. Each community type was then classified using the *FDOT, FLUCFCS* (FDOT 1999). Wetlands were also classified using the *USFWS Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin, et. al. 1979).

1.6.2 Soils

According to the *NRCS Soil Survey of Manatee County* (1983), there are seventeen (17) soil types and one water classification present within the study area. The two most prevalent features in the study area are Eaugallie-Eaugallie Wet, Fine Sand, 0-2 percent slopes and Wabasso-Wabasso, Wet, Fine Sand, 0-2 Percent Slopes. Nine of the 17 soil types within the study area are classified as hydric. All soils documented within the study area and their relative acreages are in **Table 1-1**. Study area soil types are depicted in **Appendix A: Figure 1-10** and are described in more detail **Appendix B**.

Table 1-1 Existing NRCS Soil Types within the Study Area

NRCS Code	NRCS Soil Description	Hydric Status	Acres	Percent of Total
5	Bradenton Fine Sand, Limestone Substratum	Hydric	34.10	7.3
7	Canova, Anclote, and Okeelanta Soils	Hydric	1.14	0.2
9	Canaveral Sand, Filled	Non-Hydric	53.10	11.3
12	Cassia Fine Sand, Moderately Well Drained	Non-Hydric	34.30	7.3
13	Chobee Loamy Fine Sand, Frequently Ponded, 0-1 Percent Slopes	Hydric	20.17	4.3
14	Chobee Variant Sandy Clay Loam	Hydric	4.75	1.0
16	Delray Complex	Hydric	3.33	0.7
20	Eaugallie-Eaugallie Wet, Fine Sand, 0-2 Percent Slopes	Non-Hydric	146.01	31.3
21	Estero Muck, Tidal, 0 To 1 Percent Slopes	Hydric	22.86	4.9
25	Floridana Fine Sand, 0-2 Percent Slopes	Hydric	7.97	1.7
36	Orlando Fine Sand, Moderately Wet, 0-2 Percent Slopes	Non-Hydric	6.48	1.4
37	Orsino Fine Sand, 0-5 Percent Slopes	Non-Hydric	2.52	0.5
39	Parkwood Variant-Chobee, Limestone Substratum-Parkwood Complex	Hydric	0.22	0.0
45	Tavares Fine Sand, 0-5 Percent Slopes	Non-Hydric	18.94	4.0
47	Tomoka Muck, Frequently Ponded, 0-1 Percent Slopes	Hydric	0.24	0.1
48	Wabasso-Wabasso, Wet, Fine Sand, 0-2 Percent Slopes	Non-Hydric	59.74	12.9
54	Zolfo Fine Sand, 0-2 Percent Slopes	Non-Hydric	10.00	2.1
100	Waters of the Gulf of Mexico	Unranked	42.16	9.0
		Total	**468.03**	**100.0%**

1.6.3 Land Use and Cover Types

Land use was reviewed within the study area using the 2023 data layer from SWFWMD. Habitats were subsequently field-verified on June 18, 2025, July 9, 2025, January 13, 2026, and March 11, 2026, and land use/land cover mapping was updated to reflect the current field conditions.

All land use and cover types documented within the study area, and their relative acreages, are in **Table 1-2**. Study area land use and cover types are depicted in **Appendix A: Figure 1-11** and are described in more detail in **Appendix C**. The study area totals 468.03 acres. The majority land use classification is Roads and Highways (FLUCFCS 8140) with 97.68 acres, or 20.9 percent of the total study area.

Table 1-2 Existing Land Use/Land Cover (FLUCFCS) within the Study Area

FLUCFCS Code		FLUCFCS Description	Study Area (Acres)	Percent of Total
1000: Urban and Built Up	1200	Residential, Medium Density	53.76	11.5
	1300	Residential, High Density	50.19	10.7
	1390	Residential, High Density Under Construction	5.98	1.3
	1400	Commercial and Services	75.71	16.2
	1490	Commercial and Services Under Construction	2.46	0.5
	1500	Industrial	13.01	2.8
	1700	Institutional	36.52	7.8
	1860	Community Recreational Areas	28.04	5.9
	1900	Open Land	21.37	4.6
4000: Uplands	4340	Hardwood - Conifer Mixed	6.91	1.5
	4370	Australian Pine	0.26	0.1
5000: Water	5100	Streams and Waterways	1.04	0.2
	5300	Reservoirs	2.88	0.6
	5400	Bays and Estuaries	45.21	9.7
6000: Wetlands	6120	Mangrove Swamps	15.35	3.3
8000: Transportation, Communication & Utilities	8120	Railroads	3.66	0.8
	8140	Roads and Highways	97.68	20.8
	8300	Utilities	6.88	1.5
9000: Special Classifications	9111	Seagrass, Sparse to Medium	1.12	0.2
		Total	**468.03**	**100.0%**

1.7 SPECIAL DESIGNATIONS AND CONSERVATION LANDS

The bridge replacement takes place over the Manatee River, which is a designated Outstanding Florida Water (OFW) as listed in F.A.C. Chapter 62-302. However, the portion of the Manatee River where the proposed DeSoto Bridge replacement will occur is not considered to be an OFW. The Palmetto Estuary Preservation Project is located within the study area, on the west side of US 41, northwest of the DeSoto Bridge. A portion of the preserve is located within a Board of Trustees of the Internal Improvement Trust Fund (TIITF) easement. The remaining portions of the preserve are owned and managed by the City of Palmetto. Coordination with the City of Palmetto will occur throughout PD&E and permitting phases of the project. Direct impacts to the Palmetto Estuary Preservation Project are not anticipated. There are no aquatic preserves, springs, or wild and scenic rivers within the study area.

SECTION 2 PROTECTED SPECIES AND HABITATS

This project was evaluated for impacts to wildlife and habitat resources, including protected species, in accordance with 50 CFR Part 402 of the Endangered Species Act (ESA) of 1973, as amended, the Florida Endangered and Threatened Species Act, Section 379.2291, FS, and the Protected Species and Habitat chapter of the FDOT PD&E Manual. Wildlife agencies with jurisdiction in the study area include the USFWS, Florida Fish and Wildlife Conservation Commission (FWC), and National Marine Fisheries Service (NMFS). The Florida Department of Agriculture and Consumer Services (FDACS) has jurisdiction over state-protected plant species.

The study area was also evaluated for CH as defined by Congress 50 CFR Chapter IV, Subchapter A, Part 424, and it was determined that the study area falls within USFWS-designated CH for the West Indian manatee (*Trichechus manatus latirostris*) and NMFS proposed CH for the green sea turtle (*Chelonia mydas*).

The project falls entirely within the USFWS Consultation Area (CA) of the Florida scrub-jay (*Aphelocoma coerulescens*) and maintains jurisdiction in estuarine habitats for Gulf sturgeon (*Acipenser oxyrhynchus desotoi*). The project is located within NMFS CA for the Gulf sturgeon, smalltooth sawfish (*Pristis pectinata*), loggerhead sea turtle (*Caretta caretta*), green sea turtle, and Kemp's Ridley sea turtle (*Lepidochelys kempii*). The project falls partially within the USFWS CA of the piping plover (*Charadrius melodus*).

2.1 METHODOLOGY

Literature and agency database searches of potential habitat areas were conducted to identify state and federally protected species potentially occurring within the study area. The *Manatee County Soil Survey*, recent aerial imagery (2024), and 2023 SWFWMD land use/land cover mapping were reviewed to determine habitat types occurring within and adjacent to the project corridor. An official species list was generated by the USFWS and U.S. Department of the Interior from the Information for Planning and Consultation (IPaC) on April 28, 2026, and is included in **Appendix D**.

Information sources and databases reviewed for the project include the following:

- USFWS, Endangered and Threatened Wildlife and Plants, 50 CFR 17.11 and 17.12;
- USFWS, Information for Planning and Consultation (IPaC) (https://ecos.fws.gov/ipac);
- USFWS, Critical Habitat portal (http://ecos.fws.gov/crithab/);
- NOAA NMFS, Southeast Region ESA Section 7 Mapper (https://noaa.maps.arcgis.com/apps/webappviewer/index.html?id=b184635835e34f4d904c6fb741cfb00d);
- NOAA NMFS, National ESA Critical Habitat Mapper (https://noaa.maps.arcgis.com/apps/webappviewer/index.html?id=68d8df16b39c48fe9f60640692d0e318);
- FWC, Florida's Endangered Species and Threatened Species, updated April 2025;
- FWC, Florida's Imperiled Species Management Plan, amended December 2018 and September 2022;

- FWC, Imperiled Wading Bird Colony Viewer, (https://myfwc.maps.arcgis.com/apps/webappviewer/index.html?id=faf1c29ce5e1484fb5d9f23fed436826);
- National Audubon Society, EagleWatch Program (https://cbop.audubon.org/conservation/about-eaglewatch-program);
- Rules for the Department of Agriculture and Consumer Services, Division of Plant Industry, Chapter 5B-40, Preservation of Native Flora of Florida;
- Notes on Florida's Endangered and Threatened Plants. Botany Contribution No. 38, 4th edition. FDACS, Division of Plant Industry, Coile, N.C. and M.A. Garland. 2003;
- Florida Natural Areas Inventory (FNAI) maps and database;
- FDOT's Efficient Transportation Decision Making (ETDM) Summary Report Bradenton-Palmetto Connector Final Planning Screen with Alternative Corridor Evaluation Report (ACER) published on July 24, 2025 (ETDM Project No. 14507);
- FDOT's ETDM Summary Report DeSoto Bridge [Bridge #130053] published on October 7, 2023 (ETDM Project No. 14510);
- DeSoto Bridge PD&E Study from Manatee Ave East (SR 64) to Haben Boulevard (FPID 442630-1) Natural Resource Evaluation (NRE) (July 2024).

Based on the results of database searches, preliminary field reviews, and reviews of aerial photographs and soil surveys, field survey methods for specific habitat types and tables of potentially occurring protected fauna and flora were developed.

Project biologists conducted initial general surveys on June 18, 2025, July 9, 2025, January 13, 2026, and March 11, 2026. Field reviews consisted of vehicular and pedestrian surveys through natural areas and altered habitats with the potential to support protected species, where accessible. In the absence of physical evidence of a protected species, evaluation of the appropriate habitat, along with regional occurrence data, was conducted to determine the likelihood of a species being present.

Using vehicular and pedestrian survey methods during daylight hours, appropriate habitat within the study area was visually scanned for evidence of listed species as well as general wildlife. All natural areas within the study area provide some level of potential suitable habitat for protected species. All observations of wildlife in the study area were recorded, and occurrence locations were depicted on project aerials. These occurrence records include observations of the actual species, or signs of their presence, including observance or the species (either physically or auditorily), or sign of the species including tracks, burrows, dens, scat, or nests. Special attention was given to identifying signs of listed species. A protected species occurrence map for the study area is included as **Appendix A.**

2.1.1 Agency Coordination

An ETDM Programming Screen Summary Report was published on July 24, 2025, containing comments from the Environmental Technical Advisory Team (ETAT) on the project's effects on various natural, physical, and social resources. The USFWS, FWC, and FDACS provided comments and a list of wildlife species that, based on known range and preferred habitat type, have the potential to occur throughout

the study area or in the near regional area. The species list included: pygmy fringe tree (*Chionanthus pygmaeus*) (Federally listed Endangered [FE]), perforate reindeer lichen (*Cladonia perforata*) (FE), Florida scrub-jay (Federally listed Threatened [FT]), piping plover (FT), and West Indian manatee (FT).

2.2 PROTECTED SPECIES EVALUATION

A review of USFWS, NMFS, FWC, and FNAI data indicates fifty-two (52) protected plant and wildlife species are known to occur in Manatee County. Seventeen (17) of the species are federally listed endangered or threatened. Thirty-one (31) species are state-listed endangered or threatened. Two species (bald eagle [*Haliaeetus leucocephalus*] and whooping crane [*Grus americana*]) are not federal or state listed but are fully protected. The bald eagle was delisted from protection under the Endangered Species Act (ESA) in 2007; however, the species is still protected under the Bald and Golden Eagle Protection Act (BGEPA), the Migratory Bird Treaty Act (MBTA), and state law (Florida Administrative Code [F.A.C.] 68A-16.002). Within Central Florida, an experimental (Non-essential), non-migratory population of whooping cranes was reintroduced from 1993 to 2005. Non-essential experimental populations are treated as threatened species on National Wildlife Refuge and National Park land (require consultation under 7(a)(2) of the ESA) and as a proposed species on private land (no section 7(a)(2) requirements, but Federal agencies must not jeopardize their existence (section 7(a)(4)). Multiple species of bats are state-protected by F.A.C. 68A-4.001 General Prohibitions and 68A-9.010 Taking Nuisance Wildlife. Additionally, two species proposed for listing under the ESA (monarch butterfly [*Danaus plexippus*] and tricolored bat [*Perimyotis subflavus*]), have the potential to occur in Manatee County.

To further summarize the results of desktop and field data collection efforts, each potentially occurring species was assigned a likelihood for occurrence of “none”, “low”, “moderate”, or “high” within habitats found in the study area. Definitions of probability of species presence are provided subsequently. **Table 2-1** lists the federally and state-protected wildlife species known to occur within Manatee County that could potentially occur near the study area based on availability of suitable habitat and known ranges.

Table 2-1 Potentially Occurring Listed Species

Scientific Name	Common Name	Listing Status		Suitable Habitat	Probability of Occurrence	Effect Determination
		Federal	State			
PLANTS						
Acrostichum aureum	Golden leather fern	NL	T	Coastal hammocks, tidal marshes	None	No Effect Anticipated
Celtis iguanaea	Iguana hackberry	NL	E	Shell mounds, maritime hammocks	None	No Effect Anticipated
Chionanthus pygmaeus	Pygmy fringe tree	E	E	Scrub, sandhill, and xeric hammock, primarily on the Lake Wales Ridge	None	No Effect
Cladonia perforata	Perforate reindeer lichen	E	E	Rosemary scrub on FL Panhandle coasts, Lake Wales Ridge, and Atlantic Coastal Ridge	None	No Effect
Ctenitis sloanei	Florida tree fern	NL	E	Humid forests	None	No Effect Anticipated
Eragrostis pectinacean var. *tracyi*	Sanibel lovegrass	NL	E	Found on drier, compact soils of disturbed beach dunes, maritime hammocks, coastal strands, coastal grasslands, old fields, clearings, and other disturbed sites	None	No Effect Anticipated
Glandulari tampensis	Tampa vervain	NL	E	Flatwoods, hammocks	None	No Effect Anticipated
Gossypium hirsutum	Wild cotton	NL	T	Coastal hammocks, shell mounds, roadsides	Moderate	No Adverse Effect Anticipated
Habenaria distans	Distans habenaria	NL	E	Hydric hammocks, strand swamps	None	No Effect Anticipated
Harrisia gracilis	West Coast prickly-apple	NL	E	Shell middens, maritime hammocks	None	No Effect Anticipated
Lechea divaricata	Pine pinweed	NL	E	Scrub and scrubby flatwoods	None	No Effect Anticipated
Listera australis	Southern twayblade	NL	T	Low moist woods, stream banks	None	No Effect Anticipated
Lythrum flagellare	Lowland loosestrife	NL	E	Wet prairies, floodplain marshes, and roadside ditches	Moderate	No Adverse Effect Anticipated
Matelea floridana	Florida spiny-pod	NL	E	Sandhill, upland pine, dry hammocks	None	No Effect Anticipated
Maytenus phyllanthoides	Florida mayten	NL	T	Hammocks, dunes	None	No Effect Anticipated
Polypodium ptilodon	Swamp plume polypody	NL	E	Hammocks, swamps	None	No Effect Anticipated
Rhynchospora megaplumosa	Large-plumed beaksedge	NL	E	Scrubby flatwoods and scrubby to mesic flatwoods transition areas	None	No Effect Anticipated
Rudbeckia nitida	St. John's black-eyed Susan	NL	E	Wet or mesic pine flatwoods, bogs, savannas, seepage slopes; roadside ditches	Moderate	No Adverse Effect Anticipated
Triphora amazonica	Wide-leaved triphora	NL	E	Hardwood hammocks	None	No Effect Anticipated
INSECTS						
Danaus plexippus	Monarch butterfly	PFT	—	Variety of terrestrial habitats	Moderate	—
FISH						
Acipenser oxyuranus desotoi	Gulf sturgeon	T	T	Primarily marine/estuarine in winter; migrates to upper rivers in spring for spawning; returns to sea/estuary in fall; some may remain near spawning areas. First two years are spent in riverine habitats. Spawns in fresh water (sometimes tidal), usually over bottom of hard clay, rubble, gravel, or shell. May spawn in brackish water. Most spawn in natal river.	Low	MANLAA
Pristis pectinata	Smalltooth sawfish	E	E	Southwest Florida waters, particularly within the Caloosahatchee River. Young prefer shallow estuarine waters near red mangroves, as well as waters under docks, bridges, and piers. Adults prefer deeper, more open waters but have been documented near coral reefs and travel inshore for mating and birth	Low	MANLAA
REPTILES						
Caretta caretta	Loggerhead sea turtle	T	T	Subtropical and temperate oceans, coastal beaches, may be found hundreds of miles out to sea, as well as in inshore areas such as bays, lagoons, salt marshes, creeks, ship channels, and the mouths of large rivers	Low	MANLAA

Scientific Name	Common Name	Listing Status		Suitable Habitat	Probability of Occurrence	Effect Determination
		Federal	State			
Chelonia mydas	Green sea turtle	T	T	Subtropical and temperate oceans, coastal beaches	Low	MANLAA
Crocodylus acutus	American crocodile	T	T	Coastal estuarine marshes, tidal swamps, and creeks along edges of mainland and islands, associated with mangroves, nests on beaches, stream banks, and levees	Low	MANLAA
Drymarchon couperi	Eastern indigo snake	T	T	Hydric hammock, palustrine, sandhill scrub, upland pine forest, mangrove swamp	Moderate	MANLAA
Gopherus polyphemus	Gopher tortoise	NL	T	Old fields, sandhill, scrub, xeric hammock, road shoulder, dry prairie, pine flatwoods	Moderate	No Adverse Effect Anticipated
Lepidochelys kempii	Kemp's Ridley sea turtle	E	E	Marine coastal waters, sandy beaches	Low	MANLAA
Pituophis melanoleucus mugitus	Florida pine snake	NL	T	Well-drained, sandy open area or longleaf pine forests, sandhills	Moderate	No Adverse Effect Anticipated
BIRDS						
Antigone canadensis pratensis	Florida sandhill crane	NL	T	Freshwater marsh, prairies, pastures	Moderate	No Adverse Effect Anticipated
Aphelocoma coerulescens	Florida scrub-jay	T	T	Relict dune ecosystems or scrub on well drained to excessively well drained sandy soils, sand dunes along coast	None	No Effect
Athene cunicularia floridana	Florida burrowing owl	NL	T	Native prairies and cleared areas with short groundcover	Low	No Adverse Effect Anticipated
Calidris canutus rufa	Rufa red knot	T	T	Coastal marine and estuarine habitats with large areas of exposed intertidal sediments	Moderate	MANLAA
Caracara plancus audubonii	Crested caracara (Audubon's)	T	T	Wet prairies with cabbage palms, wooded areas with saw palmetto, cypress, scrub oaks, pastures	None	No Effect
Charadrius melodus	Piping plover	T	T	Open sandy beaches, sand flats, mudflats, coastal areas	Moderate	MANLAA
Charadrius nivosus	Snowy plover	NL	T	Dry sandy beaches	Low	No Adverse Effect Anticipated
Egretta caerulea	Little blue heron	NL	T	Coastal areas, freshwater lakes, brackish water, marshes, swamps, streams	Moderate	No Adverse Effect Anticipated
Egretta rufescens	Reddish egret	NL	T	Marine tidal flats, shorelines, coastal mangroves	Moderate	No Adverse Effect Anticipated
Egretta tricolor	Tricolored heron	NL	T	Wetlands, mangrove swamps, tidal creeks, ditches, ponds, lakes	Moderate	No Adverse Effect Anticipated
Falco sparverius paulus	Southeastern American kestrel	NL	T	Sandhill, mesic flatwoods, ruderal, dry prairie	Moderate	No Adverse Effect Anticipated
Grus americana	Whooping crane	EXPN	EXPN	The species breeds, migrates, winters, and forages in a variety of habitats, including coastal marshes and estuaries, inland marshes, lakes, open ponds, shallow bays, salt marsh and sand or tidal flats, upland swales, wet meadows and rivers, pastures and agricultural fields	Low	—
Haematopus palliatus	American oystercatcher	NL	T	Beaches, sandbars, shell rakes, salt marsh, oyster reef	Low	No Adverse Effect Anticipated
Haliaeetus leucocephalus	Bald eagle	BGEPA[1]	BGEPA[1]	Forests, estuarine, lacustrine, riverine, tidal marsh, tidal swamp	Moderate	—
Laterallus jamaicensis ssp. *jamaicensis*	Eastern black rail	T	T	Salt, brackish, and freshwaters marshes that can be tidally or non-tidally influenced	None	No Effect
Mycteria americana	Wood stork	NL	T[2]	Nests colonially in a variety of inundated forested wetlands, including cypress strands and domes, mixed hardwood swamps, sloughs, and mangroves. Increasingly nesting in artificial habitats (e.g., impoundments and dredged areas with native or exotic vegetation) in north and central Florida. Forages mainly in shallow water in freshwater marshes, swamps, lagoons, ponds, tidal creeks, flooded pastures and ditches, where they are attracted to falling water levels that concentrate food sources (mainly fish).	Moderate	No Adverse Effect Anticipated

Scientific Name	Common Name	Listing Status		Suitable Habitat	Probability of Occurrence	Effect Determination
		Federal	State			
Platalea ajaja	Roseate spoonbill	NL	T	Coastal mangrove, dredge spoils, marine tidal flats, ponds, coastal marshes, freshwater sloughs, marshes	Moderate	No Adverse Effect Anticipated
Rostrhamus sociabilis plumbeus	Everglade snail kite	E	E	Lowland freshwater marshes and littoral shelves of lakes	None	No Effect
Rynchops niger	Black skimmer	NL	T	Beaches, bays, estuaries, sandbars, tidal creeks, large lakes, phosphate pits, flooded agricultural fields	Low	No Adverse Effect Anticipated
Sternula antillarum	Least tern	NL	T	Coastal areas throughout Florida, including beaches, lagoons, bays, and estuaries. Increasingly use artificial nesting sites, including gravel rooftops, dredge spoil islands or other dredged material deposits, construction sites, causeways, and mining lands. Nesting areas have a substrate of well-drained sand or gravel and usually have little vegetation.	Low	No Adverse Effect Anticipated
MAMMALS						
Puma concolor coryi	Florida panther	E	E	Natural, semi-natural, and agricultural lands, utilizing primarily forested habitats including pinelands, upland hardwood forests, hardwood swamps, and cypress swamps.	None	No Effect
Perimyotis subflavus	Tricolored bat	PFE	—	Roosting habitat: Mature hardwood forests, caves, and less commonly manmade structures. Foraging habitat: Waterways, forests, and agricultural areas where small insects can be found.	Moderate	MANLAA
Trichechus manatus latirostris	West Indian manatee	T	T	Coastal waters, estuarine waters, bays, rivers, lakes	High	MANLAA
	Bats (multiple species)	—	*	Forested areas, manmade structures	Moderate	—

Key:

EXPN = Experimental Population, Non-essential
FDACS = Florida Department of Agriculture and Consumer Services
FWC = Florida Fish and Wildlife Conservation Commission
MANLAA = May affect, not likely to adversely affect
NMFS = National Marine Fisheries Service
USFWS = U.S. Fish and Wildlife Service
E = Endangered
NL = Not Listed
PFE = Proposed Federally Endangered
PFT = Proposed Federally Threatened
T = Threatened

[1]The bald eagle was delisted from protection under the Endangered Species Act in 2007. However, the bald eagle is still protected under the Bald and Golden Eagle Protection Act (BGEPA), the Migratory Bird Treaty Act (MBTA), and State law (F.A.C. 68A-16.002).

[2]The USFWS has removed the Southeast U.S. distinct population segment of the wood stork from the Federal List of Endangered and Threatened Wildlife, effective March 12, 2026. The wood stork is now a state-listed threatened species, occurring on Florida's Endangered and Threatened Species List with state protections through the FWC, which regulates and manages these species (68A-27, F.A.C.).

*Bats are protected by F.A.C. 68A-4.001 General Prohibitions and 68A-9.010 Taking Nuisance Wildlife.

Sources:

USFWS - U.S. Fish and Wildlife Service status, Official lists of Threatened and Endangered species, 50 CFR 17.11

FWC - Florida's Imperiled Species Management Plan amended December 2018 and September 2022. Tallahassee, Florida

FWC - Florida's Endangered and Threatened Species, Updated December 2025

USFWS Environmental Conservation Online System (ECOS) - https://ecos.fws.gov/ecp/report/species-listings-by-current-range-county?fips=12081, accessed 1/7/2026

Florida Natural Areas Inventory (FNAI) Tracking List - https://www.fnai.org/species-communities/tracking-main, accessed 1/7/2026

2.2.1.1 Probability of Occurrence

None – Species has been documented in Manatee County, but due to the complete absence of suitable habitat, it could not be naturally present within the project corridor.

Low – Species with a low likelihood of occurrence within the study area are defined as those species that are known to occur in Manatee County or the bio-region, but suitable habitat is limited in the study area, or the species is rare.

Moderate – Species with a moderate likelihood of occurrence are those species known to occur in Manatee or nearby counties, and for which suitable habitat is well represented in the study area, but no observations or positive indications exist to verify presence.

High – Species with a high likelihood of occurrence are suspected within the study area based on known ranges and the existence of sufficient suitable habitat in the area; are known to occur adjacent to the project; or have been previously observed or documented in the vicinity.

2.2.2 Federally Listed Species and Designated Critical Habitat

Seventeen (17) species are listed by the USFWS and NMFS as endangered or threatened. Federally listed species are also considered state-listed species. Additionally, the tricolored bat is proposed for federal listing. Seven of the 17 species, pygmy fringe tree, perforate reindeer lichen, Florida scrub-jay, Audubon's crested caracara (*Caracara plancus audubonii*), eastern black rail (*Laterallus jamaicensis* ssp. *jamaicensis*), Everglade snail kite (*Rostrhamus sociabilis plumbeus*), and Florida panther (*Puma concolor coryi*) were determined to have no probability of occurrence due to a lack of suitable habitat within the study area. Therefore, the proposed project will have **no effect** on these species.

The two federally listed plant species (pygmy fringe tree and perforate reindeer lichen) primarily occur on the Lake Wales Ridge, a relict, xeric habitat confined to central Florida. The study area is highly urbanized in which these species are unlikely to be observed. Additionally, no observations of these federally protected plant species have been documented within the study area.

Optimal Florida scrub-jay habitat consists of low-growing, scattered scrub canopy species with patches of bare sandy soil such as those found in sand pine scrub, xeric oak scrub, scrubby flatwoods, and scrubby coastal strand habitats. In areas where these types of habitats are unavailable, scrub-jays may be found in less optimal habitats such as pine flatwoods with scattered oaks or citrus orchards. Though the study area falls within the CA for the species, suitable habitat is unavailable, and no current observations have been recorded within five miles of the study area.

The crested caracara inhabits open xeric to mesic habitats. Its preferred habitat is native dry or wet prairie with associated marshes, cabbage palm (*Sabal palmetto*), and cabbage palm - live oak (*Quercus virginiana*) hammocks, which are not located in the study area. Additionally, the study area is not within the CA for the Audubon's crested caracara. No current or historic observations have been recorded for this species within the study area.

The eastern black rail inhabits freshwater and tidal marshes and wet prairies. Vegetation structure within these wetlands consists of very dense grassy herbaceous vegetation, including rushes (*Juncus* sp.), grasses (*Panicum* sp.), sedges, including spartina (*Spartina* sp.), needle rush (*Juncus* sp.), and sawgrass (*Cladium* sp.), with little to no bare ground and sparse to no woody vegetation. According to a recent study *Current Distribution of Black Rails in Florida* (June 2024), the closest eastern black rail surveys were conducted within the Tampa Bay Estuarine Ecosystem and Terra Ceia Preserve State Park (six miles north of the study area) and T. Mabry Carlton, Jr. Memorial Reserve and Myakka River State Park (32 miles southeast of the study area). No observations of eastern black rails were documented in these four locations. Suitable habitat for the species is not located within the study area, and no eastern black rails have been recorded within the study area.

The Everglade snail kite occurs within lowland freshwater marshes and littoral shelves of lakes. Though the study area is within the species range, it is not located within USFWS-designated CA or CH for the species. No suitable habitat or species observations were noted within five miles of the study area.

The Florida panther is a federally listed endangered subspecies of the more widely spread puma (*Puma concolor*). Florida panthers use an extensive mosaic of natural, semi-natural, and agricultural lands, utilizing primarily forested habitats including pinelands, upland hardwood forests, hardwood swamps, and cypress swamps. These habitats are especially important for providing daytime refugia. Current data suggests that panthers are currently distributed in Central Florida at least as far north as I-4. Although panthers have been documented further north, these are typically dispersing males from the breeding population in South Florida. The study area is within the known range of the species but does not occur within the panther focus area or dispersal pathways. No CH has been established for the Florida panther. The project corridor is highly urbanized, and no panther observations have been documented within the study area.

A description of the ten (10) remaining federally protected species is provided in the subsequent sections. A description of the tricolored bat is provided below.

2.2.2.1 Fish

Gulf Sturgeon

The Gulf sturgeon (*Acipenser oxyrhynchus desotoi*), listed by the USFWS, NMFS, and FWC as Threatened, is a large anadromous species that occurs in the lower sections of large rivers and estuaries along the Gulf coast. The species spends most of the year in brackish and saline water and migrates in the spring up coastal rivers to freshwater in order to spawn. The Gulf sturgeon is a bottom feeder, rooting along the bottom with their snouts and ingesting food by “vacuuming” the substrate with their protrusible mouths. The NMFS CA for the Gulf sturgeon falls within the study area; however, the USFWS maintains jurisdiction in estuarine habitats. The probability of occurrence for the species was designated as low since no documented current or historic occurrences of the species within 10 miles of the study area, and no observations were made during field reviews. In-water work during bridge construction is anticipated to include pile driving and assembly of bridge components. Much of the work will be conducted from barges and small vessels. Anchored barges will avoid seagrasses outside the project area to prevent shading

impacts. At this time, bridge demolition is not anticipated to be through blasting. The *NMFS Southeast Regional Office (SERO) Vessel Strike Avoidance Measures* (NOAA Fisheries Southeast Regional Office, 2021) and *NMFS Protected Species Construction Conditions* (NOAA Fisheries Southeast Regional Office, 2021) (**Appendix E**) will be adhered to during the construction of the project. Suitable habitat for the species is present within the Manatee River; however, based on the lack of observations of the species in the vicinity, a determination of **may affect, not likely to adversely affect** is appropriate for the Gulf sturgeon. Since the specifications for in-water work and piling driving have not been finalized at this time, consultation with NMFS regarding Section 7 and EFH will be deferred to the design phase of the project.

Smalltooth Sawfish

The smalltooth sawfish (*Pristis pectinata*) is listed by the NMFS and FWC as Endangered. The species is under the jurisdiction of NMFS and was the first marine fish to receive federal protection. The range for the smalltooth sawfish has reduced during the last century, and currently, this species is primarily found in southwest Florida waters, particularly within the Caloosahatchee River. Young smalltooth sawfish prefer shallow estuarine waters near red mangroves, as well as waters under docks, bridges, and piers. Juveniles will remain in this habitat until they are two to three years old. Adults prefer deeper, more open waters but have been documented near coral reefs and travel inshore for mating and birth. The smalltooth sawfish diet consists primarily of fish, but it will also eat small invertebrates such as shrimps and crabs. The NMFS CA for the smalltooth sawfish falls within the study area; however, the closest species observation was recorded in Port Gasparilla Sound – Charlotte Harbor, over 50 miles south of the project. Though there is suitable foraging and sheltering habitat for various life stages of the smalltooth sawfish, the probability of occurrence for the species was designated as low due to no species observations within or adjacent to the study area during wetland delineation and seagrass surveys. In-water work during bridge construction is anticipated to include pile driving and assembly of bridge components. Much of the work will be conducted from barges and small vessels. Anchored barges will avoid seagrasses outside the project area to prevent shading impacts. At this time, bridge demolition is not anticipated to be through blasting. The *NMFS SERO Vessel Strike Avoidance Measures* (NOAA Fisheries Southeast Regional Office, 2021) and *NMFS Protected Species Construction Conditions* (NOAA Fisheries Southeast Regional Office, 2021) (**Appendix E**) will be adhered to during the construction of the project. Mangrove swamps within the study area are proposed to be impacted by the project; however, mitigation will be provided for these impacts. With these implementation measures in place, a determination of **may affect, not likely to adversely affect** is appropriate for the smalltooth sawfish. Since the specifications for in-water work and piling driving have not been finalized at this time, consultation with NMFS regarding Section 7 and EFH will be deferred to the design phase of the project.

2.2.2.2 Reptiles

Sea Turtles

Two species of sea turtles (loggerhead sea turtle [*Caretta caretta*], green sea turtle [*Chelonia mydas*]), are listed by the USFWS, NMFS, and FWC as Threatened, and one species, Kemp's Ridley sea turtle (*Lepidochelys kempii*) is listed as Endangered. Loggerhead sea turtles may be found hundreds of miles out

to sea, as well as in inshore areas such as bays, lagoons, salt marshes, creeks, ship channels, and the mouths of large rivers. Green sea turtles are found in estuarine and marine coastal and oceanic waters, nesting on coastal sand beaches, often near dune lines. Kemp's Ridley sea turtles are found in marine coastal waters, usually with sand or mud bottoms. Kemp Ridley's sea turtles nest (rarely in Florida) on sandy beaches. The NMFS CA for the three sea turtles (loggerhead, green, and Kemps Ridley), as well as the NMFS proposed CH for the green turtle falls within the study area. Suitable swimming habitat for sea turtles is present within the Manatee River; however, no observations of the species have been recorded within or adjacent to the study area. Nesting habitat for these three species of sea turtles is not present within the study area. Therefore, the probability of occurrence for these species of sea turtles was designated as low. In-water work during bridge construction is anticipated to include pile driving and assembly of bridge components. Much of the work will be conducted from barges and small vessels. Anchored barges will avoid seagrasses outside the project area to prevent shading impacts. At this time, bridge demolition is not anticipated to be through blasting. Bridge replacement activities may impact sea turtles, but the *NMFS SERO Vessel Strike Avoidance Measures* (NOAA Fisheries Southeast Regional Office, 2021) and *NMFS Protected Species Construction Conditions* (NOAA Fisheries Southeast Regional Office, 2021) (**Appendix E**) will be adhered to during the construction of the project. Therefore, a determination of **may affect, not likely to adversely affect** is appropriate for sea turtles. Since the specifications for in-water work and piling driving have not been finalized at this time, consultation with NMFS regarding Section 7 and EFH will be deferred to the design phase of the project.

American Crocodile

The American crocodile (*Crocodylus acutus*) is listed by the USFWS and FWC as Threatened, is a large, gray to brown crocodilian with a long, tapered snout. The probability of occurrence for the American crocodile was designated as low. Habitat utilized by the American crocodile is present within the mangrove swamps in the northern section of the study area; however, the study area is not within the CH for the American crocodile, and the nearest sighting was recorded in Pine Island, Florida, over 75 miles south of the study area. It is unlikely that an American crocodile may be found so far north of its range; however, since suitable habitat is present within the study area and compensatory mitigation will be provided to offset impacts to wetlands, a determination of **may affect, not likely to adversely affect** is appropriate for the American crocodile.

Eastern Indigo Snake

The eastern indigo snake (*Drymarchon couperi*) is listed by the USFWS and FWC as Threatened, and is a large, stout-bodied, shiny black snake. The eastern indigo snake utilizes a wide variety of habitats, ranging from mangrove swamps to xeric scrub communities. The eastern indigo snake prefers upland/wetland ecotone breaks for feeding, and often lives in association with gopher tortoise burrows, especially in the winter. The probability of occurrence for the eastern indigo snake was designated as moderate due to suitable habitat within the study area. No eastern indigo snakes were observed, and no gopher tortoise burrows were noted during field reviews. The *Standard Protection Measures for the Eastern Indigo Snake* guidelines will be adhered to during construction to minimize the probability of any species impacts (**Appendix F**). The *Eastern Indigo Snake Programmatic Effect Determination Key (North Florida)* was used

for this project (**Appendix G**). The path followed through the key was A > B > C > D > E = NLAA. Therefore, a determination of **may affect, not likely to adversely affect** is appropriate for the eastern indigo snake.

2.2.2.3 Birds

Rufa Red Knot

The rufa red knot (*Calidris canutus rufa*), listed by the USFWS and FWC as Threatened, and is a stocky, medium-sized shorebird. The probability of occurrence for the red knot was designated as moderate due to the presence of coastal estuarine habitat. Rufa red knots do not nest in Florida, so they would be utilizing this habitat to forage and rest. No red knots were observed during field reviews. Due to their mobility and ability to move away, impacts to individuals during construction are not anticipated. Therefore, a determination of **may affect, not likely to adversely affect** is appropriate for the species.

Piping Plover

The piping plover (*Charadrius melodus*), listed by the USFWS and FWC as Threatened, is a small shorebird. In Florida, piping plovers are usually encountered in winter plumage. The northern end of the project falls within the USFWS CA for the species. The probability of occurrence for the piping plover was designated as moderate due to the presence of coastal habitat. Piping plovers do not nest in Florida, so they would be utilizing this habitat to forage and rest. No piping plovers were observed during field reviews. Due to their mobility and ability to move away, impacts on individuals during construction are not anticipated. Therefore, a determination of **may affect, not likely to adversely affect** is appropriate for the species.

2.2.2.4 Mammals

Tricolored Bat

As of September 14, 2022, the USFWS proposed to list the tricolored bat (*Perimyotis subflavus*) as an endangered species under the ESA. Designated CH is not proposed for the tricolored bat at this time. Tricolored bats are found throughout Florida; however, they are more common in the northern half of the state. The tricolored bat populations have been drastically impacted by a fungal infection, white nose syndrome, which affects hibernating bat colonies. The small, insect-eating bats prefer to roost in mature hardwood forests, caves, and, less commonly, manmade structures. Tricolored bats forage in waterways, forests, and agricultural areas where small insects can be found. The probability of occurrence was designated as moderate for the species due to presence of suitable roosting and foraging habitat within and adjacent to the study area. No observations or evidence of roosting were noted on the bridge.

The anticipated effect determination is **may affect, not likely to adversely affect**. As the timeline for construction is better defined, FDOT will adhere to the applicable commitments below:

- Upon listing of the tricolored bat, if the project contains suitable habitat and requires tree trimming and/or clearing, FDOT will not conduct tree trimming/clearing activities during the tricolored bat pup season (May 1st to July 15th) and when bats may be in torpor (when temperatures are below 45 degrees Fahrenheit).
- Upon listing of the tricolored bat, if the project contains suitable habitat and FDOT needs to trim or clear trees or perform work on bridges/culverts during the maternity season and/or when the

temperature is below 45 degrees Fahrenheit, then FDOT will survey the study area for evidence of the tricolored bat. The Indiana Bat and Northern Long-eared Bat Survey Guidance (USFWS), appendix J acoustic survey protocol in the year-round range (mist netting is not being conducted in Florida at this time), will be used for areas with tree trimming/clearing. For bridges and culverts, the Indiana Bat and Northern Long-eared Bat Survey Guidance, appendix K, Assessing Bridges and Culverts for Bats, will be used.

- If the surveys result in no tricolored bats detected, then FDOT can proceed with the project activities. Negative results from bridge/culvert surveys are valid for 2 years. Negative results for acoustic surveys are valid for 5 years. However, negative results for either survey may be invalidated if additional tricolored bat survey data is submitted to USFWS showing presence of the species within the vicinity of the study area. Additional survey work by FDOT, or application of the avoidance and minimization measures noted in #4, may be required if updated detections are reported, and may result in reinitiation of consultation with USFWS.
- If the surveys result in positive detections of the tricolored bat, FDOT will implement conservation measures such as: not conducting tree trimming/clearing activities during the tricolored bat pup season (May 1st to July 15th) when pups are not volant and not able to escape disturbance; similarly avoid tree trimming/clearing activities when the temperatures are below 45 degrees Fahrenheit when bats may be in torpor and unresponsive to disturbance.

West Indian Manatee

The West Indian manatee (*Trichechus manatus latirostris*), listed by the USFWS and FWC as Threatened, is a large, gray, nearly hairless aquatic mammal. The study area occurs within areas of CH for the West Indian manatee. The probability of occurrence for the West Indian manatee is designated as high due to suitable habitat present within the study area. Habitat utilized by the West Indian manatee is present within the mangrove swamps near the northern portion of the study area and within the estuarine waters of the Manatee River. Manatees were not observed during field reviews. In-water work during bridge construction is anticipated to include pile driving and assembly of bridge components. Much of the work will be conducted from barges and small vessels. Anchored barges will avoid seagrasses outside the study area to prevent shading impacts. At this time, bridge demolition is not anticipated to be through blasting. Bridge replacement activities may impact the West Indian manatee, but *Standard Manatee Conditions for In-Water Work* (**Appendix H**) will be adhered to during construction. The *Effect Determination Key for the Manatee in Florida* was utilized for this project (**Appendix I**). The path followed through the key for the Preferred Alternative was A > B > C > G > N > O > P = MANLAA. Therefore, a determination of **may affect, not likely to adversely affect** is appropriate for the West Indian manatee.

2.2.2.5 Critical Habitat

The study area occurs within designated areas of CH for the West Indian manatee and proposed areas of CH for the green sea turtle. The proposed project will include the replacement of an existing overwater structure and impacts to mangroves and surface waters (Manatee River), which provides suitable

swimming and foraging habitat utilized by manatees and green sea turtles. Impacts to mangroves total 1.833 acres (1.156 acres permanent fill impacts and 0.677 acres secondary impact) and are considered minor given the small size of the impact relative to the available habitat in the region. Additionally, compensatory mitigation to offset the loss of similar habitat will be provided. No impact on seagrass is proposed, which is a main food source for manatees and green sea turtles. Seagrasses in the vicinity of the DeSoto Bridge will be unaffected by construction. Water depths are shallow around the mangrove swamps but deepen under the main stretch of the DeSoto Bridge, where pilings will be added. Boat traffic is common within the channel/Manatee River. Impacts on surface waters considered critical habitat will result from the pilings; however, these impacts will be minimal. Impacts to water quality during construction may occur due to pile driving and assembly of bridge components, which may cause an increase in turbidity. Anchored barges will avoid seagrasses outside the project to prevent shading impacts. These impacts will be temporary, and Best Management Practices (BMPs) will be implemented. For these reasons, it was determined that the Preferred Alternative will **not result in the destruction or adverse modification of critical habitat** for the West Indian manatee or the green sea turtle.

2.2.3 State Listed Species

Thirty-one (31) species are listed by FWC as endangered or threatened. In-house research and field reviews were conducted, evaluating the habitat requirements for each species and the types of habitats present within the study area. Fourteen (14) state-listed plant species have no probability of occurring within the study area due to a lack of suitable habitat. These plant species include: golden leather fern (*Acrostichum aureum*), iguana hackberry (*Celtis iguanaea*), Florida tree fern (*Ctenitis sloanei*), Sanibel lovegrass (*Eragrostis pectinacean* var. *tracyi*), Tampa vervain (*Glandulari tampensis*), Distans habenaria (*Habenaria distans*), West Coast prickly-apple (*Harrisia gracilis*), pine pinweed (*Lechea divaricate*), southern twayblade (*Listera australis*), Florida spiny-pod (*Matelea floridana*), Florida mayten (*Maytenus phyllanthoides*), swamp plume polypody (*Polypodium ptilodon*), large-plumed beaksedge (*Rhynchospora megaplumosa*), and wide-leaved triphora (*Triphora lamazonica*). These species are found in natural habitats such as scrub, sandhills, xeric hammocks, hydric hammocks, maritime hammocks, and pine flatwoods. The study area is highly urbanized with limited natural areas that lack were disturbed in some way by the adjacent roadway and/or development.

A description of the seventeen (17) remaining state-listed species is provided below.

2.2.3.1 Plants

Wild Cotton

Wild cotton (*Gossypium hirsutum*) is listed by the FDACS as Threatened. The probability of occurrence for wild cotton was designated as moderate since it is known to occur within roadsides. No observations of the species were noted during field reviews. Listed plant surveys will be conducted during the design phase of the project, and if any protected individuals are observed, FDOT will coordinate with FDACS to determine if the plants will be protected or translocated to a suitable alternative site by a qualified organization such as the Florida Native Plant Society. The flowering season for this species is February

through June. The appropriate effect determination for the species is **no adverse effect anticipated** for wild cotton.

Lowland Loosestrife

Lowland loosestrife (*Lythrum flagellare*), listed by FDACS as Endangered, is a low-growing, creeping wildflower. The probability of occurrence for lowland loosestrife was designated as moderate since it is known to occur within roadsides. No observations of the species were noted during field reviews. Listed plant surveys will be conducted during the design phase of the project, and if any protected individuals are observed, FDOT will coordinate with FDACS to determine if the plants will be protected or translocated to a suitable alternative site by a qualified organization such as the Florida Native Plant Society. The flowering season for this species is April through October, but they can be surveyed all year. The appropriate effect determination is **no adverse effect anticipated** for the lowland loosestrife.

St. John's Black-eyed Susan

St. John's black-eyed Susan (*Rudbeckia nitida*), listed by FDACS as Endangered, is a perennial herb. The probability of occurrence for the species was designated as moderate since it is known to occur within roadsides. No observations of the species were noted during field reviews. Listed plant surveys will be conducted during the design phase of the project, and if any protected individuals are observed, FDOT will coordinate with FDACS to determine if the plants will be protected or translocated to a suitable alternative site by a qualified organization such as the Florida Native Plant Society. The flowering season for this species is May through July with a second flowering period from September through October. The appropriate effect determination is **no adverse effect anticipated** for St. John's black-eyed Susan.

2.2.3.2 Reptiles

Gopher Tortoise

The gopher tortoise (*Gopherus polyphemus*), listed by the FWC as Threatened, is a long-lived reptile that occupies upland habitat throughout Florida, including forests, pastures, and residential areas. The gopher tortoise digs deep burrows for shelter and forages on low-growing plants. Gopher tortoises are commonly found in areas containing xeric, well-drained soils, including sandhills, xeric pine-oak hammocks, scrub-shrub habitats, pine flatwoods, coastal dunes, pastures, orange groves, and disturbed sites. The probability of occurrence for the gopher tortoise was designated as moderate due to the presence of suitable habitat within the study area. No gopher tortoises or burrows were observed during field reviews. Surveys for gopher tortoise burrows, as well as commensal species, will be conducted during the design phase, and permits to relocate tortoises and commensals as appropriate will be obtained from the FWC. Gopher tortoises will be addressed in accordance with FWC's *Gopher Tortoise Permitting Guidelines*. The gopher tortoise has been assigned **no adverse effect anticipated** determination for this project.

Florida Pine Snake

The Florida pine snake (*Pituophis melanoleucus mugitus*) is listed by the FWC as Threatened. It has a range that covers almost the entire state of Florida. The species inhabits areas featuring well-drained sandy soils with a moderate to open canopy. They are also considered to be a commensal species to the gopher

tortoise. The probability of occurrence for the species is moderate due to the presence of suitable habitat within the study area.

Many of the same protocols that will be followed under the *Standard Protection Measures for the Eastern Indigo Snake* guidelines will benefit the Florida pine snake. If a Florida pine snake is observed during construction, FWC staff recommend that work activities cease and the snake be allowed to leave on its own accord. Additionally, the FDOT will survey potential gopher tortoise habitat during subsequent phases of the project to determine the presence/absence of gopher tortoise and coordinate with the FWC to secure all necessary permits for gopher tortoise burrows occurring within 25 feet of the Preferred Alternative. The effect determination for the Florida pine snake is **no adverse effect anticipated**.

2.2.3.3 Birds

Florida Sandhill Crane

The Florida sandhill crane (*Antigone canadensis pratensis*), listed as Threatened by the FWC, is a tall, long-necked, long-legged bird. Nesting habitat consists of shallow, vegetated freshwater marshes. Cranes will construct nests on fairly isolated rafts of vegetation to limit access to the nest by predators. Nesting season for this species is December through August. Nesting habitat is not present within the study area. The Florida sandhill crane has a moderate probability of occurrence due to suitable foraging habitat within the study area. No species observations occurred during field reviews. While small areas of foraging habitat may be affected by this project, large areas will remain intact in the vicinity of the project, and mitigation will be provided for any wetland impacts. Due to their mobility and ability to move away, impacts on individuals during construction are not anticipated. Therefore, **no adverse effect anticipated** determination for Florida sandhill cranes is appropriate.

Florida Burrowing Owl

The Florida burrowing owl (*Athene cunicularia floridana*), designated by the FWC as Threatened, is a small, ground-dwelling owl. The species creates subterranean burrows in native prairies and cleared pastures. Tracts of cleared open lands with low groundcover exist within the study area. The probability of occurrence for the species is low due to presence of small, fragmented tracts of suitable habitat but no documented observations of burrowing owls or their burrows during field reviews. Impacts to suitable habitat are proposed for preferred pond sites; however, these areas are already disturbed by the existing roadway and commercial and residential development. Surveys for burrowing owls will be conducted during the design phase. If it is determined that burrows are found and could be impacted by the project, FDOT will coordinate with FWC to determine appropriate avoidance and minimization measures to apply during construction. A **no adverse effect anticipated** determination for the Florida burrowing owl is appropriate.

Southeastern American Kestrel

The southeastern American kestrel (*Falco sparverius paulus*), listed by the FWC as Threatened, is the smallest falcon in the United States. They are found in pine habitats, woodland edges, prairies, and pastures throughout Florida. Suitable foraging habitat consists of either open, low vegetation (≤10 inches)

dominated by grasses or low scrub oaks interspersed with sandy patches. In pine-dominated forests or sandhill communities, canopy cover in suitable foraging habitat is less than 40%, with 25% or less being optimal. Availability of suitable nesting sites is key during the breeding season. Nest sites include tall dead trees or utility poles, generally with an unobstructed view of their surroundings. The study area contains suitable habitat; therefore, the probability of occurrence was moderate. No individuals or cavities were observed during field reviews. Suitable habitat for the species is limited to the open land areas scattered throughout the study area, and infields of the US 41/US 301 interchange. A southeastern American kestrel survey will be conducted during the design and permitting phase. Should any nests be encountered, an FWC incidental take permit will be required if avoidance and minimization measures cannot be taken that eliminate the need for a permit. A **no adverse effect anticipated** determination is appropriate for the species.

Wood Stork

The USFWS has removed the Southeast U.S. distinct population segment of the wood stork (*Mycteria americana*) from the Federal List of Endangered and Threatened Wildlife, effective March 12, 2026. Federal agencies (including FDOT under NEPA assignment) will no longer be required to consult with the Service under Section 7 of the Act for the wood stork. The wood stork is now a state-listed threatened species, occurring on Florida's Endangered and Threatened Species List with state protections through the FWC, which regulates and manages these species (68A-27, F.A.C.).

The wood stork has a moderate probability of occurrence to be found within the study area due to suitable foraging habitat. Suitable foraging habitat for the species is within the mangrove swamps, north of the DeSoto Bridge, and other surface waters/roadside ditches found throughout the project area. No species observations occurred during field reviews. While small areas of foraging habitat may be affected by this project, large areas will remain intact in the vicinity of the project, and mitigation will be provided for any wetland impacts. Due to their mobility and ability to move away, impacts on individuals during construction are not anticipated. Therefore, the wood stork has been assigned a **no adverse effect anticipated** determination for this project.

Wading Birds

Four species of wading birds, including the little blue heron (*Egretta caerulea*), reddish egret (*Egretta rufescens*), tricolored heron (*Egretta tricolor*), and roseate spoonbill (*Platalea ajaja*), are listed as Threatened by the FWC. The closest known wading bird colony, Colony Number 615671 – Forked Creek Keys, is located approximately 35 miles south of the proposed project. These species have a moderate probability of occurrence to be found within the study area due to the presence of suitable foraging habitat. No species observations occurred during field reviews. While small areas of foraging habitat may be affected by this project, large areas will remain intact in the vicinity of the project, and mitigation will be provided for any wetland impacts. Due to their mobility and ability to move away, impacts on individuals during construction are not anticipated. Therefore, wading birds have been assigned a **no adverse effect anticipated** determination for this project.

Imperiled Beach-nesting Birds (IBNBs)

The snowy plover (*Charadrius nivosus*), American oystercatcher (*Haematopus palliates*), black skimmer (*Rhynchops niger*), and least tern (*Sternula antillarum*) are listed as Threatened by the FWC and are collectively referred to as IBNBs. American oystercatchers, black skimmers, and least terns are found throughout most coastal areas of the state, but snowy plovers are found only along the coasts of the Panhandle and Southwest Florida. Least terns only occur in Florida during their breeding season and spend the non-breeding season in Central and South America. American oystercatchers and black skimmers are year-round residents. Most snowy plovers are year-round residents, but some migrate to other states during the non-breeding season. In Florida, IBNBs are primarily found along sandy beaches, inlets, spoil and barrier islands, and estuaries. Breeding IBNBs need undisturbed, open or sparsely-vegetated habitat with sand, shell, gravel, cobble, dredge spoil, or some combination of these materials in which to dig scrapes. American oystercatchers breed on beaches, natural and spoil islands, shell rakes, riprap, wrack, and low vegetated substrate. Snowy plovers breed on open or sparsely vegetated barrier islands and coastal beaches. Black skimmers and least terns nest on beaches, emergent sandbars, washouts in dunes and coastal berms, shell rakes, and dredge spoil islands. The probability of occurrence for the IBNBs was designated as low since there is coastal habitat within the study area, but it is only located within a small portion of the study area, near the DeSoto Bridge. There is no suitable nesting habitat (sandy beaches) within the study area, and none have been documented nesting in the area. Therefore, the appropriate effect determination for the IBNBs is **no adverse effect anticipated**.

2.2.4 Other Protected Species

Non-listed Rare Plants

Non-listed native plant species are generally not afforded the type of protection that state or federally protected listed plant or wildlife species are. The FDOT OEM partnered with the Florida Wildflower Foundation (FWF) and the Florida Native Plant Society (FNPS) to form the Native Florida Plants FDOT Working Group. Through the working group, the FWF and FNPS can engage and review projects early in the process so that their comments regarding potential plants of concern can be considered by FDOT. The working group also includes representatives from FDACS to ensure the procedures under 581.185 Florida Statutes and Chapter 5B-40, F.A.C. are followed.

Included in the ETDM Summary Report No. 14507, published on July 24, 2025, FDACS recommended surveys for rare and listed plants be conducted, and if present, plants be protected or translocated to a suitable alternative site by a qualified organization such as the FNPS. No rare plants were observed during field reviews.

Monarch Butterfly

The USFWS published the proposal to list the monarch butterfly as a federally Threatened species on December 12, 2024, in the Federal Register (FR) under 50 CFR 17, 89 FR 100662. The USFWS encourages cooperative conservation efforts for these species because they are, by definition, species that may warrant future protection under the ESA. The FDOT entered into the *Nationwide Candidate Conservation Agreement with Assurances (CCAA) for the Monarch Butterfly on Energy and Transportation Lands*

administered by the University of Illinois at Chicago (UIC). Their Certificate of Inclusion was issued in 2024. Monarch butterflies lay eggs on their obligate milkweed host plants (primarily *Asclepias* spp.) during the breeding season, which could be all year in some geographic areas. No milkweed species or supporting habitat were observed within the study area. However, since the species utilizes a large variety of terrestrial habitats, the probability of occurrence is moderate. The proposed project is not anticipated to affect the monarch butterfly.

Whooping Crane

The whooping crane occurs only in North America, specifically within Canada and the United States, and is North America's tallest bird. Four geographically distinct populations exist in the wild, one of which includes an experimental, non-migratory population in central Florida that was reintroduced from 1993 to 2005. The probability of occurrence for the species is low, since the study area is not within proximity of the central Florida population. Suitable habitat includes coastal marshes and estuaries, inland marshes, lakes, open ponds, shallow bays, salt marshes and sand or tidal flats, upland swales, wet meadows and rivers, pastures and agricultural fields. While small areas of foraging habitat may be affected by this project, large areas will remain intact in the vicinity of the project, and mitigation will be provided for any wetland impacts. Due to their mobility and ability to move away, impacts on individuals during construction are not anticipated. Therefore, it is not anticipated that the proposed construction will negatively impact the species.

Bald Eagle

The bald eagle is no longer listed by the USFWS or FWC but remains protected under the BGEPA (16 U.S.C. 668-668d), as amended, and the MBTA (16 U.S.C. 703-712). The probability of occurrence for the species was designated as moderate due to suitable foraging and nesting habitat within the study area. Bald eagle nests are afforded a primary protection buffer of 330 feet and a secondary protection buffer, which extends from 330 feet to 660 feet. No bald eagles were observed during the field reviews. The location and activity of bald eagle nest sites throughout the state are closely monitored by the Audubon Society. A desktop review of Audubon EagleWatch mapping indicates that there are three documented nests (Nests MN077, MN951, and MN048) near the study area. All bald eagle nests are located outside the 660-foot secondary protection buffer, and no impacts are anticipated to the species as a result of the proposed project.

Bats (multiple species)

Bats in the state of Florida are protected via F.A.C. 68A-4.001 General Prohibitions, F.A.C. 68A-9.010 Taking Nuisance Wildlife, and F.A.C. 68A-29.002 Regulations Relating to the Taking of Mammals. Solitary bats may roost in small tree cavities or palm fronds, while larger colonies of bats may roost in manmade structures such as the joints of bridges. The probability of bats occurring within the study area is moderate due to presence of suitable foraging and roosting habitat. Within the study area are structures that could provide roosting habitat for state-protected bats, primarily within the existing DeSoto Bridge, which is a suitable size for a colony of bats. During field reviews, bat inspections were completed within the existing DeSoto Bridge, and no evidence of bat utilization was documented. Bats were observed in the bat boxes

at the Palmetto Estuary Park. Bat surveys will be conducted during the design phase to ensure no roosting bats are inhabiting the bridge. If bats are present, a bat exclusion would be required due to the proposed bridge replacement activities. Since bats are not currently roosting in the bridge, impacts to bats are not anticipated.

SECTION 3 WETLANDS AND SURFACE WATERS

An ETDM Programming Screen Summary Report was published on July 24, 2025, containing comments from the ETAT on the project's effects on various natural, physical, and social resources. Comments were received from USACE, SWFWMD, U.S. Environmental Protection Agency (USEPA), USFWS, FDEP, and NMFS. Specific concerns regarding impacts on wetlands and seagrass areas are raised in the ETDM comments. Concerns included impacts to seagrass habitats within the Manatee River, impacts to estuarine forested wetlands, implementation of manatee special provisions, permitting requirements for the projects, and appropriate mitigation measures be taken for all impacts to wetlands and surface waters.

3.1 METHODOLOGY

The extent and types of wetlands in the study area were documented in accordance with Executive Order 11990, Protection of Wetlands, and the Wetlands and Other Surface Waters chapter of the FDOT PD&E Manual. Wetlands were identified through the review of available literature, geographic information systems (GIS) data, and field verification. The following sources were reviewed prior to conducting the field review:

- USDA, NRCS, Web Soil Survey;
- USFWS, NWI Mapper;
- USGS, The National Map Viewer;
- Land use and land cover maps (SWFWMD 2023);
- NRCS Soil Survey of Manatee County, Florida (1983);
- FDOT's ETDM Summary Report Bradenton-Palmetto Connector Final Planning Screen with ACER published on July 24, 2025 (ETDM Project No. 14507);
- FDOT's ETDM Summary Report DeSoto Bridge [Bridge #130053] published on October 7, 2023 (ETDM Project No. 14510);
- DeSoto Bridge PD&E Study From Manatee Ave East (SR 64) to Haben Boulevard (FPID 442630-1) NRE (July 2024);
- SWFWMD Seagrass Cover maps (2024); and
- True color aerial photography (2024).

Following the review of all available materials, field assessments were conducted on June 18, 2025, July 9, 2025, January 13, 2026, and March 11, 2026, to identify the presence of submerged aquatic vegetation (SAV), wetland vegetation, evidence of hydrology, and hydric soil indicators. The jurisdictional limits of the wetlands were delineated per the Florida Administrative Code (F.A.C.) Chapter 62-340, and described in *The Florida Wetlands Delineation Manual*, the U.S. Army Corps of Engineers (USACE) *USACE Final Regional Supplement to the Corps of Engineers Wetland Delineations Manual: Atlantic and Gulf Coastal Plain Region* (October 2010). Jurisdictional determinations for "waters of the United States" were interpreted as consistent with the pre-2015 regulatory regime and the Sackett decision. Land use/habitats

were classified by FLUCFCS and were also characterized according to the *U.S. Fish and Wildlife Service (USFWS) Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin 1979). SAV surveys were conducted by qualified biologists during the seagrass growing season (June 1 to September 30) per *A Science-based Seagrass Survey Window for Coastal Construction Project Planning in Florida* (NOAA NMFS, 2010). Biologists evaluated SAV, wetland, and surface water systems within the study area using the Uniform Mitigation Assessment Method (UMAM, Chapter 62-345, F.A.C.). The results presented in this report are a compilation of information collected from field assessments performed by project biologists and from the data sources described above.

3.2 RESULTS

Wetlands, surface waters (SW), other surface waters (OSW), and SAV areas within the study area (Preferred Alternative plus a 250-foot buffer) include Streams and Waterways (FLUCFCS 5100), Reservoirs (FLUCFCS 5300), Bays and Estuaries (FLUCFCS 5400), Mangrove Swamps (FLUCFCS 6120), and Seagrass, Sparse - Medium (FLUCFCS 9111). A wetland and surface waters map is included as **Figure 3-1.** Wetland and surface water descriptions are detailed below.

Streams and Waterways (FLUCFCS 5100; USFWS: PEM1Cx - Palustrine, Emergent, Persistent, Seasonally Flooded, Excavated)

This category includes rivers, creeks, canals, and other linear water bodies. This land use occurs in various locations throughout the study area. These features are OSWs, consisting of linear roadside ditches, created as part of the roadway system for the conveyance of stormwater. These OSW features are not considered Water of the United States (WOTUS) and impacts to these features are not regulated by the USACE.

Reservoirs (FLUCFCS: 5300; USFWS: PUBHx - Palustrine, Unconsolidated Bottom, Permanently Flooded, Excavated)

This land classification includes artificial water impoundments, which may provide irrigation, flood control, hydro-electric power generation, municipal and rural water supplies, and recreation. This land use includes stormwater ponds in various locations throughout the study area. These SW features have been created for stormwater storage purposes and are permitted as part of the adjacent roadway and/or residential or commercial development. These SW features are not considered WOTUS and impacts to these features are not regulated by the USACE.

Bays and Estuaries (FLUCFCS: 5400; USFWS: E1UB2 - Estuarine, Subtidal, Unconsolidated Bottom, Sand)

This land classification includes inlets of the sea that are included in the landmass of Florida because they extend into the land. These embayments must be more than a nautical mile in width to be classed as bays and estuaries. This land use describes the Manatee River, and this surface water spans the entire length of the DeSoto Bridge. This feature is considered a WOTUS and impacts to the SW will require permitting through the USACE and SWFWMD. Minimal vegetation was present, except for two seagrass areas in the northern quadrants of the DeSoto Bridge. More details regarding seagrass are found in FLUCFCS 9111 description.

Mangrove Swamps (FLUCFCS: 6120; USFWS: E2FO3N - Estuarine, Intertidal, Forested, Broad-Leaved Deciduous, Regularly Flooded)

This land use code is located along the northern quadrants of the existing DeSoto Bridge. Forested mangrove wetland systems are comprised of red, white, and black mangrove species (*Rhizophora mangle, Laguncularia racemosa, Avicennia germinans*), buttonwood (*Conocarpus erectus*), groundsel tree (*Baccharis halimifolia*), and Brazilian pepper (*Schinus terebinthifolia*). Groundcover includes salt wort (*Batis maritima*), sawgrass (*Cladium jamaicense*), and flatsedges (*Cyperus* sp.). The mangrove swamp wetlands within the study area are considered WOTUS since they have a continuous surface water connection to the Manatee Reiver. Impacts to these features will require permitting through the USACE and SWFWMD.

Seagrass, Sparse – Medium (FLUCFCS: 9111, USFWS: E1AB3L - Estuarine, Intertidal, Aquatic Bed, Rooted Vascular, Subtidal)

This land cover represents seagrass beds present within the Manatee River, within the northwest and northeast quadrants of the DeSoto Bridge. These sparse to medium covered seagrass beds consisted of shoal grass (*Halodule wrightii*) and star grass (*Halophila* sp.). Since these seagrass beds are within the Manatee River, they are considered WOTUS and impacts to these features are under the jurisdiction of the USACE and SWFWMD.

3.2.1 Direct Wetland and Surface Water Impacts

Fourteen (14) wetland, SW, and OSW features are proposed to be impacted by the Preferred Alternative (WL 1, WL-2 SW 1, OSWs 1-11). The total wetland impact is 1.833 acres [1.156 acres of direct (fill) impact and 0.677 acres of secondary impact (25-foot buffer from direct impact)] of mangrove swamp for the Preferred Alternative, which equates to a total functional loss of 0.89 estuarine forested units. The total surface water impact is less than 0.10 acres, from pile driving for the DeSoto Bridge replacement, which equates to a total functional loss of less than 0.01 units of estuarine freshwater credits. Shade impacts are not considered since this area of surface waters consists of a non-vegetated bottom. The functional loss for surface waters is considered de minimis and will not require mitigation. However, the de minimis determination will be confirmed during the permitting process. A total of 1.10 acres of OSWs is anticipated to be impacted by the construction of the Preferred Alternative. These features are roadside ditches created as part of the roadway system for the conveyance of stormwater. They were created in upland soils, are not considered to be WOTUS, and will be replaced as part of the new roadway system; therefore, no mitigation is required. No impacts to SAV are anticipated. FDOT commits to conducting updated seagrass surveys during the design phase of the project.

UMAM scores and functional loss analysis for wetlands and surface waters within the project footprint are summarized in **Table 3-1**. UMAM datasheets for wetlands proposed for impact under the Preferred Alternative are provided in **Appendix J**. Wetland impact maps for the Preferred Alternative are included as **Figure 3-2.**

Table 3-1 Summary of Impacts Associated with the Preferred Alternative

FLUCFCS / ID	USFWS Classification	Preferred Alternative			
		Impact Type	Impact Acreage	UMAM Score	Functional Loss
WETLANDS					
6120 / WL 2	E2FO3N	Direct (Fill)	1.156	0.73	0.84
		Secondary	0.677	0.07	0.05
		Total	**1.833**	**—**	**0.89**
SURFACE WATERS					
5400 / SW 1	E1UB2	Direct (Fill)	<0.10	—	<0.01
OTHER SURFACE WATERS					
5100 / OSW 1-11	PEM1Cx	Direct (Fill)	1.10	—	—

3.2.2 Indirect, Secondary, and Cumulative Impacts

Indirect and secondary effects are those impacts that are reasonably certain to occur later in time as a result of the proposed project. They may occur outside of the area directly affected by the proposed project. Potential secondary effects include migrating edges of invasive species. Cumulative effects include the effects of future state, local, or private actions that are reasonably certain to occur in the study area. Secondary impacts to wetlands total 0.677 acres, resulting in the functional loss of 0.05 units, as listed in **Table 3-1**. With the commitment to purchase mitigation credits from a mitigation bank to offset the impacts occurring as a result of the project within that bank's service area, the cumulative impacts requirements of Section 373.414(8)(a), FS, will be considered met and no cumulative impacts are anticipated to occur.

3.3 AVOIDANCE AND MINIMIZATION

Avoidance and minimization of wetland and surface water impacts were considered during development of alternatives for the project. Given that the project involves widening and incorporating safety improvements to an existing roadway, with the replacement of the DeSoto Bridge over the Manatee River, opportunities to completely avoid wetland and surface water impacts were not available. Impacts have been avoided and minimized to the greatest extent possible. Transportation safety and design standards, side slopes, turn radius, lane number, and widths necessitate the impacts. Furthermore, the impacts are unavoidable due to the location of the wetlands and surface waters within the study area. Water quality, quantity, hydroperiod, and habitat will be maintained in all systems that will remain undisturbed.

With regard to roadway design, right-of-way is limited along the project length, and other constraints exist as well. The new facility will have a reduced posted speed, allowing for the use of a curb and gutter system for stormwater collection, which results in a narrower typical section. In addition, retained earth walls will be used in the areas of transition from roadway to bridge. Finally, north of the river, gravity walls will be designed along the roadway section as needed to reduce impacts.

With regard to stormwater, the project will be designed to the greatest extent possible with certain BMPs, which will benefit water quality and wetlands locally. Several pond site alternatives were considered, and preferred ponds were selected based on stormwater requirements for water quality standards and environmental considerations. None of the preferred pond sites occur within wetlands.

This project is in conformance with Executive Order 11990, Protection of Wetlands; consideration was given to avoiding and/or minimizing wetland impacts. The proposed project will have no significant short-term or long-term adverse impacts on wetlands, there is no practicable alternative to construction in wetlands, and measures have been taken to minimize harm to wetlands.

3.4 WETLAND IMPACT MITIGATION

A number of mitigation options are potentially available to compensate for impacts on wetlands, including public or private wetland mitigation banks and wetland creation, restoration, or enhancement within watersheds in the study area.

The project is located within the Manatee River watershed. The project falls within the service area of the Nature Coast Mitigation Bank, Braden River Mitigation Bank, Tampa Bay Mitigation Bank, Manatee Mitigation Bank, Mangrove Point Mitigation Bank, North Shore Park Seagrass Mitigation Bank, and Nature Coast (Parcel C) Mitigation Bank. For the Nature Coast Mitigation Bank, Braden River Mitigation Bank, Tampa Bay Mitigation Bank, and Nature Coast (Parcel C) Mitigation Bank, the project falls within the state (SWFWMD) permitted service area of these banks. The project is within the state (SWFWMD) and federal (USACE) permitted service areas of the Manatee Mitigation Bank, Mangrove Point Mitigation Bank, and North Shore Park Seagrass Mitigation Bank. Of those banks mentioned above, the project impacts occur within both the state and federally permitted service areas, Mangrove Point Mitigation Bank is the only bank with estuarine forested credits available. Therefore, the Mangrove Point Mitigation Bank is the most suitable option for mitigation at this time, since both state and federal credits are needed to satisfy the mitigation requirements of the project (0.89 credits).

According to the Regulatory In-lieu Fee and Bank Information Tracking System (RIBITS), the Mangrove Point Mitigation Bank has 22.054 estuarine intertidal, forested credits available. According to RIBITS, the last transaction at this mitigation bank was on February 4, 2026. It should be noted that credit requirements and availability may change throughout the PD&E and design phases of the project. Mitigation options will be investigated throughout all phases of the project.

All UMAM functional loss calculations and preliminary wetland and surface water boundaries discussed are subject to revisions and approval by regulatory agencies during the permitting process. The exact type of mitigation to offset impacts will be coordinated with the SWFWMD and USACE during the project's permitting phase(s). Wetland impacts which will result from the construction of this project will be mitigated pursuant to Section 373.4137 FS, to satisfy all mitigation requirements of Part IV of Chapter 373, FS, and 33 U.S. Code (USC) 1344.

SECTION 4 ESSENTIAL FISH HABITAT

4.1 INTRODUCTION

In accordance with the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) of 1996 (50 CFR Section 600.920), as amended through January 12, 2007, and as administered by the NOAA NMFS, federal agencies must consult with NMFS regarding any of their actions authorized, funded, undertaken, or proposed to be authorized, funded, or undertaken that may adversely affect EFH. EFH is defined in the MSFCMA as "those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity." The MSFCMA set forth a mandate to NMFS and regional fishery management councils (FMC) to designate EFH for species managed under federal Fishery Management Plans (FMPs). FMPs are prepared by regional FMCs and contain information pertaining to conservation and management measures for each specific fisheries' resources as well as other provisions required by the MSFCMA. Subsets of EFH that are designated based on ecological importance, susceptibility to human-induced environmental degradation, susceptibility to stress from development, or rarity of the habitat type are referred to as EFH Habitat Areas of Particular Concern (HAPC). HAPCs are identified by the region's FMC. The regional FMC that has jurisdiction over Western Florida where this project is located, is the Gulf of Mexico Fishery Management Council (GMFMC).

As stated in the FDOT PD&E Manual, NMFS has designated FDOT to conduct EFH consultations in Florida pursuant to 50 CFR § 600.920(c) on July 19, 2000, letter to FHWA and FDOT. This EFH Assessment was prepared in accordance with the MSFCMA as well as the EFH Chapter of the FDOT PD&E Manual.

The objective of this EFH Assessment is to describe how the proposed DeSoto Bridge replacement may affect EFH within the tidally influenced Manatee River. As noted by NMFS in the ETDM Programming Screen Summary Project No. 14510 (dated October 7, 2023) and Project No. 14507 (dated July 24, 2025), seagrass habitat exists within the Manatee River in the vicinity of this proposed project, and recommended avoidance measures should be implemented to prevent impacts.

4.2 METHODOLOGY

4.2.1 Data Collection and Field Surveys

Prior to a field review, scientists performed a GIS database and literature review to identify protected species, wetlands, and EFH documented within and adjacent to the study area. Referenced materials included the following data sources:

- USFWS NWI maps;
- FDOT's ETDM Summary Report DeSoto Bridge [Bridge #130053] published on October 7, 2023 (ETDM Project No. 14510);
- DeSoto Bridge PD&E Study from Manatee Ave East (SR 64) to Haben Boulevard (FPID 442630-1) NRE (July 2024);
- FDOT's ETDM Summary Report Bradenton-Palmetto Connector Final Planning Screen with ACER published on July 24, 2025 (ETDM Project No. 14507).

- SWFWMD Seagrass Cover maps (2024);
- FWC Statewide Seagrass GIS data layer (2022); and
- NOAA EFH mapper (accessed 2023).

According to the GMFMC, there are no identified HAPCs within or adjacent to the study area. The Statewide Seagrass GIS data layer (FWC, 2022) and SWFWMD Seagrass Cover maps (2024) identified seagrass beds located along the northern coastline around the DeSoto Bridge as well as areas that could support other SAV in the study area. Additionally, mangrove wetlands were identified in the study area through the review of the NWI GIS data layer (USFWS, 2023). These identified habitats within the study area potentially provide EFH for species within the coastal migratory pelagics, red drum, reef fish, spiny lobster, and shrimp FMPs. As such, field reviews were warranted to determine the existing limits of these resources.

To determine benthic marine resources in the study area, qualified biologists conducted an in-water SAV survey during the seagrass growing season (June 1 to September 30) per *A Science-based Seagrass Survey Window for Coastal Construction Project Planning in Florida* (NOAA NMFS, 2010). The survey was conducted at low tide using snorkeling gear to perform transects that were spaced a maximum of five feet apart. Two seagrass beds were identified on the northwest and northeast sides of the DeSoto Bridge and were mapped using a sub-meter accurate handheld Arrow GPS Unit (**Figure 3-1**). These seagrass areas are outside the proposed footprint of the project and will not be impacted. The Manatee River substrate outside these seagrass areas was found to generally consist of bare silty-sand bottom with no SAV coverage. The field review also documented and mapped mangroves in the study area that are dominated by red, white, and black mangroves (described in **Section 3.2.1**). The limits of these identified resources were compared to the footprint of the Preferred Alternative to determine the potential for impacts to EFH from the project.

4.3 EFH INVOLVEMENT

4.3.1 Description of the Proposed Action

In-water work is required to replace the DeSoto Bridge. In-water work during construction is anticipated to include pile driving and assembly of bridge components. Much of the work will be conducted from barges and small vessels. Anchored barges will avoid seagrasses outside the project to prevent shading impacts. At this time, bridge demolition is not anticipated to be through blasting. This construction has the potential to impact EFH and the associated species that utilize this habitat. Since the specifications for in-water work and piling driving have not been finalized at this time, consultation with NMFS regarding Section 7 and EFH will be deferred to the design phase of the project.

4.3.2 Managed Species

Seagrass habitat can provide EFH that is typically utilized during various life stages for many of the species within the FMPs managed by the GMFMC. **Table 4-1** lists the species within the FMPs managed by the GMFMC that may utilize the study area during various life stages. However, based on the location of the identified seagrass resources outside of the project's proposed footprint, no direct or indirect impacts are

anticipated to any seagrasses or other estuarine and marine SAV from the construction of the Preferred Alternative. In addition, no HAPCs were identified in the study area; therefore, no involvement with HAPCs is anticipated for this project.

Table 4-1 GMFMC FMPs with Species Potentially Occurring in Study Area

Fishery Management Plan	Scientific Name	Common Name
Shrimp	*Penaeus duorarum*	Pink Shrimp
	Penaeus aztecus	Brown Shrimp
	Penaeus setiferus	White Shrimp
Red Drum	*Sciaenops ocellatus*	Red Drum
Reef Fish	*Lutjanus campechanus*	Red snapper
	Lutjanus cyanopterus	Cubera Snapper
	Lutjanus griseus	Gray Snapper
	Lutjanus synagris	Lane Snapper
	Ocyurus chrysurus	Yellowtail Snapper
	Epinephelus itajara	Goliath Grouper
	Epinephelus morio	Red Grouper
	Mycteroperca bonaci	Black Grouper
	Mycteroperca microlepis	Gag Grouper
	Mycteroperca venenose	Yellowfin Grouper
	Lachnolaimus maximus	Hogfish
Coastal Migratory Pelagics	*Scomberomorus cavalla*	King Mackerel
	Scomberomorus maculatus	Spanish mackerel
	Rachycentron canadum	Cobia
Spiny Lobster	*Panulurus argus*	Caribbean Spiny Lobster

Potential EFH proposed to be impacted by this project includes the edge of existing mangrove wetlands (estuarine forested) to the northeast of the bridge along with unconsolidated bottom substrate (silty-sand bottom) within the Manatee River. These habitat types provide EFH for species within the FMPs listed in **Table 4-1**; however, these impacts are anticipated to have a negligible effect on any species within these FMPs. Proposed mangrove impacts by the Preferred Alternative occur along the roadside edge of an existing mangrove fringe and total 1.156 acres of direct impact and an additional 0.677 acres of secondary impact of the 5.12-acre total mangrove fringe.

The remaining mangroves will not be impacted and will continue to provide higher quality habitat, as they experience greater tidal fluctuations and are less disturbed than the mangroves to be impacted. Temporary displacements for individuals of the species within these FMPs may occur during project construction; however, all the species within these FMPs would be expected to return post-construction as similar pre-construction conditions will persist in the project area post-construction regardless of the

direct impacts to any of the EFH within the study area. Therefore, no adverse impacts are anticipated to any species within the FMPs managed by the GMFMC. Further details on behavior patterns and life history for species within each FMP are provided in the sections below.

4.3.2.1 Shrimp FMP

The shrimp within this FMP include brown (*Penaeus aztecus*), white (*Penaeus setiferus*), and pink (*Penaeus duorarum*) shrimp. EFH for shrimp, includes inshore estuarine nursery areas, offshore marine habitats used for spawning and growth to maturity, and all interconnecting water. Inshore nursery areas include tidal freshwater (palustrine), estuarine, and marine emergent wetlands (e.g., intertidal marshes); tidal palustrine forested areas; mangroves; tidal freshwater, estuarine, and marine SAV (e.g., seagrass); and subtidal and intertidal non-vegetated flats. Mangrove wetlands and unconsolidated sand bottom exist in the study area and provide EFH for the shrimp species within this FMP. Proposed impacts to these habitats are anticipated to be minor with similar/equivalent benthic conditions persisting post-construction.

4.3.2.2 Red Drum FMP

Red drum are common on the west coast of Florida and found throughout Florida waters. Depending on life stage, they are found from estuarine to offshore waters and occur over a variety of habitat types including SAV, soft bottom, hard bottom, emergent marsh, sand/shell, and early life stages are water column associated. Adults can typically be found over muddy, sandy, or oyster reef bottoms with little or no seagrass. These fish tend to utilize the inshore seagrass beds, oyster flats, structures such as docks and pilings, and deeper channels and are most prevalent during the warmest and coolest months of the year. EFH for this federally managed fishery includes the following habitats to a depth of 160 feet offshore: tidal freshwater; estuarine emergent vegetated wetlands (flooded saltmarshes, brackish marsh, tidal creeks); estuarine scrub/shrub (mangrove fringe); submerged rooted vascular plants (seagrasses); oyster reefs and shell banks; unconsolidated bottom (soft sediments); ocean high salinity surf zones; and artificial reefs. Mangrove wetlands and unconsolidated sand bottom provide EFH for the red drum in the study area. Proposed impacts to these habitats are anticipated to be minor with similar/equivalent benthic conditions persisting post-construction.

4.3.2.3 Reef Fish FMP

Several representative species from the Reef Fish FMP are known to occur within the study area including snappers, groupers and wrasses. EFH for this fishery includes coral reefs, live/hardbottom substrate, SAV, artificial reefs and medium to high profile outcroppings on and around the shelf break zone from shore to at least 600 feet where the annual water temperature range is sufficiently warm to maintain adult populations of members of this largely tropical FMP. EFH includes the spawning area in the water column above the adult habitat and the additional pelagic environment, including sargassum, required for larval survival and growth up to and including settlement. For specific life stages of estuarine dependent and nearshore reef fish species, EFH includes areas inshore of the 100-foot contour, such as attached macroalgae; SAV; estuarine emergent vegetated wetlands (saltmarshes, brackish marsh); tidal creeks; estuarine scrub/shrub (mangrove fringe); oyster reefs and shell banks; unconsolidated bottom (soft sediments); artificial reefs; and coral reefs and/or live/hard bottom. Mangrove wetlands and

unconsolidated sand bottom exist in the study area and provide EFH for the fish species within this FMP. Proposed impacts to these habitats are anticipated to be minor with similar/equivalent benthic conditions persisting post-construction.

4.3.2.4 Coastal Migratory Pelagics FMP

EFH for species within the coastal migratory pelagic FMP consists of Gulf of Mexico waters and substrates extending from the US/Mexico border to the boundary between the areas covered by the GMFMC as well as the South Atlantic Fishery Management Council (SAFMC) from estuarine waters out to depths of 100 fathoms. The larval habitat for all species included under the coastal pelagic FMP is the water column in each species spawning areas, typically offshore. The habitat for all adults of the species included under the coastal pelagic FMP, except dolphin (mahi-mahi), are the coastal waters out to the edge of the continental shelf in the Gulf of Mexico and Atlantic Ocean. Dolphins are an oceanic species which may be found on the shelf. Many of the coastal pelagic fish species prey upon are estuarine dependent, spending some portion of their lives in estuaries; making estuaries particularly important for these species even though they do not typically inhabit these waters. Mangrove wetlands and unconsolidated sand bottom provide EFH in the study area for prey species for the fish within this FMP. Proposed impacts to these habitats are anticipated to be minor with similar/equivalent benthic conditions persisting post-construction.

4.3.2.5 Spiny Lobster FMP

The spiny lobster is found in coastal and shallow continental shelf waters along the western Atlantic coast from North Carolina to Brazil, including Bermuda, and throughout the Gulf of Mexico. The species is particularly abundant off the southern Florida coast from Florida Bay to Dry Tortugas. In Florida, spiny lobster mating season is from February to April, but can occur year-round, and generally occurs offshore in open Gulf waters or on coral reefs. Spiny lobster typically utilize the crevices and relief provided by benthic features such as sponges, corals and seagrasses as well as artificial structures like docks and pilings. EFH for spiny lobster includes nearshore shelf/oceanic waters; shallow subtidal bottom; seagrass habitat; unconsolidated bottom (soft sediments); coral and live/hard bottom habitat; sponges; algal communities; and mangrove habitat (prop roots). Mangrove wetlands and unconsolidated sand bottom provide EFH in the study area for the spiny lobster in the study area. Proposed impacts to these habitats are anticipated to be minor with similar/equivalent benthic conditions persisting post-construction.

4.4 ANALYSIS OF EFFECTS ON EFH

The replacement bridge will span over approximately 6.09 acres of surface waters of the Manatee River. The direct and indirect impacts to EFH anticipated from the Preferred Alternative are discussed in the subsections below.

4.4.1 Direct and Indirect Impacts

Proposed mangrove impacts by the Preferred Alternative total 1.156 acres of direct impact. Indirect impacts were calculated in EFH areas 25 feet beyond the limits of the direct wetland impacts. The Preferred Alternative will indirectly (i.e., secondary) impact 0.677 acres of mangrove wetlands considered

EFH (**Table 3-1**, **Table 4-2**). Potential EFH that is proposed to be impacted by this project includes the edges of these mangrove wetlands (estuarine forested) along with unconsolidated bottom substrate (silty-sand bottom) within the Manatee River. These habitat types provide EFH for species within the FMPs listed in **Table 4-1**; however, these impacts are anticipated to have a negligible effect on any species within these FMPs.

Minor direct (in-water bridge support structures) and indirect (shading) impacts to the unconsolidated/silty-sand bottom within Manatee River are anticipated from the construction of the bridge. Direct impacts from the construction of additional pilings for the replacement bridge are anticipated to be in the magnitude of less than 0.10 acres of permanent impacts, and the indirect impacts amount to approximately 3.45 acres of additional shading beyond the existing bridge to the east. The bridge runs north-south and has been designed with ample vertical clearance from the water below for navigational purposes; therefore, shading impacts are expected to be insignificant. Due to the small size of the direct impacts, the lack of SAV or other photosynthetic species in this footprint, along with the abundance of equivalent silty-sand bottom in the surrounding area of Manatee River and beyond, these impacts were determined to be minimal for EFH. Impacts to EFH are included as **Table 4-2**.

Table 4-2 Summary of EFH Impacts Associated with the Preferred Alternative

		Preferred Alternative			
FLUCFCS / ID	**USFWS Classification**	**Impact Type**	**Impact Acreage**	**UMAM Score**	**Functional Loss**
WETLANDS					
6120	E2FO3N	Direct (Fill)	1.156	0.73	0.84
		Secondary	0.677	0.07	0.05
		Total	**1.833**	**-**	**0.89**
SURFACE WATERS					
5400	E1UB2	Direct (Fill)	<0.10	-	<0.01
		Shade	3.45	-	-

4.4.2 Avoidance and Minimization Measures and Potential Mitigation

Avoidance and minimization measures for wetland and EFH impacts were taken into consideration during this study and will continue to be evaluated throughout the design phase of the project. Since the specifications for in-water work and piling driving have not been finalized at this time, consultation with NMFS regarding Section 7 and EFH will be deferred to a later phase of the project. The majority of the proposed project is within existing FDOT right-of-way. The replacement bridge is proposed to be wider to accommodate paved shoulders and pedestrian features, which the existing bridge does not have. Vehicular capacity, however, will not increase as the replacement bridge will have the same number of travel lanes as the existing bridge, and, therefore, would not be expected to affect potential stormwater pollution levels into the Manatee River below and ultimately Tampa Bay. The existing bridge uses

scuppers, which allow stormwater to drain directly through holes in the bridge, untreated, into the Manatee River. Stormwater collection and treatment will be facilitated through a curb and gutter system. This improved stormwater design would have beneficial effects on water quality and, therefore, EFH in the study area. BMPs including proper turbidity control measures will be utilized during project construction to further prevent water quality impacts in Manatee River.

Degradation of water quality resulting from construction activities for the project or excess pollutant loading of stormwater runoff from the project has the potential to adversely affect waters of Manatee River. Impacts to water quality from construction activities will be avoided and minimized through the use of BMPs. BMPs generally include phased construction, turbidity screens, silt fences, cofferdams, and other construction techniques approved by the regulatory agencies. Stormwater management will be evaluated further and during the design phase of this project. The project will be designed to meet all applicable water quality standards during permitting. Furthermore, the latest version of the FDOT's *Standard Specification for Road and Bridge Construction*, the NMFS' *Protected Species Construction Conditions*, and the USFWS' *Standard Manatee Conditions for In-Water Work* will be adhered to during the construction of this project and mitigation for wetland impacts will be provided. Lastly, during new bridge construction and existing bridge demolition, seagrass beds adjacent to the existing bridge in the project's northwest and northeast quadrants will be delineated with buoys to prevent adverse impacts from barges and small work boats.

Construction of the Preferred Alternative will result in minimal unavoidable impacts to surface waters and wetlands considered EFH; however, the project will not impact seagrasses or other SAV. If changes are made during design that may result in seagrass or other SAV impacts, mitigation measures will be developed. FDOT has committed to resurveying for seagrasses and SAV within the project footprint, once finalized, during the design phase of the project. Mitigation for the proposed mangrove impacts will be provided in the form of credits from an approved mitigation bank within the drainage basin pursuant to Section 373.4137 FS, to satisfy all mitigation requirements of Part IV of Chapter 373, FS, and 33 U.S. Code (USC) 1344. Specifically, the Preferred Alternative will result in direct impacts to 1.156 acres of mangrove wetlands and less than 0.10 acres to surface waters and indirect impacts to 0.677 acres of mangrove wetlands and 3.45 acres to surface waters. These impacts resulted in 0.89 units of functional loss which is anticipated to be mitigated through the purchase of credits from Mangrove Point Mitigation Bank.

4.5 EFH DETERMINATION

Proposed impacts to EFH from this bridge replacement project are anticipated to be minor. These impacts include: 1.156 acres of direct impacts and 0.677 acres of indirect impacts to the roadside edge of the mangrove fringe to the northeast of the existing bridge (with the rest of the fringe remaining); less than 0.10 acres of direct/permanent impacts to unconsolidated sandy bottom; and approximately 3.45 acres of indirect impacts (shading) from the wider replacement bridge structure. As the majority of the waterward portion of the mangrove fringe will not be impacted by the project and will remain intact, EFH in the project footprint would be anticipated to return to similar/equivalent conditions post-construction. Therefore, based on the environmental review of the current design of the Preferred Alternative, it is

anticipated that this project will have **minimal** impacts to EFH. EFH consultation will occur with NMFS for this project and further guidance and/or recommendations may be provided for avoidance and minimization measures or potential mitigation requirements as a result of this coordination. Since the specifications for in-water work and piling driving have not been finalized at this time, consultation with NMFS regarding Section 7 and EFH will be deferred to the design phase.

SECTION 5 ANTICIPATED PERMITS

The USACE and SWFWMD regulate impacts to wetlands within the study area. Other agencies, including the USFWS, NMFS, USEPA, and the FWC, review and comment on wetland permit applications. The FWC issues permits for gopher tortoise relocation activities and protected bird nest take. No gopher tortoise burrows or nests were recorded within the study area. Additional surveys and coordination may be required during the permitting phase. In addition, the FDEP regulates stormwater discharges from construction sites. The U.S. Coast Guard (USCG) reviews permits for new bridges over navigable waters. The complexity of the permitting process will depend on the impact to jurisdictional wetlands and surface waters, EFH, CH, and listed species areas. It is anticipated that the following permits will be required for this project:

Permit	**Issuing Agency**
Section 404 Dredge and Fill Permit	USACE
Environmental Resource Permit (ERP)	SWFWMD
National Pollutant Discharge Elimination System (NPDES) Permit	FDEP
Bridge Permit	USCG

SECTION 6 CONCLUSIONS

6.1 PROTECTED SPECIES AND CRITICAL HABITAT

Based on literature and field reviews, fifty-two (52) protected plants and wildlife species are known to occur in Manatee County. Seventeen (17) of the species are federally listed endangered or threatened. Thirty-one (31) species are state-listed endangered or threatened. Two species (bald eagle and whooping crane) are not federal or state listed but are protected. Multiple species of bats are state-protected by F.A.C. 68A-4.001 General Prohibitions and 68A-9.010 Taking Nuisance Wildlife. Additionally, two species proposed for listing under the ESA (monarch butterfly and tricolored bat) have the potential to occur in Manatee County.

Effect determinations for federal and state listed wildlife and plant species are summarized in **Table 6-1** and **Table 6-2**.

Table 6-1 Effect Determination for Federally Listed Species and Proposed Species for Listing

Scientific Name	Common Name	USFWS Designation	Effect Determination
PLANTS			
Chionanthus pygmaeus	Pygmy fringe tree	E	No Effect
Cladonia perforata	Perforate reindeer lichen	E	No Effect
INSECTS			
FISH			
Acipenser oxyrhynchus desotoi	Gulf sturgeon	T	MANLAA
Pristis pectinata	Smalltooth sawfish	E	MANLAA
REPTILES			
Caretta caretta	Loggerhead sea turtle	T	MANLAA
Chelonia mydas	Green sea turtle	T	MANLAA
Crocodylus acutus	American crocodile	T	MANLAA
Drymarchon couperi	Eastern indigo snake	T	MANLAA
Lepidochelys kempii	Kemp's Ridley sea turtle	E	MANLAA
BIRDS			
Aphelocoma coerulescens	Florida scrub-jay	T	No Effect
Calidris canutus rufa	Rufa red knot	T	MANLAA
Caracara plancus audubonii	Crested caracara (Audubon's)	T	No Effect
Charadrius melodus	Piping plover	T	MANLAA
Laterallus jamaicensis ssp. *jamaicensis*	Eastern black rail	T	No Effect
Rostrhamus sociabilis plumbeus	Everglade snail kite	E	No Effect

Scientific Name	Common Name	USFWS Designation	Effect Determination
MAMMALS			
Puma concolor coryi	Florida panther	E	No Effect
Perimyotis subflavus	Tricolored bat	PFE	MANLAA
Trichechus manatus latirostris	West Indian manatee	T	MANLAA

Key:

E = Endangered
MANLAA = May affect, not likely to adversely affect
PFE = Proposed Federally Endangered
T = Threatened
USFWS = U.S. Fish and Wildlife Service

Table 6-2 Effect Determination for State Listed Species

Scientific Name	Common Name	FDACS / FWC Designation	Effect Determination
PLANTS			
Acrostichum aureum	Golden leather fern	T	No Effect Anticipated
Celtis iguanaea	Iguana hackberry	E	No Effect Anticipated
Ctenitis sloanei	Florida tree fern	E	No Effect Anticipated
Eragrostis pectinacean var. *tracyi*	Sanibel lovegrass	E	No Effect Anticipated
Glandulari tampensis	Tampa vervain	E	No Effect Anticipated
Gossypium hirsutum	Wild cotton	T	No Adverse Effect Anticipated
Habenaria distans	Distans habenaria	E	No Effect Anticipated
Harrisia gracilis	West Coast prickly-apple	E	No Effect Anticipated
Lechea divaricata	Pine pinweed	E	No Effect Anticipated
Listera australis	Southern twayblade	T	No Effect Anticipated
Lythrum flagellare	Lowland loosestrife	E	No Adverse Effect Anticipated
Matelea floridana	Florida spiny-pod	E	No Effect Anticipated
Maytenus phyllanthoides	Florida mayten	T	No Effect Anticipated
Polypodium ptilodon	Swamp plume polypody	E	No Effect Anticipated
Rhynchospora megaplumosa	Large-plumed beaksedge	E	No Effect Anticipated
Rudbeckia nitida	St. John's black-eyed Susan	E	No Adverse Effect Anticipated
Triphora amazonica	Wide-leaved triphora	E	No Effect Anticipated
REPTILES			
Gopherus polyphemus	Gopher tortoise	T	No Adverse Effect Anticipated
Pituophis melanoleucus mugitus	Florida pine snake	T	No Adverse Effect Anticipated
BIRDS			
Antigone canadensis pratensis	Florida sandhill crane	T	No Adverse Effect Anticipated
Athene cunicularia floridana	Florida burrowing owl	T	No Adverse Effect Anticipated

Scientific Name	Common Name	FDACS / FWC Designation	Effect Determination
Charadrius nivosus	Snowy plover	T	No Adverse Effect Anticipated
Egretta caerulea	Little blue heron	T	No Adverse Effect Anticipated
Egretta rufescens	Reddish egret	T	No Adverse Effect Anticipated
Egretta tricolor	Tricolored heron	T	No Adverse Effect Anticipated
Falco sparverius paulus	Southeastern American kestrel	T	No Adverse Effect Anticipated
Haematopus palliatus	American oystercatcher	T	No Adverse Effect Anticipated
Mycteria americana	Wood stork	T[1]	No Adverse Effect Anticipated
Platalea ajaja	Roseate spoonbill	T	No Adverse Effect Anticipated
Rynchops niger	Black skimmer	T	No Adverse Effect Anticipated
Sternula antillarum	Least tern	T	No Adverse Effect Anticipated

Key:

FWC = Florida Fish and Wildlife Conservation Commission
FDACS = Florida Department of Agriculture and Consumer Services
E = Endangered
T = Threatened

[1]The USFWS has removed the Southeast U.S. distinct population segment of the wood stork from the Federal List of Endangered and Threatened Wildlife, effective March 12, 2026. The wood stork is now a state-listed threatened species, occurring on Florida's Endangered and Threatened Species List with state protections through the FWC, which regulates and manages these species (68A-27, F.A.C.).

Compensatory mitigation and conservation measures implemented during construction will offset negative impacts to federally protected species. The tricolored bat has not been observed roosting within the DeSoto Bridge. FDOT will continue coordination with USFWS to determine the potential effect on the tricolored bat once a final listing decision has been made. No impacts are anticipated to state or federally protected bats due to the proposed project.

Compensatory mitigation, conservation measures implemented during construction, and the ability of avian species to move away from construction will offset negative impacts to state-protected species.

No bald eagle nests are located within the secondary protection zone (660-foot) of the study area. Therefore, no impacts are anticipated on the species.

No roosting bats were observed within the DeSoto Bridge during field reviews.

Multiple avenues of protection will be employed to negate and minimize any potential effects on federal and state listed species. Some of the measures employed may include detailed surveys and agency coordination during the project design phase, including providing appropriate mitigation to offset impacts. During construction, BMPs, adherence to FDOT's "Standard Specification for Road and Bridge Construction", and use of preconstruction surveys are strategies that will be considered, as needed, for protection of listed species.

The study area occurs within designated areas of CH for the West Indian manatee and proposed areas of CH for the green sea turtle. The proposed project will include the replacement of an existing overwater structure and impacts to mangroves and surface waters (Manatee River), which provides suitable swimming and foraging habitat for manatees and the green sea turtle. Impacts to mangroves are minor,

given the small size of the impact to mangroves relative to the available habitat in the region. Additionally, compensatory mitigation to offset the loss of similar habitat will be provided. No impacts to seagrass are proposed, which is a main food source for manatees and sea turtles. Seagrasses in the vicinity of the bridge will be unaffected by construction. Water depths are shallow around the mangrove swamps but deepen under the main stretch of the bridge, where pilings will be added. Boat traffic is common within the channel/Manatee River. Impacts on surface waters considered critical habitat will result from the pilings; however, these impacts will be minimal. Impacts to water quality during construction may occur due to pile driving and other in-water work; however, these will be temporary, and BMPs will be implemented. For these reasons, it was determined that the Preferred Alternative will **not result in the destruction or adverse modification of critical habitat** for the West Indian manatee or green sea turtle.

6.2 WETLANDS AND SURFACE WATERS

A total of 1.833 acres of mangrove swamps (FLUCFCS 6120) will be impacted by the Preferred Alternative. The total functional loss for this wetland system is 0.89 units. Compensatory mitigation options for wetland impacts will be addressed in future phases of this project, but at this time, Mangrove Point Mitigation Bank has a service area that overlaps the project and has the appropriate credits available.

The proposed bridge will cross 6.09 acres of USACE and SWFWMD-jurisdictional surface waters. Construction of bridge pilings will result in permanent surface water impacts; however, these impacts are considered de minimis, for they total less than 0.10 acres of impact and result in less than 0.01 units of functional loss; therefore, mitigation is not required. Shade impacts are not considered since this area for surface waters consists of non-vegetated bottom. Based upon the current seagrass bed boundaries, no seagrass impacts are anticipated.

A total of 1.10 acres of impacts to OSWs are anticipated. These features are roadside ditches created as part of the roadway system for the conveyance of stormwater. They will be replaced as part of the new roadway system, and therefore, no mitigation is required. A wetland and surface water summary table is included as **Table 6-3**.

Table 6-3 Summary of Impacts Associated with the Preferred Alternative

FLUCFCS / ID	USFWS Classification	Preferred Alternative			
		Impact Type	Impact Acreage	UMAM Score	Functional Loss
WETLANDS					
6120 / WL 2	E2FO3N	Direct (Fill)	1.156	0.73	0.84
		Secondary	0.677	0.07	0.05
		Total	**1.833**	**-**	**0.89**
SURFACE WATERS					
5400 / SW 1	E1UB2	Direct (Fill)	<0.10	-	<0.01
OTHER SURFACE WATERS					
5100 / OSW 1-11	PEM1Cx	Direct (Fill)	1.10	-	-

6.3 ESSENTIAL FISH HABITAT

The Preferred Alternative will result in direct and secondary impacts EFH (direct impacts: 1.156 acres of mangrove wetlands and less than 0.10 acres to surface waters, indirect impacts: 0.677 acres of mangrove wetlands and 3.45 acres of surface waters). These impacts resulted in 0.89 units of functional loss, which is anticipated to be mitigated through the purchase of credits from Mangrove Point Mitigation Bank, or whichever mitigation bank is deemed most appropriate at the time of permitting.

Based on the environmental review of the current design of the Preferred Alternative, it is anticipated that this project will have **minimal** impacts on EFH. Since the specifications for in-water work and pile driving have not been finalized at this time, consultation with NMFS regarding Section 7 and EFH will be deferred to the project's design phase.

6.4 IMPLEMENTATION MEASURES

Implementation measures are actions the FDOT is required to take under procedures, standard specifications, or other agency requirements. These are standard measures which will be implemented at a later project phase. For this project, implementation measures that address protected species and wetlands-related items include:

- BMPs will be utilized for erosion control during construction to minimize impacts to any wetlands and surface waters that are affected by the proposed project;
- Unavoidable impacts to wetlands and surface waters will be mitigated pursuant to S. 373.4137 FS to satisfy all mitigation requirements of Part IV, Chapter 373 FS and 33 U.S.C.s 1344 should state and/or federal regulations require it;
- Surveys for protected plants will be conducted during the design phase of the project. If necessary, FDOT will coordinate with USFWS and/or FDACS to determine if the plants will be protected or translocated to a suitable alternative site by a qualified organization such as the FNPS;
- Surveys for gopher tortoise burrows, as well as commensal species, will be conducted during the design phase, and permits to relocate tortoises and commensals as appropriate will be obtained from the FWC;
- Surveys for Florida burrowing owls will be conducted during the design phase. If it is determined that burrows are found and could be impacted by the project, FDOT will coordinate with FWC to determine appropriate avoidance and minimization measures to apply during construction;
- Surveys for southeastern American kestrels will be conducted during the design phase and if required, permits will be obtained from the FWC;
- Surveys for roosting bats will be conducted during the design phase; and
- FDOT contractors must adhere to FDOT's Contractor Requirements for Unanticipated Interaction with Protected Species. These requirements are included in FDOT's Standard Specifications for Road and Bridge Construction and apply to all FDOT construction projects.

6.5 COMMITMENTS

The following commitments will be implemented:

- The most recent version of the USFWS Standard Protection Measures for the Eastern Indigo Snake will be adhered to during construction of the proposed project;
- The most recent version of the *USFWS Standard Manatee Conditions for In-Water Work* will be adhered to during construction of the proposed project;
- The *NMFS Protected Species Construction Conditions* will be adhered to during the construction of the proposed project;
- The *NMFS Vessel Strike Avoidance Measures NOAA Fisheries SERO* will be adhered to during the construction of the proposed project;
- Updated surveys for SAV will be conducted during the design phase of the project. The seagrass beds adjacent to the existing bridge in the project's northwest and northeast quadrants will be delineated with buoys to prevent adverse impacts from barges and small work boats during new bridge construction and existing bridge demolition;
- Consultation will be re-initiated with NMFS regarding Section 7 and Essential Fish Habitat during the design phase of the project;
- Upon listing of the tricolored bat, if the project contains suitable habitat and requires tree trimming and/or clearing, FDOT will not conduct tree trimming/clearing activities during the tricolored bat pup season (May 1 to July 15) and when bats may be in torpor (when temperatures are below 45 degrees Fahrenheit);
- Upon listing of the tricolored bat, if the project contains suitable habitat and FDOT needs to trim or clear trees or perform work on bridges/culverts during the maternity season and/or when the temperature is below 45 degrees Fahrenheit, then FDOT will survey the study area for evidence of the tricolored bat. The Indiana Bat and Northern Long-eared Bat Survey Guidance (USFWS), appendix J acoustic survey protocol in the year-round range (mist netting is not being conducted in Florida at this time), will be used for areas with tree trimming/clearing. For bridges and culverts, the Indiana Bat and Northern Long-eared Bat Survey Guidance, Appendix K, Assessing Bridges and Culverts for Bats, will be used.
    - If the surveys result in no tricolored bats detected, then FDOT can proceed with the project activities. Negative results from bridge/culvert surveys are valid for 2 years. Negative results for acoustic surveys are valid for 5 years. However, negative results for either survey may be invalidated if additional tricolored bat survey data is submitted to USFWS showing the presence of the species within the vicinity of the study area. Additional survey work by FDOT, or application of avoidance and minimization measures, including not conducting tree trimming/clearing activities during the tricolored bat pup season (May 1 to July 15) or when bats may be in torpor (when temperatures are below 45 degrees Fahrenheit), may be required if updated detections are reported, and may result in reinitiation of consultation with USFWS.

- If the surveys result in positive detections of the tricolored bat, FDOT will implement conservation measures such as: not conducting tree trimming/clearing activities during the tricolored bat pup season (May 1 to July 15) when pups are not volant and not able to escape disturbance; similarly avoid tree trimming/clearing activities when the temperatures are below 45 degrees Fahrenheit when bats may be in torpor and unresponsive to disturbance.

6.6 AGENCY COORDINATION

The new DeSoto Bridge over the Manatee River will require a Bridge Permit through the USCG since the Manatee River is a navigable waterway. A coordination meeting with USCG for the DeSoto Bridge PD&E concluded that navigation through DeSoto Bridge is constrained by upstream and downstream bridge clearances which are similar to DeSoto Bridge clearances; therefore, a Navigational Impact Study was not required since the navigation window is being maintained (**Appendix K**).

This NRE will be submitted to the USFWS, NMFS, and FWC for review and to initiate consultation for the project. In addition, this NRE will be shared with the SWFWMD, FDACS, and USACE for informational purposes. The resulting coordination and/or concurrence will be documented in the final environmental document and project file.

SECTION 7 REFERENCES

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APPENDICES

Appendix A

Project Figures

PREFERRED ALTERNATIVE
PROJECT STUDY AREA FOOTPRINT (250-BUFFER)_20260430
HYDRIC SOILS
NON-HYDRIC SOILS
NRCS SOILS
100, WATERS OF THE GULF OF MEXICO
12, CASSIA FINE Sand, MODERATELY WELL DRAINED
13, CHOBEE LOAMY FINE Sand, FREQUENTLY PONDED, 0-1 PERCENT SLOPES
20, EAUGALLIE-EAUGALLIE WET, FINE Sand, 0-2 PERCENT SLOPES
25, FLORIDANA FINE Sand, 0-2 PERCENT SLOPES
36, ORLandO FINE Sand, MODERATELY WET, 0-2 PERCENT SLOPES
37, ORSINO FINE Sand, 0-5 PERCENT SLOPES
39, PARKWOOD VARIANT-CHOBEE, LIMESTONE SUBSTRATUM-PARKWOOD COMPLEX
45, TAVARES FINE Sand, 0-5 PERCENT SLOPES
47, TOMOKA MUCK, FREQUENTLY PONDED, 0-1 PERCENT SLOPES
48, WABASSO-WABASSO, WET, FINE Sand, 0-2 PERCENT SLOPES
5, BRADENTON FINE Sand, LIMESTONE SUBSTRATUM
54, ZOLFO FINE Sand, 0-2 PERCENT SLOPES
7, CANOVA, ANCLOTE, and OKEELANTA SOILS
9, CANAVERAL Sand, FILLED

FDOT

All data within this map are supplied as is, without warranty. This product has not been prepared for legal, engineering, or survey purposes. Users of this information should review or consult the primary data sources to ascertain the usability of the information.

Figure 1-10 NRCS Soils

FPID: 444843-1
Bradenton-Palmetto Connector PD&E Study
US 41/SR 55 from US 301/SR 683 at 9th Street
East to North of 25th Street East Manatee County, Florida

0 1,000 2,000 3,000 US Feet

Data Source: ESA, GFT,NRCS, ESRI

NORTH

PREFERRED ALTERNATIVE
PROJECT STUDY AREA FOOTPRINT (250-BUFFER)_20260430
HYDRIC SOILS
NON-HYDRIC SOILS
NRCS SOILS
100, WATERS OF THE GULF OF MEXICO
12, CASSIA FINE Sand, MODERATELY WELL DRAINED
13, CHOBEE LOAMY FINE Sand, FREQUENTLY PONDED, 0-1 PERCENT SLOPES
20, EAUGALLIE-EAUGALLIE WET, FINE Sand, 0-2 PERCENT SLOPES
21, ESTERO MUCK, TIDAL, 0-1 PERCENT SLOPES
48, WABASSO-WABASSO, WET, FINE Sand, 0-2 PERCENT SLOPES
5, BRADENTON FINE Sand, LIMESTONE SUBSTRATUM
9, CANAVERAL Sand, FILLED

48 13 13 5 21 21 5 9 5 5 5 9 100 9 12 20 20 48

4 3 2 1

Figure 1-10 NRCS Soils

FPID: 444843-1
Bradenton-Palmetto Connector PD&E Study
US 41/SR 55 from US 301/SR 683 at 9th Street
East to North of 25th Street East Manatee County, Florida
Page: 2

0 1,000 2,000 3,000 US Feet

Data Source: ESA, GFT,NRCS, ESRI

NORTH

PREFERRED ALTERNATIVE
PROJECT STUDY AREA FOOTPRINT (250-BUFFER)_20260430
HYDRIC SOILS
NON-HYDRIC SOILS
NRCS SOILS
100, WATERS OF THE GULF OF MEXICO
13, CHOBEE LOAMY FINE Sand, FREQUENTLY PONDED, 0-1 PERCENT SLOPES
14, CHOBEE VARIANT SandY CLAY LOAM
16, DELRAY COMPLEX
20, EAUGALLIE-EAUGALLIE WET, FINE Sand, 0-2 PERCENT SLOPES
21, ESTERO MUCK, TIDAL, 0-1 PERCENT SLOPES
48, WABASSO-WABASSO, WET, FINE Sand, 0-2 PERCENT SLOPES
5, BRADENTON FINE Sand, LIMESTONE SUBSTRATUM
54, ZOLFO FINE Sand, 0-2 PERCENT SLOPES
9, CANAVERAL Sand, FILLED

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Figure 1-10 NRCS Soils

FPID: 444843-1
Bradenton-Palmetto Connector PD&E Study
US 41/SR 55 from US 301/SR 683 at 9th Street
East to North of 25th Street East Manatee County, Florida
Page: 3

0 1,000 2,000 3,000 US Feet

Data Source: ESA, GFT,NRCS, ESRI

NORTH

PREFERRED ALTERNATIVE
PROJECT STUDY AREA FOOTPRINT (250-BUFFER)_20260430
HYDRIC SOILS
NON-HYDRIC SOILS
NRCS SOILS
13, CHOBEE LOAMY FINE Sand, FREQUENTLY PONDED, 0-1 PERCENT SLOPES
16, DELRAY COMPLEX
20, EAUGALLIE-EAUGALLIE WET, FINE Sand, 0-2 PERCENT SLOPES
48, WABASSO-WABASSO, WET, FINE Sand, 0-2 PERCENT SLOPES
5, BRADENTON FINE Sand, LIMESTONE SUBSTRATUM
54, ZOLFO FINE Sand, 0-2 PERCENT SLOPES

16
54
54
16
20
48
16
5
13
13
4
3
2
1

All data within this map are supplied as is, without warranty. This product has not been prepared for legal, engineering, or survey purposes. Users of this information should review or consult the primary data sources to ascertain the usability of the information.

Figure 1-10 NRCS Soils

FPID: 444843-1
Bradenton-Palmetto Connector PD&E Study
US 41/SR 55 from US 301/SR 683 at 9th Street
East to North of 25th Street East Manatee County, Florida
Page: 4

0 1,000 2,000 3,000 US Feet

Data Source: ESA, GFT,NRCS, ESRI

NORTH

PREFERRED ALTERNATIVE

PROJECT STUDY AREA FOOTPRINT (250-BUFFER)

FLUCFCS FIELD-VERIFIED (ESA 2026)

1200,RESIDENTIAL MED DENSITY 2 TO 5 DWELLING UNITS PER ACRE

1300,RESIDENTIAL HIGH DENSITY

1390,RESIDENTIAL HIGH DENSITY UNDER CONSTRUCTION

1400,COMMERCIAL AND SERVICES

1490,COMMERCIAL AND SERVICES UNDER CONSTRUCTION

1500,INDUSTRIAL

1700,INSTITUTIONAL

1860,COMMUNITY RECREATIONAL AREAS

1900,OPEN LAND

5100,STREAMS AND WATERWAYS

5400,BAYS AND ESTUARIES

8120,RAILROADS

8140,TRANSPORTATION

8300,UTILITIES

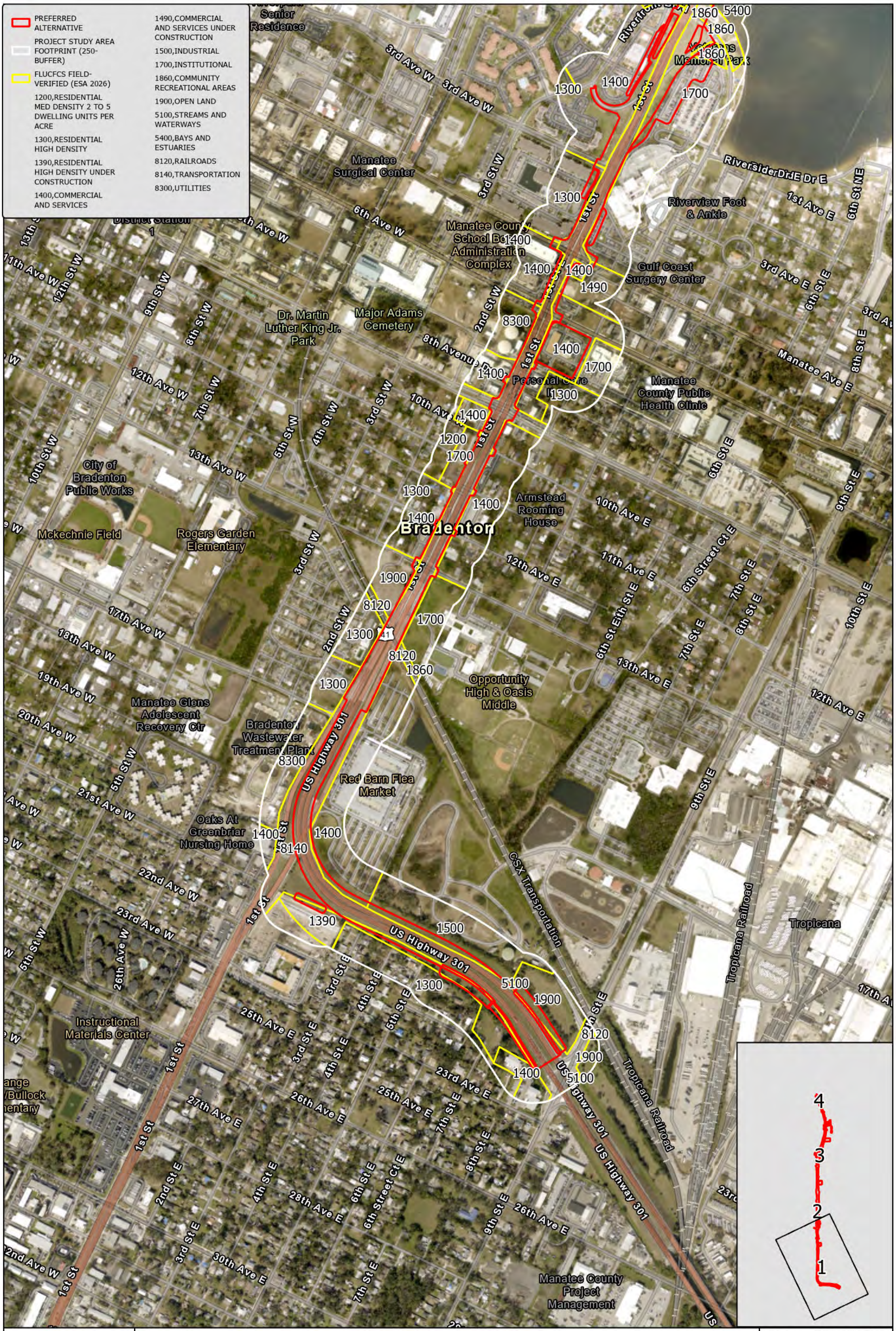

Figure 1-11 Field-Verified Land Use

FPID: 444843-1
Bradenton-Palmetto Connector PD&E Study
US 41/SR 55 from US 301/SR 683 at 9th Street
East to North of 25th Street East Manatee County, Florida
Page: 1

0 1,000 2,000 3,000 US Feet

Data Source: ESA, GFI, SWFWMD, ESRI

NORTH

PREFERRED ALTERNATIVE

PROJECT STUDY AREA FOOTPRINT (250-BUFFER)

FLUCFCS FIELD-VERIFIED (ESA 2026)

1200,RESIDENTIAL MED DENSITY 2 TO 5 DWELLING UNITS PER ACRE

1300,RESIDENTIAL HIGH DENSITY

1400,COMMERCIAL AND SERVICES

1490,COMMERCIAL AND SERVICES UNDER CONSTRUCTION

1700,INSTITUTIONAL

1860,COMMUNITY RECREATIONAL AREAS

1900,OPEN LAND

4370,AUSTRALIAN PINE

5100,STREAMS AND WATERWAYS

5300,RESERVOIRS

5400,BAYS AND ESTUARIES

6120,MANGROVE SWAMP

8140,TRANSPORTATION

8300,UTILITIES

9111,SEAGRASS; SPARSE TO MEDIUM

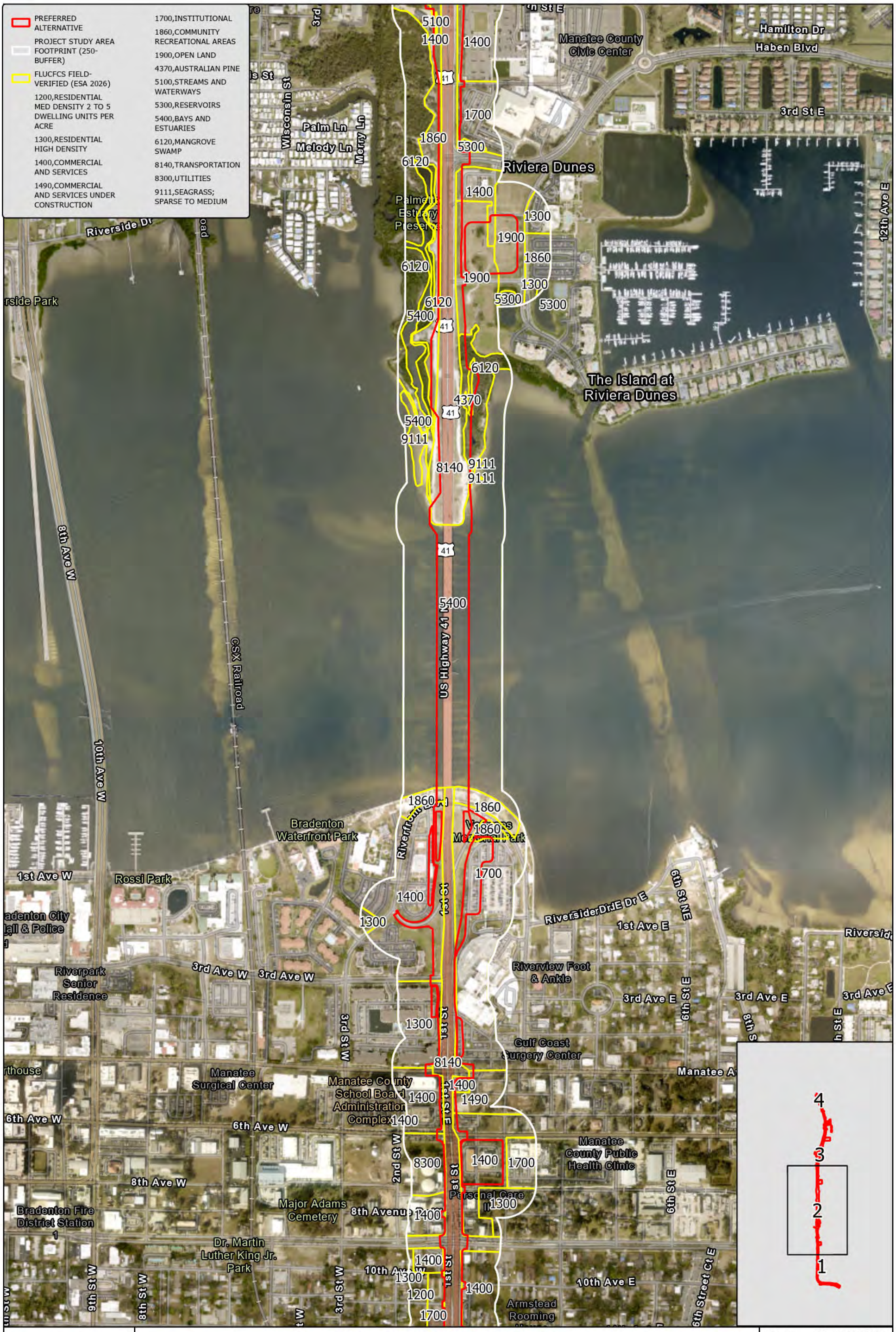

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Figure 1-11 Field-Verified Land Use

FPID: 444843-1
Bradenton-Palmetto Connector PD&E Study
US 41/SR 55 from US 301/SR 683 at 9th Street
East to North of 25th Street East Manatee County, Florida
Page: 2

0 1,000 2,000 3,000 US Feet

Data Source: ESA, GFI, SWFWMD, ESRI

NORTH

PREFERRED ALTERNATIVE

PROJECT STUDY AREA FOOTPRINT (250-BUFFER)

FLUCFCS FIELD-VERIFIED (ESA 2026)

1200,RESIDENTIAL MED DENSITY 2 TO 5 DWELLING UNITS PER ACRE

1300,RESIDENTIAL HIGH DENSITY

1400,COMMERCIAL AND SERVICES

1500,INDUSTRIAL

1700,INSTITUTIONAL

1860,COMMUNITY RECREATIONAL AREAS

1900,OPEN LAND

4340,UPLAND HARDWOOD - CONIFEROUS MIX

4370,AUSTRALIAN PINE

5100,STREAMS AND WATERWAYS

5300,RESERVOIRS

5400,BAYS AND ESTUARIES

6120,MANGROVE SWAMP

8120,RAILROADS

8140,TRANSPORTATION

9111,SEAGRASS; SPARSE TO MEDIUM

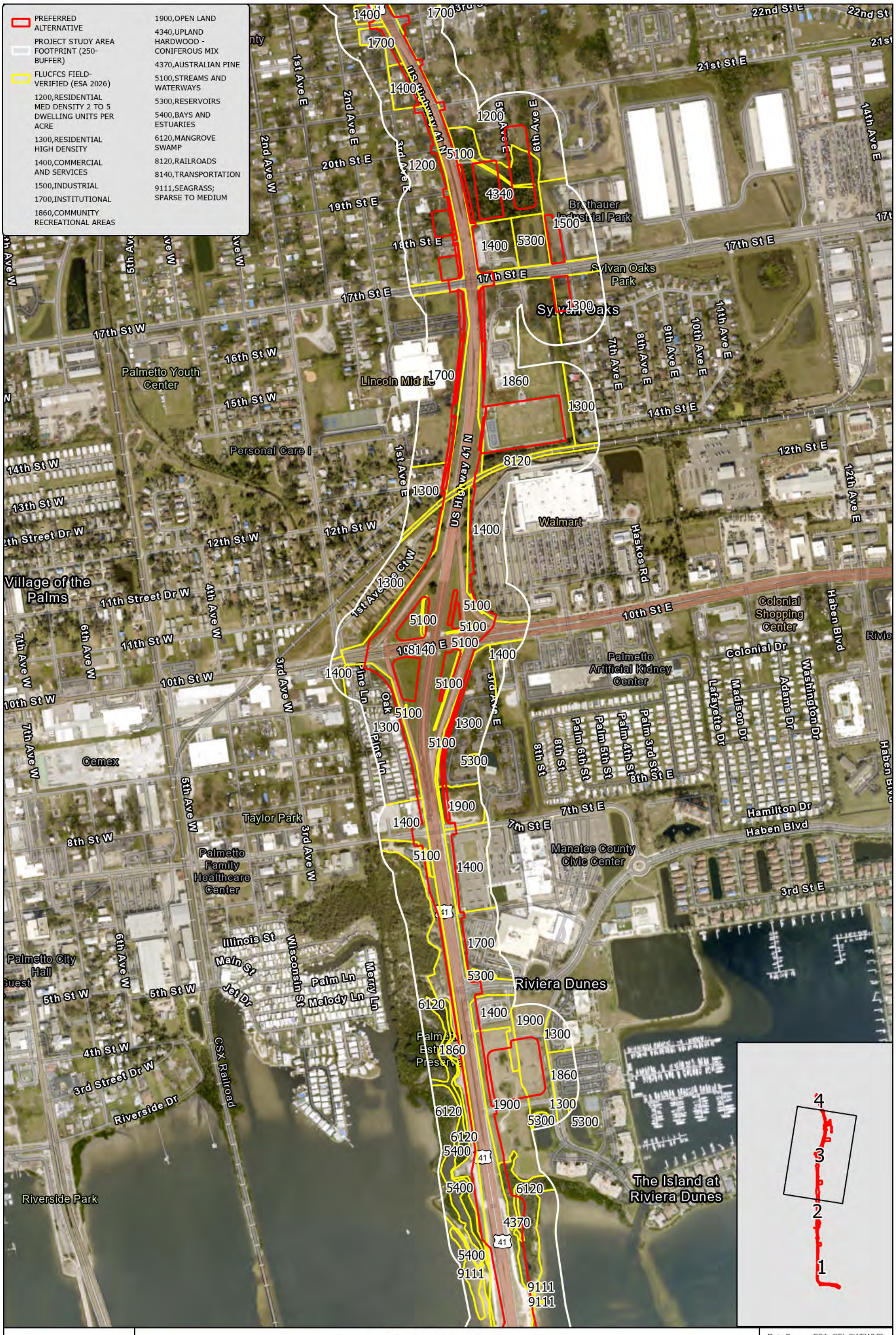

Figure 1-11 Field-Verified Land Use

FPID: 444843-1
Bradenton-Palmetto Connector PD&E Study
US 41/SR 55 from US 301/SR 683 at 9th Street
East to North of 25th Street East Manatee County, Florida
Page: 3

US Feet
0 1,000 2,000 3,000

Data Source: ESA, GFI, SWFWMD, ESRI

NORTH

PREFERRED ALTERNATIVE

PROJECT STUDY AREA FOOTPRINT (250-BUFFER)

FLUCFCS FIELD-VERIFIED (ESA 2026)

1200,RESIDENTIAL MED DENSITY 2 TO 5 DWELLING UNITS PER ACRE

1300,RESIDENTIAL HIGH DENSITY

1400,COMMERCIAL AND SERVICES

1500,INDUSTRIAL

1700,INSTITUTIONAL

1860,COMMUNITY RECREATIONAL AREAS

4340,UPLAND HARDWOOD - CONIFEROUS MIX

5100,STREAMS AND WATERWAYS

5300,RESERVOIRS

8120,RAILROADS

8140,TRANSPORTATION

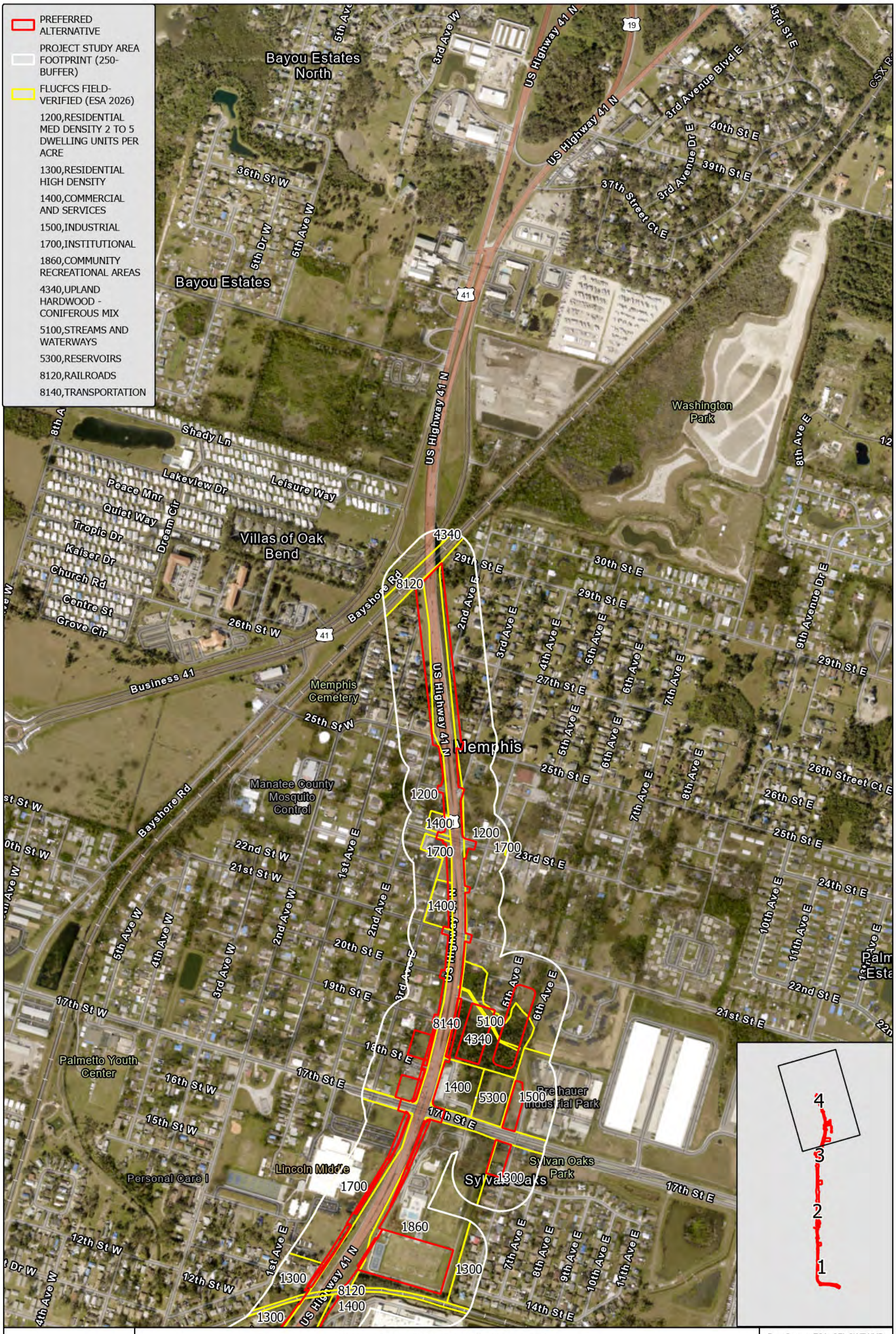

Figure 1-11 Field-Verified Land Use

FPID: 444843-1
Bradenton-Palmetto Connector PD&E Study
US 41/SR 55 from US 301/SR 683 at 9th Street
East to North of 25th Street East Manatee County, Florida
Page: 4

0 1,000 2,000 3,000 US Feet

Data Source: ESA, GFI, SWFWMD, ESRI

NORTH

PREFERRED ALTERNATIVE

PROJECT STUDY AREA FOOTPRINT (250-BUFFER)

PREFERRED ALTERNATIVE 1-MILE BUFFER

EAGLE NEST BUFFERS

330 Ft

660 Ft

EAGLE NESTS 2025

SEA TURTLE STRANDING 2025

MANATEE CARCASS RECOVERY LOCATION

SEAGRASS FIELD-VERIFIED (ESA 2026)

FLORIDA SEAGRASS 2024

FLORIDA OYSTER BEDS

SPINYLOBSTER ESSENTIAL HABITAT

WEST INDIAN MANATEE CRITICAL HABITAT

ESSENTIAL FISH HABITAT

The project area is entirely within the following USFWS Consultation Areas:
- Florida Scrub-jay

The project area is partially within the following USFWS Consultation Areas:
-Piping plover

The project area falls within the NMFS Consultation Areas:
-Gulf sturgeon
-Smalltooth sawfish
-Loggerhead, Green, and Kemp's Ridley sea turtle

This project falls within USFWS critical habitat for West Indian manatee and NMFS proposed critical habitat for the green sea turtle.

MN048

MN951

MN077

MN052

MN046

FDOT

Figure 2-1 Protected Species

FPID: 444843-1
Bradenton-Palmetto Connector PD&E Study
US 41/SR 55 from US 301/SR 683 at 9th Street
East to North of 25th Street East Manatee County, Florida

0 0.5 1 1.5 Miles

Data Source: ESA, GFI, FWC, NMFS, USFW ESRI

NORTH

PREFERRED ALTERNATIVE

PROJECT STUDY AREA FOOTPRINT (250-BUFFER)

WETLANDS

5300, RESERVOIRS

5400, BAYS AND ESTUARIES

6120, MANGROVE SWAMP

9111, SEAGRASS; SPARSE TO MEDIUM

5100, STREAMS AND WATERWAYS

Shady Ln
41
29th St E
29th St
Business 41
Memphis
25th St E
Bayshore Rd
1st Ave E
2nd Ave E
2nd Ave W
21st St E
OSW 10
17th St W
17th St E
19th St E
OSW 10
13th Ave W
2nd Ave W
Walmart
OSW 9
OSW 1
11th St W
OSW 8
10th St W
10th St E
US Highway 301 N
301
14th Ave W
Palmetto
8th Ave W
Cemex
OSW 6
OSW 2
OSW 5
5th Ave W
3rd Ave W
7th St W
OSW 11
WL 1
7th Ave W
5th St W
US Highway 41 N
5th St E
25th Dr E
4th St E
WL 1
WL 2
41
Bradenton Waterfront Park
1st Ave W
2nd Ave E
3rd Ave W
12th St W
9th St W
Manatee Ave W
3rd St W
Manatee Ave E
6th Ave W
6th Ave E
1st St
9th St E
10th St E
41
6th St W
10th Ave E
11th Ave W
11th Ave E
12th Ave W
Bradenton
13th Ave W
13th Ave E
16th St W
15th St W
13th St W
11th St W
17th Ave W
18th Ave W
Tamiami Trl
Wares Creek
18th St W
9th St W
6th St W
301
OSW 4
OSW 3
US Highway 301
CSX Transportation
OSW 4
US Highway 301
OSW 3
US Highway 30
Glen Creek
70

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Figure 3-1 Wetlands and Surface Waters

FPID: 444843-1
Bradenton-Palmetto Connector PD&E Study
US 41/SR 55 from US 301/SR 683 at 9th Street
East to North of 25th Street East Manatee County, Florida

0 2,000 4,000 6,000 US Feet

Data Source: ESA, GFI, SWFWMD, ESRI

NORTH

PREFERRED ALTERNATIVE

PROJECT STUDY AREA FOOTPRINT (250-BUFFER)

WETLANDS

5300, RESERVOIRS

5400, BAYS AND ESTUARIES

6120, MANGROVE SWAMP

9111, SEAGRASS; SPARSE TO MEDIUM

5100, STREAMS AND WATERWAYS

12th St W
US
Walmart
4th Ave W
1st Avenue Ct W
Haskos Rd
OSW 9
OSW 1
OSW 8
10th
OSW 7
301
10th St E
3rd Ave W
Pine Ln
Oak
OSW 6
Colonial Shopping Center
Palmetto Artificial Kidney Center
OSW 2
3rd Ave E
Colonial Dr
Lafayette Dr
Madison Dr
Adams Dr
Washington Dr
Taylor Park
8th St
Palm 6th St
Palm 5th St
Palm 4th St
Palm 3rd St
OSW 5
8th St E
7th St E
Palmetto Family Healthcare Center
3rd Ave W
OSW 11
Hamilton Dr
Manatee County Civic Center
Haben Blvd
6th Ave W
Illinois St
Main St
Wisconsin St
WL 1
41
5th St W
Jet Dr
Palm Ln
Merry Ln
Melody Ln
3rd St E
Haben Blvd
Riviera Dunes
4th St W
CSX Railroad
Palmetto Estuary Preserve
Riviera Dunes Way
Riverside Dr
WL 1
1st St E
WL 2
The Island at Riviera Dunes
US Highway 41 N
10th Ave W
Bradenton Waterfront Park
Veterans Memorial Park

Figure 3-1 Wetlands and Surface Waters

FPID: 444843-1

Bradenton-Palmetto Connector PD&E Study

US 41/SR 55 from US 301/SR 683 at 9th Street

East to North of 25th Street East Manatee County, Florida

US Feet

0 800 1,600 2,400

Data Source: ESA, GFI, SWFWMD, ESRI

NORTH

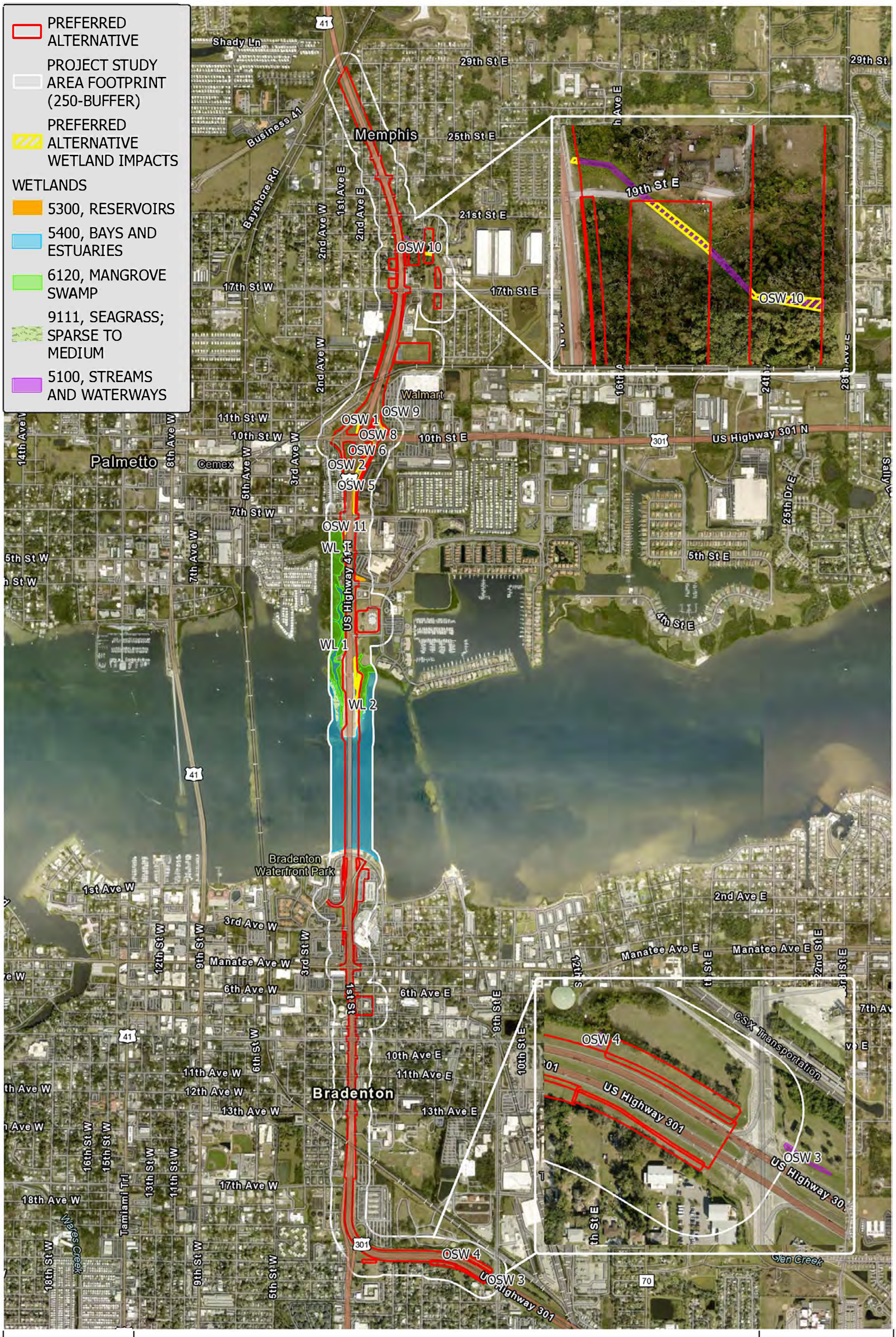

Figure 3-2 Wetlands and Surface Waters Impacts

FPID: 444843-1
Bradenton-Palmetto Connector PD&E Study
US 41/SR 55 from US 301/SR 683 at 9th Street
East to North of 25th Street East Manatee County, Florida

US Feet
0 2,000 4,000 6,000

Data Source: ESA, GFI, SWFWMD, ESRI

NORTH

PREFERRED ALTERNATIVE

PROJECT STUDY AREA FOOTPRINT (250-BUFFER)

PREFERRED ALTERNATIVE WETLAND IMPACTS

WETLANDS

5300, RESERVOIRS

5400, BAYS AND ESTUARIES

6120, MANGROVE SWAMP

9111, SEAGRASS; SPARSE TO MEDIUM

5100, STREAMS AND WATERWAYS

12th St W
US
Walmart
4th Ave W
1st Avenue Ct W
Haskos Rd
OSW 9
OSW 1
OSW 8
10th OSW 7
301
10th St E
3rd Ave W
Pine Ln
Oak
OSW 6
Colonial Shopping Center
Palmetto Artificial Kidney Center
OSW 2
3rd Ave E
Colonial Dr
Lafayette Dr
Madison Dr
Adams Dr
Washington Dr
Taylor Park
8th St
Palm 6th St
Palm 5th St
Palm 4th St
Palm 3rd St
8th St E
OSW 5
7th St E
OSW 11
Hamilton Dr
Manatee County Civic Center
Haben Blvd
WL 1
41
Illinois St
Main St
Wisconsin St
6th Ave W
5th St W
Jet Dr
Palm Ln
Melody Ln
Merry Ln
3rd St E
Haben Blvd
Riviera Dunes
4th St W
Street Dr W
CSX Railroad
Palmetto Estuary Preserve
Riviera Dunes Way
WL 1
1st St E
Riverside Dr
WL 2
The Island at Riviera Dunes
US Highway 41 N
10th Ave W
Bradenton Waterfront Park
Veterans Memorial Park

Figure 3-2 Wetlands and Surface Waters Impacts

FPID: 444843-1

Bradenton-Palmetto Connector PD&E Study

US 41/SR 55 from US 301/SR 683 at 9th Street

East to North of 25th Street East Manatee County, Florida

US Feet

0 800 1,600 2,400

Data Source: ESA, GFI, SWFWMD, ESRI

NORTH

Appendix B

NRCS Soils Descriptions

Appendix B: Project Area NRCS Soils Descriptions

Bradenton Fine Sand, Limestone Substratum (NRCS Code 5, Hydric)
This soil type comprises approximately 7.3 percent of the soils within the project study area. This soil is poorly drained with smooth slopes of 0 to 2 percent. It is on hammocks and low-lying ridges. Water table is at a depth of 3 to 18 inches.

Canova, Anclote, and Okeelanta Soils (NRCS Code 7, Hydric)
This soil type comprises approximately 0.2 percent of the soils within the project study area. This soil is very poorly drained, moderately permeable with slopes less than 2 percent. Water table is at a depth of 0 inches.

Canaveral Sand, Filled (NRCS Code 9, Non-Hydric)
This soil type comprises approximately 11.3 percent of the soils within the project study area. The soil is nearly level, moderately well drained to somewhat poorly drained with a less than 2 percent slope. The filled material is sand and shells from dredging and excavation of water areas for urban use. It ranges from 20 to over 80 inches in thickness. Water drainage is typically artificial, and during the wet season the water table is at a depth of 40 to 60 inches.

Cassia Fine Sand, Moderately Well Drained (NRCS Code 12, Non-Hydric)
This soil type comprises approximately 7.3 percent of the soils within the project study area. This soil is nearly level and somewhat poorly drained. It is on knolls and low ridges that are higher than the bordering flatwoods. The slope is 0 to 2 percent. In most years, a water table fluctuates from below 40 inches during dry periods to 15 to 40 inches for about 6 months out of the year.

Chobee Loamy Fine Sand, Frequently Ponded, 0-1 Percent Slopes (NRCS Code 13, Hydric)
This soil type comprises approximately 4.3 percent of the soils within the project study area. This soil consists of very poorly drained soils with 0 to 2 percent slopes. Water table is at a depth of 0 inches.

Chobee Variant Sandy Clay Loam (NRCS Code 14, Hydric)
This soil type comprises approximately 1.0 percent of the soils within the project study area. This soil consists of very poorly drained, slowly permeable soils with 0 to 2 percent slopes. Water table is at a depth of 0 to 12 inches.

Delray Complex (NRCS Code 16, Hydric)
This soil type comprises approximately 0.7 percent of the soils within the project study area. This soil consists of very poorly drained soils with less than 2 percent slopes. Water table is at a depth of 0 to 6 inches.

Eaugallie-Eaugallie Wet, Fine Sand, 0-2 Percent Slopes (NRCS Code 20, Non-Hydric)
This soil type comprises approximately 31.2 percent of the soils within the project study area. This soil consists of very poorly drained soils with 0 to 2 percent slopes. Water table is at a depth of 6 to 18 inches.

Estero Muck, Tidal, 0 to 1 Percent Slopes (NRCS Code 21, Hydric)
This soil type comprises approximately 4.9 percent of the soils within the project study area. This soil type is described as nearly level, very poorly drained. The slope is 0 to 1 percent. Water table is at a depth of 0 inches.

Floridana Fine Sand, 0-2 Percent Slopes (NRCS Code 25, Hydric)
This soil type comprises approximately 1.7 percent of the soils within the project study area. This soil consists of very poorly drained, slowly permeable soils with slopes less than 2 percent. Water table is at a depth of 0 inches.

Orlando Fine Sand, Moderately Wet, 0-2 Percent Slopes (NRCS Code 36, Non-Hydric)
This soil type comprises approximately 1.4 percent of the soils within the project study area. This soil is moderately well drained, rapidly permeable soils with 0 to 2 percent slopes. Water table is at a depth of 42 to 72 inches.

Orsino Fine Sand, 0-5 Percent Slopes (NRCS Code 37, Non-Hydric)
This soil type comprises approximately 0.5 percent of the soils within the project study area. This soil is moderately well drained, rapidly permeable soils with 0 to 5 percent slopes. Water table is at a depth of 42 to 60 inches.

Parkwood Variant-Chobee, Limestone Substratum-Parkwood Complex (NRCS Code 39, Hydric)
This soil type comprises approximately 0.0 percent of the soils within the project study area. This soil is poorly drained and moderately permeable, with slopes less than 2 percent. Water table is at a depth of 6 to 18 inches.

Tavares Fine Sand, 0-5 Percent Slopes (NRCS Code 45, Non-Hydric)
This soil type comprises approximately 4.0 percent of the soils within the project study area. This soil is characterized as moderately well drained, very rapidly permeable. Water table is at a depth of 18 to 42 inches.

Tomoka Muck, Frequently Ponded, 0-1 Percent Slopes (NRCS Code 47, Hydric)
This soil type comprises approximately 0.1 percent of the soils within the project study area. This soil is characterized as very poorly drained, moderate to moderately rapid permeable. Water table is about 0 inches.

Wabasso-Wabasso, Wet, Fine Sand, 0-2 Percent Slopes (NRCS Code 48, Non-Hydric)
This soil type comprises approximately 12.8 percent of the soils within the project study area. This soil is characterized as poorly drained, slowly permeable to very slowly permeable. Water table is at a depth of 6 to 18 inches.

Zolfo Fine Sand, 0-2 Percent Slopes (NRCS Code 54, Non-Hydric)
This soil type comprises approximately 2.1 percent of the soils within the project study area. This series consists of deep, somewhat poorly drained, moderately permeable soils. Slopes range from 0 to 5 percent. Water table is at a depth of 0 inches.

Waters of the Gulf of Mexico (NRCS Code 100, Unranked)

This water classification is comprised of the Manatee River and makes up approximately 9.0 percent of the project study area. Seagrass beds, comprised of shoal grass (*Halodule wrightii*) and star grass (*Halophila* sp.), were present.

Appendix C

FLUCFCS Descriptions

Appendix C: Project Study Area Land Use Descriptions

Residential, Medium Density (FLUCFCS 1200)

This land use classification includes medium-density residential areas. This land use code occurs in the northern portion of the project study area. Protected species which could potentially inhabit this type of land use include the gopher tortoise. No protected wildlife was observed in FLUCFCS 1200 areas.

Residential, High Density (FLUCFCS 1300)

This land use classification includes high-density residential areas. The density is variable and may include multi-family apartment complexes generally located in larger urban centers. This land use code occurs south of the US 41/US 301 interchange. Protected species which could potentially inhabit this type of land use include the monarch butterfly, eastern indigo snake, gopher tortoise, Florida sandhill crane, and Florida burrowing owl. No protected wildlife was observed in FLUCFCS 1300 areas.

Residential, High Density Under Construction (FLUCFCS 1390)

This land use classification describes high-density residential areas that are currently under construction. This land use occurs at the southern end of the project. No protected species are anticipated to utilize these areas. No protected wildlife was observed in FLUCFCS 1390 areas.

Commercial and Services (FLUCFCS 1400)

Commercial areas are predominantly associated with the distribution of products and services. This category is composed of a large number of commercial land uses that often occur in complex mixtures. This land use code occurs throughout the project study area. No protected species are anticipated to utilize these areas. No protected wildlife was observed in FLUCFCS 1400 areas.

Commercial and Services Under Construction (FLUCFCS 1490)

This land use classification describes commercial and service areas that are currently under construction. This land use classification occurs north of the US 41/7th Street intersection and south of the US 41/Manatee Ave intersection. No protected species are anticipated to utilize these areas. No protected wildlife was observed in FLUCFCS 1490 areas.

Industrial (FLUCFCS 1500)

The Industrial category embraces those land uses where manufacturing, assembly or processing of materials and products are accomplished. Industrial areas include a wide array of industry types ranging from light manufacturing and industrial parks to heavy manufacturing plants. Also included are those facilities for administration and research, assembly, storage and warehousing, shipping and associated parking lots and grounds. This land use classification is present at the southern end of the project. No protected species are anticipated to utilize these areas. No protected wildlife was observed in FLUCFCS 1500 areas.

Institutional (FLUCFCS 1700)

Educational, religious, health and military facilities are typical components of this category. Included within a particular institutional unit are all buildings, grounds and parking lots that compose the facility. This land use code occurs throughout the project study area. No protected species are anticipated to utilize these areas. No protected wildlife was observed in FLUCFCS 1700 areas.

Community Recreational Areas (FLUCFCS 1860)

This land use code describes the Palmetto Estuary Preservation Project property, located in the natural area northwest of the DeSoto Bridge, the recreational waterfront areas along the southern side of the DeSoto Bridge, and the Community Park south of 17th Street E. Protected species that may utilize the natural areas within the Palmetto Estuary Preservation Project property include monarch butterfly, eastern indigo snake, gopher tortoise, Florida pine snake, wading birds, coastal birds, Florida sandhill crane, bald eagle, West Indian manatee, and bats. Protected species that may utilize the area to the south of the bridge and the park include the monarch butterfly, eastern indigo snake, gopher tortoise, Florida pine snake, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, tricolored bat, and other protected bat species. Protected wildlife observed in FLUCFCS 1860 areas consisted of bats roosting in bat boxes at the Palmetto Estuary Preservation Project property.

Open Land (FLUCFCS 1900)

This classification includes undeveloped land within urban areas and inactive land with street patterns, but without structures. Open Land typically does not exhibit any structures or any indication of intended use. Land in this category may be in a transitional state and ultimately will be developed into one of the typical urban land uses; however, at the time of observation the intended use may be hard to determine. This land use code occurs throughout the project study area. Protected species which could potentially inhabit this type of land use include the monarch butterfly, eastern indigo snake, gopher tortoise, Florida pine snake, Florida sandhill crane, Florida burrowing owl, southeastern American kestrel, tricolored bat, other protected bat species, rufa red knot, piping plover, snowy plover, American oystercatcher, black skimmer, and least tern. No protected wildlife was observed in FLUCFCS 1900 areas.

Hardwood – Conifer Mixed (FLUCFCS 4340)

This upland land use classification is reserved for those forested areas in which neither upland conifers nor hardwoods achieve a 66 percent crown canopy dominance. This land use occurs in the northern portion of the project corridor. Protected species which could potentially inhabit this type of land use include the monarch butterfly, eastern indigo snake, gopher tortoise, Florida pine snake, bald eagle, tricolored bat, and other protected bat species. No protected wildlife was observed in FLUCFCS 4340 areas.

Australian Pine (FLUCFCS 4370)

Contrary to its name, this species is actually a hardwood. Its name is derived from its needle-like leaves and its characteristic cone shaped crown structure. Australian pine was introduced to South Florida from Australia and is colonizing northward to the Tampa Bay area. It is common on disturbed sites, forming dense thickets, and is frequently planted as wind breaks and soil stabilizers and can be found in some wetland areas. This land use is located within the mangrove system, along the coastal areas on the northeastern side of the DeSoto Bridge. Protected species that may utilize this area include wading birds, coastal birds, whooping crane, and wood stork. No protected wildlife was observed in FLUCFCS 4370 areas.

Streams and Waterways (FLUCFCS 5100); USFWS: PEM1Cx (Palustrine, Emergent, Persistent, Seasonally Flooded, Excavated)

This category includes rivers, creeks, canals, and other linear water bodies. This land use occurs in various locations throughout the project study area. These features are roadside ditches created as part of the roadway system for the conveyance of stormwater. Protected species which could potentially inhabit this land use code include little blue heron, reddish egret, tricolored heron, whooping crane, wood stork, and roseate spoonbill. No protected wildlife was observed in FLUCFCS 5100 areas.

Reservoirs (FLUCFCS: 5300); USFWS: PUBHx - Palustrine, Unconsolidated Bottom, Permanently Flooded, Excavated)

This land classification includes artificial water impoundments. They provide irrigation, flood control, hydro-electric power generation, municipal and rural water supplies, and recreation. This land use includes stormwater ponds associated with the Manatee County Civic Center and an apartment complex north of the US 41/7th St intersection. Protected species which could potentially inhabit this land use code include Florida sandhill crane, wading birds, whooping crane, and wood stork. No protected wildlife was observed in FLUCFCS 5300 areas.

Bays and Estuaries (FLUCFCS: 5400; USFWS: E1UB2 - Estuarine, Subtidal, Unconsolidated Bottom, Sand)

This land classification includes inlets of the sea that are included in the landmass of Florida because they extend into the land. These embayments must be more than a nautical mile in width to be classed as bays and estuaries. This land use code occurs along the entire length of the Desoto Bridge and includes the Manatee River. Protected species which could potentially inhabit this type of land use include the Gulf sturgeon, smalltooth sawfish, sea turtles, American crocodile, bald eagle, wading birds, coastal birds, whooping crane, wood stork, and West Indian manatee. No protected wildlife was observed in FLUCFCS 5400 areas.

Mangrove Swamps (FLUCFCS: 6120; USFWS: E2FO3N - Estuarine, Intertidal, Forested, Broad-Leaved Deciduous, Regularly Flooded)

This coastal hardwood community is composed of red and/or black mangrove which is pure or predominant. The major associates include white mangrove, buttonwood, cabbage palm, and sea grape. This land use is located along the coastal areas along the northern side of the DeSoto Bridge. Protected species that may utilize this area include Gulf sturgeon, smalltooth sawfish, sea turtles, American crocodile, wading birds, coastal birds, whooping crane, wood stork, and West Indian manatee. No protected wildlife was observed in FLUCFCS 6210 areas.

Railroads (FLUCFCS 8120)

Three railroad crossings occur along the project corridor. No protected species are anticipated to utilize this area. No protected wildlife was observed within the railroad corridors.

Roads and Highways (FLUCFCS 8140)

This land use classification consists of roads, sidewalks, ditches/swales, right-of-way buffers, and associated facilities. This land use code occurs along the entire length of the project corridor, and it consists of US Highway 41. Protected species which could potentially inhabit this type of land use, especially in maintained right-of-way (ROW), include the monarch butterfly, gopher tortoise, Florida

sandhill crane, bald eagle, and bats. Protected wildlife observed in FLUCFCS 8140 areas consisted of bats roosting in bat boxes.

Utilities (8300)

Two utility facilities occur within the project study area: the Bradenton Water Tower and the Bradenton Wastewater Treatment Plan, both located in the southern portion of the project corridor. Protected species which could potentially inhabit this type of land use include the monarch butterfly, gopher tortoise, bald eagle, and bats.

Seagrass, Sparse – Medium (FLUCFCS: 9111, USFWS: E1AB3L - Estuarine, Intertidal, Aquatic Bed, Rooted Vascular, Subtidal)

This land cover represents seagrass beds present within the Manatee River, within the northwest and northeast quadrants of the DeSoto Bridge. These sparse to medium covered seagrass beds consisted of shoal grass (*Halodule wrightii*) and star grass (*Halophila sp.*). Algae was present within the systems. Protected species that may utilize seagrass include Gulf sturgeon, smalltooth sawfish, sea turtles, and West Indian manatee. No protected wildlife was observed in FLUCFCS 9111 areas.

Appendix D

USFWS and U.S. Department of the Interior IPaC Official Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Florida Ecological Services Field Office
777 37th St
Suite D-101
Vero Beach, FL 32960-3559
Phone: (352) 448-9151 Fax: (772) 562-4288
Email Address: fw4flesregs@fws.gov
https://www.fws.gov/office/florida-ecological-services

In Reply Refer To: 04/28/2026 20:00:16 UTC
Project Code: 2026-0082826
Project Name: Bradenton Palmetto Connector PD&E Study

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. **Please include your Project Code, listed at the top of this letter, in all subsequent correspondence regarding this project.** Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered

species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Florida bonneted bat: If the Florida bonneted bat or Florida bonneted bat Critical Habitat is on your Official Species List, please make sure you are using the 2024 Florida Bonneted Bat Guidelines and Key and submitting acoustic survey data to NABat if acoustic surveys are conducted.

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/program/migratory-bird-permits/what-we-do.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of

Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Marine Mammals
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Florida Ecological Services Field Office
777 37th St
Suite D-101
Vero Beach, FL 32960-3559
(352) 448-9151

PROJECT SUMMARY

Project Code: 2026-0082826
Project Name: Bradenton Palmetto Connector PD&E Study
Project Type: Road/Hwy - New Construction
Project Description: The Florida Department of Transportation (FDOT), District One is conducting a Project Development and Environment (PD&E) study to evaluate capacity and mobility improvements to United States (US) 41/ State Road (SR) 55/1st Street (St)/Tamiami Trail including roadway widening, bridge widening and/or replacement, new Stormwater Management Facilities (SMF), new floodplain compensation (FPC) sites, and bicycle and pedestrian accommodations. The study area begin at US 301/SR 683 at 9th St East in the City of Bradenton to US 41 North of 25th St East in the City of Palmetto. The project also crosses the Manatee River. The study limits extend approximately 4.5 miles, all within Manatee County.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@27.50884035,-82.56300360907434,14z

Counties: Manatee County, Florida

ENDANGERED SPECIES ACT SPECIES

There is a total of 14 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Florida Panther *Puma (=Felis) concolor coryi* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1763 General project design guidelines: https://ipac.ecosphere.fws.gov/project/EVSHLSRYJVDHDFKPO3DO7B67VI/documents/generated/7123.pdf	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered
West Indian Manatee *Trichechus manatus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. ***This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.*** Species profile: https://ecos.fws.gov/ecp/species/4469 General project design guidelines: https://ipac.ecosphere.fws.gov/project/EVSHLSRYJVDHDFKPO3DO7B67VI/documents/generated/7281.pdf	Threatened

BIRDS

NAME	STATUS
Crested Caracara (audubon's) [fl Dps] *Caracara plancus audubonii* Population: FL DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8250	Threatened
Eastern Black Rail *Laterallus jamaicensis jamaicensis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10477	Threatened
Everglade Snail Kite *Rostrhamus sociabilis plumbeus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7713	Endangered
Rufa Red Knot *Calidris canutus rufa* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Whooping Crane *Grus americana* Population: Eastern Migratory NEP - U.S.A. (AL, AR, FL, GA, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, OH, SC, TN, VA, WI, WV) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential

REPTILES

NAME	STATUS
American Crocodile *Crocodylus acutus* Population: U.S.A. (FL) There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6604	Threatened
Eastern Indigo Snake *Drymarchon couperi* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/646	Threatened

FISHES

NAME	STATUS
Gulf Sturgeon *Acipenser oxyrinchus (=oxyrhynchus) desotoi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/651	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

FLOWERING PLANTS

NAME	STATUS
Pygmy Fringe-tree *Chionanthus pygmaeus* Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1084	Endangered

LICHENS

NAME	STATUS
Florida Perforate Cladonia *Cladonia perforata* Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7516	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

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1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/ activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete
If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information

on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

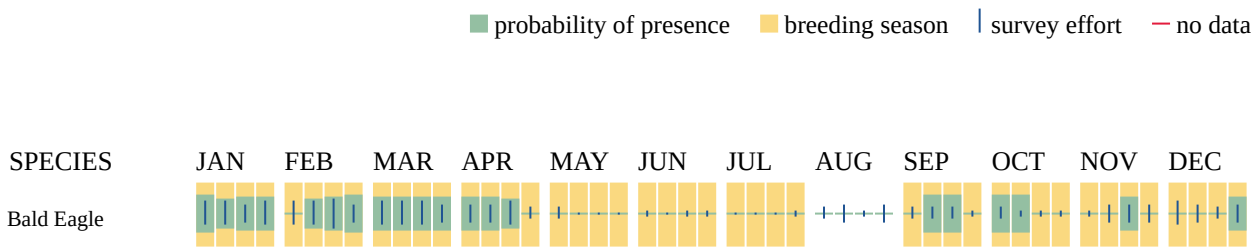
Probability of Presence (▪)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (▪)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Non-BCC
Vulnerable

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel *Falco sparverius paulus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31
American Oystercatcher *Haematopus palliatus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8935	Breeds Apr 15 to Aug 31

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Black Skimmer *Rynchops niger* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Florida Burrowing Owl *Athene cunicularia floridana* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/11977	Breeds Mar 15 to Aug 31
Great Blue Heron *Ardea herodias occidentalis* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/10590	Breeds Jan 1 to Dec 31
Gull-billed Tern *Gelochelidon nilotica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9501	Breeds May 1 to Jul 31
Least Tern *Sternula antillarum antillarum* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/11919	Breeds Apr 25 to Sep 5
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Magnificent Frigatebird *Fregata magnificens* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9588	Breeds Oct 1 to Apr 30
Painted Bunting *Passerina ciris* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9511	Breeds Apr 25 to Aug 15

NAME	BREEDING SEASON
Pectoral Sandpiper *Calidris melanotos* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Prairie Warbler *Setophaga discolor* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9513	Breeds May 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Reddish Egret *Egretta rufescens* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/7617	Breeds Mar 1 to Sep 15
Ruddy Turnstone *Arenaria interpres morinella* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/10633	Breeds elsewhere
Semipalmated Sandpiper *Calidris pusilla* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9603	Breeds elsewhere
Short-billed Dowitcher *Limnodromus griseus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Swallow-tailed Kite *Elanoides forficatus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8938	Breeds Mar 10 to Jun 30
Willet *Tringa semipalmata* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10669	Breeds Apr 20 to Aug 5
Wilson's Plover *Charadrius wilsonia* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9722	Breeds Apr 1 to Aug 20

NAME	BREEDING SEASON
Worthington's Marsh Wren *Cistothorus palustris griseus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9560	Breeds Apr 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
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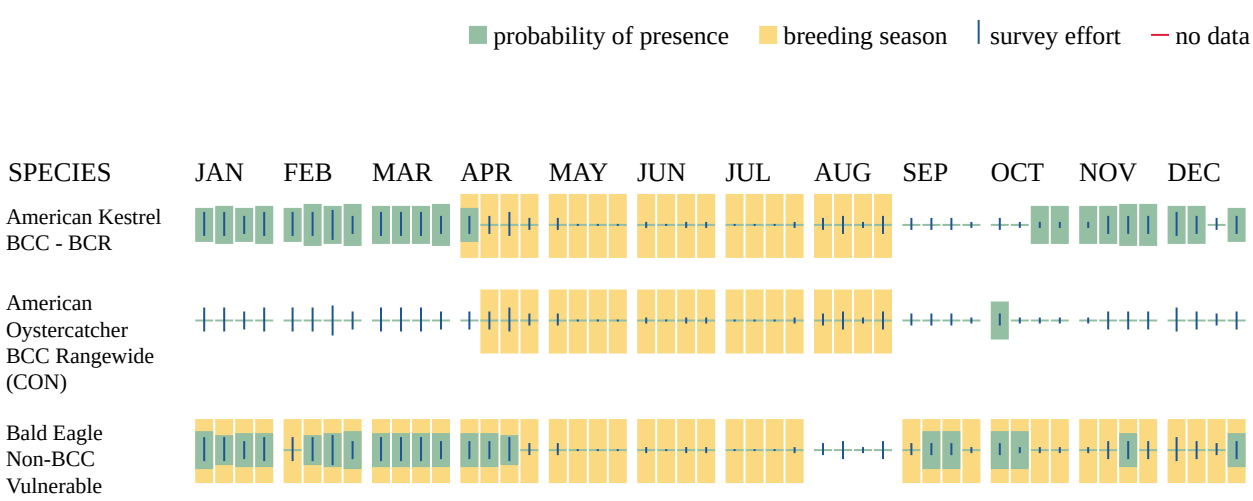
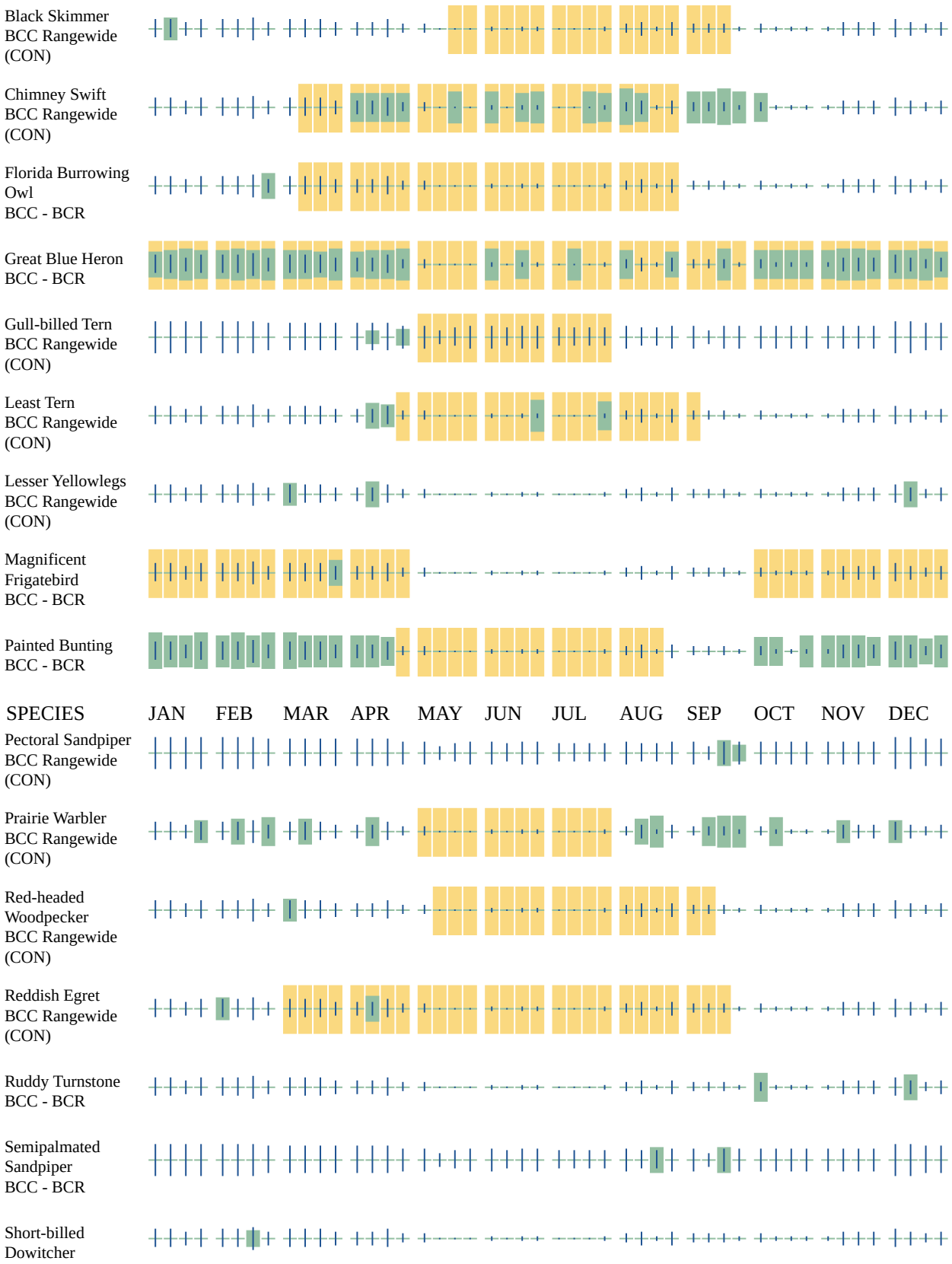
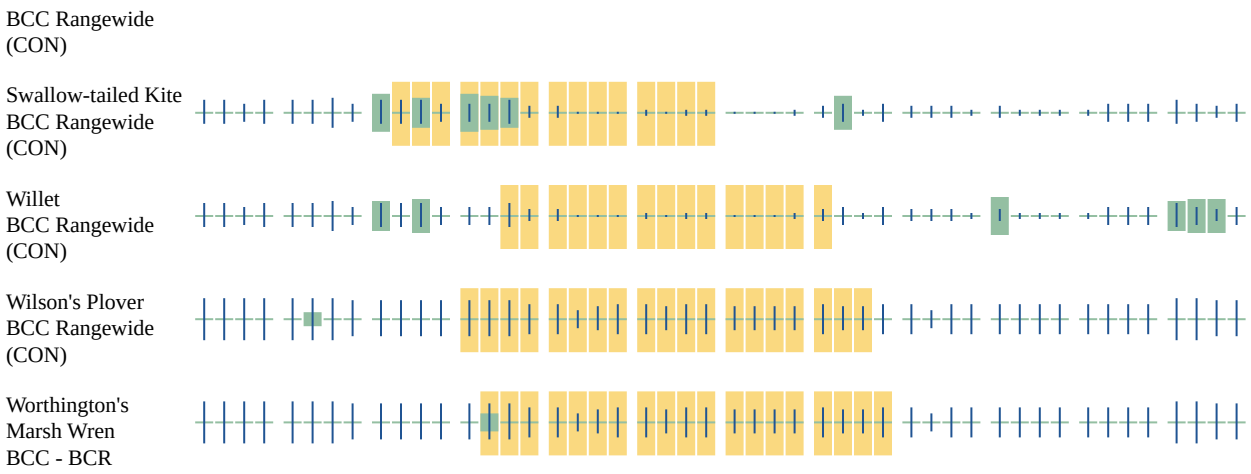



Black Skimmer BCC Rangewide (CON)
Chimney Swift BCC Rangewide (CON)
Florida Burrowing Owl BCC - BCR
Great Blue Heron BCC - BCR
Gull-billed Tern BCC Rangewide (CON)
Least Tern BCC Rangewide (CON)
Lesser Yellowlegs BCC Rangewide (CON)
Magnificent Frigatebird BCC - BCR
Painted Bunting BCC - BCR
SPECIES
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
Pectoral Sandpiper BCC Rangewide (CON)
Prairie Warbler BCC Rangewide (CON)
Red-headed Woodpecker BCC Rangewide (CON)
Reddish Egret BCC Rangewide (CON)
Ruddy Turnstone BCC - BCR
Semipalmated Sandpiper BCC - BCR
Short-billed Dowitcher



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MARINE MAMMALS

Marine mammals are protected under the Marine Mammal Protection Act. Some are also protected under the Endangered Species Act[1] and the Convention on International Trade in Endangered Species of Wild Fauna and Flora[2].

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walruses, polar bears, manatees, and dugongs] and NOAA Fisheries[3] [responsible for seals, sea lions, whales, dolphins, and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on this list; for additional information on those species please visit the Marine Mammals page of the NOAA Fisheries website.

The Marine Mammal Protection Act prohibits the take of marine mammals and further coordination may be necessary for project evaluation. Please contact the U.S. Fish and Wildlife Service Field Office shown.

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1. The Endangered Species Act (ESA) of 1973.

2. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
3. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

NAME

West Indian Manatee *Trichechus manatus*
Species profile: https://ecos.fws.gov/ecp/species/4469

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER POND
- PABHx
- PUBHx

ESTUARINE AND MARINE WETLAND
- E2SS3N
- E2USM

RIVERINE
- R2UBHx

ESTUARINE AND MARINE DEEPWATER
- E1UBL

FRESHWATER EMERGENT WETLAND
- PEM1F

IPAC USER CONTACT INFORMATION

Agency: Florida Department of Transportation
Name: Alexandra Hipolito
Address: 5404 Cypress Center Drive
Address Line 2: 125
City: Tampa
State: FL
Zip: 33609
Email ahipolito722@gmail.com
Phone: 7745733623

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Transportation

Appendix E

NMFS SERO Vessel Strike Avoidance Measures and NMFS Protected Species Construction Conditions

VESSEL STRIKE AVOIDANCE MEASURES, NOAA FISHERIES SOUTHEAST REGIONAL OFFICE

Background

Vessel strikes can injure or kill species protected under the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA). NOAA Fisheries Southeast Regional Office (SERO) Protected Resources Division (PRD) recommends implementing the following identification and avoidance measures to reduce the risk of vessel strikes and disturbance from vessels to protected species under our jurisdiction.[1]

Protected Species Sightings

All vessel operators and crews should be informed about the potential presence of species protected under the ESA and the MMPA and any critical habitat in a vessel transit area. All vessels should have personnel onboard responsible for observing for the presence of protected species. All personnel should be advised that there are civil and criminal penalties for harming, harassing, or killing listed species and all marine mammals. To determine which protected species and critical habitat may be found in the transit area, please review the relevant marine mammal and ESA-listed species at Find A Species (https://www.fisheries.noaa.gov/find-species) and any ESA Section 7 consultation documents if applicable.

Vessel Strike Avoidance

The following measures should be taken when they are consistent with safe navigation to avoid causing injury or death of a protected species:

1. Operate at the minimum safe speed when transiting and maintain a vigilant watch for protected species to avoid striking them. Even with a vigilant watch, most marine protected species are extremely difficult to see from a boat or ship, and you cannot rely on detecting them visually and then taking evasive action. The most effective way to avoid vessel strikes is to travel at a slow, safe speed. Whenever possible, assign a designated individual to observe for protected species and limit vessel operation to only daylight hours.

2. Follow deep-water routes (e.g., marked channels) whenever possible.

3. Operate at “Idle/No Wake” speeds in the following circumstances:
    a. while in any project construction areas
    b. while in water depths where the draft of the vessel provides less than four feet of clearance from the bottom, or
    c. in all depths after a protected species has been observed in and has recently departed the area.

[1] Manatees are managed under the jurisdiction of the U.S. Fish and Wildlife Service.

4. When a protected species is sighted, attempt to maintain a distance of 150 feet or greater between the animal and the vessel. Reduce speed and avoid abrupt changes in direction until the animal(s) has left the area.

5. When dolphins are bow- or wake-riding, maintain course and speed as long as it is safe to do so or until the animal(s) leave the vicinity of the vessel.

6. If a whale is sighted in the vessel's path or within 300 feet from the vessel, reduce speed and shift the engine to neutral. Do not engage the engines until the animals are clear of the area. *Please see below for additional requirements for North Atlantic right whales.*

7. If a whale is sighted farther than 300 feet from the vessel, maintain a distance of 300 feet or greater between the whale and the vessel and reduce speed to 10 knots or less. *Please see below for additional requirements for North Atlantic right whales.*

Injured or Dead Protected Species Reporting
Vessel crews should report sightings of any injured or dead protected species immediately regardless of whether the injury or death is caused by your vessel. Please see How to Report a Stranded or Injured Marine Animal (https://www.fisheries.noaa.gov/report) for the most up to date information for reporting injured or dead protected species.

If the injury or death is caused by your vessel, also report the interaction to NOAA Fisheries SERO PRD at takereport.nmfsser@noaa.gov. Please include the species involved, the circumstances of the interaction, the fate and disposition of the animal involved, photos (if available), and contact information for the person who can provide additional details if requested. Please include the project's Environmental Consultation Organizer (ECO) number and project title in the subject line of email reports if a consultation has been completed.

Reporting Violations
To report any suspected ESA or MMPA violation, call the NOAA Fisheries Enforcement Hotline. This hotline is available 24 hours a day, 7 days week for anyone in the United States.

NOAA Fisheries Enforcement Hotline: (800) 853-1964

Additional Transit and Reporting Requirements for North Atlantic Right Whales

1. Federal regulation prohibits approaching or remaining within 500 yards of a North Atlantic right whale (50 CFR 224.103 (c)). All whales sighted within North Atlantic right whale critical habitat should be assumed to be right whales. Please be aware and follow restrictions for all Seasonal Management Areas along the U.S. east coast. These areas have vessel speed restrictions to reduce vessel strikes risks to migrating or feeding whales. More information can be found at Reducing Vessel Strikes to North Atlantic Right Whales (https://www.fisheries.noaa.gov/national/endangered-species-conservation/reducing-vessel-strikes-north-atlantic-right-whales).

2. Ships greater than 300 gross tons entering the WHALESOUTH reporting area are required to report to a shore-based station. For more information on reporting procedures consult 33 CFR Part 169, the Coast Pilot, or at Reducing Vessel Strikes to North Atlantic

Right Whales (https://www.fisheries.noaa.gov/national/endangered-species-conservation/reducing-vessel-strikes-north-atlantic-right-whales).

3. From November through April, vessels approaching/departing Florida ports of Jacksonville and Fernandina Beach as well as Brunswick Harbor, Georgia are STRONGLY RECOMMENDED to use Two-Way Routes displayed on nautical charts. More information on Compliance with the Right Whale Ship Strike Reduction Rule can be found at (https://media.fisheries.noaa.gov/2021-06/compliance_guide_for_right_whale_ship_strike_reduction.pdf)

4. Mariners shall check with various communication media for general information regarding avoiding vessel strikes and specific information regarding North Atlantic right whale sighting locations. These include NOAA weather radio, U.S. Coast Guard Broadcast to Mariners, Local Notice to Mariners, and NAVTEX. Commercial mariners calling on United States ports should view the most recent version of the NOAA/USCG produced training CD entitled "A Prudent Mariner's Guide to Right Whale Protection" (contact the NOAA Fisheries SERO, Protected Resources Division for more information regarding the CD).

5. Injured, dead, or entangled right whales should be immediately reported to the U.S. Coast Guard via VHF Channel 16 and the NOAA Fisheries Southeast Marine Mammal Stranding Hotline at (877) WHALE HELP (877-942-5343).

For additional information, please contact NOAA Fisheries SERO PRD at:
NOAA Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701
Visit us on the web at Protected Marine Life in the Southeast
(https://www.fisheries.noaa.gov/region/southeast#protected-marine-life)

Revised: May 2021

PROTECTED SPECIES CONSTRUCTION CONDITIONS, NOAA FISHERIES SOUTHEAST REGIONAL OFFICE

The action agency and any permittee shall comply with the following construction conditions for protected species under the jurisdiction of NOAA Fisheries Southeast Regional Office (SERO) Protected Resources Division (PRD):[1]

Protected Species Sightings–The action agency and any permittee shall ensure that all personnel associated with the project are instructed about the potential presence of species protected under the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA). All on-site project personnel are responsible for observing water-related activities for the presence of protected species. All personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing listed species and all marine mammals. To determine which protected species and critical habitat may be found in the transit area, please review the relevant marine mammal and ESA-listed species at Find A Species (https://www.fisheries.noaa.gov/find-species) and the consultation documents that have been completed for the project.

1. **Equipment**–Turbidity curtains, if used, shall be made of material in which protected species cannot become entangled and be regularly monitored to avoid protected species entrapment. All turbidity curtains and other in-water equipment shall be properly secured with materials that reduce the risk of protected species entanglement and entrapment.

    a. In-water lines (rope, chain, and cable, including the lines to secure turbidity curtains) shall be stiff, taut, and non-looping. Examples of such lines are heavy metal chains or heavy cables that do not readily loop and tangle. Flexible in-water lines, such as nylon rope or any lines that could loop or tangle, shall be enclosed in a plastic or rubber sleeve/tube to add rigidity and prevent the line from looping and tangling. In all instances, no excess line shall be allowed in the water. All anchoring shall be in areas free from hardbottom and seagrass.

    b. Turbidity curtains and other in-water equipment shall be placed in a manner that does not entrap protected species within the project area and minimizes the extent and duration of their exclusion from the project area.

    c. Turbidity barriers shall be positioned in a way that minimizes the extent and duration of protected species exclusion from important habitat (e.g. critical habitat, hardbottom, seagrass) in the project area.

2. **Operations**–For construction work that is generally stationary (e.g., barge-mounted equipment dredging a berth or section of river, or shore-based equipment extending into the water):

    a. Operations of moving equipment shall cease if a protected species is observed within 150 feet of operations.

[1] Manatees are managed under the jurisdiction of the U.S. Fish and Wildlife Service.

b. Activities shall not resume until the protected species has departed the project area of its own volition (e.g., species was observed departing or 20 minutes have passed since the animal was last seen in the area).

3. **Vessels**–For projects requiring vessels, the action agency, and any permittee shall ensure conditions in the Vessel Strike Avoidance Measures are implemented as part of the project/permit issuance (https://www.fisheries.noaa.gov/southeast/consultations/regulations-policies-and-guidance).

4. **Consultation Reporting Requirements–**Any interaction with a protected species shall be reported immediately to NOAA Fisheries SERO PRD and the local authorized stranding/rescue organization.

   To report to NOAA Fisheries SERO PRD, send an email to takereport.nmfsser@noaa.gov. Please include the species involved, the circumstances of the interaction, the fate and disposition of the species involved, photos (if available), and contact information for the person who can provide additional details if requested. Please include the project's Environmental Consultation Organizer (ECO) number and project title in the subject line of email reports.

   To report the interaction to the local stranding/rescue organization, please see the following website for the most up to date information for reporting sick, injured, or dead protected species:

   Reporting Violations–To report an ESA or MMPA violation, call the NOAA Fisheries Enforcement Hotline. This hotline is available 24 hours a day, 7 days week for anyone in the United States.

   NOAA Fisheries Enforcement Hotline (800) 853-1964

5. **Additional Conditions–**Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the project consultation and must also be complied with.

For additional information, please contact NOAA Fisheries SERO PRD at:
NOAA Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701
Tel: (727) 824-5312
Visit us on the web at Protected Marine Life in the Southeast
(https://www.fisheries.noaa.gov/region/southeast#protected-marine-life)

Revised: May 2021

Appendix F

Standard Protection Measures for the Eastern Indigo Snake

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE

U.S. Fish and Wildlife Service

May 2024

The Standard Protection Measures for the Eastern Indigo Snake (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida and Georgia for use by project proponents and their construction personnel help minimize adverse impacts to eastern indigo snakes. However, implementation of this Plan does not replace any state of federal consultation or regulatory requirements. At least 30 days prior to any land disturbance activities, the project proponent shall notify the appropriate USFWS Field Office (see Field Office contact information) via e-mail that the Plan will be implemented as described below.

As long as the signatory of the e-mail certifies compliance with the below Plan (including use of the approved poster and pamphlet (USFWS Eastern Indigo Snake Conservation webpage), no further written confirmation or approval from the USFWS is needed regarding use of this Plan as a component of the project.

If the project proponent decides to use an eastern indigo snake protection/education plan other than the approved Plan below, written confirmation or approval from the USFWS that the plan is adequate must be obtained. The project proponent shall submit their unique plan for review and approval. The USFWS will respond via e-mail, typically within 30 days of receiving the plan, either concurring that the plan is adequate or requesting additional information. A concurrence e-mail from the appropriate USFWS Field Office will fulfill approval requirements.

STANDARD PROTECTION MEASURES

BEFORE AND DURING CONSTRUCTION ACTIVITIES:

- All Project personnel shall be notified about the potential presence and appearance of the federally protected eastern indigo snake (*Drymarchon couperi*).
- All personnel shall be advised that there are civil and criminal penalties for harassing, harming, pursuing, hunting, shooting, wounding, killing, capturing, or collecting the species, in knowing violation of the Endangered Species Act of 1973.
- The project proponent or designated agent will post educational posters in the construction office and throughout the construction site. The posters must be clearly visible to all construction staff and shall be posted in a conspicuous location in the

Project field office until such time that Project construction has been completed and time charges have stopped.

- Prior to the onset of construction activities, the project proponent or designated agent will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational pamphlet including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office. Photos of eastern indigo snakes may be accessed on USFWS, Florida Fish and Wildlife Conservation Commission and/or Georgia Department of Natural Resources websites.
- Each day, prior to the commencement of maintenance or construction activities, the Contractor shall perform a thorough inspection for the species of all worksite equipment.
- If an eastern indigo snake (alive, dead or skin shed) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification of the appropriate USFWS Office. The contact information for the USFWS is provided below and on the referenced posters and pamphlets.
- During initial site clearing activities, an onsite observer is recommended to determine whether habitat conditions suggest a reasonable probability of an eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities, and presence of gopher tortoises and burrows).
- Periodically during construction activities, the project area should be visited to observe the condition of the posters and Plan materials and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any eastern indigo snakes are seen.
- For erosion control use biodegradable, 100% natural fiber, net-free rolled erosion control blankets to avoid wildlife entanglement.

POST CONSTRUCTION ACTIVITIES:

Whether or not eastern indigo snakes are observed during construction activities, a monitoring report should be submitted to the appropriate USFWS Field Office within 60 days of project completion (See USFWS Field Office Contact Information).

USFWS FIELD OFFICE CONTACT INFORMATION

Georgia Field Office: Phone: (706) 613-9493, email: gaes_assistance@fws.gov
Florida Field Office: Phone: (352) 448-9151, email: fw4flesregs@fws.gov

POSTER & PAMPHLET INFORMATION

Posters with the following information shall be placed at strategic locations on the construction site and along any proposed access roads (final posters for Plan compliance are available on our website in English and Spanish and should be printed on 11 x 17in or larger paper and laminated (USFWS Eastern Indigo Snake Conservation webpage). Pamphlets are also available on our webpage and should be printed on 8.5 x 11in paper and folded, and available and distributed to staff working on the site.

POSTER CONTENT (ENGLISH):

ATTENTION

Federally-Threatened Eastern Indigo Snakes may be present on this site!

Killing, harming, or harassing eastern indigo snakes is strictly prohibited and punishable under State and Federal Law.

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

• Stop land disturbing activities and allow the snake time to move away from the site without interference. Do NOT attempt to touch or handle the snake.

• Take photographs of the snake, if possible, for identification and documentation purposes.

• Immediately notify supervisor/agent, and a U.S. Fish and Wildlife Service (USFWS) Ecological Services Field Office, with the location information and condition of the snake.

• If the snake is located near clearing or construction activities that will cause harm to the snake, the activities must pause until a representative of the USFWS returns the call (within one day) with further guidance.

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

• Stop land disturbing activities and immediately notify supervisor/applicant, and a USFWS Ecological Services Field Office, with the location information and condition of the snake.

• Take photographs of the snake, if possible, for identification and documentation purposes.

• Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, reaching up to 8 ft long. Named for the glossy, blue-black scales above and slate blue below, they often have orange to reddish color (cream color in some cases)

in the throat area. They are not typically aggressive.

SIMILAR SPECIES: The black racer resembles the eastern indigo snake. However, black racers have a white or cream chin, and thinner bodies.

LIFE HISTORY: Eastern indigo snakes live in a variety of terrestrial habitat types. Although they prefer uplands, they also use wetlands and agricultural areas. They will shelter inside gopher tortoise burrows, other animal burrows, stumps, roots, and debris piles. Females may lay from 4 to 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTED STATUS: The eastern indigo snake is protected by the USFWS, Florida Fish and Wildlife Conservation Commission, and Georgia Department of Natural Resources. Any attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage eastern indigo snakes is prohibited by the U.S. Endangered Species Act. Penalties include a maximum fine of $25,000 for civil violations and up to $50,000 and/or imprisonment for criminal offenses. Only authorized individuals with a permit (or an Incidental Take Statement associated with a USFWS Biological Opinion) may handle an eastern indigo snake.

Please contact your nearest USFWS Ecological Services Field Office if a live or dead eastern indigo snake is encountered:

Florida Office: (352) 448-9151

Georgia Office: (706) 613-9493

POSTER CONTENT (SPANISH):

ATENCIÓN

¡Especie amenazada, la culebra Índigo del Este, puede ocupar el área!

Matar, herir o hostigar culebras Índigo del Este es estrictamente prohibido bajo la Ley Federal.

SI VES UNA CULEBRA ÍNDIGO DEL ESTE O UNA CULEBRA NEGRA VIVA EN EL ÁREA:

• Pare excavación y permite el movimiento de la culebra fuera del área sin interferir. NO atentes tocar o recoger la culebra.

• Fotografié la culebra si es posible para identificación y documentación.

• Notifique supervisor/agente, y la Oficina de Campo de Servicios Ecológicos del Servicio Federal de Pesca y Vida Silvestre (USFWS) apropiada con información acerca del sitio y condición de la culebra.

• Si la culebra está cerca de un área de construcción que le pueda causar daño, las actividades deben parar hasta un representante del USFWS regrese la llamada (dentro de un día) con más orientación.

SI VES UNA CULEBRA ÍNDIGO DEL ESTE MUERTA EN EL ÁREA:

• Pare excavación. Notifique supervisor/aplicante, y la Oficina de Campo de Servicios Ecológicos apropiada con información acerca del sitio y condición de la culebra.

• Fotografié la culebra si es posible para identificación y documentación.

• Emerge completamente la culebra en agua y congele la especie hasta que personal apropiado de la agencia de vida silvestre la recoja.

DESCRIPCIÓN. La culebra Índigo del Este es una de las serpientes sin veneno más grande en Norte América, alcanzando hasta 8 pies de largo. Su nombre proviene del color azul-negro brilloso de sus escamas, pero pueden tener un color anaranjado-rojizo (color crema en algunos casos) en su mandíbula inferior. No tienden a ser agresivas.

SERPIENTES PARECIDAS. La corredora negra, que es de color negro sólido, es la única otra serpiente que se asemeja a la Índigo del Este. La corredora negra se diferencia por una mandíbula inferior color blanca o crema y un cuerpo más delgado.

HÁBITATS Y ECOLOGÍA. La culebra Índigo del Este vive en una variedad de hábitats, incluyendo tierras secas, humedales, y áreas de agricultura. Ellas buscan refugio en agujeros o huecos de tierra, en especial madrigueras de tortugas de tierra. Las hembras ponen 4 hasta 12 huevos blancos entre abril y junio, y la cría emergen entre julio y octubre.

PROTECCIÓN LEGAL. La culebra Índigo del Este es clasificada como especie amenazada por el USFWS, la Comisión de Conservación de Pesca y Vida Silvestre de Florida y el Departamento de Recursos Naturales de Georgia. Intento de matar, hostigar, herir, lastimar, perseguir, cazar, disparar, capturar, colectar o conducta parecida hacia las culebras Índigo del Este es prohibido por la Ley Federal de Especies en Peligro de Extinción. Penalidades incluyen un máximo de $25,000 por violaciones civiles y $50,000 y/o encarcelamiento por actos criminales. Solos individuales autorizados con un permiso o Determinación de toma incidental (Incidental Take Statement) asociado con una Opinión Biológico del USFWS pueden recoger una Índigo del Este.

Por favor de contactar tu Oficina de Campo de Servicios Ecológicos más cercana si encuentras una culebra Índigo del Este viva o muerta:

Oficina de Florida: (352) 448-9151

Oficina de Georgia: (706) 613-9493

Appendix G

USFWS Programmatic Effect Determination Key for the Eastern Indigo Snake

Eastern Indigo Snake Programmatic Effect Determination Key

Scope of the key

This key should be used only in the review of permit applications for effects determinations within the North and South Florida Ecological Services Field Offices Geographic Areas of Responsibility (GAR), and not for other listed species or for aquatic resources such as Essential Fish Habitat (EFH). Counties within the **North** Florida GAR include Alachua, Baker, Bradford, Brevard, Citrus, Clay, Columbia, Dixie, Duval, Flagler, Gilchrist, Hamilton, Hernando, Hillsborough, Lafayette, Lake, Levy, Madison, Manatee, Marion, Nassau, Orange, Pasco, Pinellas, Putnam, St. Johns, Seminole, Sumter, Suwannee, Taylor, Union, and Volusia.

Counties in the **South** Florida GAR include Broward, Charlotte, Collier, De Soto, Glades, Hardee, Hendry, Highlands, Lee, Indian River, Martin, Miami-Dade, Monroe, Okeechobee, Osceola, Palm Beach, Polk, Sarasota, St. Lucie.

Habitat

Over most of its range, the eastern indigo snake frequents several habitat types, including pine flatwoods, scrubby flatwoods, high pine, dry prairie, tropical hardwood hammocks, edges of freshwater marshes, agricultural fields, coastal dunes, and human-altered habitats (Service 1999). Eastern indigo snakes appear to need a mosaic of habitats to complete their life cycle. Wherever the eastern indigo snake occurs in xeric habitats, it is closely associated with the gopher tortoise *(Gopherus polyphemus),* the burrows of which provide shelter from winter cold and summer desiccation (Speake et al. 1978; Layne and Steiner 1996). Interspersion of tortoise-inhabited uplands and wetlands improves habitat quality for this species (Landers and Speake 1980; Auffenberg and Franz 1982).

In south Florida, agricultural sites, such as sugar cane fields, created in former wetland areas are occupied by eastern indigo snakes (Enge pers. comm. 2007). Formerly, indigo snakes would have only occupied higher elevation sites within the wetlands. The introduction of agriculture and its associated canal systems has resulted in an increase in rodents and other species of snakes that are prey for eastern indigo snakes. The result is that indigos occur at higher densities in these areas than they did historically.

Even though thermal stress may not be a limiting factor throughout the year in south Florida, indigo snakes still seek and use underground refugia. On the sandy central ridge of central Florida, eastern indigos use gopher tortoise burrows more (62 percent) than other underground refugia (Layne and Steiner 1996). Other underground refugia used include armadillo (*Dasypus novemcinctus*) burrows near citrus groves, cotton rat (*Sigmodon hispidus*) burrows, and land crab (*Cardisoma guanhumi*) burrows in coastal areas (Service 2006). Natural ground holes, hollows at the base of trees or shrubs, ground litter, trash piles, and crevices of rock-lined ditch walls are also used (Layne and Steiner 1996). These refugia are used most frequently where tortoise burrows are not available, principally in low-lying areas off the central and coastal ridges. In extreme south Florida (the Everglades and Florida Keys), indigo snakes are found in tropical

hardwood hammocks, pine rocklands, freshwater marshes, abandoned agricultural land, coastal prairie, mangrove swamps, and human-altered habitats (Steiner et al. 1983). It is suspected that they prefer hammocks and pine forests, because most observations occur in these habitats disproportionately to their presence in the landscape (Steiner et al. 1983). Hammocks may be important breeding areas as juveniles are typically found there. The eastern indigo snake is a snake-eater so the presence of other snake species may be a good indicator of habitat quality.

Conservation Measures

The Service routinely concurs with the Corps' "not likely to adversely affect" (NLAA) determination for individual project effects to the eastern indigo snake when assurances are given that our *Standard Protection Measures for the Eastern Indigo Snake* (Service 2004) located at: http://www.fws.gov/northflorida/IndigoSnakes/indigo-snakes will be used during project site preparation and project construction. There is no designated critical habitat for the eastern indigo snake.

In an effort to reduce correspondence in effect determinations and responses, the Service is providing an Eastern Indigo Snake Effect Determination Key, similar in utility to the West Indian Manatee Effect Determination Key and the Wood Stork Effect Determination Keys presently being utilized by the Corps. If the use of this key results in a Corps' determination of "no effect" for a particular project, the Service supports this determination. If the use of this Key results in a determination of NLAA, the Service concurs with this determination and no additional correspondence will be necessary[1]. This key is subject to revisitation as the Corps and Service deem necessary.

A. Project is not located in open water or salt marsh.....*go to* B

   Project is located solely in open water or salt marsh.....*"no effect"*

B. Permit will be conditioned for use of the Service's *Standard Protection Measures For The Eastern Indigo Snake* during site preparation and project construction.....*go to* C

   Permit will not be conditioned as above for the eastern indigo snake, or it is not known whether an applicant intends to use these measures and consultation with the Service is requested[2] .....*"may affect"*

C. There are gopher tortoise burrows, holes, cavities, or other refugia where a snake could be buried or trapped and injured during project activities .....*go to* D

   There are no gopher tortoise burrows, holes, cavities, or other refugia where a snake could be buried or trapped and injured during project activities .....*"NLAA"*

D. The project will impact less than 25 acres of xeric habitat supporting less than 25 active and inactive gopher tortoise burrows.....*go to* E

The project will impact more than 25 acres of xeric habitat or more than 25 active and inactive gopher tortoise burrows and consultation with the Service is requested[2]..... *"may affect"*

E. Any permit will be conditioned such that all gopher tortoise burrows, active or inactive, will be evacuated prior to site manipulation in the vicinity of the burrow[3]. If an indigo snake is encountered, the snake must be allowed to vacate the area prior to additional site manipulation in the vicinity. Any permit will also be conditioned such that holes, cavities, and snake refugia other than gopher tortoise burrows will be inspected each morning before planned site manipulation of a particular area, and, if occupied by an indigo snake, no work will commence until the snake has vacated the vicinity of proposed work..... *"NLAA"*

Permit will not be conditioned as outlined above and consultation with the Service is requested[2] ..... *"may affect"*

---

[1]With an outcome of "no effect" or "NLAA" as outlined in this key, the requirements of section 7 of the Act are fulfilled for the eastern indigo snake and no further action is required.

[2]Consultation may be concluded informally or formally depending on project impacts.

[3] If burrow excavation is utilized, it should be performed by experienced personnel. The method used should minimize the potential for injury of an indigo snake. Applicants should follow the excavation guidance provided within the Florida Fish and Wildlife Conservation Commission's revised April 2009 Gopher Tortoise Permitting Guidelines located at **http://myfwc.com/License/Permits_ProtectedWildlife.htm#gophertortoise**. A member of the excavation team should be authorized for Incidental Take during excavation through an incidental take permit issued by the Florida Fish and Wildlife Conservation Commission.

Appendix H

Standard Manatee Conditions for In-Water Work

STANDARD MANATEE CONDITIONS FOR IN-WATER WORK

2011

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.

b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.

d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.

e. Any collision with or injury to a manatee shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida, and to FWC at ImperiledSpecies@myFWC.com

f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8 ½" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at MyFWC.com/manatee. Questions concerning these signs can be sent to the email address listed above.

CAUTION: MANATEE HABITAT

All project vessels

IDLE SPEED / NO WAKE

When a manatee is within 50 feet of work
all in-water activities must

SHUT DOWN

Report any collision with or injury to a manatee:

Wildlife Alert:

1-888-404-FWCC(3922)

cell *FWC or #FWC

Appendix I

Effect Determination Key for the Manatee in Florida

MANATEE KEY
Florida[1]
April 2013

The key is not designed to be used by the Corps' Regulatory Division for making their effect determinations for dredging projects greater than 50,000 cubic yards, the Corps' Planning Division in making their effect determinations for civil works projects or by the Corps' Regulatory Division for making their effect determinations for projects of the same relative scope as civil works projects. These types of activities must be evaluated by the Corps independently of the key.

A. Project is not located in waters accessible to manatees and does not directly or indirectly affect manatees (see Glossary).....*No effect*

Project is located in waters accessible to manatees **or** directly or indirectly affects manatees ..... B

B. Project consists of one or more of the following activities, all of which are *May affect*:

1. blasting or other detonation activity for channel deepening and/or widening, geotechnical surveys or exploration, bridge removal, movies, military shows, special events, etc.;

2. installation of structures which could restrict or act as a barrier to manatees;

3. new or changes to existing warm or fresh water discharges from industrial sites, power plants, or natural springs or artesian wells (but only if the new or proposed change in discharge requires a Corps permit to accomplish the work);

4. installation of new culverts and/or maintenance or modification of existing culverts (where the culverts are 8 inches to 8 feet in diameter, ungrated and in waters accessible, or potentially accessible, to manatees)[2];

5. mechanical dredging from a floating platform, barge or structure[3] that restricts manatee access to less than half the width of the waterway;

6. creation of new slips or change in use of existing slips, even those located in a county with a State-approved Manatee Protection Plan (MPP) in place and the number of slips is less than the MPP threshold, to accommodate docking for repeat use vessels, (*e.g.*, water taxis, tour boats, gambling boats, etc; or slips or structures that are not civil works projects, but are frequently used to moor large vessels (>100') for shipping and/or freight purposes; does not include slips used for docking at boat sales or repair facilities or loading/unloading at dry stack storage facilities and boat ramps); [Note: For projects within Bay, Dixie, Escambia, Franklin, Gilchrist, Gulf, Hernando, Jefferson, Lafayette, Monroe (south of Craig Key), Nassau, Okaloosa, Okeechobee, Santa Rosa, Suwannee, Taylor, Wakulla or Walton County, the reviewer should proceed to Couplet C.]

7. any type of in-water activity in a Warm Water Aggregation Area (WWAA) or No Entry Area (see Glossary and accompanying Maps[4]); [Note: For residential docking facilities in a Warm Water Aggregation Area that is not a Federal manatee sanctuary or No Entry Area, the reviewer should proceed to couplet C.]

8. creation or expansion of canals, basins or other artificial shoreline and/or the connection of such features to navigable waters of the U.S.; [Note: For projects proposing a single residential dock, the reviewer should proceed to couplet C; otherwise, project is a *May Affect*.]

9. installation of temporary structures (docks, buoys, etc.) utilized for special events such as boat races, boat shows, military shows, etc., but only when consultation with the U.S. Coast Guard and FWS has not occurred; [Note: See programmatic consultation with the U.S. Coast Guard on manatees dated May 10, 2010.].

Project is other than the activities listed above C

C. Project is located in an Important Manatee Area (IMA) (see Glossary and accompanying Maps[4]) ..... D

Project is not located in an Important Manatee Area (IMA) (see Glossary and accompanying Maps[4]) ..... G

D. Project includes dredging of less than 50,000 cubic yards ..... E

Project does not include dredging ..... G

E. Project is for dredging a residential dock facility or is a land-based dredging operation ..... N

Project not as above ..... F

F. Project proponent **does not elect** to follow all dredging protocols described on the maps for the respective IMA in which the project is proposed ..... *May affect*

Project proponent **elects** to follow all dredging protocols described on the maps for the respective IMA in which the project is proposed ..... G

G. Project provides new[5] access for watercraft, *e.g.*, docks or piers, marinas, boat ramps and associated trailer parking spaces, new dredging, boat lifts, pilings, floats, floating docks, floating vessel platforms, boat slips, dry storage, mooring buoys, or other watercraft access (residential boat lifts, pilings, floating docks, and floating vessel platforms installed in existing slips are not considered new access) or improvements allowing increased watercraft usage ..... H

Project does not provide new[5] access for watercraft, *e.g.*, bulkheads, seawalls, riprap, maintenance dredging, boardwalks and/or the maintenance (repair or rehabilitation) of currently serviceable watercraft access structures provided all of the following are met: (1) the number of slips is not increased; (2) the number of existing slips is not in question; and (3) the improvements do not allow increased watercraft usage ..... N

H. Project is located in the Braden River Area of Inadequate Protection (Manatee County) (see Glossary and accompanying AIP Map[4])
..... *May affect*

Project is not located in the Braden River Area of Inadequate Protection (Manatee County) (see Glossary and accompanying AIP Map[4]) I

I. Project is for a multi-slip facility (see Glossary) ..... J

Project is for a residential dock facility or is for dredging (see Glossary) ..... N

J. Project is located in a county that currently has a State-approved MPP in place (BREVARD, BROWARD, CITRUS, CLAY, COLLIER, DUVAL, INDIAN RIVER, LEE, MARTIN, MIAMI-DADE, PALM BEACH, ST. LUCIE, SARASOTA, VOLUSIA) or shares contiguous waters with a county having a State-approved MPP in place (LAKE, MARION, SEMINOLE)[6] ..... K

Project is located in a county not required to have a State-approved MPP L

K. Project has been developed or modified to be consistent with the county's State-approved MPP **and** has been verified by a FWC review (or FWS review if project is exempt from State permitting) **or** the number of slips is below the MPP threshold ..... N

Project has not been reviewed by the FWC or FWS **or** has been reviewed by the FWC or FWS **and** determined that the project is not consistent with the county's State-approved MPP ..... *May affect*

L. Project is located in one of the following counties: CHARLOTTE, DESOTO[7], FLAGLER, GLADES, HENDRY, HILLSBOROUGH, LEVY, MANATEE, MONROE[7], PASCO[7], PINELLAS ..... M

Project is located in one of the following counties: BAY, DIXIE, ESCAMBIA, FRANKLIN, GILCHRIST, GULF, HERNANDO, JEFFERSON, LAFAYETTE, MONROE (south of Craig Key), NASSAU, OKALOOSA, OKEECHOBEE, PUTNAM, SANTA ROSA, ST. JOHNS, SUWANNEE, TAYLOR, WAKULLA, WALTON ..... N

M. The number of slips does not exceed the residential dock density threshold (see Glossary) ..... N

The number of slips exceeds the residential dock density threshold (see Glossary) ..... *May affect*

N. Project impacts to submerged aquatic vegetation[8], emergent vegetation or mangrove will have beneficial, insignificant, discountable[9] or no effects on the manatee[10] ..... O

Project impacts to submerged aquatic vegetation[8], emergent vegetation or mangrove may adversely affect the manatee[10] ..... *May affect*

O. Project proponent **elects** to follow standard manatee conditions for in-water work[11] and requirements, as appropriate for the proposed activity, prescribed on the maps[4] ..... P

Project proponent **does not elect** to follow standard manatee conditions for in-water work[11] and appropriate requirements prescribed on the maps[4] ..... *May affect*

P. If project is for a new or expanding[5] multi-slip facility and is located in a county with a State-approved MPP in place **or** in Bay, Dixie, Escambia, Franklin, Gilchrist, Gulf, Hernando, Jefferson, Lafayette, Monroe (south of Craig Key), Nassau, Okaloosa, Okeechobee, Putnam, St. Johns, Santa Rosa, Suwannee, Taylor, Wakulla or Walton County, the determination of "*May affect, not likely to adversely affect*" is appropriate[12] and no further consultation with the Service is necessary.

If project is for a new or expanding[5] multi-slip facility and is located in Charlotte, Desoto, Flagler, Glades, Hendry, Hillsborough, Levy, Manatee, Monroe (north of Craig Key), Pasco, or Pinellas County, further consultation with the Service is necessary for "*May affect, not likely to adversely affect*" determinations.

If project is for repair or rehabilitation of a multi-slip facility and is located in an Important Manatee Area, further consultation with the Service is necessary for "*May affect, not likely to adversely affect*" determinations. If project is for repair or rehabilitation of a multi-slip facility and: (1) is not located in an Important Manatee Area; (2) the number of slips is not increased; (3) the number of existing slips is not in question; and (4) the improvements to the existing watercraft access structures do not allow increased watercraft usage, the determination of "*May affect, not likely to adversely affect*" is appropriate[12] and no further consultation with the Service is necessary.

If project is a residential dock facility, shoreline stabilization, or dredging, the determination of "*May affect, not likely to adversely affect*" is appropriate[12] and no further consultation with the Service is necessary. Note: For residential dock facilities located in a Warm Water Aggregation Area or in a No Entry area, seasonal restrictions may apply. See footnote 4 below for maps showing restrictions.

If project is other than repair or rehabilitation of a multi-slip facility, a new[5] multi-slip facility, residential dock facility, shoreline stabilization, or dredging, and does not provide new[5] access for watercraft or

improve an existing access to allow increased watercraft usage, the determination of "*May affect, not likely to adversely affect*" is appropriate[12] and no further consultation with the Service is necessary.

[1] On the St. Mary's River, this key is only applicable to those areas that are within the geographical limits of the State of Florida.

[2] All culverts 8 inches to 8 feet in diameter must be grated to prevent manatee entrapment. To effectively prevent manatee access, grates must be permanently fixed, spaced a maximum of 8 inches apart (may be less for culverts smaller than 16 inches in diameter) and may be installed diagonally, horizontally or vertically. For new culverts, grates must be attached prior to installation of the culverts. Culverts less than 8 inches or greater than 8 feet in diameter are exempt from this requirement. If new culverts and/or the maintenance or modification of existing culverts are grated as described above, the determination of "*May affect, not likely to adversely affect*" is appropriate[11] and no further consultation with the Service is necessary.

[3] If the project proponent agrees to follow the standard manatee conditions for in-water work as well as any special conditions appropriate for the proposed activity, further consultation with the Service is necessary for "*May affect, not likely to adversely affect*" determinations. These special conditions may include, but are not limited to, the use of dedicated observers (see Glossary for definition of dedicated observers), dredging during specific months (warm weather months vs cold weather months), dredging during daylight hours only, adjusting the number of dredging days, does not preclude or discourage manatee egress/ingress with turbidity curtains or other barriers that span the width of the waterway, etc.

[4] Areas of Inadequate Protection (AIPs), Important Manatee Areas (IMAs), Warm Water Aggregation Areas (WWAAs) and No Entry Areas are identified on these maps and defined in the Glossary for the purposes of this key. These maps can be viewed on the Corps' web page. If projects are located in a No Entry Area, special permits may be required from FWC in order to access these areas (please refer to Chapter 68C-22 F.A.C. for boundaries; maps are also available at FWC's web page).

[5] New access for watercraft is the addition or improvement of structures such as, but not limited to, docks or piers, marinas, boat ramps and associated trailer parking spaces, boat lifts, pilings, floats, floating docks, floating vessel platforms, (maintenance dredging, residential boat lifts, pilings, floating docks, and floating vessel platforms installed in existing slips are not considered new access), boat slips, dry storage, mooring buoys, new dredging, etc., that facilitates the addition of watercraft to, and/or increases watercraft usage in, waters accessible to manatees. The repair or rehabilitation of any type of currently serviceable watercraft access structure is not considered new access provided all of the following are met: (1) the number of slips is not increased; (2) the number of existing slips is not in question; and (3) the improvements to the existing watercraft access structures do not result in increased watercraft usage.

[6] Projects proposed within the St. Johns River portion of Lake, Marion, and Seminole counties and contiguous with Volusia County shall be evaluated using the Volusia County MPP.

[7] For projects proposed within the following areas: the Peace River in DeSoto County; all areas north of Craig Key in Monroe County, and the Anclote and Pithlachascotee Rivers in Pasco County, proceed to Couplet M. For all other locations in DeSoto, Monroe (south of Craig Key) and Pasco Counties, proceed to couplet N.

[8] Where the presence of the referenced vegetation is confirmed within the area affected by docks and other piling-supported minor structures and the reviewer has concluded that the impacts to SAV, marsh or mangroves would not adversely affect the manatee or its critical habitat, proceed to couplet O.

Where the presence of the referenced vegetation is confirmed within the area affected by docks and other piling-supported minor structures and the reviewer has concluded that the impacts to SAV, marsh or mangroves would adversely affect the manatee or its critical habitat, the applicant can elect to avoid/minimize impacts to that vegetation. In that instance, where impacts are unavoidable and the applicant elects to abide by or employ construction techniques that exceed the criteria in the following documents, the reviewer should conclude that the impacts to SAV, marsh or mangroves would not adversely affect the manatee or its critical habitat and proceed to couplet O.

- "Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat," prepared jointly by the U.S. Army Corps of Engineers and the National Marine Fisheries Service (August 2001) [refer to the Corps' web page], and

- "Key for Construction Conditions for Docks or Other Minor Structures Constructed in or over Johnson's seagrass (*Halophila johnsonii*)," prepared jointly by the National Marine Fisheries Service and U.S. Army Corps of Engineers (October 2002), for those projects within the known range of Johnson's seagrass occurrence (Sebastian Inlet to central Biscayne Bay in the lagoon systems on the east coast of Florida) [refer to the Corps' web page],

Where the presence of the referenced vegetation is confirmed within the area affected by docks and other piling-supported minor structures and the reviewer has concluded that the impacts to SAV, marsh or mangroves would adversely affect the manatee or its critical habitat, and the applicant does not elect to follow the above Guidelines, the Corps will need to request formal consultation on the manatee with the Service as *May affect*.

For activities other than docks and other piling-supported minor structures proposed in SAV, marsh, or mangroves (*e.g.*, new dredging, placement of riprap, bulkheads, etc.), if the reviewer determines the impacts to the SAV, marsh or mangroves will not adversely affect the manatee or its critical habitat, proceed to couplet O, otherwise the Corps will need to request formal consultation on the manatee with the Service as *May affect*.

[9] See Glossary, under "is not likely to adversely affect."

[10] Federal reviewers, when making your effects determination, consider effects to manatee designated critical habitat pursuant to section 7(a)(2) of the Endangered Species Act. State reviewers, when making your effects determination, consider effects to manatee habitat within the entire State of Florida, pursuant to Chapter 370.12(2)(b) Florida Statutes.

[11] See the Corps' web page for manatee construction conditions. At this time, manatee construction precautions c and f are not required in the following Florida counties: Bay, Escambia, Franklin, Gilchrist, Gulf, Jefferson, Lafayette, Okaloosa, Santa Rosa, Suwannee, and Walton.

[12] By letter dated April 25, 2013, the Corps received the Service's concurrence with "*May affect, not likely to adversely affect*" determinations made pursuant to this key for the following activities: (1) selected non-watercraft access projects; (2) watercraft-access projects that are residential dock facilities, excluding those located in the Braden River AIP; (3) launching facilities solely for kayaks and canoes, and (4) new or expanding multi-slip facilities located in Bay, Dixie, Escambia, Franklin, Gilchrist, Gulf, Hernando, Jefferson, Lafayette, Monroe (south of Craig Key), Nassau, Okaloosa, Okeechobee, Santa Rosa, Suwannee, Taylor, Wakulla or Walton County.

Additionally, in the same letter dated April 25, 2013, the Corps received the Service's concurrence for "*May affect, not likely to adversely affect*" determinations specifically made pursuant to Couplet G of the key for the repair or rehabilitation of currently serviceable multi-slip watercraft access structures provided all of the following are met: (1) the project is not located in an IMA, (2) the number of slips is not increased; (3) the number of existing slips is not in question; and (4) the improvements to the existing watercraft access structures do not allow increased watercraft usage. Upon receipt of such a programmatic concurrence, no further consultation with the Service for these projects is required.

Appendix J

UMAM Datasheets

Uniform Mitigation Assessment Method (UMAM)
Chapter 62-345, F.A.C.

Bradenton-Palmetto Connector Project Development and Environmental Study
US 41/SR 55 From US 301/SR 683 at 9th Street East to North of 25th Street East
Manatee County
FPID# 444843-1-22-01

Summary Table - Wetland Impacts

Last Updated: 3/27/2026

				Preferred Alternative		
ID	**Wetland Type**	**USFWS Classification**	**Impact Type**	**Impact Acreage**	**UMAM Delta**	**Functional Loss**
Wetland 2 Impact	612 - Mangrove Swamps	E2FO3N	Fill	1.156	0.73	0.84
			Secondary	0.677	0.07	0.05
			Total	**1.833**		**0.89**

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Bradenton-Palmetto Connector		Wetland 2 Impact (Preferred Alternative)

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
6120	E2FO3N / Mangrove Swamps	Impact	1.833 acres (1.156 acres fill, 0.677 acres secondary)

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Manatee River	Wetlands (Class III)	None

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

Mangrove swamps along the northeastern side of the existing DeSoto bridge and mainland. Surface waters inlands drain into the mangroves prior to entering the Manatee River. Mangroves filter nutrients and potential pollutants from surrounding impervious surfaces.

Assessment area description

Forested mangrove wetland systems comprised of red, black, and white mangrove species (*Rhizophora mangle, Avicennia germinans, Laguncularia racemosa*), buttonwood (*Conocarpus erectus*), groundsel tree *(Baccharis halimifolia)*, and Brazilian pepper *(Schinus terebinthifolia).* Groundcover includes salt wort (*Batis maritima*), sawgrass (*Cladium jamaicense*), and flatsedges (*Cyperus sp.*).

Significant nearby features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
US 41, Manatee River	Not unique

Functions	Mitigation for previous permit/other historic use
May provide cover, substrate, or refuge for wildlife; breeding, nesting, denning, and nursery areas; food chain support; natural water storage; natural flow attenuation; water quality improvement.	Unknown

Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)
A variety of wildlife utilization including birds, amphibians, fish, sea turtles, and aquatic and small terrestrial mammals.	Gulf sturgeon (*Acipenser oxyrinchus (=oxyrhynchus) desotoi*) (FT), Smalltooth sawfish (*Pristis pectinata*) (FE), sea turtles (Loggerhead sea turtle (*Caretta caretta*) (FT), Green sea turtle (*Chelonia mydas*) (FT), and Kemp's Ridley sea turtle (*Lepidochelys kempii*) (FE)), American crocodile (*Crocodylus acutus*) (FT), little blue heron (Egretta caerulea) (ST), tricolored heron (*E. tricolor*) (ST), reddish egret (*E. rufescens*) (ST), American oystercatcher (*Haematopus palliates*) (ST), roseatte spoonbill (*Platalea ajaja*) (ST), black skimmer (*Rynchops niger*) (ST), least tern (*Sternula antillarum*) (ST), snowy plover (*Charadrius nivosus*) (ST), whooping crane (*Grus americana*), and the West Indian manatee (*Trichechus manatus latirostris*) (FT).

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

None observed

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Alexandra Hipolito	1/13/2026

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Bradenton-Palmetto Connector		Wetland 2 Impact (Preferred Alternative) - Fill
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact	Alexandra Hipolito	1/13/2026

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

.500(6)(a) Location and Landscape Support w/o pres or current: 6 — with: 0	Mangrove swamps along the coastal edges of the northern portions of the DeSoto Bridge. Birds and other aquatic wildlife may access these wetland systems and use for foraging. Mangroves may be utilized in various life cycle stages (spawning, breeding, nursery, etc.) by different species of aquatic wildlife.
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current: 8 — with: 0	The water environment is brackish, with marine influences from Tampa Bay and the Gulf of Mexico and freshwater influences from upstream systems of the Manatee River. The surface water is tidally influenced. Surrounding surface water and wetland systems drain into the Manatee River. Stormwater runoff from roadways, parking lots, and other impervious surface have the potential to bring pollutants into the wetland system. Water levels and conditions appear normal.
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current: 8 — with: 0	Forested mangrove wetland systems comprised of red, black, and white mangrove species (Rhizophora mangle, Avicennia germinans, Laguncularia racemosa), buttonwood (Conocarpus erectus), groundsel tree (Baccharis halimifolia), and Brazilian pepper (Schinus terebinthifolia). Groundcover includes salt wort (Batis maritima), sawgrass (Cladium jamaicense), and flatsedges (Cyperus sp.). Minimal invasive species present, canopy appears healthy.

Score = sum of above scores/30 (if uplands, divide by 20)

current or w/o pres: 0.73 — with: 0

Delta = [with-current]: 0.73

If preservation as mitigation,

Preservation adjustment factor =

Adjusted mitigation delta =

If mitigation

Time lag (t-factor) =

Risk factor =

For impact assessment areas

FL = delta x acres = 1.156 x 0.73 = 0.84

For mitigation assessment areas

RFG = delta/(t-factor x risk) =

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Bradenton-Palmetto Connector		Wetland 2 Impact (Preferred Alternative) - Secondary
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**
Impact	Alexandra Hipolito	1/13/2026

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

.500(6)(a) Location and Landscape Support w/o pres or current: 6 — with: 5	Mangrove swamps along the coastal edges of the northern portions of the DeSoto Bridge. Birds and other aquatic wildlife may access these wetland systems and use for foraging. Mangroves may be utilized in various life cycle stages (spawning, breeding, nursery, etc.) by different species of aquatic wildlife. With condition: Impacts to wetlands decreases wildlife utilization of these systems.	
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current: 8 — with: 8	The water environment is brackish, with marine influences from Tampa Bay and the Gulf of Mexico and freshwater influences from upstream systems of the Manatee River. The surface water is tidally influenced. Surrounding surface water and wetland systems drain into the Manatee River. Stormwater runoff from roadways, parking lots, and other impervious surface have the potential to bring pollutants into the wetland system. Water levels and conditions appear normal. With condition: No impact to water environment anticipated.	
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current: 8 — with: 7	Forested mangrove wetland systems comprised of red, black, and white mangrove species (Rhizophora mangle, Avicennia germinans, Laguncularia racemosa), buttonwood (Conocarpus erectus), groundsel tree (Baccharis halimifolia), and Brazilian pepper (Schinus terebinthifolia). Groundcover includes salt wort (Batis maritima), sawgrass (Cladium jamaicense), and flatsedges (Cyperus sp.). Minimal invasive species present, canopy appears healthy. With condition: Remaining mangroves will degrae based off close proximity to roadway.	

Score = sum of above scores/30 (if uplands, divide by 20)		
current or w/o pres: 0.73	with: 0.66	

Delta = [with-current]
0.07

If preservation as mitigation,
Preservation adjustment factor =
Adjusted mitigation delta =

If mitigation
Time lag (t-factor) =
Risk factor =

For impact assessment areas
FL = delta x acres = 0.677 x 0.07 = 0.05

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

Appendix K

USCG DeSoto Bridge PD&E Meeting Minutes

U.S. Coast Guard Coordination Meeting
January 25, 2024
9:30 am – 10:30 am

1. Introductions

Nicole Monies (FDOT) opened the meeting with introductions. Meeting attendees are shown below.

Nicole Monies	FDOT, Permits Coordinator
Steven Andrews	FDOT, Project Manager
Ryan Ellis	FDOT, Environmental Management Office (EMO)
Emily Barnett	FDOT, EMO
Omar Beciero	U.S. Coast Guard
Rafael Rosales	U.S. Coast Guard
Gail Woods, PE	TranSystems, Consultant Project Manager
Kenneth Kerr, PE	TranSystems, Lead Structural Engineer
Will Sloup, PE	TranSystems, Deputy Project Manager
Jonathan Sonek	TranSystems
Tori Kuba	ESA Senior Environmental Scientist
Sandy Scheda	ESA Senior Environmental Scientist

2. Project Overview

Nicole provided a brief overview of the project:

a. In-kind replacement of the DeSoto Bridge (US 301/US 41/SR 55) over the Manatee River. Connects Bradenton & Palmetto.
b. Bridge is past its 50-year life expectancy and is experiencing advanced corrosion issues and requires replacement.
c. Paved shoulders and bicycle/pedestrian facilities will be considered to bring the bridge up to current FDOT design safety standards.

3. Discuss DeSoto Bridge

Gail provided a detailed overview of the project using the roll plot. She explained that the current 4-lane bridge will be replaced with a 4-lane bridge, but that the typical section will be wider inside and outside shoulders, barriers and a shared-use path. The existing bridge typical section is 61 feet wide and the proposed typical section is 123 feet wide. The length and profile of the proposed bridge are essentially the same as the existing bridge.

a. Existing DeSoto Bridge information:
    i. Mid-level fixed structure
    ii. 40-foot Vertical Clearance
    iii. 75-foot Horizontal Clearance
    iv. 2,225-foot Bridge Length
    v. 62-foot Bridge Width

b. Proposed bridge replacement information:
    i. Mid-level fixed structure
    ii. 40-foot Vertical Clearance
    iii. 75-foot Horizontal Clearance
    iv. 2,225-foot Bridge Length
    v. 123-foot Bridge Width

c. Project Alternatives:
Gail described that this PD&E study examined two build alternatives (East, West) along with the No-Build alternative. Construction of each of the build alternatives would be phased in the same way: build new bridge for two travel lanes in one direction, demolish old bridge, then build second new bridge for two travel lanes in the other direction. Through the study of potential impacts, it has been determined that the East Alignment is the Preferred Alternative.
    i. East Alignment
    ii. West Alignment

d. Description of other bridges crossing the Manatee River
Gail described the existing bridges both upstream and downstream of the DeSoto Bridge (see information below). Omar (U.S. Coast Guard) indicated that since the upstream and downstream both have a vertical clearance of 40 feet, the 40-foot vertical clearance proposed for the DeSoto Bridge replacement is acceptable. In addition, 75 feet is an acceptable horizontal clearance since the navigation window is going to remain the same.
    i. I-75 Bridge (Upstream)
        1. 40-foot Vertical Clearance
        2. 75-foot Horizontal Clearance
    ii. CSX Bascule Railroad Bridge (Downstream)
        1. 5-foot Vertical Clearance
        2. 75-foot Horizontal Clearance
    iii. Green Bridge (US 41 Business) (Downstream)

1. 41-foot Vertical Clearance
2. 84-foot Horizontal Clearance

e. Current status and schedule
   i. PD&E
      1. Preferred Alternative: Eastern Alignment
      2. Public Hearing Scheduled for April 2024
   ii. Design
      1. Permit Applications anticipated in early 2026
   iii. Construction
      1. Letting – Spring 2027

4. Permitting Implications

a. Bridge Project Questionnaire
   i. Permit anticipated; therefore, BPQ not needed (Omar agreed that a BPQ was not needed since everyone concurred that the replacement bridge would require a U.S. Coast Guard Bridge permit.)

b. Navigational Impact Study

Tori led the discussion of the navigational impact study. Omar indicated that this study will not be required because the navigation window is being maintained. In addition, the public along the waterway will have an opportunity to comment during the PD&E and permitting processes, so a formal study will not be required

   i. Current nearby water-based land uses
   ii. Navigation through DeSoto Bridge is constrained by upstream and downstream bridge clearances which are similar to DeSoto Bridge clearances.

5. Questions

a. Omar asked if there is federal funding involved in the project.
Response – Gail replied “yes”.

b. Kenneth asked a question about channel alignment, and if the USCG has any data that can be provided.
Response - Omar responded that he is not familiar with channel alignment data, but he could look into it. He indicated that if the data is related to dredging, the U.S. Army Corps of Engineers will have this information.

c. Sandy asked where the permit for this project would be signed.
Response - Omar indicated that this permit will be signed at the District level (it will not go to Washington, DC).

6. Action Items

a. Sandy will prepare and distribute meeting minutes.
b. The project team will continue coordination with the U.S Coast Guard during the design phase of the project and submit a permit application.

Exhibits:

- Project Location Map
- Preferred East Alternative Roll Plot
- Bridge Photos
- Aerial view of DeSoto Bridge
- Adjacent properties within ½ mile (highlight those with water base use i.e. marinas, marine repair, boat ramps, restaurants with docks, etc.)